Универзитет "Св. Кирил и Методиј"
ЕКОНОМСКИ ИНСТИТУТ

ISSN 1409-7893
e-ISSN 1857-7741
UDK-338

Economic Development
Економски Развој

JOURNAL OF THE INSTITUTE OF ECONOMICS - SKOPJE

Year. 15 No.3/2013

Skopje, December, 2013

Economic Development

Published by:
Institute of Economics- Skopje, University "Ss.Cyril and Methodius", Republic of Macedonia

Cover design:
Koco Fidanovski
Computer preparation and printing:
VIDEKS BV - Skopje
UDK -CIP Catalogue record from National and University Library "St.Kliment Ohridski"- Skopje
Address:
Institute of Economics-Skopje
Prolet 1
1000 Skopje
Republic of Macedonia
phone : +389 2 3115 076
fax : +389 2 3226 350
E-mail: **eis@ek-inst.ukim.edu.mk**
Published **three times per year**
Available on the websites: **www.ek-inst.ukim.edu.mk**
Abstracted/ indexed in: **EBSCO** Publishing Database,
Central and Eastern European Online Library **(CEEOL)**
Circulation: 200
Price: 300 MK Denars; 10 EUR
The Ministry of Education and Science of the Republic of Macedonia has financially participated in printing the journal. In accordance with the decision No.07-3266/20 as of 11 July 1999 by the Ministry of Finance of the Republic of Macedonia, a reduced tax rate has been paid for publishing "Economic Development".

CONTENTS

Biljana Cvetanovska-Gugoska, Vesna Goceva, Biljana Angelova
REGIONAL DEVELOPMENT THROUGH THE USE OF THE POTENTIALS FOR RURAL TOURISM
(Original scientific paper) …….....…… (9 – 22)

Snezana Kostadinoska-Miloseska, Nikolche Runchev
IS THE EXCHANGE RATE OF MK DENAR IN THE REPUBLIC OF MACEDONIA REAL OR OVERVALUED?
(Original scientific paper) ……...……..… (23-44)

Vladimir Petkovski, Tatjana Petkovska Mirchevska
THE CONCEPT OF ANCHORING AND PSYCHOLOGICAL PRICING IN THE CUSTOMER`S DECISION MAKING PROCESS
(Original scientific paper) ……...……..…… (45-56)

Imer Zenku, Vasil Popovski
LIBERALIZATION AND MANAGEMENT OF THE ELECTRICITY MARKET IN THE REPUBLIC OF MACEDONIA
(Original scientific paper) …...……..… (57-71)

Zoran Janevski
THE ROLE OF INNOVATION AND INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN DEVELOPMENT OF ENTREPRENEURSHIP IN THE REPUBLIC OF MACEDONIA
(Original scientific paper) ...……..…… (73-87)

Ana Pavlovska – Daneva, Elena Davitkovska
FINANCIAL EQUILIBRIUM FOR THE ADMINISTRATIVE CONTRACTS
(Original scientific paper) ...……..… (89-102)

Elizabeta Dzambaska
EMPIRICAL ANALYSIS OF FDI AND TAX INCENTIVES ON THE ECONOMIC GROWTH IN THE REPUBLIC OF MACEDONIA
(Original scientific paper) ……... (103-127)

Ilija Gruevski
EFFECTIVE MARGINAL TAX RATES ON CORPORATE INCOME IN THE REPUBLIC OF MACEDONIA
(Original scientific paper) ……... (129-146)
Snezhana Hristova, Biljana Apostolova
HUMAN CAPITAL DEVELOPMENT IN MACEDONIA: THE ROLE AND EFFICIENT USAGE OF IPA FUNDS
(Original scientific paper) …….…… (147-166)
Marko Andonov, Irina Majovski
RELATED PARTIES TRANSACTIONS AND A BRIEF REVIEW ON THE LEGAL REGULATION OF THIS INSTITUTE IN EU
(Professional paper) …..……... (167-184)
Iskra Stancheva Gigov
MACEDONIAN EXPORT COMPETITIVENESS AND ITS IMPROVEMENT
(Professional paper) …….…… (185-200)
Sami Bislimi
SOME ASPECTS OF THE GROSS DOMESTIC PRODUCT GROWTH AND THE DOMESTIC CONSUMPTION INCREASE IN THE REPUBLIC OF MACEDONIA
(Professional paper) …….… (201-219)
Vasilka Gaber, Stevan Gaber, Ilija Gruevski
COORDINATION OF EU POLITICS
(Professional paper) ..……... (221-233)
Katerina Ristovska
RESOURCES – BASE FOR COMPETITIVNESS
(Professional paper) …….… (235-242)
Kristina Kovacevik
THE USE OF BRAINWASHING IN THE PROCESS OF CHANGING THE ORGANIZATIONAL CULTURE OF THE GERMAN AND JAPANESE WORKERS (243-258)
(Professional paper) …….
Guidelines for authors ……. (259-261)

Dear reader,

"Economic Development", published by the Institute of Economics – Skopje, is an academic journal in the field of economic development and has been an important medium for 14 years. The main goal of "Economic Development" is to provide intellectual platform to the wider academic and professional publics, and promote the development of economic thought in the country and the world. The interest and need for publishing of the journal were continuously increased all these years

On the path of development of the economic thought and building a wide network of research and professional cooperation with other countries in the world, we set new goals, criteria and challenges in order to improve the journal`s quality. In this regard, during 2010 and 2011, significant changes have been made in editorial policy, design and its availability to broader academic and professional public in the region and worldwide. As result of all this changes, starting from no. 3/2010 “Economic Development” will shift into international journal, will be published in English language and will be distributed in all countries of the region and worldwide.

This academic journal covers theoretical and empirical researches in the field of economic and social development, demography, education, corporate governance, international economics, international management, administrative management, corporate and public finance, economics and tourism management, agricultural policy and agricultural management, marketing and marketing management, entrepreneurial management and other areas in the field of social sciences.

The journal "Economic development" has an open approach in accepting and publishing the papers reviewed by an international editorial board consisting of three domestic and five foreign experts. The journal is available in print and online form, through the database of academic papers published by the Institute.

Skopje, May 2013

prof. Biljana Angelova, PhD
Editor-in-chief

UDC 338.48-6:379.845]:332.12(497.7)
Original scientific paper

Biljana CVETANOVSKA-GUGOSKA*)
Vesna GOCEVA)**
Biljana ANGELOVA*)**

REGIONAL DEVELOPMENT THROUGH THE USE OF THE POTENTIALS FOR RURAL TOURISM

Abstract

All across the world rural areas face serious issues of economic and demographical change. Rural tourism is seen as potential source of social, economic, cultural and environmental benefits for rural areas. The tourism activity can create growth potentials for rural areas; it can provide income for local businesses, help to protect the traditional values and the community assets and help to sustain local services.

The present paper explores the potentials and economic possibilities of rural tourism in view of regional development and it evaluates weather rural tourism can be the driving factor in integrated sustainable development especially for the so called less favored/ developed areas.

The first part of the paper approaches a study of the particularities of rural areas in the context of defining the concept rural tourism, while the second one presents the potentials of rural tourism in light of regional development in the Republic of Macedonia. The second part includes a detailed analysis of the projects for rural tourism financed through the Bureau for Regional Development of Republic of Macedonia, as a main operational capacity in the implementation of regional policy in the country.

Key words: Regional Development, Rural tourism, rural areas, The Republic of Macedonia, less developed regions.

JEL classification: R - Urban, Rural, Regional, Real Estate, and Transportation Economics; **R1 -** General Regional Economics

---

*) MA, Bureau for Regional Development, e - mail: biljanacvetanovska@yahoo.com
**) LLM, Bureau for Regional Development, e - mail: vesnagoceva@hotmail.com
***) Ph.D Institute of Economics-Skopje e-mail: angelova@ek-inst.ukim.edu.mk

1. Introduction

Tourism is one of the fastest growing and most dynamically developing sectors of economic activity. "In both developed and developing countries, tourism is frequently supposed to be a viable mean of raising the economic activity of regions"[1,] and not only economic, but also social and cultural. Tourism can be identified also as a potential economic development tool particularly for rural communities.[2] It can increase the net benefits to rural people, but also increase their participation in managing the tourism product which on long term leads to sustainable development of the rural areas, especially of the ones which face serious economic difficulties. Nowadays, rural tourism "is widely perceived as being of considerable economic and social benefit to rural areas through the income and infrastructural developments it may bring particularly to marginal and less economically developed regions"[3],

The following text is focused on answering the question whether the power of tourism's growth potential can be harness to pull rural regions out of decline. For that purpose our first task is to define the concept of rural tourism. Having in mind that rural tourism is essentially an activity which takes place in the rural areas, it is of great matter to firstly define what does rural area actually mean. From the variety of existing definitions for rural areas, we shall concentrate our attention only to the ones we consider important for achieving the goal of this paper, i.e. answering the question above.

In the European Charter for Rural Areas, 1996 pg. 3, the Council of Europe defines rural area as an area with the following characteristics: "a stretch of inland or coastal countryside, including small towns and villages, where the main part of the area is used for:

- Agriculture, forestry, aquaculture and fisheries;
- Economic, cultural activities of country dwellers (crafts, industry, services, etc.);

[1] Hall, C.M. (1994). Tourism and Politics: Policy, Power and Place. Chichester, John Wiley & Sons.

[2] Wilkerson, M.L., 1996. "Information for developers" Developing a rural tourism plan: The major publications. Economic Development Review 14 (2), 79-93; Prosser, G., 2000. Regional tourism research: A scooping study. Occasional Paper Number 4. Southern Cross University, Lismore

[3] New Directions in Rural Tourism edited by Derek R. Hall, Lesley Roberts, Morag Mitchell str. 4

- Non-urban recreation and leisure for natural reserves;
- Other purposes, such as for housing."

Moreover, Ashley and Maxwell 2001[4] use the concept rural spaces for those areas which demonstrate the following features:

- spaces where human settlement and infrastructure occupy only small patches of the landscape, most of which is dominated by fields and pastures, woods and forest, water,
- mountain and desert;
- places where most people spend most of their working time on farms;
- abundance and relative cheapness of land;
- high transaction costs, associated with long distance and poor infrastructure; and
- geographical conditions that increase political transaction costs and magnify the possibility of elite capture or urban bias.

A further valuable point to note is the population density issue. For that reason, Lane (1994)[5], underlines that besides the two criteria: land use and economy (traditional agrarian/forestry industries) and the traditional social structures and values (traditional lifestyle), also the population density and size of settlement is also important and should be considered as a main characteristic when identifying certain area as rural. In view of that, usually rural areas are small settlements and have relatively low population density. In order to define one area as rural, OECD (1994) uses the following criteria: "at local level a population density of 150 people per square kilometer is the preferred criterion. At the regional level, geographic units are grouped by the share of their population that is rural into the following three types: predominantly rural (50%), significantly rural (15-50%) and predominantly urbanized regions (15%)"[6].

Once the concept rural area has been outlined as concept connected to small settlements with low population density, whereas the main economic activities are related to the agrarian or forestry sector and

[4] Ashley C. and Maxwell S. (2001): Rethinking Rural Development. Development Policy Review, 19 (4):395-425 London: Blackwell Publishing.
[5] Lane, B. (1994). What is Rural Tourism. Journal of Sustainable Tourism 2(1 & 2): 7-21.
[6] OECD (Organization for Economic Cooperation and Development), (1994): Tourism Strategies and Rural Development, Paris, pg.10

where there is a strong presence of traditional values, the concept of rural tourism could be outlined as it follows:

- Rural tourism is located in rural areas;
- It is functionally rural – built upon the rural world's special features of small-scale enterprise, open space, contact with nature and natural world, heritage, "traditional" societies and "traditional" practices.
- Rural in scale – both in terms of buildings and settlements – and, therefore, usually small-scale.
- Traditional in character, growing slowly and organically, and connected with local families. It will often be very largely controlled locally and developed for the long term good of the area.[7]

In addition to the above mentioned characteristics, it is also important to point out that rural tourism is also sustainable, i.e. "rural tourism can help the particular character of the area by becoming a tool for conservation and sustainability, rather than as an urbanizing and development tool."[8]

In order to have a more detailed perspective of what rural tourism actually, is it is convenient to consider all of its different forms. As a complex phenomenon, rural tourism includes a variety of forms based on the diversity of the attraction activities they contain. Here we will divide them in three major groups. Usually the rural tourism includes nature-based activities which include visits to natural areas for enjoying the animal wildlife or the plant diversity and they are mostly known as *ecotourism*. By definition ecotourism "is a form of tourism which fosters environmental principles, with an emphasis on visiting and observing natural areas".[9] In addition to the nature-based activities, rural tourism includes also "visits by persons from outside the host community motivated wholly or in part by an interest in the historical, artistic, scientific or lifestyle/heritage offerings of a community, region, group or

[7] Lane B,(1994): "What is rural tourism" Journal of Sustainable Tourism, Volume 2, No 7

[8] OECD (Organization for Economic Cooperation and Development), (1994): Tourism Strategies and Rural Development, Paris, pg.14

[9] Boyd, S.W. and Butler, R.W. (1996): Managing ecotourism: An opportunity spectrum approach. Tourism Management 17 (8), 557–566, pg.558

institution"[10] This form of rural tourism is known as *heritage* or *cultural tourism*. Another major form of rural tourism is the *agritourism*, which refers to ''a specific type of rural tourism in which the hosting house must be integrated into an agricultural estate, inhabited by the proprietor, allowing visitors to take part in agricultural or complementary activities on the property''[11].

2. The importance of tourism for rural areas and less developed regions

For the purposes of this paper, it is of great importance to underline the key features that make rural tourism important to regional development. From our perspective there are three main reasons why it is important to develop tourism in the rural areas of the regions:

- **Bring economic benefits the rural areas**: economic growth, economic diversification and stabilization, employment creation, reduced out-migration and even re-population, improvement of public services, infrastructural improvement, revitalizing crafts, customs and cultural identities, increasing opportunities for social contact and exchange, protection and improvement of both natural and built environment, increasing recognition of rural priorities and potential by policy-makers and economy planners. [12]

- **Increase participation of the people in the development of tourism:** the tourism activities require to be organized by the involvement of many people, so one key opportunity is to develop tourism enterprises where they live. Rural people can become managers of the process of rural tourism and this way they will be directly involved into the development process of their community;

[10] Silberberg, T. (1995): Cultural tourism and business opportunity for museums and heritage sites. Tourism Management, 16(5), 361-65. , p.361

[11] Marques, H. (2006): Searching for complementarities between agriculture and tourism – the demarcated wine-producing regions of northern Portugal. Tourism Economics, 12, 147–155. (pg: 151)

[12] According to Gannon 1994 and Kieselbach and Long 1990 as citied in Roselyne Okech, Morteza Hghiri, Babu P George, Rural Tourism as a Sustainable Development Alternative: An Analysis with special reference to Luanda Kenya, Cultur, 2006 n.03 Ago/2012

- Lack of other viable alternatives: having in mind that rural areas have little economic possibilities, rural tourism is one of the few sectors that can be suitable for them. The daily activities on the farm, the existing structures-houses, etc can be used to attract tourists and assure additional incomes.

3. Using the potentials of rural tourism for regional development in the Republic of Macedonia

If we consider the fact that more than a third of the world's population is occupied with agriculture, we can get the idea of how important the need is of promoting and investing in the rural areas. As we already pointed out the rural tourism is a complex component which consists of institutional, socio cultural, economic and environmental dimension. On the one hand, the rural tourism depends on the season while the urban does not. On the other hand, the rapid pace and the modern way of life, industrialization and urbanization of the cities emphasize the need of using the advantages and the natural beauties of the rural areas.

A country that boasts a rich variety of natural and cultural treasures represents "fertile" ground for the development of rural tourism. "In the Republic of Macedonia, country which considering the geographic and demographic characteristics is predominantly rural, the use of an integral approach to the concept of rural tourism enables the development of a regional approach and promotion of hot spot destinations for rural tourism".[13]

Rural tourism and the development of rural areas in the Republic of Macedonia is financed through different programs of various ministries, including the Ministry of Agriculture, Forestry and Water Economy,[14] Agency for Financial Support in Agriculture and Rural Development[15], the Ministry of Economy[16], the Bureau for Regional Development[17] etc. It is not the purpose of this paper to analyze each and every one of the different programs, but to present the rural tourism in

[13] National Rural Tourism Strategy, 2012-2017, p. 9.
[14] http://www.mzsv.gov.mk/?q=node
[15] http://www.pa.gov.mk/Root/mak/default_mak.asp
[16] http://www.economy.gov.mk/
[17] http://brr.gov.mk/

light of regional development. Therefore, in this publication we will focus our attention to the projects funded through the Bureau for Regional Development and the Ministry of Local Self Government, which represent a combination of rural and regional component.

In the Republic of Macedonia there has been a recent establishment of an institutional and legislative framework for support and promotion of regional development.[18] The country's efforts to establish a strong and functional system of regional development are reflected also into the direct support to the rural areas within the Municipalities and to the areas with specific development needs and the villages. The Bureau for Regional Development has a special Program for the development of the areas with specific development needs and the villages.

In accordance with the Law on balanced regional development, 30% of the funds are allocated for projects regarding the areas with specific development needs and villages, while 70% for development of the regions. In light of the above stated, the Bureau for Regional Development (BRD) finances various types of projects that directly affect the cohesion and generate an increase in economic power of rural areas.

According to the Decision on detailed criteria and indicators which identify the areas with specific development needs[19,] the economic and social development indexes are used to determine which are the areas with specific development needs. Moreover, as a criterion is considered that the seat of the municipalities is located in a village and where the population has basic income from agricultural activities. In addition, the Law on agriculture and rural development provides the definition of "rural area as area in the municipalities of Republic of Macedonia whereas none of the settlements has more than 30.000 people according to the national census of population and house holdings, or whereas the

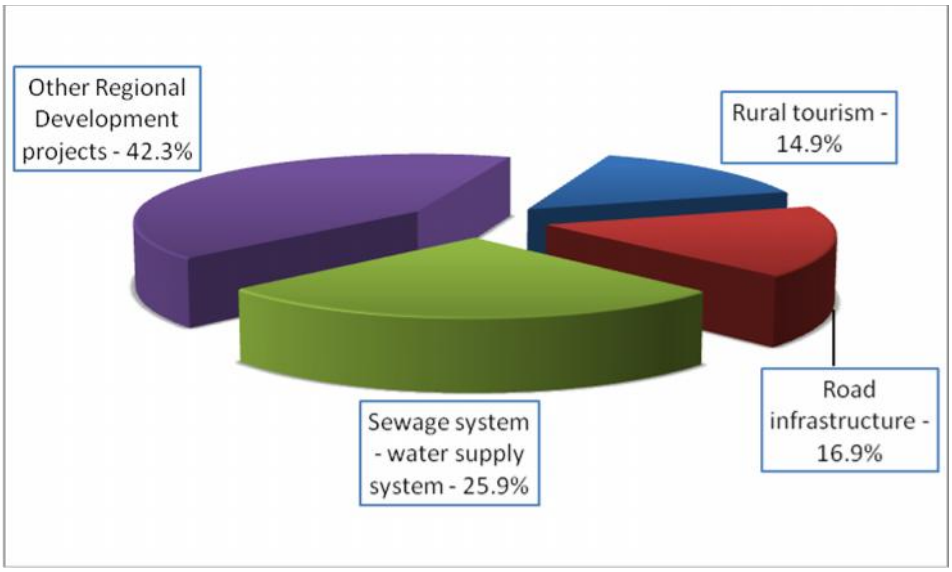
[18] In 2008 a Law on balanced regional development has been adopted (Official Gazette No. 63/07), and consequently a Strategy for Balanced Regional Development was prepared. More information can be found in Гоцева Весна. (2011): Институции надлежни за регионален развој – Компаративни искуства, Југореклам, Скопје, and Biljana S. Cvetanovska & Biljana V. Angelova, Establishment and organization of regional development in Macedonia. Challenges and perspective.PECOB, Portal on Central Eastern and Balkan Europe, University of Bolgona, Forli Campus, 2012

[19] Official Gazette No. 78, dated 22.06.2009.

population density is less than or equal to 150 inhabitants per square kilometer within the area of the municipality"[20].

In the last five years, since when the Bureau for Regional Development and the Ministry of Local Self Government implement the policy of balanced regional development, in accordance with the Law on Balanced Regional Development , various projects have been implemented in all 8 (eight) regions[21] which have a direct impact on rural development. The distribution of the funds in the period from 2009 to 2013 is graphically presented in the following Graphic 1.

Graphic 1: Distribution of funds in the five year period 2009-2013



Source: Bureau for Regional Development (authors' elaboration)

The total amount of funds distributed through the Bureau in the last five year period is 730.8 million MKD, whereas an amount of 447.5 million MKD has been directed to rural development and rural tourism. Accordingly, a percentage of 61, 3 of all the available funds of the Bureau for Regional Development is directed into the support of

[20] Law on agriculture and rural development, Article 61,
Official Gazette No. 49/2010; 53/2011, 126/2012, 15/2013 и 69/2013). (rough translation of the Authors)

[21] According to the Law on Balanced Regional Development, Macedonia is organized in 8 non administrative planning regions on NUTS 3 level that are formed by grouping of the municipalities as administrative units

development of the rural areas (sewage systems and water supply systems and road infrastructure) which has a direct impact on rural development and consequently on the creation of potentials for future rural tourism, and a percentage of 14.9 is directly destined to the rural tourism.

The financial means of the Bureau have been distributed through 4 different public announcements for projects proposals in the period between the year 2009 and 2013. The following table presents the total number of projects financed by the Bureau and destined to develop: regions, areas with specific development needs and villages.

Table 1: Number of projects financed through the Bureau for Regional Development in the period 2009-2013

Year	Regions	Areas with specific development needs	Villages
2009	33	22	17
2010	37	19	15
2012	27	10	9
2013	39	14	13
Total:	136	65	54

Source: Bureau for Regional Development (Authors' elaboration)

When it comes to rural tourism in number of projects, here bellow we present, year by year, the distribution of financial means destined to develop rural tourism in the regions, the areas with specific development needs and the villages.

Table 2: Number of projects supported by the Bureau for Regional Development destined to rural tourism

Year	Regions	Areas with specific development needs	Villages
2009	8	1	1
2010	9	1	0
2012	5	0	0
2013	13	0	0
Total:	35	2	1

Source: Bureau for Regional Development (Authors' elaboration)

As reported above it becomes evident that when the areas with specific development needs and the villages are considered, only a small number of projects for support of rural tourism have been implemented. This is nearly always due to the decision of the local authorities (Mayors and Councils of the Municipalities) to support most visible projects, such as construction of infrastructure.

Part of the financed projects through the Bureau are related to: mapping of tourist sites, categorization of tourist and catering facilities, product branding, eco trails, reconstruction and electrification of a tourist site, refining and arranging waterfalls' areas and similar projects: Some of the projects are: Infrastructural basis for development of rural tourism in the village Gabrovo, Creating conditions for rural development, tourism and mobility in the region by preparing technical documentation for road infrastructure , Municipality of Kratovo Cultural tourism – the past supporting the future development of the region, Municipality of Karbinci, Ethno - cultural tourism in favor of regional growth, Municipality of Zrnovci, Study on development of the Ponikva ski-centre on Osogovo mountain with main designs, Municipality of Probishtip, Study for mapping the Investment potentials of Skopje Region, Revitalization of the coast of Dojran Lake – Star Dojran, Adapting a building of historical and cultural significance in the Pelagonija region with a Memorial area for Petre. M. Andreevski, Implementing a legal categorization for hospitality and tourist facilities in Pelagonija, Signs for the Pelister villages to enhance and promote the tourism potential of the municipalities of Bitola and Resen etc.

Conclusion and recommendations

Rural tourism in the Republic of Macedonia has been identified as disorganized and unsystematic, but recently it becomes more organized and it is considered as serious segment of the tourism. However, this process needs more time to develop in the right direction. It is essential that the national, regional and local institutions provide further support to the local population in terms of education programs, training, awareness raising for the benefits of this type of tourism etc. The development of rural tourism offers potential solution of many of the problems that rural areas face. Therefore the support for creating the appropriate conditions for the development of rural tourism is needed.

However, it must be taken in consideration that rural tourism may not be applicable to every location, not every rural area predispose with the necessary characteristics, necessary work force qualifications etc.

Having in mind that rural tourism could reduce unemployment and could support economy growth in the rural areas it is of essential importance to focus on the activities for tourism development in the countryside. In order to do so, the future financial support should be directed to one of the sectors which demonstrate urgent need for investment, that is the rural infrastructure. A significant part of the rural areas are characterized by poor road infrastructure and difficult access. Also lack of sewage and water supply system is pretty much evident. Therefore a further rehabilitation of the rural infrastructure is needed. As it was already pointed out in the previous section, a significant amount of the financial meanings distributed through the Bureau for Regional Development is destined to the development of rural areas and rural infrastructure. However, in terms of finances, the amount of the implemented projects is at exceptionally low level, considering that in the period of five years is only 447.5 million MKD. [22]

From the aspect of regional development and the importance of regional branding it is necessary to create a real and recognizable brand in the Republic of Macedonia. In the creation of such brand it is needed to consider the importance of the so called umbrella approach, i.e. one recognizable brand which can apply to one or two regions or even to the whole country. This is necessary because Republic of Macedonia is a small country and that is why it is easier to consider the entire territory as one brand, rather than to separate its integrity in minor brands. For example, if the scope is “to sell” Ohrid and Prespa as a tourist destination, it is most convenient to incorporate the two of them into one unique brand. Ohrid and the Ohrid Lake are well known on the touristic map, so Prespa and Dojran could be included into the offer. This could result in one diversified offer which can call the attention of the foreign tourists, but also could promote the region/nation on foreign markets. So perhaps, the future regional projects could be more focused on creation of regional/national brands.

[22] The financial meanings reported above regard only the Programs of the Bureau for Regional Development, it must be mentioned that there are also other state institutions that finance the construction of rural infrastructure, such as the Ministry of Transport and Communication (http://mtc.gov.mk/new_site/en/), etc.

Once we have outlined the importance of regional branding, next thing to do is to consider the importance of rural marketing. There are plenty definitions of rural marketing. Some authors perceive this concept as "an umbrella term for the people who dealt with rural people in one way or other."[23] More comprehensive definition would be the rural marketing defined as "a function which manages all those activities in asserting, stimulating and converting the purchasing power of rural people into an effective demand for specific products and services and there by achieving the goals of the organization. "[24] The process "marketing" is actually an extremely complex tool which nowadays symbolizes one of the most important forms of influence. On the other hand, rural marketing represents more complex activity that requires above all a viable strategy for action and active targeting of available resources. The promotion of rural offer should be within the region as a whole. The activities should be directed to various areas. One of those areas is communication and marketing, with the scope to create a Platform for communication as an initial step forward of developing a network of cooperation which seems to be currently lacking. Clear visibility of the regional brands is required. Furthermore, the on line booking as a precondition for cooperation is one of the important tools of marketing. Then, there are other types of marketing tools used such as: trade shows, presentations, printed materials (brochures, flyers ...), public relations, advertising (newspaper, magazines) etc. All these tools should contain information about the advertised offer, such as list of accommodations (hotels, private pensions…), various tour packages (wellness, spa packages, hiking, skiing, camping, mountain biking). Prioritization of target group should always be prepared in terms of how to prepare the offer. Different target groups have different requests, so they should be treated in different ways. In this context, the sales managers of the rural offers are could be really helpful. These managers should be well trained and prepared of introducing the client to all the possibilities. Generally, each new idea can be sold if there is a good story that underpins it.

[23] Dr. V.K. Bishnoi, RURAL & AGRICULTURAL MARKETING, http://www.ddegjust.ac.in/studymaterial/mba/mm-310.pdf
[24] http://miteshk.webs.com/RURALMARKETING.pdf

References

1. Ashley C. and Maxwell S. (2001): Rethinking Rural Development. Development Policy Review, 19 (4):395-425 London: Blackwell Publishing.
2. Boyd, S.W. and Butler, R.W. (1996): Managing ecotourism: An opportunity spectrum approach. Tourism Management 17 (8), 557–566, pg.558
3. Biljana S. Cvetanovska & Biljana V. Angelova, Establishment and organization of regional development in Macedonia. Challenges and perspective.PECOB, Portal on Central Eastern and Balkan Europe, University of Bolgona, Forli Campus, 2012
4. Гоцева Весна. (2011): Институции надлежни за регионален развој – Компаративни искуства, Југореклам, Скопје.
5. Hall, C.M. (1994). Tourism and Politics: Policy, Power and Place. Chichester, John Wiley & Sons.
6. New Directions in Rural Tourism edited by Derek R. Hall, Lesley Roberts, Morag Mitchell str. 4
7. Wilkerson, M.L., 1996. "Information for developers" Developing a rural tourism plan: The major publications. Economic Development Review 14 (2), 79-93; Prosser, G., 2000. Regional tourism research: A scooping study. Occasional Paper Number 4. Southern Cross University, Lismore
8. Lane, B. (1994). What is Rural Tourism. Journal of Sustainable Tourism 2(1 & 2): 7-21.
9. Marques, H. (2006): Searching for complementarities between agriculture and tourism – the demarcated wine-producing regions of northern Portugal. Tourism Economics, 12, 147–155. (pg: 151)
10. National Rural Tourism Strategy, 2012-2017, p. 9.
11. OECD (Organization for Economic Cooperation and Development), (1994): Tourism Strategies and Rural Development, Paris, pg.10
12. Silberberg, T. (1995): Cultural tourism and business opportunity for museums and heritage sites. Tourism Management, 16(5), 361-65. , p.361
13. http://www.mzsv.gov.mk/?q=node
14. http://www.pa.gov.mk/Root/mak/default_mak.asp
15. http://www.economy.gov.mk/
16. http://brr.gov.mk/

17. Dr. V.K. Bishnoi, RURAL & AGRICULTURAL MARKETING, http://www.ddegjust.ac.in/studymaterial/mba/mm-310.pdf
18. http://miteshk.webs.com/RURALMARKETING.pdf

UDC 339.743(497.7)
Original scientific paper

Snezana KOSTADINOSKA-MILOSESKA[*])
Nikolche RUNCHEV[**])

IS THE EXCHANGE RATE OF MK DENAR IN THE REPUBLIC OF MACEDONIA REAL OR OVERVALUED?

Abstract

The choice of exchange rate regime and determination of the value of the national currency is vital for monetary and economic policy. The classic distinction of fixed versus flexible exchange rate is an overly simplified method for selection of the exchange regime. The same applies to the thesis that the value of the domestic currency is determined by supply and demand in the foreign exchange market. Despite the great interest in the growth and development of the economy as a whole, the issue of exchange rate becomes more tangible: there is neither consensus on fundamental factors that determine the stability of the exchange rate, nor on how to measure its deviation from the long-run equilibrium level.

This paper deals with the question "how real is the sxchange rate of the denar in the Republicc of Macedonia?" The aim of the paper is to provide assessment if MK denar has been real of overevaluated in the period 2000-2011. In that purpose, several econometric methods were used, such as: simple statistical analysis and dynamic analisys of real effective exchange rate regarding the equilibrium real exchange rate. These methods have shown that MK Denar is real.

Several econometric methods were used in this paper, such as: simple statistical analysis and dynamic analysis of real effective exchange rate regarding the equilibrium real exchange rate. These methods show that MK Denar is real.

Keywords: *exchange rate, exchange rate regime, real exchange rate, fundamental factors, statistical analysis and dynamic analysis*.

JEL classification: C15; C73; C87; E42; E52

---

[*]) Ph.D, Institute of Economics-Skopje, E-mail:snezana@ek-inst.ukim.edu.mk
[**]) Ph.D, Ministry of finance-Revenue Service, Regional Office-Stip**,**address: Square "Freedom" – Stip, E-mail**:**nikolceruncev@yahoo.com

Introduction

Exchange rates have a significant impact on small open economies in determining the change in the balance of payments flows, prices, gross domestic product, trends of domestic saving, investment, money demand and other economic categories and phenomenom.This applies if the other factors remain unchanged, especially if the money supply or its change does not sterilize the effects of changes in exchange rates. The above-mentioned factors, which are undoubtedly relevant for the Macedonian economy, will be tested in this research paper.

Defining and measuring sustainable equilibrium real exchange rate is especially important for those regimes of exchange rates, which are located between the extremes of currency board and pure fluctuation - i.e. in the countries that have a practice to manage the nominal exchange rate. Howevwr, we should not forget that, regardless of the nominal exchange rate regime, the real exchange rate always fluctuates - if not through changes in the nominal exchange rate, then through changes in prices - and potentially, it can be distanced from its equilibrium level. The estimation of the extent to which the currency is overvalued would be important not only as a part of the inevitable national debate about whether to recover or to deerease the equilibrium level of the domestic currency, but also for assessing how much the general decline of the rents would be necessary to achieve real devaluation without changes in the exchange rate regime.

1. Theoretical foundations, models and approaches for evaluating real exchange rate

The real effective exchange rate (REER) is a macroeconomic indicator that implicitly shows to what extent a nominal exchange rate has been really set vis-a vis its macroeconomic, and especially foreign trade effects. More specifically, REED explicitly answers the question: to what extent foreign relative purchasing power of a currency has changed over a period of time. According to the mathematical definition, the indicator of the real effective exchange rate is an index number that is calculated as the quotient of the index of the nominal effective exchange rate and the index of the relative prices, both calculated for the same base period. The nominal effective exchange rate IS weigted average nominal

exchange rate, i.e. the price of the domestic currency is not experessed in units of a foreign currency, but more relating to many foreign currencies-basket of foreign currencies selected by cetain criterion or vice versa – if the basket of foreign currencies is expressed in domestic currency.[1]

The theory and practice suggest that in the case of a prolonged and significant deviation of the real effective exchange rate from its equilibrium level, some appropriate measures are necessary to be undertaken for correction of the exchange rate. There are two basic approaches in order to determine the real exchange rate: external and internal real exchange rate, with more suboptions within each of these two basic concepts[2]. Neverthelss, what is common to all variants of the external exchange rate is the fact that when defining, and hence calculating the real exchange rate, the nominal exchange rate is corrected in relation to the differences in price levels (or costs) among countries. Within the external real exchange rates, there are more alternatives for formulation of the rate that arise from different analytical approaches (Hinkle/Montiel: 1999,42). Following the Hinkle and Montiel research, there are three basic versions of the external real exchange rates which are based, respectively, on the theory of Purchasing Power Parity powers (the expenditure - PPP external Real exchange rate) of Mundell - Fleming model of single composite good (aggregate production version of the real external exchange rate) and on the Law of single price and price competitiveness of internationally exchanged goods (the real external exchange rate or traded goods)[3].

The common characteristic of the internal real exchange rates is that they are defined as a ratio (coefficient) between the domestic price of the tradable and nontradable goods within a country (Hinkle/Montiel: 1999,41). Due to the fact that in this concept, the price ratios of tradable and nontradable goods within the domestic economy are arbitrary, in order to make difference from the external exchange, it is called internal exchange rate.Given that there are different approaches for defining the real and the equilibrium real exchange rate, as well as serious difficulties

[1] Ivan Ribnikar, "Skrajni rezimi deviznega tecanja", Ekonomski fakultet, Ljubjana, mar.2008.

[2] Montiel, Peter J. and Lawrence E.Hinkle, Eds. "Exchange Rate Misalignment: Concepts and Measurement for Developing Countries" Oxford University Press and World Bank, 1999.

[3] Actually there is a fourth degree of the external real exchange rate, although less common, that it the relative labor costs, expressed in a common currency.(Hinkle/Montiel:1999,43).

for their accurate measurement, during the process or assesment of the deviation of the current from equilibrium exchange rate, different results.

Taking into consideration the abovementioned the effort to find an appropriate measure of the real exchange rate could be related to serious problems, both from conceptual and from methodological nature. The basic conceptual problem is determining which version of the real exchange rate to be used: external or internal. Once you resolve the original dilemma, one of several options within the category of internal or external exchange rates should be chosen. Furthermore, it has to be decided which specific price indicator should be used in the calculation of the corresponding index of the real exchange rate. Of course, same price indicators used should be used for the home country and its foreign competitors[4]. The following step is determining the mathematical formulas that will be used in calculating the real exchange rate.

2. Specifics in the Republic of Macedonia

The analysis of real exchange rates became present in transition economies in the late 90s, for two main reasons: firstly, the major changes in the structure of these economies inevitably had effects on the dynamics of the real exchange rates (so-called trend of real appreciation) and secondly, the admission of some of these countries into the European Union imposed the problem of equilibrium level of their exchange rates.In addition, the issue of real exchange rate is of great importance for the economic policy of any country.

With regards to the Republic of Macedonia, the analysis of the movements in the exchange rate of the denar with regards to the euro (previously German mark) and the rate of inflation from the monetary independence of the country up to the present time, show a high degree of volatiluty of the changes in the inflation rate from the changes in the exchange rate of the denar. This means that the exchange rate is the key nominal anchor that determines other prices in the economy: prices of goods and services, the cost of labor, cost of funds, etc.

[4] When it comes to developing countries, we need to keep an eye on finding a reasonably accurate empirical measure of selected (desired) price or cost indices (Hinkle/Montiel:1999,42)

2.1. Data and Methodology Used

The models used in the econometric studies, to calculate the deviation of the real effective exchange rate from the equilibrium value in the long and medium run, and models used to assess the impact and dependence of the real effective exchange rate on the variety of determinants, are based on different methodologies and data.

From the wide range of methods, we opted for a simple statistical analysis and dynamic analysis of the real effective exchange rate regarding the equilibrium real exchange rate.The econometric study is based on the annual data for the Republic of Macedonia from the World Bank`s database and they refer to the period from 2000 to 2011. This could be considered a short series of data for this type of research, but it is common to almost all countries in transition. The gross domestic product, exports and imports of goods and services, inflation, interest rate, exchange rate, foreign exchange reserves, money supply and net financial assets are taken as variables and presented in the Table 1. In addition, each variable has its own abbreviation, which is determined according to the English meaning of the term and the expressed value[5].

[5] REER (*Real effective exchange rate index (2005=100);*
GDPGR *(GDP growth annual %);*
EXP *(Exports of goods and services current US$);*
IMP *(Imports of goods and services current US$);*
INF *(Inflation, consumer prices annual %);*
RIR *(Real interest rate %);*
OER *(Official exchange rate LCU per US$, period average);*
TR *(Total reserves includes gold.current US$);*
(CPI/MKD) – mkd consumer price index;
CPIEU-eu price inex;
(NFA)-*Net foreign assets (current LCU);*
M2-Money supply.

Table 1 *Annual data for variables used in economic anolysis*

Data	REERi	CPIMKD	CPIEU	INF	RIR	NEER	NEERi	GDP GR	GDP	CA	EX	IMP	M2	NFA	TR
2000	98.7	91.0	89.5	6.6	9.9	65.9	133.7	4.5	3,586.9	-103.1	1,744.3	2,278.5	44,712.0	54,717.8	460.2
2001	97.2	96.0	91.7	5.2	15.2	68.0	138.0	-4.5	3,437.0	-235.4	1,467.3	1,945.7	75,090.0	96,288.7	798.8
2002	103.1	98.0	93.8	2.3	14.4	64.3	130.5	0.9	3,791.3	-378.8	1,441.8	2,204.9	69,047.0	61,731.8	789.9
2003	104.9	99.0	95.8	1.1	12.6	54.3	110.2	2.8	4,756.2	-185.5	1,810.4	2,592.2	81,802.1	65,367.0	934.7
2004	103.4	100.0	97.9	0.9	11.6	49.4	100.2	4.6	5,514.3	-451.6	2,202.3	3,311.8	94,773.3	67,718.1	991.4
2005	100.0	100.0	100.0	0.2	8.1	49.3	100.0	4.4	5,985.8	-159.3	2,641.8	3,659.9	109,813.9	88,934.5	1,340.5
2006	99.8	103.0	102.2	3.2	7.8	48.8	99.0	5.0	6,560.5	-28.5	3,058.7	4,228.6	137,035.1	107,532.2	1,889.4
2007	99.9	106.0	104.4	2.2	2.6	44.7	90.7	6.1	8,159.8	-605.7	4,272.5	5,777.1	179,123.5	109,068.9	2,264.2
2008	103.0	114.0	107.8	8.3	2.0	41.9	84.9	5.0	9,834.0	-1,235.8	5,005.2	7,493.2	198,678.2	90,977.4	2,110.2
2009	102.9	113.0	108.2	-0.7	9.3	44.1	89.5	-0.9	9,313.6	-609.6	3,634.1	5,642.1	209,623.1	94,763.8	2,288.3
2010	100.4	115.0	109.9	1.6	7.7	46.5	94.3	1.8	9,137.5	-197.8	4,347.7	6,060.4	235,073.8	99,886.7	2,276.8
2011	102.1	120.0	112.9	3.9	6.0	44.2	89.7	3.0	10,165.4	-310.6	5,021.5	7,309.2	257,378.7	110,344.9	2,667.4

Source: http://databank.worldbank.org

Table 2 *Discriptive statistics*

	REERI	OPEN	NFA	RIR	INF	M2
mean	101.3011	1.084680	87277.65	8.936382	2.900742	141012.6
median	101.2733	1.081777	92870.61	8.689538	2.279624	123424.5
maximum	104.8984	1.270930	110344.9	15.19112	8.268183	257378.7
minimum	97.19164	0.925635	54717.75	2.045083	-0.743982	44712.00
Standard deviation	2.276668	0.113849	19783.50	4.163510	2.684404	72177.51
Skewness	-0.184018	0.256756	-0.429798	-0.174043	0.656157	0.274962
Kurtosis	2.045959	1.773217	1.708369	2.180610	2.499864	1.631542
Jarque-Bera	0.522822	0.884345	1.203608	0.396281	0.986153	1.087547
Probability	0.769964	0.642639	0.547822	0.820254	0.610745	0.580553
Sum	1215.613	13.01616	1047332.	107.2366	34.80890	1692151.
Sum.Sq.Dev	57.01541	0.142578	4.31E+09	190.6830	79.26626	5.73E+10
Observations	12	12	12	12	12	12

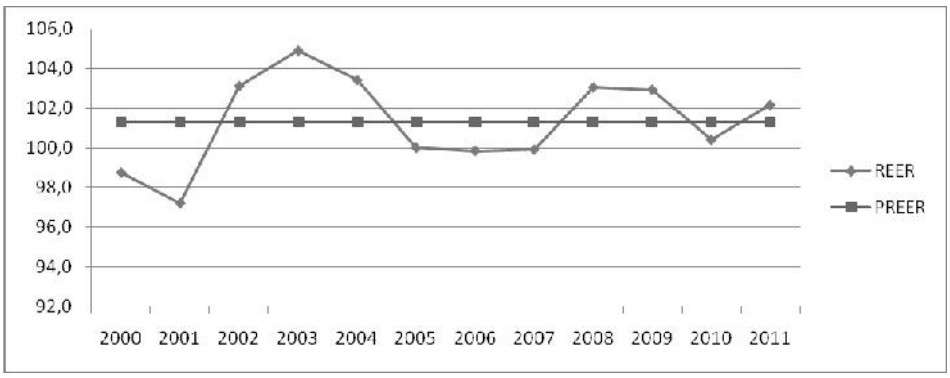
Source: Own calculations

In Table No.2, a descriptive analysis of the variables is presented that will be used in futher research in fact some calculations are made for the mean value of occurrences for the period of study (2000-2011), for median, maximum and minimum, standard deviation, for the coefficient of asymmetry and the normal distribution of occurrences with the assistance of Jacques-Pick test is examined.

2.2. A simple statistical analysis of real effective exchange rate

Following the performed simple statistical analysis of real exchange rate for the period from 2000 to 2011, we could begin by tracking the movement of the real exchange rate (Line chart 1), in which the dynamics of the real exchange rate and its deviation from the average value in the analyzed period is shown. Based on it, we can get a basic visual image for the movement of the real exchange rate and its deviation from the average level. Namely, starting from the statistical laws, it is known that in the long- run, the average value represents the main trend in the development of an occurrence. In other words, in the long run, each occurrence strived for its average value, so fluctuations above or below occur only as temporary oscillations, around the long-run equilibrium level of occurrence.

Line chart 1 *Movement of the real exchange rate*



Source: Author`s calculations

The simple statistical approach can be used in the analysis of the real effective exchange rate regarding its average value, which would represent the long-run equilibrium level. Oscillations around the mean

value in this case show the deviations of the current real exchange rate regarding the equilibrium level.

The line chart shows that between 2000 and 2001, the real exchange rate tends to depreciate, in fact, the deviation was below the equilibrium level of the exchange rate. It reached the lowest level at the end of 2001, when the rate depreciated for about 4% compared to the equilibrium level. Between 2002 and 2005 the real exchange rate deviated above equilibrium level, it appreciated and reached its maximum in 2003, when the rate was depreciated about 3.4% compared to the equilibrium level. From 2005 to 2011, the real exchange rate was around equilibrium level with small deviations below (2005 to 2007) and above (2008 and 2009). In 2010, it approached the equilibrium level (mild depreciation), while in 2011 it showed a tendency of slight appreciation.

Analyzing the movement of the index of real exchange rate, we can conclude that in the analyzed period, it shows oscillations from equilibrium level i.e. above the level (appreciated) or below the same level (depreciated), but ultimately it approaches the equilibrium level.

2.3. Dynamic analysis of the real effective exchange rate in the Republic of Macedonia

One of the best known methods for determining the long-run trend in the movement of macroeconomic occurrences is the filter of Hodrick and Prescott[6]. This method, which is a kind of linear filter, minimizes the variance of the original occurrence on even values using a parameter of leveling. With the application of this technique, we shall obtain the long-run trend in the movement of the real exchange rate.

a) Hodrick and Prescott filter

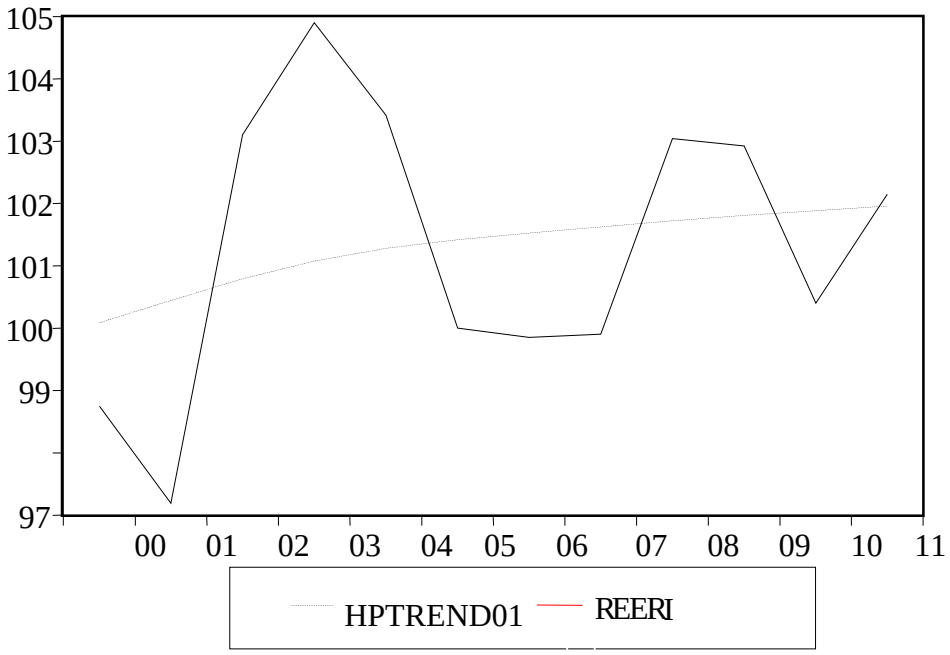
In accordance with the nature of "detrending" techniques, the filter of Hodrick and Prescott very nearly follows the movement of the real exchange rate and as a result, the deviations from the long-run trend are really small. If long-run trend is treated as equilibrium real exchange rate, then this leads to two main conclusions: firstly, the equilibrium real exchange rate is not constant, but it varies over time, probably under the

[6] Hodrick, R.J. and E.C.Prescott (1977), "Postwar U.S. Business Cycles: An Empirical Investigation", *Journal of Money, Credit&Banking,* Vol.29.

influence of changes in fundamentals and secondly, for most of the analyzed period, the deviations of the current real exchange rate from the equilibrium level are really small. Beginning with the fact that a simple statistical analysis is based on the assumption that the average value of the real exchange rate represents equilibrium level, i.e. that long-run equilibrium exchange rate is taken as an unchanged level (does not change over time), it shows no trend of movement.

In order to obtain long-run trend of a series, using the HP (Hodrick-Prescott) filter would be appropriate for such analysis. Dynamic analysis is done using a symmetric HP filter based on the assumption that each macroeconomic series is a sum of a trend component (R) and the cyclical component (C). HP filter also includes past values of the series.

Line chart 2 *Movements in the real exchange rate on the basis of HP filter*



Source : Author`s calculations

Based on the line chart No.2, we can see that the results of dynamic analysis with HP filter are largely similar to the results of previous simple analysis (deviations of the current real exchange rate below the trend of movement of equilibrium real exchange rate in the period from 2000 to 2001, from 2005 to 2008 and in 2010, as well as deviations above the trend of movement of the equilibrium real exchange rate in 2002 and 2011). The difference from the previous approach is the inclusion of a trend of movement of equilibrium level of the real exchange rate, which in this case indicates upward or positive trend.

b) Calculations of the real exchange rate and regressive analysis

In further analysis, we attempt to calculate the real effective exchange rate (PEEP), through basic equation. Variables used for its calculation are: the index of the nominal effective exchange rate, price index CPI of foreign countries (EU-27) and the consumer price index CPI of the Republic of Macedonia.

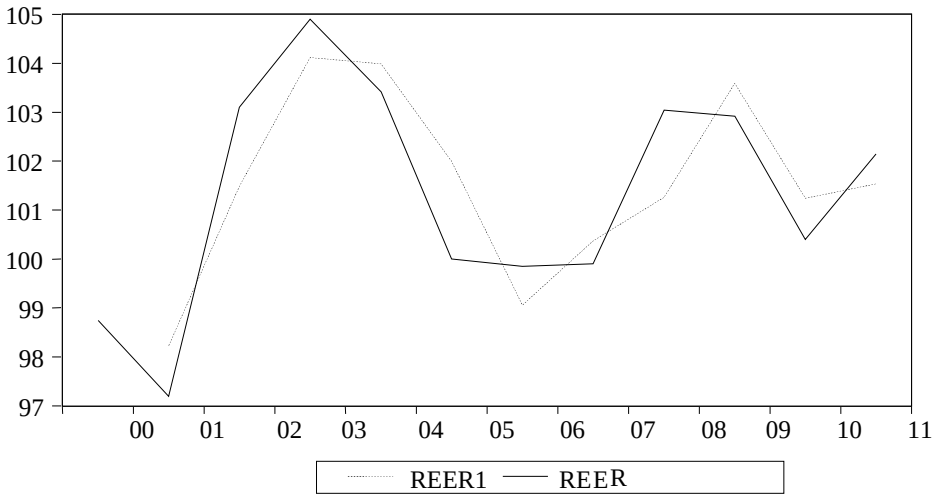
$$REER = \frac{NEER * P^d}{P^f}$$

Where: REER is the real exchange rate, NEER is the nominal exchange rate represented in the provided data as price per unit foreign currency expressed in domestic currency, PD is the domestic price level and PF is the price level abroad.

The line chart No. 3 shows the movement of calculated real exchange rate and the real exchange rate (taken from the data base) and it can be concluded that both calculations have the same movement dynamics.

Line chart 3 shows the movement of the calculated index REER1 and real exchange (taken from the data base) and we can come to conclusion that both calculations have the same dynamic of movement.

Line chart 3 *The Movement of the calculated index REER1 and REER*



Source: Author`s calculations

How far or close is the calculated index REER 1 from the real index can be seen from the line chart above (original REER and calculated series 1).

An additional regression analysis is completed as well, in order to determine the impact and significance of individual determinants, expressing the estimated real exchange rate as dependent variable or function:

$$Reer = f\,(Neer, Pd, Pf)$$

The result of the performed regression:

Dependent Variable: REER
Method: Least Squares
Date: 01/08/13 Time: 19:16
Sample (adjusted): 2001 2011
Included observations: 11 after adjustments *Izvor:Presmeta EViews 7*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	160.8663	19.67233	8.177287	0.0001
NEER	-0.177917	0.056352	-3.157256	0.0160
CPIMKD(-1)	1.021018	0.266476	3.831554	0.0064
CPIEU(-1)	-1.463011	0.366954	-3.986911	0.0053

R-squared	0.716749	Mean dependent var	101.5335
Adjusted R-squared	0.595356	S.D. dependent var	2.233458
S.E. of regression	1.420739	Akaike info criterion	3.815519
Sum squared resid	14.12950	Schwarz criterion	3.960209
Log likelihood	-16.98536	Hannan-Quinn criter.	3.724313
F-statistic	5.904360	Durbin-Watson stat	2.413129
Prob(F-statistic)	0.024852		

REER = 160.86 - 0.17 * NEER + 1.021*CPIMKD (-1) - 1.463*CPIEU (-1)

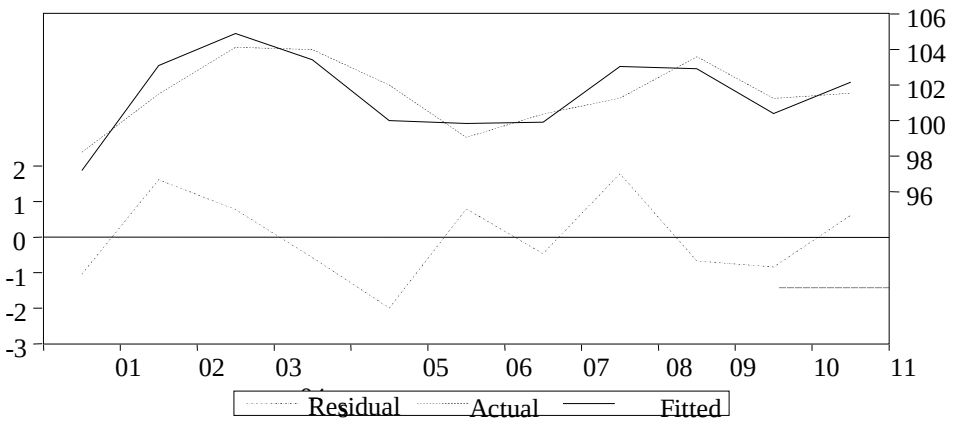
The regression shows a relatively high degree of significance because the coefficient of determination is approximately 71.6 % and variability of the exchange rate for that percentage is explained with the exogenous variables. All coefficients are significant on the level of 95 % significance. The analysis itself shows that in terms of „ceteris paribus“ of individual variables when increasing the same variables for one unit REER, the ratio would be changed (with the rise in the nominal exchange rate for one unit, the real exchange rate would decrease by 0.18 units, with the increase in the domestic price level of one unit, the real exchange rate would increase by 1.02 units and with the increase in the foreign price level to one unit, the real exchange rate would decrease by 1.46 units).

The signs of dependence and the impact of independent variables on the endogenous variable obtained in the regression are quite logical, having into consideration that the price level abroad is inversely proportional dependence of the real exchange rate, while the price level in the domestic economy is the right proportional dependence of the real

exchange rate. Yet, in the calculation, the sign of the dependence of the results, in regression of nominal exchange rate, is in the opposite direction, although by definition, an increase in the nominal exchange rate should lead to a higher real exchange rate. Thus, the variable in the model has the wrong sign than expected.

The line chart No.4 shows the residuals from the model, i.e. it can be seen to what extent the variability of the occurrence remains unexplained with the model.

Line chart 4 *Movement on residuals from regression of REER*



Source: Author`s calculations

c) Temporal analysis of the real effective exchange rate

The role of the temporal modeling is to explain the evolution of past values of the variable in order to predict a particular occurrence. The basic group of models used in research are models that assume a linear dependence of the series (ARIMA -models) i.e. models of auto regressive integrated moving averages. The simplest model in the family of models for time series are models that generalize and use the idea of regression to present a linear relationship between the dependent variable Y(zt) and explanatory variable X($zt-1$), using the following relation.

$$zt = c + \varphi zt-1 + at$$

One type of processes that have a short memory are moving processes or MA-processes. MA-process is a function of a finite number and generally small number of past values of innovation, or:

$$zt = at - \Theta at-1$$

The previous two models can combine features from each other, thus obtaining ARMA processes, which gives us very broad and flexible family of stationary stochastic processes that are used in the explanation of many time series. ARMA process is shown below:

$$zt = \varphi 1zt-1 + at - \Theta 1at-1$$

A key aspect in the analysis of time series is determining the integrative characteristics of the series, which includes determining the stationarity or non-stationarity of variables in order to ensure conditions for model building. The time series is considered stationary if its environment and the variance are constant over time and the value of covariance, between two time periods, depends only on the distance between the two time periods, and does not depend on the actual time at which the variance is calculated. To determine the integrative features of time series analyzed in this paper, we use the two most popular tests for this purpose. ADF test (Augmented Dickedz Fuller) and extended Dickey - Fuller test for the existence of a unit root in the series.

Results from ADF and DF test:

Null Hypothesis: REER has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic-based on SIC, maxlag=2)

		t-Statistic
Elliott-Rothenberg-Stock DF-GLS test statistic		-4.599241
Test critical values:	1% level	-2.816740
	5% level	-1.982344
	10% level	-1.601144

*MacKinnon (1996)
Warning: Test critical values calculated for 20 observations and may not be a accurate for a sample size of 8

Null Hypothesis: D (REER) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic-based on SIC, maxlag=2)

		t-Statistic
Elliott-Rothenberg-Stock DF-GLS test statistic		-3.432831
Test critical values:	1% level	-2.886101
	5% level	-1.995865
	10% level	-1.599088

Null Hypothesis: REER has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic-based on SIC, maxlag=2)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.337814	0.0448
Test critical values:	1% level	-4.420595	
	5% level	-3.259808	
	10% level	-2.771129	

Null Hypothesis: D (REER) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic-based on SIC, maxlag=2)

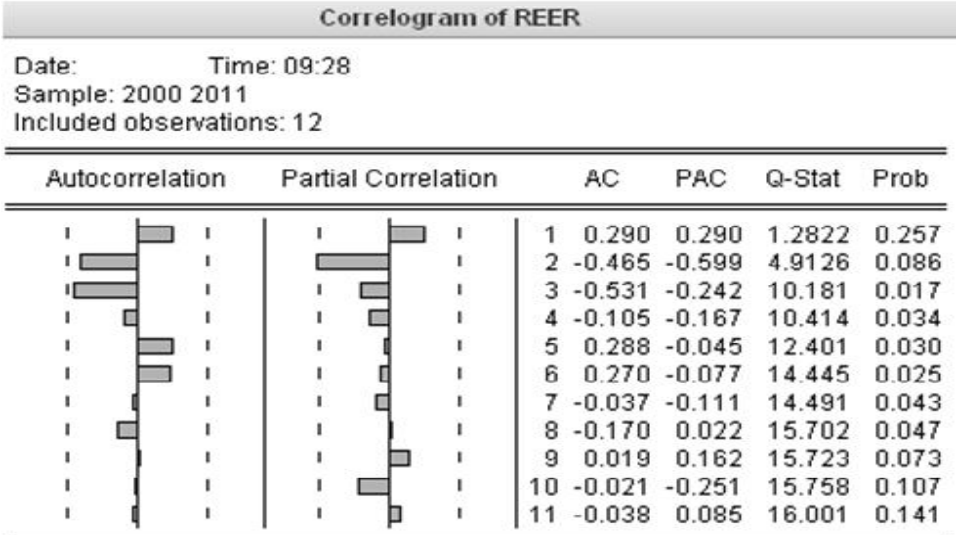
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.284875	0.0524
Test critical values:	1% level	-4.582648	
	5% level	-3.320969	
	10% level	-2.801384	

*MacKinnon (1996) one-sided p-values
Warning: Probabilities and critical values calculated for 20 observations and may not be a accurate for a sample size of 8

Source: *calculated in Eviews 7*

The following displays show the results of two tests (the value of DF - GLS - test is less than t-statistics on the significance level of 90% and 95%) , which confirm that the data series of the real exchange rate is stationary at original level, i.e. it does not require further transformation. And the ADF - test shows that t-statistic is significant, i.e. the null hypothesis of the existence of a unit root is accepted. Through the analysis of correlograms, we can get to the proper diagnosis of the appropriate model of the type of time series. Tables with correlograms include a model from the type of auto correlation (ACF) and partial auto correlation (PACF). By analyzing the correlograms, we can get to the real model of the observed occurrences, because only through function you can see the correlation or dependence (association) of occurrence with the given point in previous time intervals. In the examination of the correlogram of the real exchange rate series, it is proven that it has some significant ACF coefficients and a decrease in PCF coefficients. The decrease of several PCF coefficients with significance of ACF coefficient, clearly indicates the existence of AR and MA process in the examined occurrence.

Correlogram on the original series of REER:



Correlogram of REER

Date: Time: 09:28
Sample: 2000 2011
Included observations: 12

	Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
			1	0.290	0.290	1.2822	0.257
			2	-0.465	-0.599	4.9126	0.086
			3	-0.531	-0.242	10.181	0.017
			4	-0.105	-0.167	10.414	0.034
			5	0.288	-0.045	12.401	0.030
			6	0.270	-0.077	14.445	0.025
			7	-0.037	-0.111	14.491	0.043
			8	-0.170	0.022	15.702	0.047
			9	0.019	0.162	15.723	0.073
			10	-0.021	-0.251	15.758	0.107
			11	-0.038	0.085	16.001	0.141

Source: *calculated in EViews 7*

In addition, we will perform another study using TRAMO automatic procedure in order to get the model specification. If we make the procedure on the original series of real effective exchange rate, then the ARIMA model is shown to be the best model. This model shows that the behavior of the real effective exchange rate depends on the values of previous innovations of the current value of the variable. As best proposed model is ARIMA (1,0,1).

Result of TRAMO automatic procedure:

MODEL FINALLY CHOSEN:
(1, 0, 1)
WITHOUT MEAN
NO OUTLIERS DETECTED
METHOD OF ESTIMATION: EXACT MAXIMUM LIKELIHOOD
PARAMETER ESTIMATE STD ERROR T RATIO LAG

And TRAMO automatic procedure and analysis using correlogram showed the existence of ARMA process. The next stage in the investigation of a series regards the creation of the model, in which, according to the analysis ARMA is shown to be the best proposed model (1.1), i.e.:

$$zt = \varphi 1zt-1 + at - \Theta 1at-1$$

EViews result for a given model:

Dependent Variable: REER
Method: Least Squares
Date: Time:
Sample (adjusted): 2001 2011
Included observations: 11 after adjustments
Convergence achieved after 55 iterations
MA Backcast: OFF (Roots of MA process too large)

Variable	Coefficient	Std. Error	Variable	Coefficient
C	100.7189	1.645973	C	100.7189
AR(1)	0.728083	0.279949	AR(1)	0.728083
MA(1)	-2.714181	1.256702	MA(1)	-2.714181
R-squared	0.840499	Mean dependent var		R-squared
Adjusted R-squared	0.800624	S.D. dependent var		Adjusted R-squared
S.E. of regression	0.997274	Akaike info criterion		S.E. of regression
Sum squared resid	7.956449	Schwarz criterion		Sum squared resid
Log likelihood	-13.82681	Hannan-Quinn criter.		Log likelihood
F-statistic	21.07820	Durbin-Watson stat		F-statistic
Prob(F-statistic)	0.000647		Prob(F-statistic)	0.000647
Inverted AR Roots	.73			Inverted AR Roots
Inverted MA Roots	2.71			Inverted MA Roots
	Estimated MA process is noninvertible			

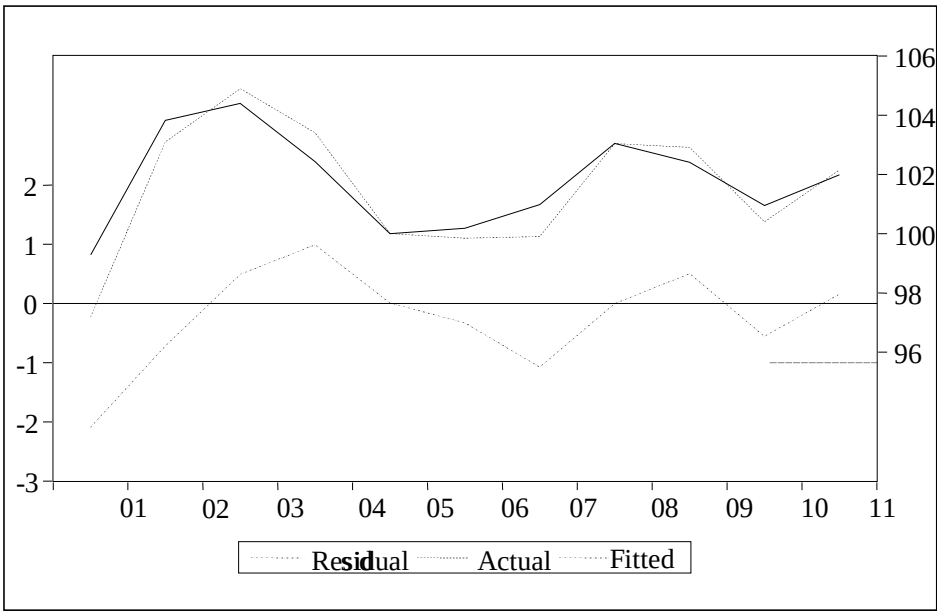
Source: calculated in EViews 7

Mathematical model could prove:

$$REER = 100,7 + 0,73\ REER\ (-1) – 2.71(At-1)$$

This model shows that the present value of the real exchange rate depends on the value of the real exchange rate in the previous period, and also the value of the previous innovation. The coefficients of determination R2 and adjusted R2, which measure the explanation of the variability of occurrence with the given model, have a high value of 84%, i.e. 80% of the rise is explained by the model. Despite the displayed parameters for the selection of a good model, we should approach to analysis of residuals or the rest of the variability of the occurrence that is not explained by the model. If there is some systematic residuals behavior, it shall mean the existence of some structure, which is not explained, and which has significance for the occurrence observed. Of course, if there is residual auto correlation in the model, then the model is not well formulated. The results of auto correlation of residuals as well as line charts for models and residuals are shown in the next section. The analysis of the residuals shows that there is no auto correlation in them, or that the model is well specified.

Line chart 5 *The residual specified model*:



Source: calculated in EViews7

Correlogram of Residuals

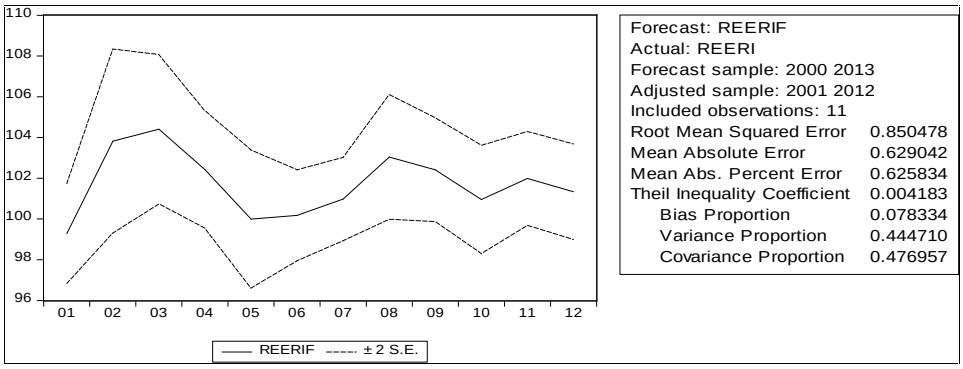
Date: 01/03/13 Time: 11:39
Sample: 2001 2011
Included observations: 11
Q-statistic probabilities adjusted for 2 ARMA term(s)

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.192	0.192	0.5280	
		2	-0.342	-0.393	2.3835	
		3	-0.428	-0.321	5.6596	0.017
		4	-0.116	-0.135	5.9345	0.051
		5	0.210	-0.007	6.9884	0.072
		6	0.230	-0.008	8.5010	0.075
		7	-0.074	-0.163	8.6945	0.122
		8	-0.127	0.022	9.4659	0.149
		9	0.054	0.135	9.6740	0.208
		10	-0.100	-0.278	11.096	0.196

Source: calculated in EViews7

Based on this model, a prediction is made for the index of the real exchange rate for 2012, i.e. an index is obtained which is lower by about 0.6 index points or the REER tends to depreciate for that year.

Line chart. 6 *Expected value of REER for 2012*



Source: calculated in EViews

The advantage of the methods for analyzing the dynamics of the real exchange rate, compared to the simple statistical analysis, is that they are free from the too restrictive assumption for constant long-run

equilibrium real exchange rate and allow the equilibrium real exchange rate over time to change (depreciate or appreciate), in accordance with the change of the fundamental factors that determine the real exchange rate. On the other hand, these methods suffer from the same drawbacks as the simple statistical analysis: the calculation of the equilibrium real exchange rate is not based on a concept of equilibrium, but it is about theoretical, i.e. purely statistical approach, and here, deviations from equilibrium are implicitly treated as transitory oscillations around the long-run trend; statistical techniques, by their nature, lead to small deviations of the current real exchange rate from the equilibrium level; the analysis does not give an idea of the factors that determine the equilibrium real exchange rate and the factors that cause the deviation from equilibrium level .

Conclusion

The calculations performed by the econometric analysis in this research paper about the real effective exchange rate in the country, show that in the analyzed period (2000-2011), the real effective exchange rate tends to depreciate, i.e. deviation from the equilibrium level of the exchange rate. The lowest level was reached in the end of 2010, when the rate was depreciated about 4% compared to the equilibrium level. During the period (2002-2005), the real exchange rate deviated above equilibrium level, i.e. it appreciated and reached its maximum until 2003, when the denar depreciated about 3.4% compared to the equilibrium level. From 2005 to 2011, the real exchange rate was around equilibrium level with small deviations below the level (from 2005 to 2007) and on the level (in 2008 and 2009). In 2010, it approached the equilibrium level (mild depreciation), while in 2011, it shows a tendency of slight appreciation.

The econometric analysis that was carried out in the paper has shown that the denar exchange rate was real valued. According to that, the theses about the overestimation of the denar exchange rate don’t have an empirical support in the scientific and professional public, there for the same are just subjective opinions and points to view.

References:

1. Јовановски, Т. (1995), “ Девизна економија”, Мисла-Скопје
2. F.S.Mishkin (2010), “Ekonomija novca, bankarstva i finansiska trzista”, osmo izdanje, Data Status-Beograd**.**
3. Krugman, R.P., Obstfeld, M. (2009), “Medzunarodna ekonomija”, Data Status Beograd.
4. Cirovic, Milutin (2000), “Devizni kursevi”, Beograd.
5. Трпевски, Љ.(2010), “Монетарна економија”, прво издание – Скопје.
6. Ivan Ribnikar, “Skrajni rezimi deviznega tecanja”, Ekonomski fakultet, Ljubjana, march, 2008.
7. Hodrick, RJ and E.C.Prescott (1997), "Postwar U.S.Business Cycles : An Empirical Investigation ," Journal of Money, Credit & Banking, Vol.29
8. Montiel, Peter J. and Lawrence E.Hinkle, Eds. “Exchange Rate Misalignment: Concepts and Measurement for Developing Countries” Oxford University Press and World Bank, 1999.
9. [hhttp://databanka.wordbank.org]

UDC 658.89:658.7]:159.947.2
Original scientific paper

Vladimir PETKOVSKI[*])
Tatjana PETKOVSKA MIRCHEVSKA[**])

THE CONCEPT OF ANCHORING AND PSYCHOLOGICAL PRICING IN THE CUSTOMER`S DECISION MAKING PROCESS

Abstract

This paper is about the anchoring concept and its implementation in creating the psychological prices which could determine the consumer decision making process. As a concept, the **anchoring** is a process that describes the use of irrelevant information as a reference for evaluating or estimating some unknown value or information or the tendency to rely too heavily on the first piece of information offered (the "anchor") when making decisions.[1]Anchoring or guiding the consumers through the decision making process can be achieve through different marketing practices. One of them is psychological pricing method and its effects that it has on the consumer's decision making process.

Psychological pricing attempts to influence a customer perception to make the product's price more attractive. There are several methods of psychological pricing in marketing practice i.e. reference pricing, bundle pricing, multiple-unit pricing, everyday low prices, odd-even praising, customary pricing and prestige pricing.[2]Psychological pricing is a marketing practice that is considered to have a psychological influence on the decision making process of the consumer.[3]. The main goal of the paper is to determine the bond among the anchoring effect,

---

[*]) Ph.D, Institute of Economics-Skopje E-mail:Vladimir@ek-inst.ukim.edu.mk
[**]) Ph.D, Institute of Economics-Skopje E-mail: tatjana@ek-inst.ukim.edu.mk

[1] Thomas Gilovich, Dale Griffin and Daniel Kahneman "*Heuristics and Biases: The Psychology of Intuitive Judgment*", Cambridge University Press, 2002, pg. 121

[2] William M. Pride, O. C. Ferrell, "*Marketing*", Cengage Learning, 2011, pg. 641

[3] William M. Pride, O. C. Ferrell, "*Foundations of Marketing*", Cengage Learning, 2010, pg. 302

achieved through the use of psychological pricing method in the consumer decision making mostly related on monthly incomes. In order to meet the goals, applied research shows the possible link between the anchoring, psychological pricing and the effect on the decision process of consumers segmented by their monthly income.

Key words: anchoring, psychological prices, decision making process, marketing practice, consumers

JEL classification: M31

1. The concept of anchoring

Today's world is a place with a lot of different information's. In order to make decisions, we are surrounded by a variety of information. Some of them are directly connected to the decision making process, other are remotely connected. Some information speed up the process of decision making, some make it more durable and hard to pin point the accurate decision. Information can also be misleading in the decision making process. If they are not accurate they can differ the process from its original flow, thus guiding it towards other decisions. The process of guiding the decision making process is the most relevant comparison to anchoring.

The term anchoring was basically used by Tversky and Kahneman in their published article "Judgment under Uncertainty: Heuristic and Biases" written in 1982.[4] This article consists mainly of the first made experiment towards anchoring. Tversky and Kahneman used a wheel of fortune marked with numbers from 1 to 100[5]. The main participants in the experiments were college students. Tversky and Kahneman spinet the wheel making it stop at the random number or so the students thought. The wheel was actually rigged in order to simplify the experiment. The wheel was designed to produce only two numbers, 10 or 65.

The results that were gathered in the process were astonishing. The random chosen number (which was rigged) affected the answer of

[4] Daniel Kahneman, Paul Slovic and Amos Tversky, "Judgment under Uncertainty: Heuristic and Biases", Cambridge University, 1982, pg. 333
[5] William Poundstone, "*Priceless*", Hill and Wang, New York, 2010, pg. 12

the question "Is the percentage of African nations in the United nations higher or lower then [10 or 65]?" depending on the number that came up on the wheel. The second question which followed showed the real impact of the experiment, i.e. the question stated "What is the percentage of African nations in the United Nations?" Whenever the wheel stopped on 10, the average estimate of the answer was 25%. But when the number 65 showed up on the wheel, the average guess was 45%.[6] The only difference between the answers of the question was the different random number that turned up on the wheel of fortune, which the participants in the experiments knew to be meaningless.

Driven by the results from the experiment Tversky and Kahnemani theorized that an initial value (the "anchor"), guides the individual towards making a decision. The answer of the participants in the experiment was closer to the anchor than it should have been. The anchor stands as attraction that pulled the answers of the experiments participants closer to the number that turned up on the fortune wheel.[7]

Since the first experiment, psychologist and behavioral economist replicated the attempt of proving the influence of the anchor in decision making process. Psychologist George Quattrone tried a similar experiment concerning these two questions:[8]

- Is the average temperature in San Francisco higher or lower than 558 degrees Fahrenheit? And what is the average temperature of San Francisco?
- How many top-ten records did the Beatles release-more than 100.025 or less than 100.025? Now give your estimate of the number of top-ten Beatles records.

The answers proved that the situation of anchor presence was real. The participants in the experiment were guided towards the answers that were close to the anchor suggested by the person conducting the experiment. This pioneer research in the field of the method of anchoring, opened new possibilities for researchers in field of psychology, marketing and behavioral economy. Many leading theorists, including Tversky, Kahneman, Richard Thaler, Dan Ariely as well as other scientist and professional marketing consulters published their research about the phenomena of anchoring.

[6] Ibidem
[7] Ibid, pg. 13
[8] Ibidem

Today, the process of leading the individuals in the decision making process is present in every aspect of marketing. Many examples of its implementation can be analyzed in the consumer's behavior as well as in the decision making process from the aspect of marketing. Some of the practical examples of anchoring used in the decision making process are presented in the following text.

2. Practical implementation of anchoring

Consumers in the modern world are influenced by various forms of anchoring, especially in their decision making process of choosing the goods and services. Guiding can be in the form of making a decision by leading them to some specific product, segmenting the market and targeting various market segments. Anchoring can be made through prices, promotion of the goods, placement of the goods and also the product itself.

Psychological prices can also be described as a type of anchoring. Psychological pricing is defined as pricing that attempts to influence a customer's perception of price to make a product's price seem lower.[9] When the prices are set with a 9 at the end[10] they tend to lead the customer to an easier decision for buying. This anchoring method creates an illusion that the product or the service is cheaper. If we put 99 Euros for a price of the product X instead of 100 Euros, the price will be down for only 1 euro that is the same as you gave a 1 % discount. But the real truth is that this seams as a lot more discount from the original price, because of the count of numbers. If we have 2 numbered prices instead of 3 it automatically seams as a lot cheaper bargain even if it is cheaper for just 1%. This kind of anchoring method has psychological influence on costumers, thus making their decision seam much easier, and at the same time attracting more costumers to the shops.

From the marketing aspect, anchoring can be defined as a concept used in the marketing mix. Some of the examples that concern the phenomena of anchoring and its practical usage are presented bellow.

[9] William M. Pride, O. C. Ferrell, "*Marketing*", Cengage Learning, 2011, pg.641
[10] For example 99, 199, 1999 etc.

a. Expensive tickets and products tend to represent quality

Buying tickets for concerts, sport games, exhibitions, museums and other cultural manifestations is a common marketing behavior. Prices for the tickets usually depend on the popularity of the event and the simple economic law of demand and supply. Sometimes the event targets specific consumer group and this type of targeting are often determinate by the price. For example if a soccer match is played between two highly rated soccer teams the prices of the tickets will be set high. The real market price usually does not represent the verified demand or supply for the soccer game. This price is set to anchor the people into buying the tickets for the game, because of the popularity of the match. Consumers which are not acquainted with the popularity of the match as well as the teams would also have to buy the tickets for higher prices than they are willing to pay for such an event. The anchor gives the consumers notion of the popularity of the event and allows the organizers to set the prices high according to the popularity of the event.

Sometimes prices are also set higher and targets specific consumers group, no matter the popularity of the event. Expensive goods that are exhibited in the shop fronts specify the type of shop it represents, immediately anchoring the selected consumers. Placing very expensive goods on the shop windows, or promoting expensive goods could mean that more specific groups of consumers with higher income are targeted. Thus an anchor is provided for the targeted group, that at the same time helps to distinct the goods and lead the targeted group in their decision making process. The high priced products often tend to represent quality; this could be an anchor as well. So the consumers who would like to buy products with better quality or go to a popular and quality event often have to pay higher price because they are simply led to it by the phenomena of anchoring.

b. Shop windows as an anchoring method

The expensive goods that are exhibited in the shop fronts usually are not bought by the consumers. They are just anchoring them towards the other products which are also high priced. The intent with this kind of products is to give clue to consumers on the specific goods that are being sold there. That is to anchor the targeted group of consumers, not everyone. The expensive looking shop windows lure the customers in but just the specific type of customers. The targeted group with higher income will be anchored through the expensive shop windows, and also

the people with lower income are somewhat repelled by the shop window itself. This gives the shop owners of the shop a better chance of selling their products.

On the other side there are shops that need to attract and anchor as much customers as possible. Mass anchoring is often achieved by promoting cheap and quality goods. The most common type of mass anchoring is offering a rebates, discount and psychological prices. Rebates and discounts tend to lower the prices on the goods and services or to allow customers to buy more products for the same amount of money.

c. Choosing the right product

The influence of the product number in making a buying decision can also be considered as anchoring phenomena. Joel Hubert and Christopher Pluto at Duke University's school of business have researched this type of anchoring through an experiment made on undergraduate students.[11] The experiment showed that when faced for a decision of buying a product, the consumers with average level of income for products with similar characteristics will most likely choose the cheaper one. This stands for products with normal elasticity, not including luxury or indifferent goods and services.

The anchoring element can be seen when we add another product to the decision making process. So when potential buyers will be faced with the decision of three similar products with three different price values, they will most likely choose the one with the price in between the lowest and the highest. When faced with this kind of choice the quality of the product comes as second in terms of decision making. The first anchor is the price range. Choosing the middle priced product between the three possibilities makes people feel "safe" and gives them a feeling as though they had made a "compromise".[12]The retail and whole sellers usually anchor the potential buyers by giving them more choices and at the same time by using the price range as bait. The costumers react accordingly, most likely choosing the goods with middle pricing range. Thus the sellers use their chance by putting a much bigger trade margin

[11] Hubert Joel and Christopher Pluto, "*Market Boundaries and Product Choice: Illustrating Attraction and Substitution effects*", Journal of Behavioral Decision Making, 1983 pg. 38 and 39

[12] Ibidem

on these products and making a solid profit by using the anchoring method.

d. Tom Sawyers method

Tom Sawyers method was firstly explained in a paper by Dan Airly, George Loewenstain and Drazen Prelec.[13] The paper alludes to the classic story of Mark Twain's popular character Tom Sawyer and a story where the Tom is set to do an irksome chore of whitewashing a fence. In the story, Tom would rather prefer of doing something else but he is stuck with the chore and has to do it. In order to escape the obligation given to him he is pretending to have so much fun in order to anchor his friends into doing the chore. The master plan of Tom succeeds thus creating another possibility in the decision making process. Tom managed to anchor his friends into doing something that they believed was interesting, and Tom could gain free time for playing. This type of anchoring is the base of today's multimillion dollar worth business like Facebook.[14] Facebook is founded on the premise that the free users worldwide will do all the work (posting pictures, journalism, political commentary etc.) for free, and meanwhile some "Tom" is enjoying his free time making a lot of money.

On practical point of view the Tom Sawyers method of anchoring is mostly used in marketing practice. The real estate agents use the method of anchoring in order to make the decision easier for the buyers. They tend to show the estate in broad daylight instead of night time so that the estate seams more beautiful. Also stories of previous owners could enhance the quality of the neighborhood, all in order to make the sale.[15] They are presenting the estate in the most perfect form in order to ease the decision making process for the buyer, just as Tom Sawyer did to his friends.

e. Anchoring services

Anchoring services can come in many types or kinds. Supermarkets place their complementary products on separate parts of the market so that customers can view and maybe buy some other

[13] Dan Airly, Geroge Loewnstain and Drazen Prelec, "*Tom Sawyer and the Construction of value*", Boston Working paper 2006, No. 05-10

[14] William Poundstone, "*Priceless*", Hill and Wang, New York, 2010, pg. 195

[15] Alen Marcus and William H. Dare, "*The Effects of Charm Listing Prices on House Transaction Prices", Real Estate Economics 32, 2004, pg 695-713.*

products in the process, and the first three registers that are closest to the entrance usually don't work. That is because the customers will have to cover more territory in order to get to the register, and in that process a simple decision of buying another product can be made.

Not just supermarkets but also every service or shop can give additional services in order to influence the decision making process of buying for the customers. The stores often offer variety of coupons and take one get one free campaigns. This anchors the customers to buy often unwanted products in order to get one free or to get a free coupon which can be used for further services or discounts. This type of anchoring may also be seen in telemarketing where you order product and get the other product for free. These types of products don't necessary have to be complementary, their sole purpose is just to anchor the decision of the customer towards buying.

There are also other types of anchoring services, servicing and granting a guarantee can be considered as one of them. When the buyer offers a guarantee or a service they usually like to make the decision of the buyer more risk free. If the product malfunctions in any order or the buyer doesn't get what he hoped for then he has the right to return or get the product serviced.

3. The link between the psychological prices, anchoring and consumer's monthly income

The research conducted in order to determine the link between psychological prices and the anchoring on the consumer segment based on the monthly income of the consumers, was carried out on a sample of 60 persons divided by 30 persons into two groups. Each of the groups was not aware that a research had been conducted. These 2 groups were chosen as a sample according to a previously conducted survey about the amount of their monthly incomes, into three groups: persons with low incomes, persons with high incomes and persons with normal incomes. Each of the two groups had the same number of persons with identical monthly income grope, i.e. 10 persons with low incomes, 10 persons with normal incomes and 10 persons with high incomes.

The research was about the decision making process for buying one same T- shirt. The first group (group A) knew that the price for the T-shirt was 199MKD, and the second group (group B) was told that the

price of the T-shirt was 200MKD. Both groups were asked the same question: how many of them would buy the T-shirt? The answers of this question are presented in the Table 1.

Table 1 Results of the first question – Will you buy the T-shirt at the given price?-

	Group A Low income	Group B Low income	Group A Normal income	Group B Normal income	Group A High income	Group B High income
Yes	7	2	6	4	8	9
No	3	8	4	6	2	1

Source: Gathered data from the conducted experiment

The gathered data presented in the table shows the linkage between the psychological pricing methods and contribute on anchoring into buying the T-shirt. In group A, 21 person or 70% of the participants in the survey, said that they would buy the T-shirt at the price of 199MKD. On the other side, 15 persons or 50% declared to buy the T-shirt in group B at a price of 200MKD. But there is an exception in the results of the question. Most of the participants in the survey with high incomes, would like to buy T-shirts of 200MKD, which could be estimated that the persons with higher incomes are less influenced by the phenomena of anchoring through the method of psychological prices.

Following the first question, the inquired persons were asked about – How much do you think this T-shirt is really worth? The persons were asked to name the real price for the T-shirt. The results of the second question are presented in the table 2 below.

Table 2 Results of the second question – How much do you think this T-shirt is really worth?-

	<99MKD	100-200MKD	201-300MKD	301MKD>
Group A	11	15	3	1
Group B	3	4	16	7

Source: Gathered data from the conducted experiment

From the presented data, it is clear that psychological prices have anchored the potential consumers into thinking that the T-shirt's real value is less than 200MKD. Almost 90% of the inquired persons from the group A (where the price for T-shirt was hypothetically 199MKD) were anchored by the psychological prices into answering that the real value of the T-shirt is equal or less than the given one. The impact of the psychological prices as an anchoring method, led to believe that the price of the T-shirt is lower than presumed. The answers of the group B, with a hypothetical price of 1MKD higher than the group A, have been totally opposite. Persons in group B presumed that the original price of the T-shirt was higher than 200MKD which was the price given to this group. Near 77% answered that the original price of the T-shirt was higher than 200MKD.

The analyzed data confirmed the anchoring effect of the psychological prices. Regarding the results of the research, it can be presumed that the psychological prices had an anchoring effect on potential consumers. More so it made them believe that the price of the T-shirt was cheaper then it seemed. Despite the price being just 1MKD lower in group A than group B, affected the decision making process and anchored the opinion that the price was much cheaper.

Of course, we have to bear in mind that these factors are not isolated in their influence in the decision making process. There are also other factors such as personal tastes and preferences, culture and other non pricing factors which could also have an impact on the consumer decision making process.

Conclusion

Anchoring can simply be described as a process which influences the decision making. It is a process where the consumer relies on irrelevant information or tendency on relying on first piece of information which significantly influences the consumer's decision making process. Anchoring can be achieved through various forms in marketing practices: from pricing strategies and exhibitions of the products in offering additional services and benefits for purchasing the product. Psychological pricing as a pricing strategy could be connected with the anchoring concept. Through psychological prices, consumers can easily be guided into making the decision of purchasing products or

services. This paper elaborates and analyses the possible link between psychological pricing as a form of anchoring and monthly income of the consumers. In analyzing the theoretical concepts and the empirical results of the research, the conclusion is that the consumers with higher monthly income are not influenced in their reaction by the psychological pricing in the decision making process. On the other hand, consumers with lower monthly incomes react more on psychological prices for the same types of products. Also, psychological pricing can lead the consumers to consider the product cheaper than the given price. At the same time, other consumers that were not subjected to psychological pricing method were not anchored into believing that the product is cheaper than the original offered price, thus gave the product higher price. Thus, there are a lot of no pricing factors i.e. other factors not related to prices, which could also determine and influence the consumer decision making process.

Despite of the estimated relation between the anchoring and the psychological pricing method especially on the consumers with a different income levels, these are not only or separated factors which could influence the consumer decision making process. There are a lot different factors which could also have an impact in the decision making process.

Regarding that, the paper gives some indications on the possible links and factors which could determine the effects that psychological pricing and the anchoring concept have on the consumers decision making process (positive or negative) in the consumer decision making process. From marketing aspect, this concept could be also a solid base for further researches, project and analyses in the future.

Bibliography

1. Alen Marcus and William H. Dare, "*The Effects of Charm Listing Prices on House Transaction Prices*", *Real Estate Economics 32, 2004*
2. Amos Tversky and Daniel Kahneman, "*Wheel-of-fortune study*", Cambridge, 1974
3. Dan Airly, Geroge Loewnstain and Drazen Prelec, "*Tom Sawyer and the Construction of value*", Boston Working paper, 2006

4. Daniel Kahneman, Paul Slovic and Amos Tversky, "Judgment under Uncertainty: Heuristic and Biases", Cambridge University, 1982
5. Hubert Joel and Christopher Pluto, "*Market Boundaries and Product Choice: Illustrating Attraction and Substitution effects*", Journal of Behavioral Decision Making, 1983
6. Thomas Gilovich, Dale Griffin and Daniel Kahneman "*Heuristics and Biases: The Psychology of Intuitive Judgment*", Cambridge University Press, 2002
7. William M. Pride, O. C. Ferrell, "*Marketing*", Cengage Learning, 2011
8. William M. Pride, O. C. Ferrell, "*Foundations of Marketing*", Cengage Learning, 2010
9. William Poundstone, "*Priceless*", Hill and Wang, New York, 2010

UDC 621.311/.316:339.13.012.421(497.7)
Original scientific paper

Imer ZENKU[*])
Vasil POPOVSKI[**])

LIBERALIZATION AND MANAGEMENT OF THE ELECTRICITY MARKET IN THE REPUBLIC OF MACEDONIA

Abstract

Electricity is certainly the most noble form of energy and it is the most important factor for the economic development of a country, which utilization that started 120 years ago has become the cornerstone of our civilization and life. Therefore, this subject is quite contemporary and this paper focuses on the detailed and practical elaboration of the economic aspects of the electricity market, starting from import, liberalization and electricity prices and its management within the frames of the European Union and the Republic of Macedonia.

The analysis of this paper is focused and aims towards the importance and influence of these aspects on managing companies from the electrical energy system for the counties, achieving better business performance, improving efficiency and effectiveness in their work and development, gaining a better market position, improving competitiveness as well as economic development of the entire country. In order to achieve these goals and challenges, this research is based on carefully selected and processed data, which form the underpinning thesis for the characteristics, importance and up-to-date character of the electricity market management in the European Union and the Republic of Macedonia.

Key words: market management, import, liberalisation, prices, electricity.

JEL classification number: L11; O13; P48; Q40

---

[*]) PhD, JSC Macedonian Power Plants – ELEM, Skopje ,Branch TPP “Oslomej” - Kicevo E-mail: imer_zenku@hotmail.com
[**]) PhD, Institute of Economics – Skopje E-mail:vasil@ek-inst.ukim.edu.mk

1. Dependence of the Republic of Macedonia from import of electricity

The required funds for implementation of the energy balance for the period 2008-2012, based on the planned import of electricity and the unit price of imported electricity are shown in Table 1.

Table 1: Required funds for implementation of the energy balance for the period 2008-2012

	2008	2009	2010	2011	2012
Planned import(GWh)	3917	2839	1395	1413	1270
Unit price (€/MWh)	75	70	60	55	70
Required funds (million €)	293,8	198,7	83,7	77,7	88,9

Source: Energy Balances for the respective years, www.economy.gov.mk

The crucial economic problems that burden the energy sector of the Republic of Macedonia, are as follows: increased energy deficiency, depreciated price of energy for many years, especially electricity; the depreciated price of electricity created losses and shortage of funds for investment in maintenance, modernization and construction of new facilities in the energy sector. We also have to take into consideration the fact that Macedonia is part of the group of countries with anaemic economic development and sluggish structural reforms; high total losses of electricity (both technical and commercial); low energy efficiency; absence of complex energy-saving programs, especially in the household sector, and in the other segments which are considerable consumers. The bottom line is that these conditions determine low energy sustainability of the Republic of Macedonia.

In this context, the fact that is especially warring is the increasing dependence of the country from imported electricity, which in 2008 reached staggering 32% of the total consumption. In 2010 it decreased to 17%. The following year (2011) the dependence from import increased to 29%, in 2012 it decreased to 27%, and in 2013 the import is planned to decrease to 23% (Table 2).

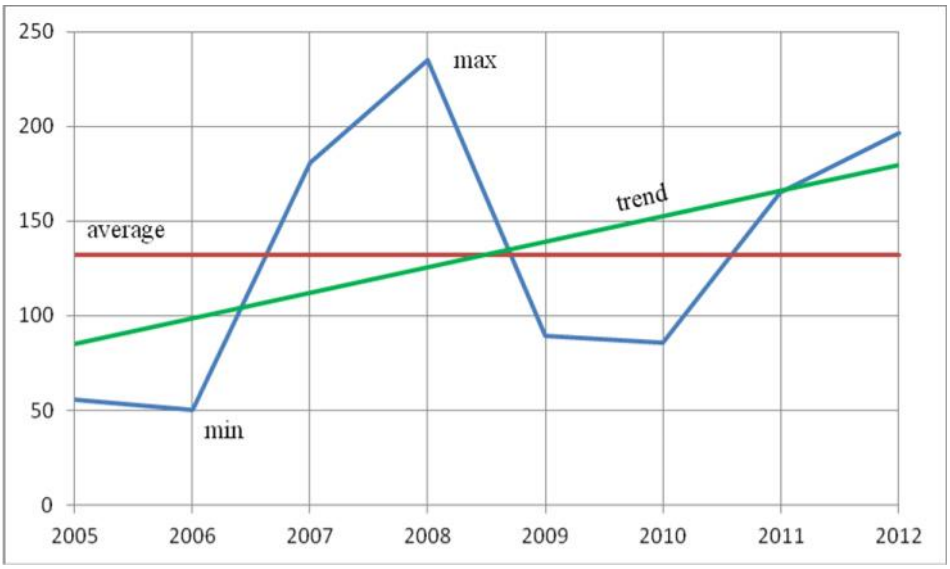
Table 2: Import of electricity in the Republic of Macedonia for the period 2005-2013 (GWh)

	Achieved								Plan
	2005	2006	2007	2008	2009	2010	2011	2012	2013
I. Net import	1662	1923	2600	2747	1565	1420	2634	2368	2121
II. Total consumption	8121	8489	8651	8581	7797	8192	9024	8798	9028
III. Net im./ Total con. (I/II)	0.20	0.23	0.30	0.32	0.20	0.17	0.29	0.27	0.23

Source: Energy Balances for the respective years, www.economy.gov.mkand calculations based on the obtained data from the former

The amount spent for import of electricity in the Republic of Macedonia is 1,058.5 million EUR. The lowest spent amount was in 2006, 50 million EUR, whereas the highest spent amount was in 2008, 234.9 million EUR. The average spent amount per annum is 132.3 million EUR (Diagram 1).

Diagram 1: Amount spent for import of electricity in the Republic of Macedonia for the period 2005-2012 (million EUR):



Source: NBRM-Skopje, and calculations based on the obtained data from the former

Required and spent financial means for import of electricity in the period from 2005-2012 are shown in Table 3.The spend financial means for the analysed period amount 92% of the required finances.

Table 3: Required and spent amount for import of electricity in the Republic of Macedonia in the period 2005-2012 (million EUR)

Year	2005	2006	2007	2008	2009	2010	2011	2012	Total
Required	87,6	125,7	191,5	293,8	198,7	83,7	77,7	88,9	1.147,6
Spent	55,7	50,0	180,8	234,9	89,2	85,9	165,3	196,7	1.058,5
Required/ Spent (%)	63,58	39,77	94,41	79,95	44,89	102,62	212,74	221,26	92,23

Source: NBRM-Skopje, Energy Balances for the respective years, www.economy.gov.mk and calculations based on the obtained data from the former

In order to carry out transparent purchase of electricity in the Republic of Macedonia, as well as due to the increased number of consumers that will have the right to freely choose their own supplier, in 2009 ELEM established a new company ELEM TREJD DOOEL Skopje, as a single entity for trading electricity, separated from JSC ELEM-Skopje.

In the same context an electricity exchange should be set out, thus forming a free regional electricity market, as part of the Internal Market of the European Union, with the purpose of integrating the Republic of Macedonia in the EU.

2. Liberalization of the electricity market in the European Union and in the Republic of Macedonia

In the beginning of 1977 the Government of the United States of America, as the first country in the world, formed the Federal Energy Regulatory Commission (FERC), in order to regulate all aspects of electricity including trade between the states. At the same time this commission enforced the process of liberalization: without FERC, the liberalization process would not have occurred in the USA[1].

[1] Филипсон Лорин, Вилис Ли Х., (2010) "Запознавање со енергетските капацитети и нивната либерализација", Тетово, стр.18-20

The liberalisation of the electricity market in Europe took place in the 90s, i.e. in 1996 the European Union agreed to liberalise the electricity sector. Basically, the liberalisation started because the governments realised the advantages of competition between the suppliers of electricity and the wider selection for the consumers.

The Treaty Establishing the Energy Community[2] was signed in 2005 between the Republic of Macedonia, i.e. all counties (cosignatories of the Athens Memorandum) from the region of Southeast Europe including: Albania, Bulgaria, Bosnia and Herzegovina, Croatia, Macedonia, Romania, Serbia and Montenegro, Turkey, UNMIK (Kosovo) and the European Community.

In the process of fulfilling the obligations from the Agreement, the large consumers (9 industrial facilities), shifted from the category of tariff consumers into the category of qualified (direct) consumers which have the right to individually choose their supplier and purchase electricity at market prices.

ELEM supplies with electricity all other tariff consumers, at prices regulated by the Energy Regulatory Commission (ERC). This category of tariff regulated consumers includes households, commercial and service sector, and industrial facilities up to 35 kV.

The qualified consumers which have over fifty (50) employees and a total annual turnover or total assets of over ten (10) million euro, not including the energy producers and transmission and distribution system operators, can individually participate on the electricity market, where they can purchase electricity by means of non-regulated agreements from traders or suppliers[3].

It has been envisaged for these consumers to obtain the attribute of qualified consumers who may participate on the electricity market independently in the second phase of liberalisation, starting from

[2] Закон за ратификација на Договорот за основање на енергетска заедница, Службен весник на РМ, бр. 59/2006

[3] Регулаторна комисија за енергетика на Република Македонија: Правила за пазар на електрична енергија, Скопје, 07 мај 2012, стр.19, www.erc.org.mk, Службен весник на РМ бр.57 од 08.05.2012 год.

01.01.2013; however this has been postponed twice, once on 27.12.2012[4] and again on 27.06.2013[5].

In the context of fulfilling the obligations deriving from the Treaty Establishing the Energy Community, the Republic of Macedonia adopted a new Law on Energy in 2011, and in the same framework the obligation for opening the market for the households becomes effective on 01.01.2015.

3. Management of the electricity market

The manner of managing each enterprise has a certain target. The target is comprised in the mission of the enterprise and its long-term goals. The task of strategic management is realization of the target. Targets are always put in a certain context. The fundamental context of strategic management is the environment. Most commonly environment is divided as external and internal. The approach of the strategic management is that chances and threats are connected to the external environment, whereas the weaknesses and strengths of the company are connected to the internal environment. The essence of the company strategy is to use the characteristics of the internal and external environment in a balanced manner in order to effectuate the targets of its owners. J. Quin had a similar concept defining the strategy as a sum of activities undertaken by the company in order to respond to the chances and threats using its strengths and avoiding its weaknesses[6].

A very important element in the development of the economy of a country is the energy sector, which if upgraded continuously shall attract huge investments, and shall enable companies to plan their development more comfortably. This shall contribute to the promotion of the Republic of Macedonia as an investment destination, which is also one of the commitments of all Governments in continuity.

---

[4] Регулаторна комисија за енергетика на Република Македонија: Правила за изменување и дополнување на Правилата за пазар на електрична енергија, Скопје, 27.12.2012 година

[5] Регулаторна комисија за енергетика на Република Македонија: Правила за изменување и дополнување на Правилата за пазар на електрична енергија, Скопје, 27.06.2013 година

[6] Đuričin N. Dragan, Janošević V. Stevo, Kaličanin M. Đorđe, (2010) "Menadžment i strategija", Beograd, стр.251

The strategic electric power commitments of the Republic of Macedonia have been defined in the Strategy for Energy Development until 2030, which envisages fulfilling all obligations undertaken by signing the international treaties, agreements, protocols and it is in accordance with the practice and regulations of the EU.

In this context the Republic of Macedonia should also manage and fulfil the obligations referring to the electricity market, i.e. Directive 2009/72/EC and Regulation 714/2009/EC, part of the European Union's third energy package. Managing and fulfilling these obligations by the competent institutions in the Republic of Macedonia (which includes adopting a new Law on Energy with appropriate bylaws) are intended for effective opening and functioning of the electricity market. As a contracting party of the Energy Community and future member of the European Union, the Republic of Macedonia should implement the third package latest by January 1st 2015.

Despite the legal institutional framework, the operating of the energy sector, based on the market principles, is the most important precondition for investments in the sector.

The most important characteristic of the energy markets are the prices and the manner of forming prices.

Regarding the price of electricity, it is lower compared to the corresponding market prices and therefore disproportion occurs between the price of electricity and the prices of the other energy sources MKD/kJ). As a result, a great number of consumers use electricity for heating their homes.

Finally, the low price of electricity has a negative effect over the investments for improving energy efficiency in the industry and households.

In order to overcome these problems it is necessary for the price management to enable gradual adjustment towards the market price, which would also increase the interest of different investors to invest in the energy sector and in other sectors thus increasing the energy efficiency.

The increase may cause socially vulnerable households not to be able to withstand these prices. Therefore, it is necessary to manage this situation and undertake activities towards reducing the negative social effects correlated to the implementation of the Treaty Establishing the European Community.

Today, although the price of electricity is determined by the Regulatory Commission, according to a well-defined methodology, the tariff methodology does not include subsidies or any other social and similar measures.

In order to manage such measures, the Government decided to allocate funds for the realization of a program for subsidising of electricity consumption, where the beneficiaries are households that are recipients of state benefit, and as subsidy they receive 700 MKD/month. For this purpose the Government of the Republic of Macedonia allocated 74 million MKD in the Budget for 2013.[7]

At the same time the Government also allocates funds for realisation of the programme for compensating part of the expenses for purchased solar collectors and for this purpose it has envisaged 6 million MKD in the Budget for 2013.

In recent years, price management of electricity has contributed to a certain increase, however the price is still lower compared to the price of electricity in the region and the EU countries.

In the period 2009-2012 the average price of electricity for tariff consumers and households has been increasing year after year: in 2010 - 10% compared to 2009, in 2011 - 6% compared to 2010, in 2012 – 8% (until 31.07.2012) and from 01.08.2012 the price of electricity increased for additional 9.83%) or in total 18% compared to 2011 (Table 4).

[7] Влада на Република Македонија: Програма за реализација на Стратегијата за развој на енергетиката на Република Македонија за периодот од 2013 до 2017 година, Службен весник на Република Македонија, бр.50/2013, стр.48

Table 4: Average prices of electricity in the Republic of Macedonia for the period 2009-2012

		2009	2010	2011	2012*	2012**	10/09	11/10	12**/11
For tariff consumers	MKD/kWh	3.440	3.787	3.995	4.307	4.731	1.10	1.06	1.18
	€/kWh	0.056	0.062	0.065	0.070	0.076			
For households	MKD/kWh	3.040	3.340	3.530	3.800	4.180	1.10	1.06	1.18
	€/kWh	0.049	0.054	0.057	0.062	0.068			

Source: Energy Regulatory Commission of R. Macedonia, Decisions for approval of regulated maximal income and price for exercising energy regulated activity: supply of electricity to tariff consumers by EVN Macedonia AD Skopje for the period 2009/2012.

Remark: The average price for households also includes the added value of 33.33% (from the consumed electricity) for engaged power, but it does not include the value added tax (18%)

* Price of electricity until 31.07.2012

** Price of electricity from 01.08.2012 which increased 9.83% compared to *

4. Price of electricity per country

For households with moderate electricity consumption in the EU, the price of electricity in the second half of 2012 was highest in Denmark (0.297 €/kWh), Cyprus (0.291 €/kWh), Germany (0.268 €/kWh) and Italy (0.230 €/kWh), while it was lowest in Bulgaria (0.096 €/kWh), Romania (0.108 €/kWh) and Estonia (0.112 €/kWh).(Table 5)

From the counties that tend to be integrated in the EU the lowest price of electricity for the same period was recorded in Macedonia (0.079 €/kWh) and Bosnia and Herzegovina (0.080 €/kWh).

In 2012, the average price of electricity for the households in the Republic of Macedonia was 2.5 times lower than the price in the European Union (Table 5). This table shows that the average price of electricity in Denmark and Bulgaria compared to R. of Macedonia is as follows: In Denmark it is 3.76 times higher, whilst in Bulgaria it is 22% higher.

If we compare Tables 4 and 5 we will notice that the average annual price of electricity in the observed period 2009 – 2012 in the Republic of Macedonia and in the EU-27 has been increasing year after year. However, this increase is higher in the Republic of Macedonia and

it amounts 10%, 6% and 18% respectively, compared to the EU-27 where it amounts 5%, 7% and 6%.

At the same time prices of electricity between the second half of 2011 and the second half of 2012 have increased in most of the member countries of EU.

Highest increase of prices in the EU counties have been recorded in Cyprus(21%) and in Greece (15%), while the prices have decreased in Sweden 5%,in Hungary 2%and in Finland 1%.

The price of electricity increased in all countries on the Balkans, and the highest increase has been recorded in Croatia 21% and in Turkey and Montenegro 19%.

For the industrial consumers in the EU, the price of electricity in the second half of 2012 was highest in Cyprus (0.234 €/kWh), Italy (0.199 €/kWh) and Malta (0.180 €/kWh), while the price is lowest in Finland (0.074 €/kWh), Sweden, Bulgaria (0.078€/kWh) and France(0.079 €/kWh) (Table 5).

From the countries that tend to be integrated into the EU, Bosnia and Herzegovina (0.066 €/kWh) and Montenegro (0.071 €/kWh) have the lowest price of electricity for the industry.

In all countries without exception, not only in the EU but also in the Balkans, the price of electricity for the industry is lower compared to the electricity for the households. The table does not include price of electricity for the industry in Macedonia.

Table 5 shows that in the observed period 2009-2012 the average price of electricity for households and industry in EU-27 has been increasing year after year. This increase for the households is higher and amounts 5%, 7% and 6%, compared to the industry with 2%, 7% and 5%.

Furthermore, in the period between the second half of 2011 and the second half of 2012, the prices of electricity in this sector increased in two-thirds of the EU member states.

Table 5: Semi-annual prices of electricity for households and industry per country and EU-27, in the second half of each year for the period 2009-2012, comparison 2012-2011 (€/KWH)

	Prices of electricity per kWh									
	Households consumption: (2500 - 5000) kWh/year.					Industry consumption: (500 - 2000) MWh/year.				
	2009	**2010**	**2011**	**2012**	**2012/ 2011**	**2009**	**2010**	**2011**	**2012**	**2012/ 2011**
	€/kWh	**€/kWh**	**€/kWh**	**€/kWh**	**%**	**€/kWh**	**€/kWh**	**€/kWh**	**€/kWh**	**%**
EU-27	0.164	0.173	0.185	0.197	6.56	0.103	0.105	0.112	0.118	5.82
EA	0.173	0.182	0.194	0.206	6.13	0.106	0.109	0.118	0.124	5.69
BE	0.186	0.197	0.212	0.222	4.91	0.108	0.105	0.115	0.111	-3.49
BG	0.082	0.083	0.087	0.096	9.24	0.064	0.060	0.067	0.078	16.32
CZ	0.139	0.139	0.147	0.150	3.57	0.112	0.108	0.108	0.103	-3.85
DK	0.255	0.271	0.298	0.297	0.00	0.093	0.096	0.093	0.099	7.22
DE	0.229	0.244	0.253	0.268	5.73	0.113	0.119	0.124	0.130	4.34
EE	0.092	0.100	0.104	0.112	7.77	0.065	0.073	0.075	0.082	8.92
IE	0.186	0.188	0.209	0.229	9.73	0.118	0.113	0.129	0.140	7.88
EL	0.103	0.121	0.124	0.142	14.54	0.094	0.103	0.111	0.122	9.99
ES	0.168	0.185	0.209	0.228	8.96	0.112	0.109	0.116	0.120	3.46
FR	0.121	0.135	0.142	0.145	1.97	0.065	0.072	0.081	0.079	-2.48
IT	0.200	0.192	0.207	0.230	11.23	0.137	0.144	0.166	0.199	19.76
CY	0.164	0.202	0.241	0.291	20.56	0.149	0.173	0.211	0.234	11.05
LV	0.105	0.105	0.134	0.137	0.63	0.089	0.091	0.110	0.111	-0.51
LT	0.093	0.122	0.122	0.127	3.87	0.079	0.105	0.104	0.114	10.15
LU	0.188	0.175	0.166	0.171	2.65	0.116	0.102	0.100	0.101	1.30
HU	0.166	0.157	0.155	0.156	-1.66	0.130	0.105	0.100	0.108	6.18
MT	0.151	0.170	0.170	0.170	0.00	0.129	0.180	0.180	0.180	0.00
NL	0.184	0.176	0.184	0.190	3.10	0.111	0.098	0.094	0.097	3.21
AT	0.191	0.193	0.197	0.202	3.00	/	0.113	0.113	0.111	-1.68
PL	0.129	0.138	0.135	0.153	8.87	0.093	0.099	0.094	0.096	-2.30
PT	0.159	0.167	0.188	0.208	9.68	0.094	0.092	0.101	0.115	13.55
RO	0.098	0.105	0.109	0.108	4.42	0.063	0.081	0.080	0.083	8.60
SI	0.134	0.143	0.149	0.154	3.35	0.096	0.101	0.096	0.094	-2.39
SK	0.156	0.164	0.171	0.172	0.70	0.140	0.120	0.126	0.127	0.79
FI	0.129	0.137	0.157	0.150	-0.89	0.065	0.068	0.075	0.074	-0.80
SE	0.165	0.196	0.204	0.208	-4.69	0.069	0.084	0.083	0.078	-12.38
UK	0.141	0.145	0.158	0.179	3.86	0.101	0.100	0.104	0.121	6.29
IS				0,116		/	/	/	/	
NO	0.156	0.191	0.187	0.178	-9.79	0.080	0.094	0.091	0.086	-10.11
ME			0.085	0.101	18.52	/	/	0.083	0.071	
HR[8]	0.116	0.115	0.115	0,138	21.11	0.090	0.090	0.089	0.094	5.54
MK				0,079		/	/	/	/	
TR	0.118	0.137	0.115	0.147	19.35	0.079	0.092	0.076	0.096	17.69
AL			0,116	0.117	0.00	/	/	/	/	
BA		0,074	0,079	0.080	2.34	/	0.062	0.064	0.066	1.66

Source:http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Electricity_and_natural_gas_price_statistics

[8] Croatia became a member of the EU on01.07.2013 and therefore in this table it is presented as a country outside of EU-27, since the data refer to the period 2009-2012.

The biggest increase of prices in the EU member states has been recorded in Italy 20% and Bulgaria 16%, while the price decreased in Sweden 12%. (In Norway the price of electricity decreased 10%).

The price of electricity for the industry increased in all of the Balkan countries, and the highest increase was recorded in Turkey (18%).

Conclusion

The detailed and practical review of the economic aspects concerning the electricity market, i.e. import, liberalization and prices of electricity, its management within the frames of the European Union and the Republic of Macedonia, including the analysis of the economic indicators, clearly show their importance and influence on the electric-energy system, competitiveness and economic development of the countries.

All of the above mentioned in relation to the importance of the electricity market in the EU and Macedonia, especially in times when the Republic of Macedonia is in the middle of the process of integration in the European family, leads us to the following conclusion:

- In order to reduce the dependence of the country from import of electricity, special activities have to be performed for the purpose of improving the results in the electricity production sector, by utilization of renewable energy sources, increasing energy efficiency and effectiveness, preparation and coordination of public interest investment projects, and investing in construction of power plants and services.
- Creating a stable investment climate by the state, in order to attract foreign and domestic investments in the electricity production sector, thus reducing the country's dependence from import and the trade deficit having a direct impact on the development of the domestic economy and the macroeconomic stability of the country in general.
- Investing in increasing production of electricity from renewable sources, consequently reducing the country's dependence from import and enabling us to join the modern and technologically advanced countries and to become part of the European Union. In that regard, the Government of the Republic Macedonia should

continue providing subsidies for solar thermal collectors.

- By increasing the energy efficiency and production of electricity through new investments in renewable energy sources, Republic of Macedonia will make a great contribution in fulfilling the targets of EU's internal market, i.e. Targets 20-20-20, which should be implemented by the year 2020.
- The liberalisation of the electricity market should continue according to the envisaged rate, and should be completed by opening the market to all consumers (households and small consumers) in January 2015, and at the same time the Republic of Macedonia should continue fulfilling the obligations deriving from the Treaty Establishing the Energy Community
- The liberalisation shall enable the consumers to choose their own supplier of electricity at market prices, thus introducing actual competition, which is still not present in the Republic of Macedonia, due to the regulated market of electricity prices for households by the Energy Regulatory Commission. In this regard, electricity exchange should be introduced in the Republic of Macedonia.
- As a result of the low and yet not regulated price of electricity that only covers the expenses of the sectors (production, transmission and distribution) and does not provide investments, the sectors owned by the state cannot be financed by the state, despite the need of investments and therefore, private initiatives should be launched.
- In the following four-year period the Government of the Republic of Macedonia is planning to attract foreign and domestic investments which would increase the capital of JSC ELEM through privatization of no more than 49% of the shares of JSC ELEM. The idea is most definitely acceptable; however, it is very hard to implement it since it is hard to find an investor that would accept to buy less than 51% of the total number of shares.
- In parallel with the increase of the price of electricity for households, the Government of the Republic of Macedonia should continue with the programme for subsidising households of recipients of state benefit.
- After comparing the prices of electricity between countries, it is apparent that the price is higher in the more developed countries, as well as in countries where a significant portion of electricity

production is based on renewable energy sources, especially wind power plants, mainly being the result of high investment costs.

Bibliography

1. Đuričin N. Dragan, Janošević V. Stevo, Kaličanin M. Đorđe, (2010) "Menadžment i strategija", Beograd;
2. Fred R. David, (2009) "Strategic Management", twelfth edition, New Jersey;
3. Gareth R. Jones, Jennifer M. George, (2008) „Современ менаџмент“, Скопје;
4. Kotler P. (1994) "Upravljanje marketingom", Informator, Zagreb;
5. Влада на Република Македонија: Програма за реализација на Стратегијата за развој на енергетиката на Република Македонија за периодот од 2013 до 2017 година, Службен весник на Република Македонија, бр.50/2013;
6. Годишен извештај за 2004 година до 2011, „ЕЛЕМ“, Скопје;
7. Енергетски биланс на Република Македонија за 2008 година, 2009 година, 2010 година и 2011 година, Службен весник на Република Македонија, бр. 165/2008; бр.165/2008; бр.161/2009 и бр.172/2010;
8. Енергетски биланс на Република Македонија за периодот од 2012 до 2016 година и за периодот од 2013 до 2017 година, Службен весник на Република Македонија, бр.182/2011 и бр.170/2012;
9. Закон за енергетика, Службен весник на Република Македонија, бр.63/2006, 36/07, 106/08, 16/2011;
10. Закон за ратификација на Договорот за основање на енергетска заедница, Службен весник на РМ, бр. 59/2006
11. Регулаторна комисија за енергетика на Република Македонија: Одлука за одобрување на регулиран максимален приход и цена за вршење на регулираната енергетска дејност снабдување со електрична енергија на тарифни потрошувачи на ЕВН Македонија АД Скопје за 2009, 2010, 2011, 2012 и 2013 година;
12. Регулаторна комисија за енергетика на Република Македонија: Правила за пазар на електрична енергија,

Скопје, 07 мај 2012, www.erc.org.mk, Службен весник на РМ бр.57 од 08.05.2012 година
13. Регулаторна комисија за енергетика на Република Македонија: Правила за изменување и дополнување на Правилата за пазар на електрична енергија, Скопје, 27.12.2012 година и 27.06.2013 година
14. МАНУ, (2010) "Стратегија за развој на енергетиката во Република Македонија до 2030", Скопје;
15. Филипсон Лорин, Вилис Ли Х., (2010) "Запознавање со енергетските капацитети и нивната либерализација", Тетово;
16. Shuklev Bobek: (2008) „Management“, Skopje;
17. www.economy.gov.mk
18. www.elem.com.mk
19. www.epp.eurostat.ec.europa.eu
20. www.erc.org.mk
21. www.nbrm.mk

UDC 334.722:004(497.7)
Original scientific paper

Zoran JANEVSKI[*])

THE ROLE OF INNOVATION AND INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN DEVELOPMENT OF ENTREPRENEURSHIP IN THE REPUBLIC OF MACEDONIA

Abstract

More than 20 years Republic of Macedonia based the growth and development of its national economy on a strong commitment to strengthening entrepreneurship and entrepreneurial spirit in society. Although until now many measures and actions are taken in this field, however, expected results are still lacked behind. Some of the reasons for this situation this paper is looking in the low level of innovation and application of information and communication technology by Macedonian existing and future entrepreneurs.

Key Words: innovation, information and communication technology (ICT), idea for new business venture, entrepreneurship, e-business, e-commerce.

JEL Classification: L26, L81, L86, O30, O31,

[*]) Asst. Prof. Ph.D., Institute of Economics – Skopje, zoran.janevski@ek-inst.ukim.edu.mk

Introduction

In the Republic of Macedonia, as in many countries in the world, efforts have been making to better understand the impact of entrepreneurship on the overall economic development and job creation and to identify factors that encourage or discourage it. There are many elements that are important for the entrepreneurship development in a country. Infrastructure, institutional framework, macroeconomic stability, entrepreneurial education, are some of them according to the GEM methodology (Xavier, Kelley, Kew, Herrington, and Vorderwülbecke, 2013) and many other researches done on this topic.

A number of these factors are properly identified in Macedonia and many programs and activities are undertaken and implement for their promotion. So, according to the Doing Business 2013 Report for the situation with the business regulation in 185 countries around the world, the Republic of Macedonia is ranked as 23th, while according to the indicator for assessment of bureaucratic and legal obstacles faced by entrepreneurs seeking to register a new business entity in the country, Macedonia is on a high 5th place (World Bank, 2013). Beside the proven good business climate, there is a general opinion that in Macedonia there is a favorable regulatory framework for issues related to the business and entrepreneurship development which is harmonized with the regulation of the European Union. Also, there are number of institutions in the country (Agency for promotion of entrepreneurship, Department for entrepreneurship and competition in small and medium enterprises, National council for entrepreneurship and competitiveness, and many others), who are dedicated to planning and implementing a wide range of activities for development of entrepreneurship and its practice in the country. No less important are the facts showing that there are a lot of quality financial institutions giving support especially to the entrepreneurial ventures, entrepreneurship is embedded in the programs on different levels of education in the country, and recently, the efforts have been strengthened to build a favorable entrepreneurial culture in the society by intensifying campaigns to raise public awareness for the positive implications of the entrepreneurship and starting own businesses.

But despite all these efforts and dedication, can be seen that on certain issues related to entrepreneurship, Macedonia still has unsatisfactory results. Thus, the new business entry density (number of newly registered firms per 1,000 working-age people (those ages 15-64)),

according to the World Bank Data Catalog (2013), the Republic of Macedonia with 4.12 start-ups per 1,000 inhabitants is quite behind the member states of the European Union, which with 5.8 start-ups per 1,000 people (40% more than Macedonia). According to the number of active firms per 1,000 people in Macedonia for the year 2011 this indicator calculated according to the data taken from the State Statistical Office (2013, 2012) was 33.9. Same year there were 48.4 active firms per 1,000 people in the EU Member States (Eurostat, 2013). In terms of companies in Macedonia that have started their business operations in the last 20 years (since early 1990ies, from the beginning of the transition of the Republic of Macedonia to the market economy), there are no evidence for such firms which have seriously managed to cross the national borders and become recognizable by their own products or services on the international market.

Some reasons for this situation this paper attempts to find in a low innovation level in the country and poor application of information and communication technology by Macedonian entrepreneurs and companies.

Innovation and research and development (R&D) as significant factors of the entrepreneurship

Although the entrepreneurship is not only the process of generating and developing ideas and transforms them into business ventures, however, it is in the essence of that process. This idea for a business venture in entrepreneurship is mostly inspired by specific opportunity that entrepreneur sees by himself or creates. The opportunity, however, stems from a certain change to which he responds or initiates by him. Thus, entrepreneurial process can be described as a process of discovering or creating opportunity; carrying out decision whether to exploit it or not; mobilizing resources and their organization in a new, different way than before; building strategy for the company that has to transfer business opportunities into real benefit (Janevski, 2011). When the entrepreneur comes up with a new idea about how he could use a business opportunity that no one else before him did not notice in such a way, or failed to turn it into a successful business, then he can realize this idea only through a specific innovation. So, it comes to the innovation as one of the immanent characteristics of entrepreneurship, and to the entrepreneur who is the only one able to transform that innovation

through a business venture into an economic value (Bianchi and Henrekson, 2005; Xiaoyu and Steven, 2012). The creativity of the entrepreneur is the one thread that connects entrepreneurial idea with the creation of innovation that is a new product, service or technological process which will obtain a market valuation and will become important for business and for achieving its economic performance (Janevski 2011).

In many countries in the world the innovations are driven by the fundamental and applied scientific research. Thus, in the U.S., innovations arising from fundamental (but also applicable) scientific research are the cornerstone of the economy in the last fifty years. That scientific research as one of the first steps in the process of innovation, contribute to the creation of a huge number of businesses, jobs, new technologies and products (The Science Coalition, 2010).

However, the innovation process (the entrepreneurship as such) is far more complex, though some try to describe it with versions of linear models that depend only on the research that is done at the universities and research centers. It depends not only from how much knowledge is "pushed" by the science through research and development, but perhaps it is more influenced by "pulling" making by the entrepreneurs or by their business activities. Therefore, it is best if the innovation process, as Contesti (2011) states, is treated and encouraged through joined efforts made by the scientific institutions and research centers with the business sector in terms of implementation and utilization of the research and development (R&D) results.

The R&D activities and investments in the world are constantly rising. The increase of these R&D efforts in different countries differently affects growth rates of their development. So according to the latest estimations made by Battelle (2012) the R&D investments in 2013 increased worldwide over the previous year by 3.7% 1.5 billion U.S. dollars. China, however, according to Grueber (2011), with growth of R&D investments from 0.6 % of GDP in 1995 to 1.6% in 2011, during this period has seen an average GDP growth rate of 9.9%, while the United States with a stable average rate of R&D investments for the last five years of 2.7% and Japan 3.2% have average growth rate of GDP of 1.1 % (U.S.) and 0.8 % (Japan). 69.3% of the R&D funds in the U.S. are implemented by companies in various industries, while universities, their laboratories and research centers established by them implement 15.7% (423.7 billion USD) of total R&D funding (**Table 1**).

Table 1 – Spending of R&D funds in the U.S. in 2013

Spending of R&D	Billion USD	%
Industry	293.6	69.3%
Universities	66.5	15.7%
Government	44.7	10.5%
Nonprofit organizations	18.9	4.5%
Total	**423.7**	**100.0%**

Source: Battelle (2012).

The source of these funds is different again, but basically, the forecasts say that in the future R&D investments by the industry will increase, unlike the governmental R&D funding which will decrease significantly. Thus, in 2013, the expectations are that universities, nonprofit organizations, foundations, local governments and other sources of R&D funding will invest only 7.9% of total assets invested in science, research and development (Table 2).

Table 2 – Source of R&D funds in the U.S. in 2013

Funding of R&D	Billion USD	%
Industry	261.7	61.8%
Government	128.8	30.3%
Universities, nonprofit organizations, foundations, local governments	33.2	7.9%
Total	**423.7**	**100.0%**

Source: Battelle (2012).

In Macedonia, there is a strong link between policy for development of entrepreneurship and small and medium enterprises (SME) with research, development and innovation policy. At that level there is a strategic commitment to strengthen the relations between the business sector and scientific research centers, particularly related to the activities committed to SMEs and entrepreneurship development. Thus, the "Revised National Strategy for Development of Small and Medium Enterprises (2002-2013)", prepared by the Ministry of Economy of the Republic of Macedonia (2007), concludes that the current number of active firms per 1,000 inhabitants, the share of SMEs in employment and

in the GDP compared to the EU average, both indicate low level of entrepreneurship and competitiveness of the SME's sector. Therefore, in addition to all other measures, some strategic goals are set to increase the number of SMEs and their role in the added value generated in the economy, as well as giving to the science, technology and innovation significant role in the SMEs and entrepreneurship development. It notes that there are no institutions in the country like research centers and labs that will help entrepreneurs and SMEs in the field of acceptance new technologies and innovations, and promotional activity should be taken in the future to raise awareness of the business sector to increase their R&D investments. Potential increase of R&D investments in the future by the business sector should be encouraged by the introduction of tax incentives for the real sector, i.e. programs for concrete financial stimulations.

Unfortunately it can be concluded that science and innovation as key factors in developing competitive economy based on knowledge, are marginalized in Macedonia, with very small portion of the GDP dedicated for that purpose. Regarding the scientific research funding in the country associated with the topics of entrepreneurship, although planned as a strategic preference, this activity is not intended in the "Program for development of entrepreneurship, innovation and competitiveness of small and medium enterprises in 2012" adopted by the Government (2012a). The program funded by a total amount of 10.89 million denars, did not allocate funds for research projects and activities in the field of entrepreneurship and innovation.

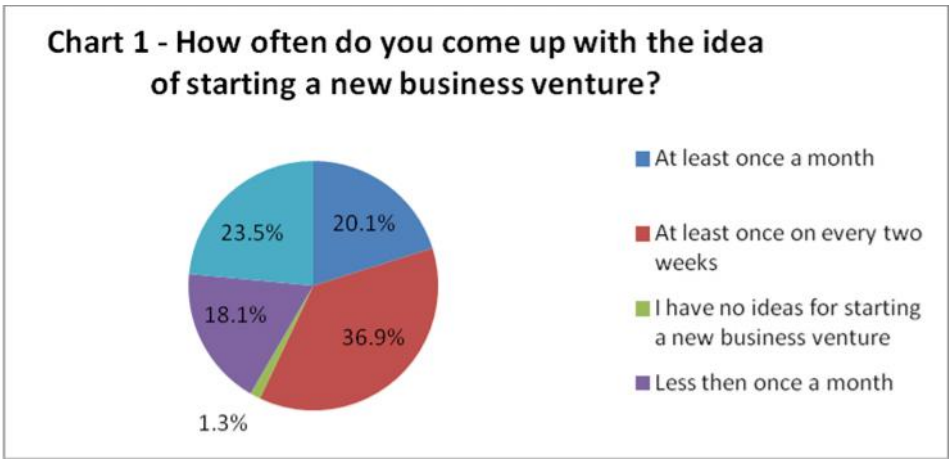
From the other side, the increasing of the business sector participation in the R&D funding in Macedonia is underlined in the "European Innovation Matrix and Matrix Innovative Union for the Republic of Macedonia 2010". Additionally, the "Innovation Strategy of the Republic of Macedonia 2012-2020" adopted by the Government (2012b) provides that efficient implementation of innovation policy in the state should be ensured through a dialogue between the public, private and academic sectors, i.e. the government, business and academia.

The strong need is evident in Macedonia for finding solutions to foster greater commercialization of the results of scientific research realized within the scientific and research centers at the universities. For this purpose, the Ministry of Education and Science of the Republic of Macedonia (2012) in its "Strategic Plan of the Ministry of Education and

Science 2012-2014", based on the "National Programme for the Development of Education in the Republic of Macedonia 2005-2015" defines a program titled "Development of an efficient system of financing higher education" which, among other expected results, which should intensify opening companies by universities and scientific research institutions for commercialization of knowledge and science. This measure is coordinated with the "Innovation Strategy of the Republic of Macedonia 2012-2020" , which is planned by means of the "Fund for innovation and technological development (FIT)" to finance and support the formation of university spin-off companies and regulate entrepreneurial absence of members of research groups from universities that will create and manage these spin-offs. Additionally, with the measure for grants for commercialization of R&D projects, public research institutions are encouraged to conduct research on the needs of the business sector. Currently, via the realization of the Program for realization of the scientific research, and technology-technical development in the country, the support is given to 25 research and development projects, involving cooperation between SMEs and academia (Government of Republic of Macedonia, 2012b).

The role of science in the process of generating quality business ideas

As the innovation (and entrepreneurship) starts from the idea of utilizing a particular opportunity, it is very important how to treat the process of ideas creation and implementation, and how it can be improved through the application of specific scientific knowledge. There are two important aspects of the ideas for entrepreneurial venture: 1) the total supply of business ideas in a national economy, and 2) the quality of business ideas, i.e. how many of them end up with starting a new entrepreneurial venture that will survive and growth on the market. The first aspect was the inspiration for the empirical study conducted in January-February 2013, with survey conducted within random sample of 149 current and potential entrepreneurs in Macedonia. According to the survey, 23.5 % of people in Macedonia come up with the idea to start a business venture every week, 36.9 % at least once on every two weeks, while 20.1% come up with a new business idea at least once per month (Chart 1).

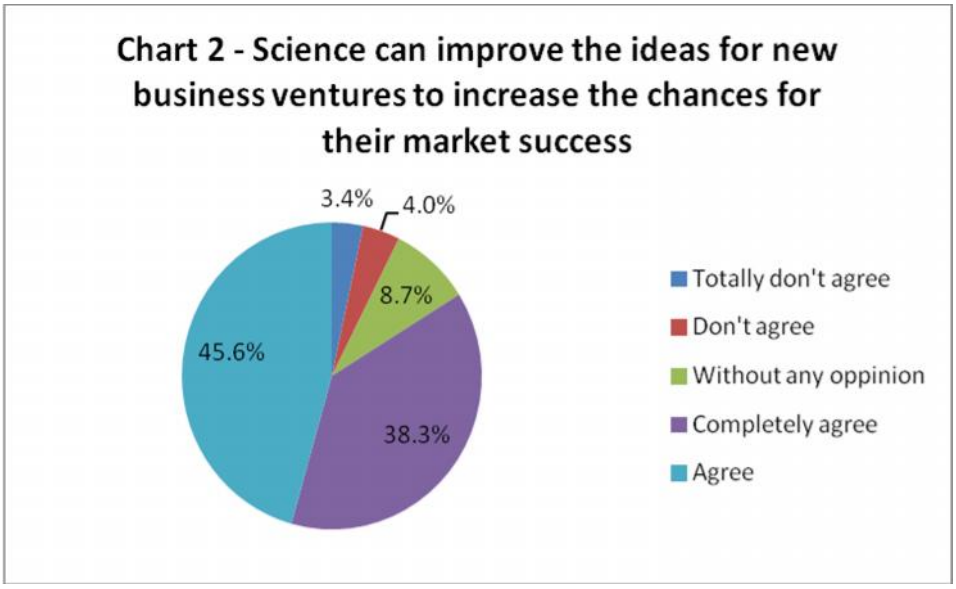


Considering the quantum of such business ideas, the number of working age population in the country (those ages 15 years and above) which is 900,000 (State Statistical Office, 2011) and that according to Zimmerer et al. (2008) on every 3,000 ideas for a new product or service, only 4 entering the stage of research and development, 2 of them being launched in the market, but only one achieves success, then from the total generated ideas for starting a business venture by launching an innovative product or service in the Republic of Macedonia, about 7,000 new businesses should be registered every year. But the survey results indicate that half of these ideas for a new product or service are generated by entrepreneurs who have already started their own business, so theirs new venture is realized within the existing firm. This means that only half of the total business ideas generated in the state are the ideas of entrepreneurs who don't have their own business, but these ideas cause the creation of new firms. On the other hand, question arises about motives for starting their new businesses of almost one half of the yearly new registered firms, when it is obvious that they have no winning ideas for innovation on the market.

All of this stated so far, indicate the fact that there is a shortage of business ideas in the Republic of Macedonia, but also indicates that there is strong need for specific support that should bring to the existing ideas on how to gain greater chance to attain market success. In this direction it is necessary, (despite all other aspects that promote supply side of entrepreneurship in the economy, as: characteristics of the population and its demography (Verheul et al., 2002), and other "push" and "pull" factors (technological, economic, cultural, institutional) researched by Vivareli

(1991), Wennekers et al. (2002) and others) to pay more attention to the inclusion of science, scientific research and its outcomes in all phases of the entrepreneurial process: from identifying or creating the opportunity, through idea generation, innovation, start-up, to the commercialization on the market.

The data obtained from the survey speaks about the need for greater inclusion of the science in the support of existing and prosper entrepreneurs in Macedonia. Even 45.6% of the respondents agree and 38.3% fully agree that the science could improve their ideas for new business ventures in order to increase their chances for market success (Chart 2).



From all respondents who do not agree that the science can help their ideas for new business ventures to increase the chances of achieving success in the market, or do not have any opinion on what contribution could science have on the entrepreneurship, 83% of them have no own business at all. Among the respondents who have their own business, based on their own entrepreneurial experience 95% of them claim that science can help their ideas for new business ventures to gain more chances for future success. It is interesting that 100% of participants who don’t agree that science can improve their business ideas are without any entrepreneurial education. 18.2% of all respondents in the survey say that they have no entrepreneurship formal or informal education at all.

Based on these indications and knowing the growth potential of individual sectors in the Macedonian economy, the science could focus its activity to increase the number and improve the quality of the ideas for new business ventures in the following sectors:

- Renewable energy
- ICT
- Robotics and Automation
- Agriculture[1]
- Tourism[2]
- Wholesale and retail trade, repair of motor vehicles and motorcycles[3]
- Other services.

This paper is focused on one of these suggested sectors only where the science and R&D could help increasing and improvement of quantity and quality of business ideas and innovations.

The role of ICT in growth of the entrepreneurship in the Republic of Macedonia

Technologies and technological development always have a great impact on the economic effects of companies with any size, years of operation, the sector in which they exists. Information and communication technologies (ICT) are those that marked the last years of the twentieth and early years of this century with one of the most profound impacts on economic and social development of man's kind. Especially important is their role in the sector of small and medium enterprises (SMEs) and the development of entrepreneurship and new entrepreneurial ventures. The significance of ICT on companies can be treated considering the following three aspects.

[1] According to the "Programme of the Government of the Republic of Macedonia 2011-2015", subsidies in agriculture for this period are projected on 670 million EUR. In 2011 and 2012, 245 million EUR are already realized.

[2] Although, there is no national strategy for development of the Republic of Macedonia, that would identify the priority sectors which should support the growth of the national economy, many experts and members of the academia agrees that tourism should be one of the pillars and enablers of the Macedonian economy future growth.

[3] According to the State Statistical Office (2013), 33.2 % of all newly registered firms in 2011 are from this sector, and 19.2% of all active firms registered in 2011 belongs to the sector called "Other services".

First, the development of personal computers and their use, and especially the development of Internet and mobile applications are usually the result of entrepreneurial endeavors of individuals and small businesses. There are countless examples of companies that grew into a global businesses conceived in the mind and got out of the hands of an entrepreneur who had an unique idea in the field of ICT. Companies like Microsoft, Apple, Dell, Google, Facebook, Amazon, eBay are just some of them.

Second, in addition to their constant development and implementation of innovations initiated by entrepreneurs, on the other hand, ICT itself plays a major role in facilitating and incentives on new entrepreneurial start-ups. ICT contributes to increasing of the self-employment and creation of new small businesses because it provides facilitated communication, ability to work from home, and ability to focus on less profitable, niche market segments.

Third, with the implementation of ICT, and with use of the Internet and electronic commerce in particular, fixed operation's costs are decreased, which enables the production and delivery of services in smaller quantities (by flexible entrepreneurial enterprises) to be profitable as much as it is the case with large enterprises and their use of economy of scale.

Entrepreneurs are at the heart of the market process. Since information and the access to them determines the dynamics of market adjustment (Casson, 2003), therefore, if entrepreneurs want to gain competitive advantage in this process they need to be the first that will come up to the relevant information. In the midst of economic systems today, beside the flow of goods, services and payments (Mankiw, 2011), information and activities associated with their processing and exchange become key to economic activity. People differ not only by its preferences, but also by their access to information and the way how they use them. Thus, the information becomes one of the most important elements of diversity and being different (to see an opportunity where no one can see it, or decide to launch an entrepreneurial venture when nobody else would make such decision) is in the essence of entrepreneurship. But information has their cost because of the costs of their creation, processing, transmission and use. This, both with the lack of knowledge and skills how to use ICT, further confuse entrepreneurs who don't know how to use it properly, what specific ICT technology to apply, and what are the benefits for their business venture which ICT can

obtain. In fact, there is a high entry barrier for ICT use in entrepreneurial ventures and SMEs. Therefore, it is very important for entrepreneurs to know how to recognize the benefits that can be obtained from ICT in terms of total cost of ownership, i.e., in the time of planning of the entrepreneurial venture they should know how to analyze benefits in terms of cost of the introduction of ICT in their venture (cost/benefit analysis). It can help if they are able to understand the following two business applications of ICT according to Deakins and Freel (2009):

- Stand-alone software applications, such as text editors (MS Word, Writer), spreadsheet (MS Excel, Calc), multimedia presentation (MS Power Point, Impress), and others, and
- Information systems and ERP systems (Enterprise Resource Planning) to automate business processes, based primarily on the use of Internet and electronic business (e-business) and electronic commerce (e-commerce).

According to Porter (2001) both ICT dimensions will gradually cease to be a factor for competitive advantage, because all companies will introduce both of them in their operations. This is especially true for the first ICT aspect related to the standalone applications, together with personal computers and smartphones are not a source of competitive advantage because are already used by all competitors. What puts the second ICT aspect in special position is the huge potential for innovations and new business ideas linked directly to the Internet and e-business technologies. Therefore, when the e-business will complement the creative freedom and innovative power of the entrepreneur, the basis for gaining competitive advantage in this business venture becomes enormous (Janevski, 2011).

According to the "Usage of ICT in enterprises report of the State Statistical Office of Macedonia", for 2013 only 32.4% of the persons employed in enterprises with 10 or more employees used a computer at least once a week at their work routine, and 26.1% of the persons employed used at least once a week a computer with access to the Internet. 94.5% of all companies work with computers, 91.8% has Internet access, but only 54.1% of companies have their own web site. According to the same report, only 9.6% of enterprises with more than 10 employees have e-commerce (e-sales or e-purchases), 15.1% have ERP software package to share information within the enterprise, 16.1% have CRM (Customer Relationship Management) software to analyze

information about its clients, and only 11.9% have CRM to analyze information about clients for market purposes. This indicates that the use of standalone software systems by the Macedonian companies is much higher than the use of sophisticated ERP and other information systems which should improve the productivity and competitive position in the global market.

Conclusion

In Republic of Macedonia the opportunities to improve development of entrepreneurship and enhancing the competitive position of Macedonian companies may require considering three main directions. The first one is through active and more innovative implementation of existing and creation of new entrepreneurship policies, measures and actions, as well as greater accountability in the implementation of the regulation and operations of state institutions working on issues in this field. The second one is to make significant step forward in this regard through a stronger linkage of the national strategic goals with the guidelines contained in the 2020 Entrepreneurship Action Plan (European Commission, 2013). And third, it is beyond doubt that there is a huge need for greater connectivity of science in entrepreneurship and ICT development and application of scientific approach to the development of new entrepreneurial ventures in the country. This is a need to establish a central place where entrepreneurs, existing and future business owners can turn to get all available solutions backed the scientific knowledge of how to launch some innovative idea to the market, depending on the nature and extent of the idea as itself, and how to improve and increase their use of ICT in creation and commercialization of their innovations.

References:

1. Bianchi, M., and M. Henrekson (2005). ‘Is neoclassical economics still entrepreneurless?’, *Kyklos*, 58(3), pp. 353–377.
2. Battelle (2012), ‘2013 Global R&D Funding Forecast’, *R&D Magazine*, December.

3. Casson, M., (2003). *The Entrepreneur: An Economic Theory, Second Edition.* Edward Elgar.
4. Contesti (2011). *European Innovation Matrix and Matrix Innovative Union for the Republic of Macedonia*, Republic of Macedonia, Ministry of Economy of the Republic of Macedonia.
5. Deakins, D. and Freel, M. (2009). *Entrepreneurship and small firms*. 5th ed. London: McGraw-Hill.
6. European Commission (2013), *Innovation Union Scoreboard 2013*, Brussels.
7. Eurostat, (2013). *Statistics by theme.* Accessed April 17, 2013. http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes
8. Government of the Republic of Macedonia (2012). Program for Development of Entrepreneurship, Innovation and Competitiveness of SMEs in 2012, Official Gazette, No.12, from 01.26.2012 year.
9. Government of the Republic of Macedonia (2012b). *Innovation Strategy of the Republic of Macedonia from 2012 to 2020*. The Government of Republic of Macedonia.
10. Grueber, M., Studt, B., and Studt, T. (2011). '2012 Global R&D Funding Forecast: China's R&D Momentum'. An *R&D Magazine Webcast.* http://www.rdmag.com/articles/2011/12/2012-global-r-d-funding-forecast-chinas-r-d-momentu. Accessed April 18, 2013.
11. Janevski, Z. (2011). *Electronic Commerce and Entrepreneurship as Factors for Competitiveness of the Companies*, PhD Dissertation, Skopje: Institute of Economics – Skopje.
12. Mankiw, N.G. (2011). *Principles of Economics*, Sixth Edition, South-Western College Publishers.
13. Ministry of Economy of the Republic of Macedonia (2007). *Revised National Strategy for Development of Small and Medium Enterprises (2002-2013).* Republic of Macedonia, Ministry of Economy of the Republic of Macedonia.
14. State Statistical Office (2011). *Labour Force Survey, 2011*. *Statistical Review: Population and Social Statistics no*: 2.4.12.11/727. Republic of Macedonia, State Statistical Office.
15. State Statistical Office (2012). *Macedonia through figures, 2012.* Republic of Macedonia, State Statistical Office.
16. State Statistical Office (2013). *Demographics of Enterprise.* Press number: 6.1.13.04 from 25.01.2013. Republic of Macedonia, State Statistical Office.

17. The Science Coalition (2010). *Sparking Economic Growth: How federally funded university research creates innovation, new companies, and jobs*. The Science Coalition. http://sciencecoalition.org/successstories/resources/pdf/Sparking%20Economic%20Growth%20Full%20Report%20FINAL%204-5-10.pdf. Accessed March 7, 2013.
18. Verheul, I., Wennekers, S., Audretsch, D., and Thurik, R. (2002). "An Eclectic Theory of Entrepreneurship: Policies, Institutions and Culture", in *Entrepreneurship: Determinants and Policy in a European-U.S. Comparision.* Edited by Audretsch, D.B., Thurik, R., Verheul, I., and Wennekers, S., Kluwer Academic Publishers.
19. Vivarelli, M. (1991), 'The Birth of New Enterprises', *Small Business Economics*, 3, 215-223.
20. Wennekers, S., Uhlaner, L.M., and Thurik, R. (2002). 'Entrepreneurship and Its Conditions: A Macro Perspective'. *International Journal of Entrepreneurship Education*, 1(1): 25-68.
21. World Bank (2013). *Doing Business 2013: Smarter Regulations for Small and Medium-Size Enterprises.* Washington, DC: World Bank Group.
22. World Bank Data Catalog (2013). *New business density (new registrations per 1,000 people ages 15-64)*. Accessed April 16, 2013. http://data.worldbank.org/indicator/IC.BUS.NDNS.ZS.
23. Xavier, S.R., D. Kelley, J. Kew, M. Herrington, and A. Vorderwülbecke (2013). *Global Entrepreneurship Monitor: 2012 Global Report*, GEM Consortia.
24. Xiaoyu, Y., and Steven, S. (2012). 'Innovation, internationalization and entrepreneurship: A new venture research perspective', *Innovation: Management, Policy & Practice*, 14, 4, pp. 524-539, Business Source Complete, EBSCO*host*, viewed 16 May 2013.
25. Zimmerer, T.W., Scarborough, M.N., and Wilson, D. (2008). *Essentials of Entrepreneurship and Small Business Management*, 5/E, Upper Saddle River, NJ: Prentice Hall.

UDC 341.24:35(4)
Original scientific paper

Ana PAVLOVSKA–DANEVA[*])
Elena DAVITKOVSKA[**])

FINANCIAL EQUILIBRIUM FOR THE ADMINISTRATIVE CONTRACTS

Abstract

The Administrative contracts as a separate legal institute subordinate to administrative law and jurisdiction and with some minor or major variations and modifications of the "classic" French model has also been accepted in some other European-continental countries. Countries of the Anglo-Saxon law de jure don't know the Administrative contracts, there he is formally hunched under the patronage(protection) of the private law, but de facto, because of the existence and application of specific standardized clauses or direct legislative and administrative solutions, is has been treated as an act different from the usual public legal agreements. On one hand, the use of prerogatives allowed by the public administration indicates the nature of their public law, but on the other hand, the right to compensation on various grounds and other contractor's rights suggest to the contracting nature of these acts. It is the coordination of public and private interests which are complementary embedded in the legal regime governing the execution of contracts.

Key words: Administrative contracts, public administration, public administration jurisdictions, Powers of the private contractor, institute subordinate to administrative law and jurisdiction.

JEL classification: K12 - Contract Law

---

[*]) Ph. D, Associate Professor of Law "Justinian" Skopje,
E-mail: anapd222@yahoo.com
[**]) Ph. D, Assistant Professor at The Institute of Economics, Ss Cyril and Methodius University - Skopje E-mail: Elena@ek-inst.ukim.edu.mk

Introduction

The Administrative contracts is a complex legal practice - deal with a public legal character. The title alone points to the fact that on one hand, it is a legal act that exists alongside other administration acts within the sphere of public law, but on the other hand it represents an agreement, which otherwise is a basic mechanism in the private law's legal operations. Its occurrence is due to certain historical and political circumstances in France, where first it gets introduced to the jurisprudence (legal practice) of the French Conseild'Etat, and later in the French legislation. The French legal doctrine has also had a central role in its creation, and especially for its further development. The Administrative contracts as a separate legal institute subordinate to administrative law and jurisdiction and with some minor or major variations and modifications of the "classic" French model has also been accepted in some other European-continental countries. Countries of the Anglo-Saxon law de jure don't know the Administrative contracts, there he is formally hunched under the patronage(protection) of the private law, but de facto, because of the existence and application of specific standardized clauses or direct legislative and administrative solutions, is has been treated as an act different from the usual public legal agreements.

The French model of an administrative contract (contrat administratif) has the following features:

1. Mandatory participation of the public administration as a party. Under the notion of public administration it implies a body of state or local government, as well as public institution or other organization that performs public jurisdictions.. On this list public institutions as well as institutions with industrial and commercial nature are excluded;
2. The presence of elements in the agreement that cross the boundaries of common law (les clauses exorbitantes du droitcommun).They may arise from the content of the contract, or the legal regime under which the relationship between the parties is placed;
3. The subject of the contract is performing a public service. With the agreement the performance of a public service can be entrusted to a private person, or the agreement itself presents a way of doing a public service, or under the agreement you hire a officer for direct

participation in performing the public service; Therefore, the specific aim of the management agreement is: despite the achievement of economic impact, meeting the wider public's interest;

4. The administrative judiciary has the responsibility for resolving disputes from the administrative agreements. The general rule is that the cases of the administrative arrangements are managed in the form of full jurisdiction cases. According to the doctrine of so-called "separate acts" (e.g., the decision of the administration for signing the agreement)in which the rights of the third parties are infringed, allowing such acts to be challenged in the proceedings for misconduct, which differs from the issue of full jurisdiction.

Public administration jurisdictions as a party in an administrative agreement

Considering the purpose of each administrative contract, which is the realization of public interest, the public administration as a party is in a prerogative position, e.g. has special jurisdiction. In fact, the mutual relation of the parties in the governing agreement is characterized by the public legal person which enters into contractual relationship with prerogatives that are unknown to the general regime of the private legal agreements and at the same time the private entity as counterparty receives financial guarantees that it won't be damaged by the public administration exercising its special jurisdictions which consist of the following:

- authority for controlling the execution of the agreement;
- authority to punish the other party for non-performance or improper performance of the agreement;
- authority for unilateral modification of the contract terms and an early termination of the agreement.

Powers of the private contractor

In the administrative contracts, because of the existence of the special prerogatives of public administration, primarily because of the power of unilateral intervention of the management in the implementation of the contract, the private entity as a contractor is experiencing much more deterioration of their situation than in civil contracts, without being guilty of that. Because of this element of uncertainty, which could indirectly damage the interests of the public service, the theory of the Administrative contracts awarded special place to the concept of financial balance, also called for financial equilibriumof the contract. It allows for the contractor to achieve the real right to establish this balance when some clauses caused it's termination. This principle presents another feature of originality in the administrative contracts, compared with the private, civil law contracts. The principle of financial equilibrium is at first confirmed in the concessions for public services. Thus, in its conclusions on the case Ciefrançaise des tramways (French company trams) from 11th of March 1910., P. 218, L. Blum has confirmed the principle of so-called honest equivalence, as an expression of the right for the concessionaire to establish financial equality in the concession contract: "The essence of every concession agreement is to require and implement as much as possible equality between the profits given to the concessionaire and costs which are imposed (...) the revenue and expenditure should be balanced in a way that they create a dual accounting records of possible gains and losses provided. Each concession agreement contains as calculation, honest equivalence between what is approved by the concessionaire and what is required. (...) This is what is being called a financial and commercial equivalence, financial equation of the Concession Agreement.[1]" Regarding the question for the meaning and scope of the principle for financial equilibrium in the administrative agreements, the authors Laubadere, Moderne and Delvolve'd have devoted special attention to their work Traitet heori queetpratique des contartsadministratifs (theoretical and practical discussion of the administrative agreements). Part of their presentation will be displayed in the following:

[1] Conclusions d. L. Blum said the decision of the Conseild'Etat, according Laubadere A, Moderne F. et Delvolve P., Traitetheorique et pratique des contratadministratifs, t.1, item 717, Paris, LGDI, 1983

"... First, to introduce that the financial balance of the contract is not a synonym for balanced management of the company; the principle of financial equilibrium doesn't represent a kind of insurance for the concessionaire or entrepreneur against potential operating deficits.

The financial balance is only an approximate term, "fair equivalence" between costs and benefits which the concessionaire has taken into consideration at the time of signing the contract and which determined his treatment. Thus, according to Jeze "every concession of a public service includes a financial equation. Rates are calculated in a way that they should cover operating costs. The financial equation of the concession is accepted by the concessionaire as insurance to cover his expenses, reasonable compensation for the investment and normal profit. Both notions of the equation is considered to be balanced in the moment that is determined by the contracting parties.[2]" When this reasonable balance is discontinued, it only seems fair to be re-established because it represented a decisive element of the agreement. The balance in question are often displayed in the form of strict mathematical equation. This literal interpretation of the phrase "equation" is we think often being used as already mentioned, together with those for balance or equivalence and is actually overly generalized. Of course, in some hypotheses, the establishment of the initial balance can match this strict calculation. But it is not always so. Jurisprudence of the financial balance is actually jurisprudence of fairness, one of the many areas in which Conseild'Etatgoes forward, according to it's own expression, towards the "reasonable interpretation <of the agreement." That way, what happens in order to restore balance of the contract the judge recognizes the contractual rights by compensation, whose valuation is driven more by the directive "honest equivalence" than the technique of mathematical equation. The legal grounds under which the private legal party can protect its interests in the event of intervention by the public authority are contained in several theories about the change of circumstances on the basis of which the administrative contracts is initially signed. The principle of financial equilibrium of the contract has its practical consequences partly in accordance with the norms of common law and partly under public legal specific modifications which only refer to the administrative agreements.

[2] Jeze G.,, Les contratsadministratifs, Revue de Droit Public t.XLII, No2, 1925, p. 783

In the basis of the principle for financial equilibrium of the agreement lies in the fact that the contractor of the administration is at risk of financial failure that can occur for two sets of reasons: The first is the use of the public administration and it's prerogatives for unilateral modification of the contract terms in the public interest, and second, made up from some unforeseeable circumstances, which regardless of the will of the parties, may lead to changes in contractual terms. Therefore, the practice of the French judiciary has built in two concepts which in the doctrine are known as "theory of arbitrariness or fait du prince" and "theory of unpredictability or imprevision". Both theories have a common goal - ensuring the principle of financial equilibrium, but exercise it under very different assumptions and different consequences, therefore, they are not applied cumulatively, only alternative.

Fait du prince theory

In the case of so-called theory of arbitrariness or fait du prince, it comes to removing harmful consequences for the private party from a financial standpoint, that occurred as a result of the use of the management and it's prerogatives in direction of changing the agreement terms. Of course, that in cases of unilateral expansion of the contractor's obligations to protect the public interest, he will be exposed to certain financial burdens. In these cases, it is necessary to distinguish two different situations:

- First, as to such adverse financial conditions occurred in a given concrete situation because of measures taken by the administration as a counterparty, and
- Second, their use is due to the altered general rules that apply to all cases homogenous but independent of the administration's will as a counterparty in this case.

The distinction between these two situations is very important because, if the existence of the first one is determined, the private contractor has the right on full (integrated) compensation which includes the right to compensate for lost profits. The second situation results in the application of restrictive measures of compensation, and usually provides only partial reimbursement. In fact, in most cases of the second group, there is almost no principle of financial equilibrium under the theory of self will, but they are regulated according to the theory of

unpredictability (imprevision). Hence, fait du prince is being referred to when public administration associated with managing private entity through agreement, makes changes in the contract with one of those acts which expresses the independent public power. "That is a public power which, after accepting to negotiate, bargain and bind, suddenly finds itself in a situation of an “arbitrary" or absolute in the true sense of the word, free of any obligation, and in conditions in which this manifestation of absolute power is such that it can modify the elements of the contractual situation that have been previously established[3]. For the one who talked, there is a kind of surprise, he is subjected to public power and, as such is obliged to obey, but he is also a contractor and according to the characteristics of the agreement a full range of legal relations were extracted from the imperative realm of law to yield only to the law of contract, but the public law bursts again in the contractual sphere which seemed closed, and the same public authority which after having created a contractual situation, changes it with an imperative act. "The application of the theory of self is limited to the acts of the Contracting Authority or the acts of the administration party. In a case when the damage comes out as a result from an intervention of the public authority, which does not occur as a party, Conseild'Etat shall apply, as appropriate, the theory of unpredictability (imprevision), not fait du prince[4]. The situation, when the measure was taken by the administration as a party, but does not affect the contract, and yet had damaged the contractor can be covered with the theory of self:

a) if it is a single measure that indirectly caused damage of the contractor - in that case it is followed by a complete (integral) compensation, and

[3] Hauriou M., Note sous CE, 8 mars 1901 Prevot, S.1902.II.73

[4] An example of this is the decision of the Conseild'Etat, "City of Toulon, Arret Ville de Toulon CE, 4 mai 1949, Rec.197".

"Given that it is certain that measures for the eclipse which outlines the Company for gas and electricity for the southeast, which caused reduction in its revenues were not the work of the city of Toulon, instead were ordered by the military government during the hostilities; and thereby reducing the revenue that the company could reasonably count on is due only to exceptional circumstances independent of the act of the parties;it therefore follows that the concessionaire could just as actually did in front of the Council for prefecture, to apply for compensation against the Council based on the existence of unpredictable work that inspired such operating deficit, which caused disruption to the economy of the contract;that, under this assumption, the government-servicing the concession should participate in extra-contractual costs, without the granted compensation to the company reaching the total losses it suffered, (...) "

b) if the measure that was taken by the management has a general character, it means that a general framework inflicted harm to the contractor -under fait du prince he is not entitled to compensation, but on the basis of imprevision he is entitled for it.

This division of possible situations is simplified because the measures under point b) can be treated as fait du prince in drastic cases, including: "When basic subject of the contract is being hit in a way that changes the situation that the parties had in mind at the time of signing the contract.[5]"

Imprevision theory

The realization of the principle of financial equilibrium of the contract by applying the theory of unpredictability or imprevision does not apply to the removal of harmful consequences which occurred for the private by the use of the prerogatives of management, as was the case with previous theory. The issue is for the emerging circumstances with negative economic consequences for the private entity contracted with the public administration, which may even lead to its financial collapse. Regarding the title of this theory, i.e. with the determination of the new conditions as unpredictable should pay attention to the difference, between an anticipation and unpredictability. The development of legal technology has come so far that it is difficult to talk about the unpredictability for something that the human imagination, thanks to the progress of science would not be able to formulate into legally regulated social relations. Ununticipation is a "modest category", which relieves the situation in this kind of ties, because it actually reduces the whole problem of distinction between "normal" and "abnormal" appearances. The Imprevision theory has a dual role: on one hand, it is designed to help protect the interests of the private party, caused by indirect measures of the management or otherwise which could not be foreseen at the time of conclusion of the contract. On the other hand, to allow normal exercising and performing of the public service, according to the

[5] Laubadere, Veneria, Gaudement, Traite de Droit Administratif, Tome 1, 10eme edition, L.G. D.J., Paris, 1988, стр.634, цитирано според Георгиевски С., „Концесиските и слични договори на вложување помеѓу државата и странскиот вложувач во меѓународното и внатрешното право, докторска дисертација“, Скопје, 1997, стр.113

principles of public service continuity and adaptation to new conditions. So, the theory of the administrative agreements, unlike the one from the private legal agreements, provides the possibility for the contracting parties to share the economic risk which for the public administration presents an obligation to pay the compensation to the contractor to normally to its commitments until the whole fulfillment of obligations, or until the expiry of the agreed term. With that the private party is not compensated in full, which is the case in the theory of selfwhere the entire loss is compensated, because in the theory of the uncertainty the principle applies that damage is shared by the administration and its partner (contractor). In the final instance the court which runs by a "reasonable interpretation of the contract" will decide the damage and the extent that each party will have to bear. The basis for determining the fee in imprevision is the actual damage, not the lost profits.

To get to the activation of the imprevision theory three cumulatively conditions need to be met:

- the circumstances that led to the additional financial burden of the private party can be unpredictable and unforeseeable at the time of signing the contract. Under such circumstances risks inherent in the market economy are not included, but they can be described as abnormal if they come as a result of unexpected, surprising and unforeseen occurrences: wars, strikes lasting, economic crises, etc..;
- circumstances that led to the disruption of financial balance can not be an expression of the parties will. It is necessary to take into account not only if whether the circumstance occurred independently from the will of the parties, but how much the private person was able to prevent the side effects caused by this circumstance;
- such a circumstance resulting disruption of the contractual relationship to the detriment of private contractor, or as the French theorists say, to get to the real economy breach of the agreement.

If the said assumptions are met an opportunity with two solutions arises. The first leads to a re-negotiated agreement or an agreement to amend the contract terms in order - their adaptation to the new conditions and uninterrupted performance of the public service. If the Contracting Parties fail to reach agreement on the issue, then a proceeding is initiated

in front of the administrative court competent to determine the compensation for imprevision.

The situation when solving this problem you have to go to court, in the French law and doctrine is called "beyond contractual situation". The rules of conduct on both parties during the period of this stateis determined by the court. The private party, according to the principles of the public service is required to smoothly continue with the execution of their duties, and the public administration according to the principle of financial equilibrium of the agreement should ensure the funds to cover the costs arising from the unforeseen circumstances. At the expense of other advantages that the private contractor can enjoy from the legal contractual relationship with the public administration, in imprevision he is not entitled to compensation for lost profit, as he is with the fait du prince, but instead he has to handle part of the financial burden. Of course, the beyond contractual period may be only temporary. If the circumstances that led to the disruption of the contractual terms obtain permanent definite character, then comes to the application of the theory of force majeure, whereas, if the circumstances have ceased, but the loss of counterparty has a definite character, the choice remains between conclusion of a new agreement between the same parties, but that would in agreement with definitely changed circumstances, or termination of the contract. Imprevision theory is widely studied in France. In accordance with the decisions, it is unpredictable when after the extraordinary changing economic circumstances, the increasing of the cost exceeds the limit on increases which could be envisaged during the signing of the contract causing a disruption in the contract’s economy. In a similar case, to continue to ensure the implementation of the agreement, the contractor of the administration has the right to seek help from her to participate in the beyond contractual expenses arising from the circumstances, a participation determined by a "reasonable interpretation of the contract. "So it will be, whatever the nature of the signed agreement, whether it is a public service concession to arrange transportation or procurement, or for public works contracts. The obligation of the administration has its basis in the obligation which belongs to her contractor- to continue to perform the contract despite the extraordinary expenses that may arise from it. The administration has only one way to stop the erratic play: to conclude a new agreement with its contractor which will determine how to implement the service based on adapted circumstances.

"In fact, unpredictability is only in case when temporary difficulties arise in implementing the agreement. Thus, unpredictability opposes force majeure. Undoubtedly, force majeure can be interpreted as a current inability to implement the agreement, but it will often be the final failure. In contrast, the theory of erratic inevitably involves the disruption of the economy of the agreement is purely temporary: it is and can be only a temporary mechanism "[6].

The imprevision theory does not violate the pacta suntser vanda rule, but removes the unpredictable financial consequences that significantly hamper the performance of the management agreement. Thus with this theory it brings the needed certainty to legal transactions and stability of contractual relations amid turbulent economic changes and financial imbalance. Here you can see the reason for the introduction of management contracts as a form of complementary operation of public and private interests in the modern legal system. From an economic point of view, the theory of the erratic is a theory sharing the beyond contractual losses that suddenly appear in the course of the public legal agreement with most of the deficit remaining as a burden to the public administration at the expense of the continued use of a service or purchase. When applying the theory of erratic, the judge can never modify the relationship of the contract; he can only grant compensation to the injured party contractor for outside contracting costs, contingency fee which should serve as a way to pressure the administration into open negotiations between it and the contractor in order to establish the basis for a new financial balance of the agreement. But this theory is not only compatible with the idea for contractual relations, but it also is its logical consequence. If the economic conditions change the economics of the deal, it is normal for the judge to intervene, with the approval of the compensation, to re-establish the balance that the parties agreed on, and the parties can agree to find a new formula for contractual financial balance. So the judge should only submit to the will of the parties. The Arbitrary act assumes that administration signatory of the agreement intervened to modify the conditions for the implementation of the agreement, to directly modify. Uncertainty exists, on the contrary, if the violation of the conditions for the implementation of the agreement stems from something else, rather than direct intervention of the administration signatory of the contract. In general, it is easy to distinguish these two theories, in fact, it can be difficult when a signatory is the state and when

[6] Laroque P., Note sous CE, 9 decembre 1932

should a difference be made between direct and indirect changes. But the theory is clear as well as the difference of the legal regimes of these two types of fees. If the fee is a direct consequence of the action of the administration (theory of arbitrary act), one of the signatories distort the financial equilibrium of the contract that both parties want and normally there will be a full compensation. Otherwise, if the fee is a disorder which is not a result from a direct intervention of the administration, it is normal that it does not match the total damage that the contractor suffered: If the administration bears all the damage it would cause disruption of the administration's forecasts. The damage should be split between both parties for both to contribute with shared sacrifices to restore the financial equilibrium of the contract. Obviously, only the judge can willfully estimate the damage section in order to put the burden on each party. But basically, the judge always estimates the fee swillingly, he is driven by considerations of fairness and public service needs. But the essence of the jury prudence solutions is explained starting from the contractual idea of the will of the parties. The whole theory of imprevision, in French law is established in the practice of the Conseil d'Etat. Was first applied in the decision of 30 March 1916[7].

[7] Decision General lighting company in Bordeaux, Arret Compagniegeneraled'eclairage de Bordeaux CE, 30 mars 1916, Rec 125, concl.Chardenet:
"Given that, in general, the concession contract fully regulates the obligations of the concessionaire and the grantor until its expiry; the concessionaire is obliged to perform the intended service in conditions previously listed in the contract, and he is paid with the payment from the users agreed fees; the variation in the cost of raw materials due to economic circumstances, presents an unpredictable event for the agreement which can, as the case may, be favorable or unfavorable to the concessionaire and take on their own responsibility, considering that each party has the uncertainty in the calculations and predictions that have been made before committing;
But, given that, as a consequence of taking most of the regions in which coal is produced in continental Europe by the enemy and the increasing difficulty of maritime transportation because of the seized ships, and for the duration of naval warfare, an increase occurred in the price of coal during the current war, which is the raw material for the production of gas, experienced such a proportion which not only has exceptional character in the usual meaning given to this term but caused an increase in the cost of production of gas which, to the extent that exceeded all estimates, exceeds certain limits on increases that could provide the parties during the signing of the concession contract, that given all the above mentioned circumstances, the economics of the deal is absolutely distorted; that the company can confirm that it can not be forced to provide operation for the service, with conditions provided in the beginning, as long as the unusual situation pointed above lasts;
Considering that, according to what has been said before, if the company considers that it can not be forced to support any increase in the coal's price over 28 francs per ton,

Force majeure theory

The grounds for terminating a contract, called acts of God or force majeure are taken from the general, private treaty law. Force majeure is an external event beyond the will of the parties that its effect is preventing the execution of the contract and not the modification of its terms. New circumstances, should not occur as a result form the direct action of the public administration, because it would have worked for fait du prince. They therefore have to come from various government measures that indirectly lead to inability to meet contractual obligations, which are of a permanent nature. The difference between force majeure and imprevision is that force majeure is always used as a basis for termination of the contract, and is due to release the contractor from its obligations. According to the legal practice in order to come to the application of this theory, the fulfillment of three conditions is needed:

- Surrounding called "force majeure" must be caused by the independent will of the parties;
- It must be unforeseen and unpredictable at the time of conclusion of the contract;
- it needs to make the deal impossible, that its execution should be done "radically impossible" so it has to come to the termination of the contractual relationship, i.e. to break the agreement.

because this figure, according to the company was considered as appropriate to the max price provided in the gas market, would be quite excessive to accept that there may be a pure and simple application of the obligations and duties of the contract as if we come upon ordinary uncertainty of the enterprise; that matters, in contrast, to end the temporary difficulties, to seek a solution that takes into account both the public interest, which requires extension of service by the company with all of its means of production, and specific conditions that do not allow normal application of the agreement;for that purpose it is appropriate to decide that on one hand, the company is obliged to provide the service that is given with the concession, and, on the other hand, it, in this transitional period, should bear only part of the expensive consequences of the above-mentioned situation which with a reasonable interpretation of the contract has made it its cargo; that, consequently, the attacked decision should be overturned, to refer the parties to the council of the prefecture that would have, if they fail to agree on the specific conditions in which the company will be able to continue service to determine , taking into account all the facts of the clause, the amount of compensation to which the company is entitled because of the beyond contractual circumstances in which it will have to provide service over the forecasted period, (...) "

Conclusion

Based on what was said about the rights and obligations of the parties in the governing agreements becomes clear their legal execution mode. On one hand, the use of prerogatives allowed by the public administration indicates the nature of their public law, but on the other hand, the right to compensation on various grounds and other contractor's rights suggest to the contracting nature of these acts. It is the coordination of public and private interests which are complementary embedded in the legal regime governing the execution of contracts.

References

1. Ана Павловска – Данева 'Управни договори', докторска дисертација, 2004, Правен факултет 'Јустинијан Први' – Скопје, Универзитет Св. Кирил и Методи, Скопје
2. Гризо Н., Давитковски Б., Павловска- Данева А., (2001) "Административно право ", Правен факултет "Јустинијан Први" Скопје
3. Георгиевски С., „Концесиските и слични договори на вложување помеѓу државата и странскиот вложувач во меѓународното и внатрешното право, докторска дисертација", Скопје, 1997
4. Jeze G.,, Les contratsadministratifs, Revue de Droit Public t.XLII, No2, 1925
5. Hauriou M., Note sous CE, 8 mars 1901 Prevot, S.1902.II.73
6. Decision of the Conseild'Etat, "City of Toulon, Arret Ville de Toulon CE, 4 mai 1949
7. Laroque P., Note sous CE, 9 decembre 1932
8. Arret Compagniegeneraled'eclairage de Bordeaux CE, 30 mars 1916

UDC 330.341:339.727.22].025(497.7)
330.341:336.2.055.4].025(497.7)
Original scientific paper

Elizabeta DZAMBASKA[*])

EMPIRICAL ANALYSIS OF FDI AND TAX INCENTIVES ON THE ECONOMIC GROWTH IN THE REPUBLIC OF MACEDONIA

Abstract

Theoretical approach for this analysis is the new growth theory and extended Solow's model. This paper analyses the effects of investment and fiscal policy measures as determinants of total factor productivity in the Republic of Macedonia. The empirical analyses are conducted using the data for capital, labor, gross investment, FDI and tax revenue as determinants of economic growth in the Republic of Macedonia in the past period. Multiple linear regressions analysis used quarterly data for the period 2005-2011. The calculations of statistical parameters are obtained by software package XLSTAT 2012.

The results show that foreign direct investments are not statistically significant. Although various fiscal measures create favorable conditions for foreign investors, these are not the source of economic growth in the Republic of Macedonia. Gross investments are those that increase the constant level of capital in the country and they are of particular importance for economic growth. The impact of taxes and contributions is positive and statistically significant. This is peculiar due to the low level of taxes that should reflect into long-term declining trend, but could be explained with the specific circumstances over the analyzed period.

Key words: neoclassical growth model, tax incentives, foreign direct investment, economic growth, Republic of Macedonia

JEL classification: E62; O11; O38

---

[*]**)** Ph.D. Institute of Economics Skopje E-mail: beti@ek-inst.ukim.edu.mk

Introduction

The neoclassical growth model known as Solow-Swan model (1956) considers the long-run economic growth. This model explains the economic growth with the capital accumulation, productivity, population growth and technological progress as the dominant drivers of economic growth. The model recognized the significance of the positive impact of technology on growth, but it is considered as exogenous. The basic assumption of the neoclassical model for the diminishing returns to scale of capital accumulation and exogenous technological progress, limits the strategy only to the measures that can improve productivity. The only way to accelerate growth is through the productivity. The model predicts convergence to a steady state. Output per capita in the steady state is determined by the saving rate. Accomplishing "steady-state" level of output and certain growth rate means that national savings rate must grow at a same rate as population growth. Policy measures like tax cuts and investment subsidies can affect a steady-state level of output, but not for long-run.

The development of endogenous growth theory has provided many new insights into the sources of economic growth. The essence of the new theory is that growth is a consequence of rational economic decisions. Companies expand resources on research and development to secure profitable innovations. Individuals invest in education to develop human capital and increase lifetime earnings. Governments increase growth by providing public inputs, encouraging foreign direct investments, and enhancing educational opportunities. Through the aggregation of these individual decisions the rate of growth becomes a variable of choice, and hence a variable that can be affected by the tax policies of governments.

It is striking that most recent empirical research has focused on testing the neoclassical growth model, with revisions and extensions, rather than testing the empirical implications of endogenous growth models. Part of the explanation, suggested by Mankiw (1995)[1] may be that the emphasizing immeasurable variables, such as knowledge these models have appealed to more theoretically inclined economists, with the result that few attempts have been made to evaluate them. Another explanation arises from the intrinsic difficulty of evaluating models based

[1] Ross Jaime (2003), Development Theory and the Economics of Growth, The University of Michigan Press p. 167-172

on large technological externalities in an open economy setting because a crucial question is whether or not these large external effects of physical or human stock are internal to national economies.

The main goal of the research is to evaluate the influence of investments (domestic and foreign investments) and tax revenue on economic growth in the Republic of Macedonia.

Hence, in this paper we use neoclassical extended Solow's model that assume that total factor productivity is endogenous and determinated of domestic and foreign investments and taxation policy. The focus is on the assumption that foreign direct investments and the changes in the tax policy significantly affect the movement of economic growth in the Republic of Macedonia. The interest for that analyses came for several reasons: first the process of globalization has increased the stock and movements of FDI in the world especially in the development countries. Thus for developing countries FDI became an important source of funding. Second, FDI effects on economic growth are main objective in a lot of studies. The findings of these analyses are quite contradicting. Some assume beneficial effects resulting from FDI on economic growth[2] while others[3] claim that FDI hinders economic growth. The third, economies create specific policies like application of the special regime of taxation, tax exemptions, facilitated institutional procedures for the foreign investor's entry in the domestic market and other policy of attracting FDI. Studies confirm the compromises that the countries are doing in terms of fiscal policy do not cause drastic changes in decision-

[2]Harbinger Singh, Kwong W Jun (2995), Some New Evidence on determinats of Foreign Direct Investment in Developing Countries, World Bank Policy Research Working Paper no. 1531, Burcu Türkan, Alpel Duman, I Hakan Yetkiner, (2008), How Does FDI and Economic Growth Affest Each Others? The OECD case, Izmir University of Economics) Working Paper no. 08/07; Borensztein, De gregorio, Lee (1998), How does foreign direct investment affect economic growth, Journal of International Economics, 45 (1), p. 115-135

[3] Svetlana Ledyaeva, Mikael Linden, (2006), Foreign Direct Investment and Economic Growth: Empirical Evidence from Russia Region, BOFIT Discussion Paper no. 17/2006, Peter Nunnenkamp, Julius Spatz (2003), Foreign Direct Investment and Economic Growth in Developing Countries: Now Relevant Are Host Country and Industry Characteristics, Kieln Working Paper no. 1176, Lyroudi Katerina, Papanastasion John, Vamvakidis Athanasios (2004), Foreign Direct Investment and Economic Growth in Transitions Economies, ASECU South Eastern Europe Journals of Economics 1

making for investment abroad. "Tax relief is like dessert. It's nice when you have it, but does not help much if the meal is gone."[4]

Assessment of the relationship among gross investment, FDI, tax revenue and economic growth in the Republic of Macedonia is made by multiple linear regression analysis, using quarterly data for the period 2005-2011 year. The base theoretical model for setting the statistical model for empirical analysis is the production function by Coob Daglas and the extended Solow model with contributions of Romer (1990). The calculations of statistical parameters are obtained by software package XLSTAT 2012.

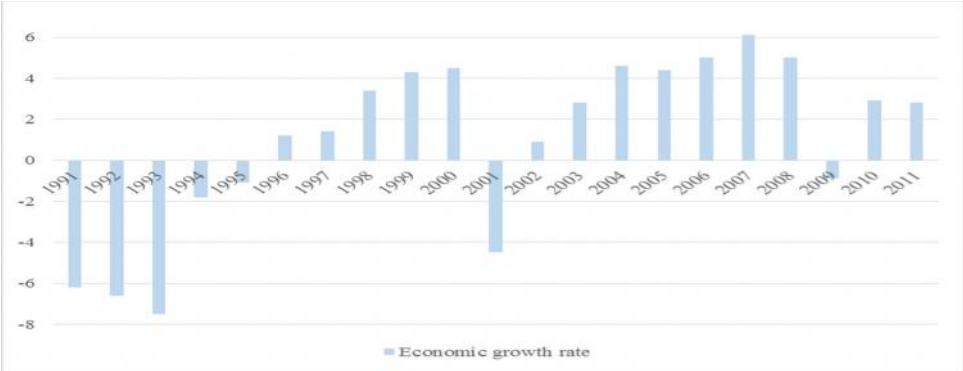
1. Review of the macroeconomic situation in the Republic of Macedonia

Economic growth is the increase in the amount of goods and services produced by an economy over time. It is conventionally measured at the present rate of increase in real GDP. The rate of growth in Republic of Macedonia[5] is in the focus of analysis. Figure 1 shows us the trend of GDP. Republic of Macedonia experienced a decline in GDP in year 1990. This situation was typical for all economies in transition. Until 1995, the Macedonian economy experienced negative growth rates of GDP. In 1996 for the first time after independence positive growth rate were achieved and this trend of positive growth rates continued until 2001. Due to the military conflict a decline came in economic activity with a negative growth rate of -4,5%. The trend of GDP growth started in 2002 and continued at a slow pace, and in 2007 reached the highest recorded value of 6,1% in the last 20 years. Surging growth experienced a dramatic decrease in 2009 where the rate of growth in 2008 fell by 5% to negative 0,9% in 2009. This decrease was due to the great world financial crisis that began in 2008 in the United States and quickly spread to the countries of the European Union, and the repercussions felt almost all economies in the world.

[4] Morisset Jacquese, Pirnia Neda, (2000), How Tax Policy and Incentives Affect Foreign Direct Investment, The World Bank and International Advisory Service, p. 5

[5] The purpose of the model is to show the changes in the level of output in the Republic of Macedonia. So, the trend of growth is explained with changes in the growth rate over the time. Real GDP is dependent variable in the model.

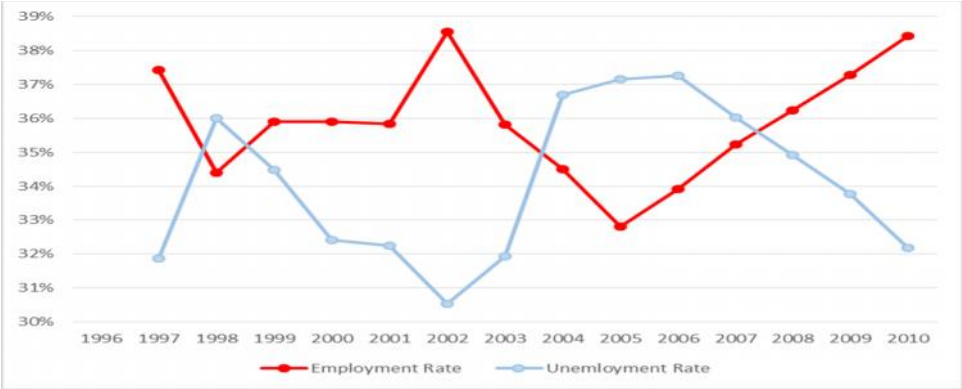
Figure 1: Rate of economic growth in the Republic of Macedonia 1991-2011



Source: State Statistical Office of the Republic of Macedonia, Statistical Yearbook 2005, 2006, 2007, 2008, 2009 and 2010

To see the complete picture of the situation in the Macedonia economy, it is important to have in mind the movement of the unemployment rate. Data show that in the period since 1995, the achieved positive economic growth rates are not accompanied by a corresponding rise in employment. During this period, employment had decreased by 1,6 percentage points (from 1996 to 37,4%; 2000 to 35,8%). Higher growth rates in 1999 of 4,1% and 4,5% in 2000 resulted in an increase of employment in 2001 to 38,6%, but the decline in economic activity in 2001 (-4,5%) returned the rate of employment in 2002 to the previous level of 35,8%. The trend of a slight increase in employment levels started from 2004 onwards. The highest level of employment in recent years, according to the methodology of the Labor Force Survey conducted by the State Statistical Office, is achieved in 2010 and it was 38,69%. This situation with employment levels is expected. It is because of the trend of a slight increase in the rate of GDP growth in the country, but primarily it is a result of the institutional and legal changes made in the field of employment in these years. Thus are the changes in employment law, introducing the concept of gross wages and fiscal policy measures that reduce the percentage amount calculated and paid for social security contributions on employee's wages. Another aspect is the active government programs for self-employment. These measures resulted in an employment rate increase in the 2007, 2008, 2009 and 2010.

Figure 2: Employment and unemployment rate in the Republic of Macedonia 1996-2011



Source: State Statistical Office of the Republic of Macedonia, Statistical Yearbook 2005, 2006, 2007, 2008, 2009 and 2010, Labor Force Survey, Statistical Review no. 2.4.2.08, 2.4.5.02 494,

* The employment rate is calculated using the ILO methodology; the employment rate shows the participation of employees in the total working age population that is 15 to 79 years old

Implemented stabilization programs in 1995 reduced the rate of inflation, from 121,8% in 1994 to 15,9% in 1995. The rate of inflation continued to decline until 1999 when it was -1,1%, when the economy felt the impact of depressive deflation. In 2000 it increased to 10,6%, and in the next period decreased to 0,9% in 2004 and 2,1% in 2005. The rate of inflation is maintained at a low level 2,3% in 2007, 8,3% in 2008, -0,8% in 2009 and 1,6% in 2010.[6] An increase in the inflation rate is evident in the past two years, but it is still at low level at 3,3% in 2012.

Official data for the share of gross investment in GDP, in the analyzed period 1996-2011 is around 20% - 30%.[7] It can be mentioned that notable investment increase has been registered in 2007 (26,8%). The reason for that can be found in more dynamic increase of investment on one hand, than the increase of GDP for the same year, on the other. Low participation of investment in GDP, as well the low level of GDP is far away from possibility for dynamic economic growth. The level of

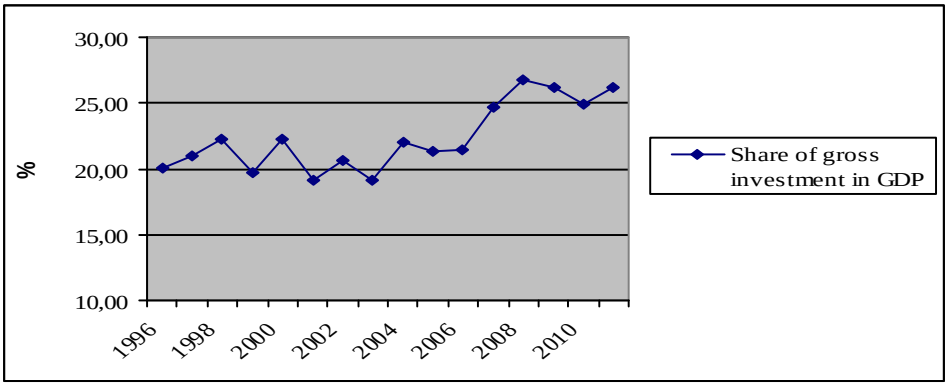
[6] Ministry of Finance, Inflation rates are calculated using the CPI (Consumer Price Index) methodology

[7] The data for gross investment take into account the investment in fixed assets and the stock changes

investment in the Republic of Macedonia is determined from insufficient capital accumulation, low level of national savings, high interest rates for investment loans, insufficient financial support, system stability in transition period and possibility for risk emerging in different fields of working for domestic and foreign investors, too.

Figure 3: Share of gross investment in GDP in the Republic of Macedonia

in million denars



Source: State Statistical Office of the Republic of Macedonia, Statistical Yearbook 2005, 2006, 2007, 2008, 2009 and 2010

The process of liberalization of FDI regimes dramatically changed economic and political landscape of the world. These changes are part of broader reforms in the economies of developing countries. Globalization and liberalization have enabled the smooth movement of capital, labor, technology and knowledge. FDI are an important form of transfer of capital, technology and knowledge. For developing countries they are a way to activate their potential. Also FDI complement domestic investment activity that positively effects economic growth. Movements of FDI worldwide show an increasing trend.

Basic prerequisites for attracting foreign direct investments are: political and macroeconomic stability of the country, favorable business environment, infrastructure development and credibility of government policy. The use of restrictive monetary and fiscal policy in recent years has enabled the achievement of macroeconomic stability in the Republic of Macedonia. But this stability does not bear economic growth. The last financial and global crisis caused recession in the whole world. Increased

inflation rate and jobless growth disturbed the established macroeconomic stability, and that made Republic of Macedonia more risky country for foreign investors. Political instability is another important factor that discourages FDI.

Economies use different combinations of measures to stimulate economic activity and increase and diversification of investments in certain regions and areas. Particularly significant are fiscal incentives that attract foreign direct investments in developing countries. Fiscal measures to encourage FDI economies are different types of tax incentives, special customs measures and the establishment of institutions that provide information, legal and organizational support to foreign investors. Project funding for communication infrastructure (construction and maintenance of road infrastructure, air transport, telecommunications and other forms of communication connectivity) improvement, undertaking activities and investments for research and development (R & D) and projects targeted for increasing human capital are other ways that Government is attracting FDI.

Republic of Macedonia pays special attention to establish a better business environment. Special government measures are made to ensure favorable conditions for foreign investors. These measures include: institutional framework for investors, providing well developed infrastructure network and a lot of legal and fiscal advantages. In our paper, we focus on tax incentives for attracting FDI.

Tax conditions are designed to be favorable for foreign investors. Tax incentives may be related to reducing tax rates or reducing the tax base. Governments may decide to reduce the tax rate on corporate income tax to attract FDI in specific sectors or regions. Many countries have implemented this type of tax incentive to increase FDI, especially for transition economies and developing countries. The lists of countries that have implemented tax incentives include Hong Kong, Indonesia, Ireland, Cambodia, Estonia, and others. The Republic of Macedonia also used it. The corporate tax rate initially was 30%.[8] In the period of 1997

[8] Law on Corporate Income Tax, article 28, Official Gazette of Republic of Macedonia, 80/93

till 2006 the corporate tax rate was 15%.[9] In the 2007 the calculations for corporate tax was made by 12%[10] and from 1 January 2008 is 10 %[11].

Changing the model for tax base calculations in 2009[12] represent another benefit for investors. According to this model tax base is calculated as amount reduced by tax credits, tax breaks and exemptions. Only non-deductible expenses and realized profit are accounted. If profits are accumulated and reinvested to expand the activity it is not subject to taxation.

Similar incentive is the application of the tax exemption period (tax holidays). Tax holidays include exemption from payment of corporate income tax for a certain period of time (e.g. 5 years). This usually refers to the newly-scale enterprises and companies. Most of these companies or corporations are exempt from other tax liabilities in the specified period determined as time exemption. Developing countries and economies in transition use it as a way for the country to become an attractive destination for foreign direct investment.

The Republic of Macedonia established Technological Industrial Development Zones (TIDZ). Investors in Technological Industrial Development Zones are entitled to personal and corporate income tax exemption for the first 10 years. Investors are exempt from payment of value added tax and customs duties for goods, raw materials, equipment and machines. Moreover, up to €500.000,00 can be granted as incentive towards building costs depending on the value of the investment and the number of employees. Land in a TIDZ in Macedonia is available under long-term lease for a period of up to 99 years.[13]

The tax system predicts special tax incentive if the production activities in the technological industrial zones are from the IT area (software development, hardware assembling, digital recording,

[9] Law on Corporate Income Tax, article 11, Official Gazette of Republic of Macedonia, 71/96

[10] Law on Corporate Income Tax, article 37, Official Gazette of Republic of Macedonia, 139/2006

[11] Law on Corporate Income Tax, article 28, Official Gazette of Republic of Macedonia 79/2013 (previous amendments 33/95, 43/95, 71/96, 5/97, 28/98, 11/2001, 2/2002, 44/2002, 51/2003, 120/2005, 139/2006, 160/2007, 159/2008, 85/2010, 47/2011, 135/2011) p. 11, www.ujp.gov.mk

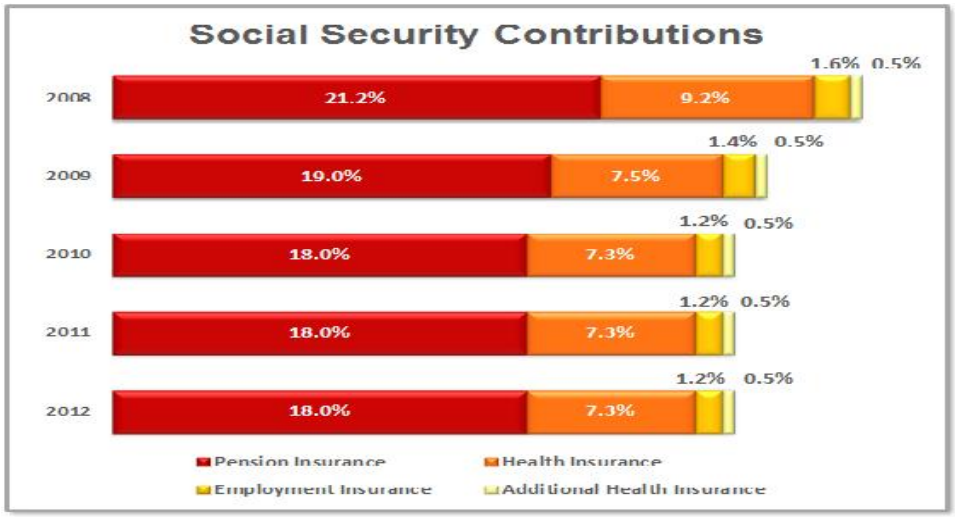
[12] The tax base is calculated according to the so called "Estonian model". This model is based to the tax system in Estonia. Calculations of the tax base take into the tax credits and tax exemptions. Only non-deductible expenses and realized profit are accounted.

[13] Law of Technological Industrial Zones, article 5,6,7 and 8, Official Gazette of Republic of Macedonia 14/2007

computer chips etc.), scientific research activity and new technologies with high environmental standards. Investors in TIDZs who operate in these areas are exempt from the liability for submission of a guarantee as collateral for any customs areas.

Also, there have been changes in the area of social contributions.

Figure 4: Social security Contributions in the Republic of Macedonia

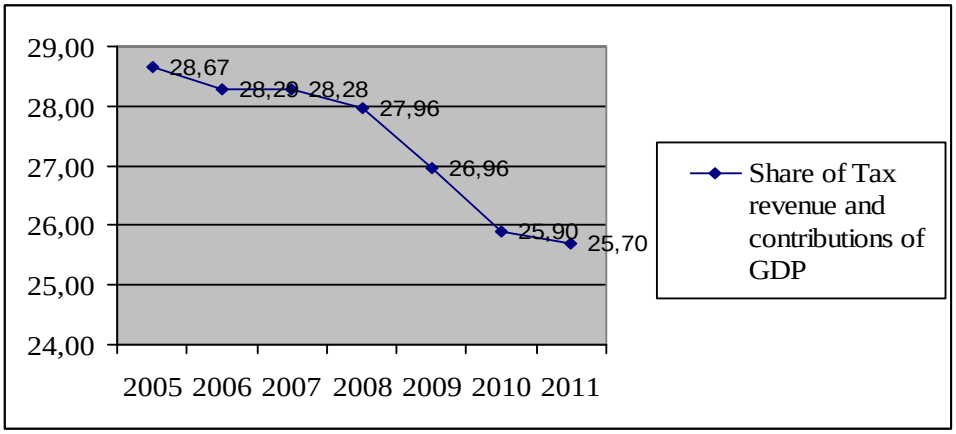


Source: Ministry of Labor and Social Policy of the Republic of Macedonia, http://www.investinmacedonia.com/

According to the previous mentioned tax and contributions cuts, the decreasing share of the tax revenue and contributions of GDP in the Republic of Macedonia is obvious.

Figure 5: Share of the Tax Revenue and Contributions of GDP in the Republic of Macedonia

in million denars



Source: Statistics of Ministry of Finance of the Republic of Macedonia htpp://www.finance.gov.mk/

The share of tax revenue and contributions in GDP has not decreased straight forward with the reduction of the tax rate, which has much faster rate of decline. There is a slight drop of less than one percentage point of the share of tax revenue and contributions in GDP in 2007. The share was 28,28% in 2007 and 27,96% in 2008. This trend continued in the following years.

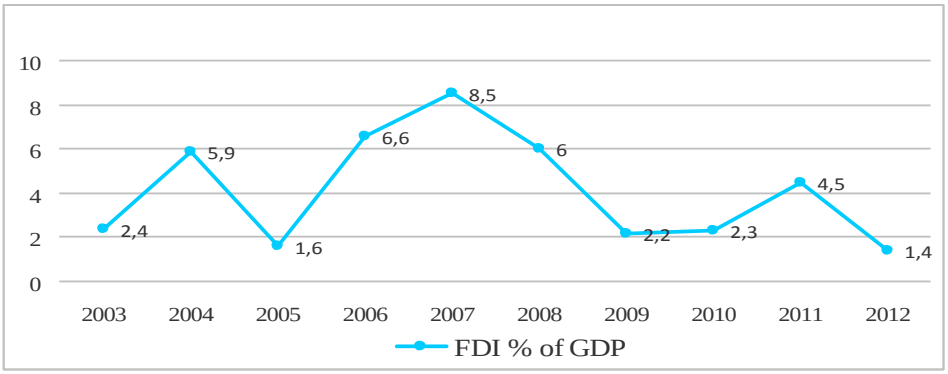
Apart of previously mentioned terms and undertaken measures to attract foreign investors the FDI inflow is low. Compared to the other countries in the group of transition economies, the Republic of Macedonia is ranked in the group of countries with the lowest inflows and outflows of FDI.[14] The range of the inflows and outflows of FDI, for the period 2006-2012 is below 0,5 billion $.

The figure 6 presents the trend line of the FDI as a share of GDP in the Republic of Macedonia. The highest share was reached in the 2007 and it was 8,5%. The minimal FDI share 1,4% of GDP was in 2012.

[14] UNCTAD World Investment Report 2013, Global Value Chains: Investment and Trade for Development; p. 91-94

Figure 6: FDI share in GDP of the Republic of Macedonia

in million €

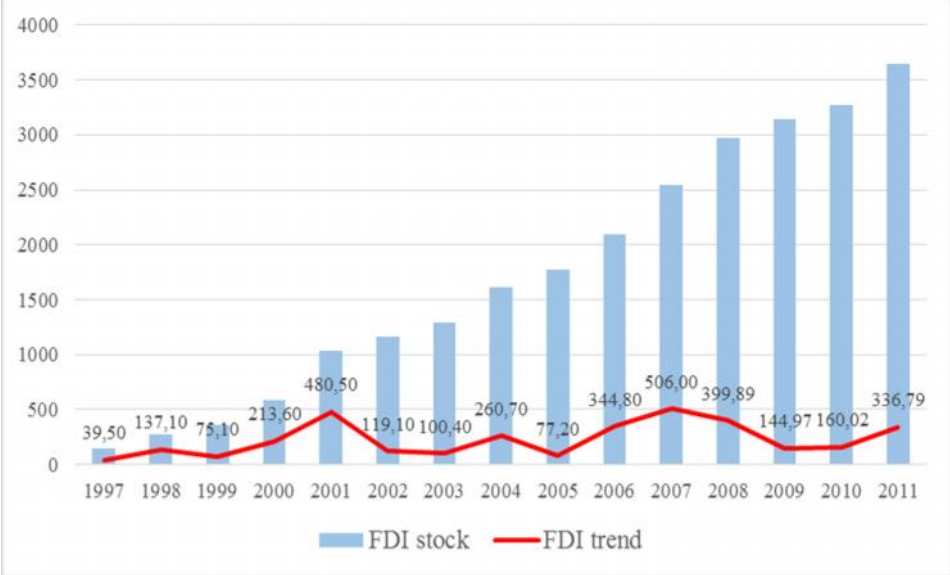


Source: National Bank of the Republic of Macedonia

The situation with FDI in the Republic in Macedonia showed as stock and trend is presented in the figure 7.

Figure 7: Stock and movements of FDI in the Republic of Macedonia

in million €



Source: Statistics of National Bank of the Republic of Macedonia

Tax incentives in 2007 show positive impact on FDI trend in the Republic of Macedonia. But, we can conclude that this is not the case in all of the following years. In 2008, 2009 and 2010 the level of FDI decreased, but it slightly increased in 2011. The following empirical analyses assess the impact of these FDI movements on the economic growth in the Republic of Macedonia.

2. Econometric Analysis of FDI and Tax Policy Effects on economic growth in the Republic of Macedonia

The theoretical model that is the basis for setting the statistical model for empirical analysis is the model of production function by Cobb Douglas. Equation represents the relationship between the production factors capital, labor and technology or total factor productivity and the level of realized total output.

$$Y = F(K, L, A) = K^{\sim} L \;\; A$$

In this case the total factor productivity would be expressed as a function of gross investment, foreign direct investment (FDI) and tax revenue in purpose of assessment of TFP. The involvements of FDI in the expression of total factor productivity justify the assumption of new theories of economic growth. They are based on the endogenous of technological progress, which showed that the openness of the economy to the overseas can generate growth in real GDP in the long run. The effects of tax policy are expressed by the variable tax revenue which shows the changes in the level of fiscal revenue as a result of the use of fiscal incentives for FDI.

Variables that determine TFP that we take in consideration are the gross investment in the economy, foreign direct investment and tax revenue. The function has the following nonlinear form:

$$Y_t = \;\; {}_0K^{\;1} L^{\;2} GI^{\;3} FDI^{\;4} Tax^{\;5} U_t$$

Model is transformed into lin-log model with the following expression:

$$LnY = {}_0 + {}_1 Ln(K) + {}_2 Ln(L) + {}_3 Ln(GI) + {}_4 Ln(FDI) + {}_5 Ln(Tax) + Ln(U_t)$$

Y – Real GDP;
K – Physical capital;
L – Labor (number of employees and/or hours of work);
GI – Gross investment (% of GDP);
FDI – Foreign Direct Investment (% of GDP);
Tax – Income tax and contributions (% of GDP);
${}_0$ – Free article;
${}_1 \ldots {}_4$ – Coefficients to be evaluated;

Gross domestic product is dependent variable in the model. The independent variables that determine the movement of the dependent variable are capital, labor, gross investment, foreign direct investment and tax revenues as a share of GDP. The estimated coefficients (${}_1 \ldots {}_4$) define the elasticity of GDP and analyzed independent variables. Theoretical findings suggest positive values for all the coefficients of the independent variables.

$${}_1, {}_2, {}_3, {}_4, {}_5 \rangle 0$$

The basic factors that determine economic growth are capital and labor. It is generally known that the contribution of physical capital and labor are positive. The core Cobb Douglas equation determines economic growth only through these two factors calculated with mathematical terms according to which the share of capital in economic growth is 1/3, while labor is accounted for 2/3.

Gross investment as a variable resulting from the decomposition of total factor productivity should reflect investment activity in the country. The idea is to make a presentation on the situation with investment as an engine of economic growth. Gross investment category incorporates investment and net investment return of constant capital (depreciation). Investments whether, it is domestic or foreign net investments increase the physical capital goods in the economy. Thereby increased potential levels of GDP allow higher real GDP to be realized. Theory and empirical experience has confirmed this positive effect.

Situation with the foreign direct investment is something different and not exactly clear. The theoretical logic suggests a positive impact of foreign direct investment and economic growth. Above all they are adequately complementing the investment activity through external (foreign) inflows. FDI positively affects the economy in increasing the productivity and efficiency of both physical and human capital, increasing the level of physical and human capital and increasing the competition, it also allows technology transfer and it encourages innovative activity and research. However, empirical research does not always confirm the above-defined positive determination. Therefore we can confidently assume that foreign direct investment will show positive depending on the level of GDP in the Republic of Macedonia.

The impact of tax policy and economic growth reflects the independent variable tax revenues and contributions expressed as a percentage of GDP. The ratio of total tax revenue and GDP (tax revenue / GDP) is the total picture of the average tax rate. In a number of studies that empirically test the relationship between taxation and economic growth confirm the negative impact of aggregate average tax rate, but there are studies that deny this claim. It is important to highlight that changes in the tax burden heavily affect economic growth, depending on the fact whether the analysis concerns the developed economies or developing countries. Developing countries are subject to greater influence caused by tax changes. On the other side, developed countries show that such changes insignificantly affect economic growth. In our analysis, the independent variable tax revenue as a percentage of GDP is expected to have a positive and significant impact on economic growth.

Table 1: Symbols, description and expected sign of the variables in the regression

Symbol	Description of the explanatory variable	Expected sign in the regression
K_t	Physical capital	+
L_t	Labor, number of employees	+
GI	Gross investment (as a percentage of GDP)	+
FDI	Foreign direct investment (as a percentage of GDP)	+/-
Tax Revenue	Income tax and contributions (as a percentage of GDP)	+/-

Note: "+" represents positive attitude, "-" a negative attitude, "0" and "+ and -" are theoretically ambiguous relationship with the dependent variable

The calculation of the lin-log model is made with multiple linear regressions using the software package XLSTAT, 2012. The database used in the regression consists of quarterly data for the period 2005 to 2011 for the Republic of Macedonia. They are provided by primary and secondary sources of data from the State Statistical Office of the Republic National Bank of the Republic of Macedonia, Ministry of Finance of the Republic of Macedonia as well as the database for the Republic of Macedonia from International Monetary Fund.

In estimating the parameters of statistical analysis model the method of least squares is used with the assessment. Significant assumptions that should be considered in the interpretation of the regression parameters are multicollinearity, heteroscedasticity and autocorrelation statistical errors.

The initial regression equation has a problem of high multicollinearity between independent variables K and L. Testing autocorrelation obtained by Durbin-Watson test under the table of critical values of schedule of test-statistics showed uncertainty. It is necessary both variables K and L simultaneously to be excluded from the regression. The results of both regressions are presented in the table:

Table 2: Results from regressions

Independent variables - X	(1)	(2)[15]
K - Physical capital	0,675 (6,105)***	
L – Labor (number of employees and/or hours of work)	0,492 (1,503)	
GI – Gross investment (% of GDP)	0,098 (3,004)***	0,016 (0,442)
FDI – Foreign Direct Investment (% of GDP)	0,018 (1,897)*	-0,008 (-0,921)
Tax - Income tax and contributions (% of GDP)	0,012 (0,101)	1,238 (13,153)***
Number of observations (n)	28	28
R^2	0,965	0,918
Adjusted R^2	0,975	0,908
Durbin - Watson	1,199	1,967

Source: own calculations using the software package XLSTAT, 2012

Method of least squares $R^2 = 0{,}965$ is an acceptable criterion for correctness of the model. Diagram of distribution of residuals shows no presence of heteroscedasticity. (Annex number 1). The equation has the following form:

Ln(Y) = -0,9752+1,6183E-02*Ln(GI)-8,4572E-3*Ln(FDI)+1,2376*Ln(Tax)

The evaluation of the model by the method of least squares R^2 shows that about 92% (0,918) of the variation in the dependent variable can be explained by variations of all independent variables included in the model. The independent variables included in the model have successfully determined the relative dependence of economic growth in the Republic Macedonia. The results from the criteria for evaluation of the model, correlation matrix, and test for the multicollinearity and the estimated value for the parameters are presented in the annex number 2.

Variables gross investment (GI) and foreign direct investment (FDI) did not show statistically significant impact. According to these results FDI have a negative impact on economic growth in the analyzed

[15] adjusted data (adjustment of the data is done according to the value of the Durbin-Watson 1,681 from the previous regression with exclusion of K and L)

period of the Republic of Macedonia. Special interests in interpreting the results of regression parameters cause the independent variable tax revenues and contributions. According to the results of the regressions tax revenue show a positive and statistically significant effect, with a significance level of 1%. Their impact is greatest when the regression analysis excludes physical capital and employment.

The Republic of Macedonia in the current transitional period, had low rates of economic growth even negative in same periods (Figure 1). In creation of the macroeconomic policy measures special attention should be paid to conventional growth factors – physical capital and employment. The level of physical capital is low and any slight increase positively affects economic growth in the country. The analysis confirmed that the contribution of physical capital is primarily due to net domestic investments component of gross investment, analyzed as an independent variable in the regressions.

Gross investments are those that increase the constant level of physical capital in the country and are of particular importance for economic growth in the country. ***Foreign direct investment*** does not show statistically significant. Although various fiscal measures favor and create favorable conditions for foreign investment, they are not a source of economic growth in the Republic of Macedonia. Specifically when the analyses exclude physical capital and employment, their impact is not only important but also negative.

Tax incentives can contribute to achieving economic growth, but only in the long term and when country reaches a certain level of economic growth. Many empirically analyses confirmed the theoretical claim that changes in tax policy show greater effects in developing economies, unlike developed economies. The rare case in analysis is a statistically significant positive impact of ***taxes and contributions*** and economic growth. This can be explained as a result of accidental overlap of few things. The economic growth rate in the 2007 is the highest evident growth rate in the last period in the Republic of Macedonia. The share of tax revenue and contributions in GDP has not decreased straight forward with the reduction of the tax rate, which has much faster rate of decline. There is a slight drop of less than one percentage point of the share of tax revenue and contributions in GDP in the same year. So, this exceeds the negative impact of reduced tax revenues.

Conclusion

In the recent years, the economics of growth is the subject of intense theoretical and empirical research. Some of it has adopted and extended the neoclassical growth model as formalized by Robert Solow and Swan, while retaining the assumptions of constant returns to scale and exogenous technical progress. Others have taken more radical departures from the neoclassical model by bringing in increasing returns to scale and attempting to model technological change. That represents the endogenous growth theory. In both cases these efforts try to explain the process of economic growth in developed and developing countries.

Theoretical approach for this analysis is the new growth theory and extended Solow's model. This paper analyses the effects of investment and fiscal policy measures as determinants of total factor productivity in the Republic of Macedonia. The empirical analyses are conducted using the data for capital, labor, gross investment, FDI and tax revenue as determinants of economic growth in the Republic of Macedonia in the past period.

The results for capital and labor show great positive statistical impact on economic growth in the Republic of Macedonia. This is not unexpected according to the fact that capital and labor are basic source of economic growth. Multicolinearity coefficient confirm the high correlation between them and the economic growth and they are excluded from the second regressions. Variables gross investment (GI) did not show statistically significant impact. Macroeconomic stability, application of special tax measures and incentives, creation of free trade zones have contributed to some increases of FDI. But the trend of FDI in Macedonia showed no statistically significant impact on economic growth. According to these results FDI have a negative impact on economic growth in the analyzed period of the Republic of Macedonia. The independent variable, tax revenues and contributions cause special interests in interpreting the results of regression parameters. According to the results of the regressions tax revenue show a positive and statistically significant effect, with a significance level of 1%. This is not a usual relationship, it is coincidence. The positive effect of high economic growth, especially in 2007, overlap the negative impact of reduced level of tax revenue and contributions in the same year.

The aim of the fiscal policy should be to increase the investments in the Republic of Macedonia. This can be achieved by measures that stimulate domestic and foreign investments. This research confirms that in the analyzed period, tax incentives contribute to some increase of FDI. Future tax measures should follow the same direction. The improvement of the infrastructure network will also contribute in increasing domestic and foreign direct investments. The trend of reduction in social security contributions in the Republic of Macedonia will have positive effect on the economic growth. That measure will create favorable terms for investors to increase the number of employees. This will also have greater impact on employment, than reducing the tax rate on personal income.

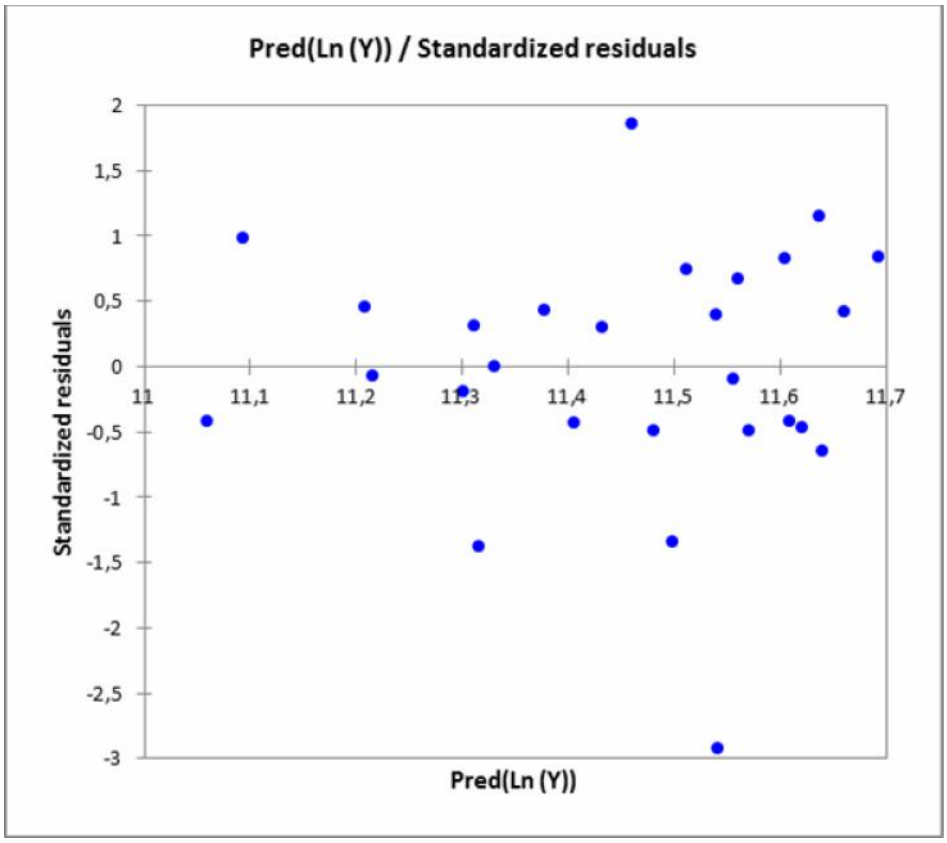
References:

1. Addison Tony, Roe Alan, (2006), Fiscal policy for Development: Poverty, Reconstruction and Growth (Studies on Development Economics and Policy), Palgrave Macmillan;
2. Атанасовски Живко, (2004), Јавни финансии, Економски факултет, Скопје;
3. Barro J. Robert, (1990), Macroeconomics, Harvard University;
4. Barro J. Robert and Sala-i-Martin X,(1995), Economic Growth, New York, McGraw-Hill;
5. Borensztein, De gregorio, Lee (1998), How does foreign direct investment affect economic growth, Journal of International Economics, 45 (1)
6. Ефтимоски Димитар, (2009), Економски раст, Основни теоретски концепти и модели, Универзитет „Св. Климент Охридски“ – Битола, Факултет за администрација и менаџмент на информациски системи;
7. Feldstein M, Harioca C, (1980),Domestic Saving and International Capital Flows, The Economic Journal, 90;
8. Gittens Dexter, (2006), The effect of foreign direct investments on the accumulation of human capital in developing countries and there implication for future growth, Fortham University;
9. Invest in Macedonia, htpp://investinmacedonia.com.mk

10. Lovrinčevič, Mikulič, Marič, (2005), Priljev inozemnog kapitala – Utjecaj na nacionalnu štednju, domače investicije I bilancu placanja – tranzicijskih zemalja Srednje I Istočne europe, Ekonomski institut u Zagrebu, Zagreb
11. Kesner – Škreb Marina, (1996-1999), Tax policy and economic growth, Croatian Economic Survey;
12. Myles D. Gareth, (2000), Taxation and Economic Growth, Fiscal Studies, Vol. 21 , no 1 p.p. 141-168
13. Myles D. Gareth, (2007), Economic Growth and The Role of Taxation, OECD
14. Ministry of Finance of the Republic of Macedonia, htpp://finance.gov.mk
15. Ministry of Labour and Social Policy of the Republic of Macedonia, htpp://mtsp.gov.mk
16. Morisset Jacquese, Pirnia Neda, (2000), How Tax Policy and Incentives Affect Foreign Direct Investment, The World Bank and International Advisory Service
17. National Bank of the Republic of Macedonia, htpp://nbrm.mk
18. Schaup Raphael, (2004), Assessing the Effect of Foreign Direct Investment on Economic Growth in Developing Countries with the Extended Solow Model, Institute for Sociology, University Zurich;
19. Svetska Banka (2001), Babič, Pufnik, Stučka, Teorija i stvarnost inozemnih stranih ulaganja u svjetu I tranzicijskim zemaljama s posebnim osvrtom na Hrvatsku, HNB, Zagreb
20. UNCTAD World Investment Report 2013 (2013), Global Value Chains: Investment and Trade for Development;

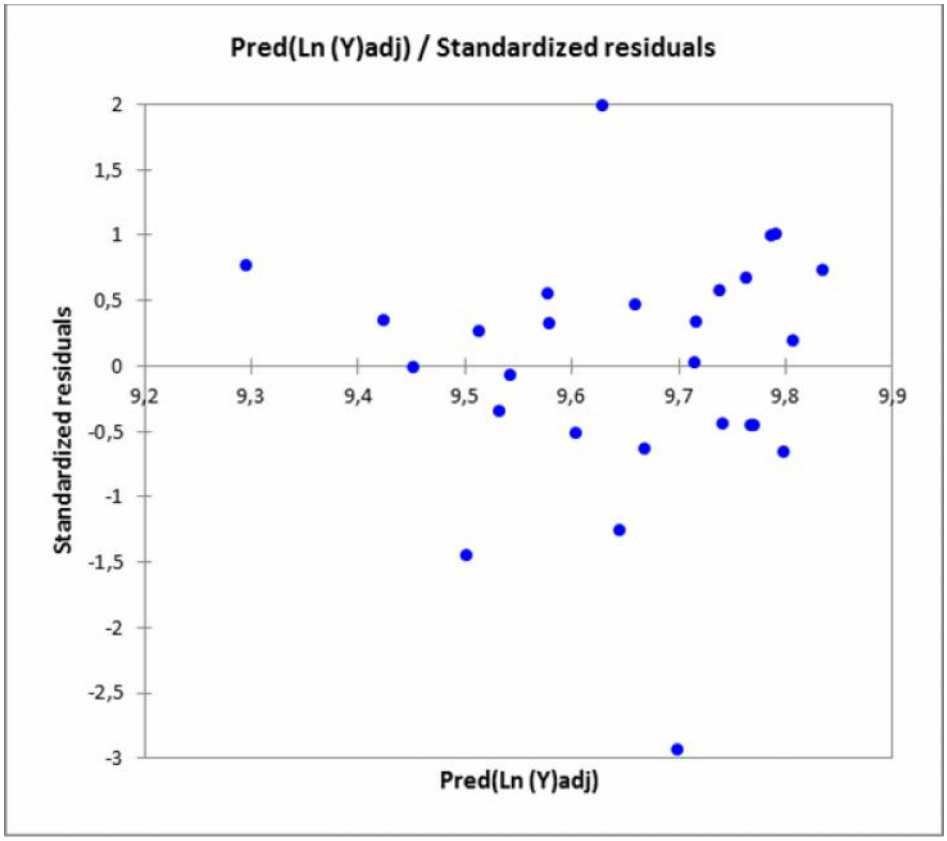
Annex 1

Figure 1: Test for heteroskedasticity of residual versus predicted values of the dependent variable Y (first regression)



Source: own calculations XLSTAT 2012

Figure 2: Test for heteroskedasticity of residual versus predicted values of the dependent variable Y (second regression with adjusted data)



Source: own calculations XLSTAT 2012

Annex 2

Table 1: Criteria for evaluation of the model (with adjusted data)

Observations	27,000
Sum of weights	27,000
DF	23,000
R2	0,918
Adjusted R2	0,908
MSE	0,002
RMSE	0,043
MAPE	0,307
DW	1,967
Cp	4,000
AIC	-165,954
SBC	-160,770
PC	0,110

Source: own calculations XLSTAT 2012

Correlation matrix:

Variables	Ln (GI)adj	Ln(FDI)adj	Ln(Tax Revenue)adj	Ln (Y)adj
Ln (GI)adj	**1,000**	-0,112	0,541	0,543
Ln(FDI)adj	-0,112	**1,000**	-0,107	-0,159
Ln(Tax Revenue)adj	0,541	-0,107	**1,000**	0,956
Ln (Y)adj	0,543	-0,159	0,956	**1,000**

Multicolinearity statistics:

Statistic	Ln (GI)adj	Ln(FDI)adj	Ln(Tax Revenue)adj
Tolerance	0,704	0,984	0,705
VIF	1,421	1,016	1,419

Model parameters:

Source	Value	Standard error	t	Pr > |t|	Lower bound (95%)	Upper bound (95%)
Intercept	-0,975	0,758	-1,287	0,211	-2,543	0,593
Ln (GI)adj	0,016	0,037	0,442	0,663	-0,060	0,092
Ln(FDI)adj	-0,008	0,009	-0,921	0,367	-0,027	0,011
Ln(Tax Revenue)adj	1,238	0,094	13,153	< 0,0001	1,043	1,432

UDC 336.226.12(497.7)
Original scientific paper

Ilija GRUEVSKI[*])

EFFECTIVE MARGINAL TAX RATES ON CORPORATE INCOME IN THE REPUBLIC OF MACEDONIA

Abstract

This article is aimed for presentation of the effective marginal tax rates (EMTRs) on corporate income in Republic of Macedonia. The objective is to measure the effective marginal tax burden on the alternative investment projects by source of finance and by asset, for proper evaluation of the allocation efficiency of the domestic corporate tax system. The calculation will consider only the effect from the corporate taxes under the assumption of absence of the personal taxes. Fundamentally, the methodological frame applied for the purpose of this research is made from the effective marginal tax rate and its analytical components, according to the widely excepted Devereux-Griffith approach. In general, from this analysis we may resume that the corporate tax reform in Macedonia did achieve some improvements on its eficiency performancess and promoted itself as one of the most tax favorable in Europe. Also, the results will discover if the effects from the implemented measures in practice are correspondent to the effects found in theory.

Keywords: corporate income tax**,** cost of capital, source of finance, effective marginal tax rate, Republic of Macedonia

JEL Classification Numbers: H25, H32, D92

[*]) Ph.D."Goce Delcev" University, Stip, Republic of Macedonia
E-mail: ilija.gruevski@ugd.edu.mk

Introduction

The Corporate income tax system in Republic of Macedonia has always been subject of continuous reforms during the last decade, especially in the period after the country became a candidate for EU membership in 2005. Except the obligation for harmonization of tax rules, the other priorities were to maintain a tax structure that would enable relatively simple and easy administration, and at the same time would provide comparatively lower effective tax burden. Generally speaking, Macedonia has chosen to develop a "consumption-based" corporate income tax system, with intention to create and sustain better investment environment. Its new guiding principles were to shift the excessive tax burden on the parts of corporate income that are intended mostly for consumption as well as to exempt from taxation the shares whose purpose is to be saved or reinvested. From this perspective, tax authorities in Republic of Macedonia have designed some simple and interesting solutions. For example, the corporate income tax rate was lowered and the concept of split rate system[1] was introduced instead of the previous concept of imputation rate system. Also, the corporate income and the personal income tax base were adjusted with the implementation of proportional "flat" tax rate. As it can be seen, this transition in tax policy area is in accordance with the general tax policy principle of efficiency.

The research in this article evaluates the effect of these measures as well as the tax policy relevance in Macedonia in the period from 2006 to 2012. The aim is to examine the allocation efficiency properties of the domestic corporate tax system by using of some of the most reliable effective tax burden measures. According to the European Commission, the standard methodology is based on the Devereux-Griffith approach (1999). Since the research is more focused on the allocation criteria, it is recommended that the measurements should be expressed on marginal level and should include the effective marginal tax rate and the cost of capital. The calculation will consider the effect only from the corporate taxes under the abstraction of the personal taxes, for every alternative

[1] With the implemented split rate system in Macedonia, distributed profits are taxed and retained profits are exempt from taxation. Precisely, corporate profits are only taxed, if they are distributed with a 10% tax rate. This measure which is originally called "Tax exemption on undistributed earnings" was basically intended to create strong incentives for reinvestment of retentions. Similar concept was also implemented in Estonia.

investment projects by source of finance and by asset composition. After the introduction, the article firstly includes short elaboration of the EMTR and its practical application in the case of Macedonia. Secondly, the paper contains full analysis of the results from the calculation of the EMTRs. Additionally, the comparative analysis of the effective tax rates between Macedonia and the other European countries is given, before the concluding remarks.

1. The model of EMTR and its application in the case of Macedonia

The basic study on marginal effective tax rates was performed by the authors King & Fullerton (1984), which is originally based on the papers of Jorgenson (1963), Hall & Jorgenson (1967), and King (1974), and essentially, it represents a natural extension of the cost of capital approach. Because of its explicit theoretical foundations it's considered as a pioneering methodology in this field. Actually, the study of King & Fullerton: *"The taxation of income from capital: A comparative study of the United States, the United Kingdom, Sweden and Germany"* is the first to compare METR for different countries using a unified methodology. The methodological frame developed by Devereux & Griffith (1999), was proposed in the work*: "The taxation of discrete investment choices"*, and it extended the already existing concept proposed by King & Fullerton. During the following years (2002, 2003) they refined their approach, which resulted in standardized methodology accepted by most of the economic organizations and institutions.

According to Devereux & Griffith (1999, 2002, 2003), the model assumes a hypothetical investment project undertaken by a corporation in the manufacturing sector. The corporation can invest in 5 (five) different assets weighted equally (1.buildings – or industrial buildings; 2. equipment or machinery; 3. intangibles-especially patents; 4.financial assets; and 5.inventories.). True economic depreciation rates assumed for the assets are: buildings 3,1%, equipment 17,5%, intangibles 15,35%, financial assets 0% and inventories 0%. The financial strategy of the hypothetical investment project is consisted of 3 (three) different alternative sources of finance which are also weighted equally (1.debt from external lenders; 2.new equity capital; and 3.retained earnings.). EMTR is calculated by assuming a real interest rate of 5% and inflation

rate of 2%. The calculation considers only the taxes at corporate level (taxes at shareholders level are ignored). This assumes all personal tax rates to be zero. Table 1, from the annex below, summarizes the relevant economic parameters assumed for the purpose of calculation of the effective tax rates:

The general expresson of the effective marginal tax rate is established as:

[1] $$EMTR = \frac{\tilde{p} - s}{\tilde{p}}$$

where $p^{\sim}$ is the cost of capital (pre-tax rate of return on investment) and s represents the post-tax rate of return on savings.

The basic expression for the cost of capital $p^{\sim}$ is defined as:

[2] $$\tilde{p} = \frac{(1-A)\{\delta + \gamma(1+\rho) - \rho\} + \tau t\rho + (1+\delta)e}{(1+\rho)(1-t)} - \frac{F(1+\delta)}{\psi(1+\rho)(1-t)} - \gamma$$

where δ is the true economic depreciation rate, π is the inflation rate and ρ is the shareholder's discount rate, which in absence of personal taxes is identical with the nominal interest rate ($\rho = i$), found from the expression:

[3] $$i = (1+r)(1+\rho) - 1 = (1+0{,}05)(1+0{,}02) - 1 = 1{,}071 - 1 = 0{,}071$$

Symbol t, represents the nominal corporate income tax rate and e the real estate tax rate, both payable in the period in which the investment is undertaken. It must be noticed that the real estate tax rate (or the property tax rate) in RM, is usually applied only in case of investment in buildings with rate of 0,1%.

One of the most important variables is the tax discrimination variable γ, which is used to measure tax discrimination between new equity and distributions. If we consider m^d to be the personal tax rate on dividend income, z the effective personal tax rate on capital gains and c the tax credit rate allowed for dividends paid, then:

[4] $$\psi = \frac{(1-m^d)}{(1-z)(1-c)}$$

In absence of personal taxes, since $z = m^d = 0$, automatically yields $\gamma = 1$. This is a case in 2007 and 2008. In 2006, the imputation corporate tax system was in force allowing a tax credit or alternatively, an imputation rate on dividend distributions in amount of 50% from the

personal income tax liability on dividend income. Considering that the adequate tax rate in 2006 was established at 15%, the effective tax credit rate *c* was equal to 0,075 (0,15 * 0,50 = 0,075). So, the implications on the tax discrimination variable in 2006 are the following:

[5] $$¥^{2006} = \frac{(1-m^d)}{(1-z)(1-c)} = \frac{(1-0)}{(1-0)(1-0{,}075)} = \frac{1}{0{,}925} = 1{,}0811$$

Then, in 2009 the split corporate tax system was introduced, and the value for the tax discrimination variable was altered once again. Since retained profits are not taxed (t = 0) and corporate profits are taxed only when they are distributed with 10% tax rate (t^d=0,1), the parameter γ for the period 2009 to 2012 is calculated as:

[6] $$¥^{2009-2012} = \frac{(1-t^d)}{(1-t)}¥^{2008} = \frac{(1-0{,}1)}{(1-0)}1 = 0{,}9$$

A special attention should be given to the term $vt\pi$. Actually, it reflects the cases of taxation of inventories and financial assets and it depends largely on the method of valuation for tax purposes. In the case when these assets are valued on FIFO basis, than v = 1, in the case of LIFO, v = 0, and if average cost method is used, than v = 0,5. In RM, the treatment of financial assets implies v = 1, and since the average cost method is in force for the treatment of inventories, in this case v = 0,5.

Parameter A represents the net-present value of tax depreciation allowances for the different asset groups. Although the Macedonian tax code recognizes all of the standard depreciation methods and gives an opportunity for the specific functional method, the Ministry of finance restricts the choice to the straight-line method as the only relevant depreciation method. Depending on the method of depreciation (declining-balance method, inclining-balance method or straight-line depreciation method), parameter A might have different values. Here, the general expression only for the straight-line depreciation method is given, since it is the most relevant method of depreciation:

[7] $$A = t¤\left\{\left(\frac{1}{1+°}\right) + \left(\frac{1}{1+°}\right)^2 + \ldots + \left(\frac{1}{1+°}\right)^L\right\}$$

or alternativelly:

[8] $$A = t¤ \frac{(1+°)^L - 1}{°(1+°)^L}$$

where L is the length of the depreciation period (expressed in years) and φ is the depreciation rate for the different assets allowed for tax purposes. In RM, tax depreciation rate for the buildings is taken to be 5%, for the equipment (machinery) 14,28% and for the intangibles 20%, calculated as an equally weighted average rates in each asset groups. Translated in years, the average lengths of depreciation periods are 20, 7 and 5, consequently. For the other 2 assets (financial assets and inventories), depreciation rates are logically 0.

The financial constraints of investment F depend largely on the source of finance (Devereux & Griffith, 1999). For example, in the case of reinvestment of retained earnings, the project is financed by a reduction in dividend payments in the current period n, hence debt and equity issues are unaffected. This implies F^{RE} to be zero. When there is a case of new equity finance, the financial constraints variable F^{NE} is expressed as:

[9] $$F^{NE} = -\frac{°(1-¥)(1+e)}{(1+°)}$$

and in in the case of debt finance investment, the financial constraints variable F^{DE} is calculated as:

[10] $$F^{DE} = \frac{¥(1+e)(° - i(1-t))}{1+°}$$

In absence of personal taxes, since γ = 1,also implies that F^{NE} = 0, which is a case for 2007 and 2008. In 2006, when the imputation system was still in force, and in the period of the split rate system from 2009 to 2012, F^{NE} yields different value, presented below in Table 3.

Another relevant component of the EMTR is the post-tax rate of return on savings s, measured as:

[11] $$s = \frac{[(1-m^i)i - ®]}{(1+®)}$$

Since the personal tax rate on interest income is assumed zero (m^i = 0), the post-tax rate of return s is identical with the real interest rate r (s = r = 0,05). If this effect is integrated in expression [1] for the EMTR, it can be rewritten as:

[12] $$EMTR = \frac{\tilde{p} - s}{\tilde{p}} = \frac{\tilde{p} - r}{\tilde{p}}$$

The term ($\tilde{p} - r$) from the expression above is known as the investment tax wedge and it's a relevant representation of the effective tax burden on the investor's capital income (Leibfritz, Thornton, Bibbie, 1997). In the annex below, all the essential elements from the Macedonian tax code are summarized in Table 2, and the derived input parameters in Table 3.

2. Results and analysis

Table 4 from the annex below, shows the estimated values of ***the cost of capital*** in Macedonia in the period 2006-2012. As a general rule, this indicator is important because it reflects the optimal size of an investment.

The results indicate that in every case of investment financed with retained earnings and new equity issues, the cost of capital is higher or equal to 5%, which is the initial assumed level of real rate of return. In the case of retained earnings, highest value of 5,93% is measured in 2006, while the lowest of only 5,02% in the period 2009 to 2012. On the contrary, the projects financed with external equity register their lowest value of 5,30% in 2006 and the highest of 5,79% in 2009 to 2012. This "switch" of the tendencies between new equities and retentions is mainly due to the substitution of the previous imputation tax system with the split rate system. In case of investment financed with external debt, the values are mostly lower than the real rate of return, ranging from 4,70% to 5,02%, which means that the system subsidizes this type of investment. On the other hand, the analysis of the results for the cost of capital on investments by type of asset, points that the investments in intangibles and buildings have the lowest minimum rate of return. Investments in inventories and especially in financial assets represent the group of assets with the opposite conclusion.

Estimated values of ***the effective marginal tax rates*** are presented in the annex in Table 5. The significance of this measure is seen in the fact that the allocation efficiency of the system depends largely on the effective marginal tax burden levels. Therefore, EMTR is appropriate for measuring of the extent on the available incentives built in the system.

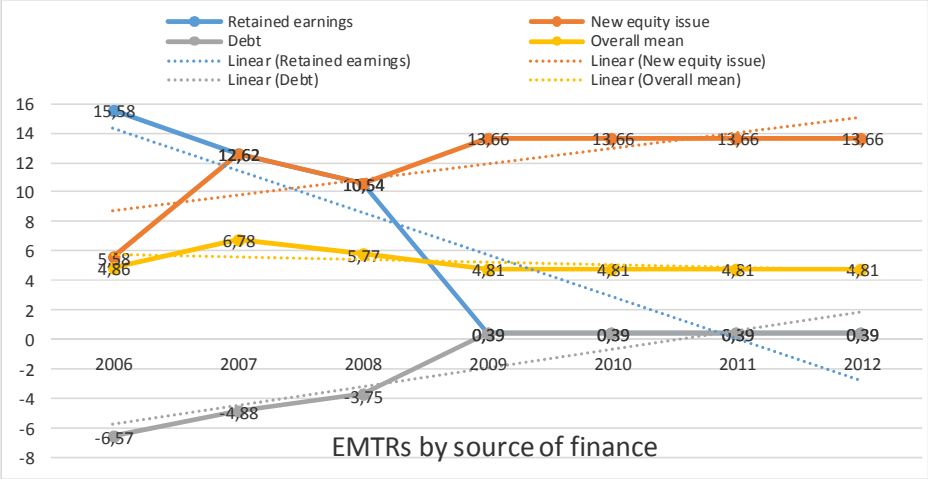
Concerning the results of *the EMTRs by source of finance*, a similar condition can be generalized as in the previous case of the cost of capital. Basically, investments with retained earnings and new equity issues generate positive values of EMTRs. Positive values of EMTRs indicate that the cost of capital for these investments is higher than the real rate of return, meaning that in these cases there is a positive taxation on the marginal unit of investment. For example, for the investments covered with retained earnings, the highest value of 15,58% is registered in 2006, and the lowest of only 0,39% from 2009 to 2012. The projects financed with new equity issues measure their lowest value of 5,58% in 2006 while the highest of 13,66% in 2009 to 2012. Once again, this confirms the change in tax treatment between external equity and retained earnings. Until 2006, a priority was given to the development of the stock market, supported with adequate tax measures. For example, companies were "encouraged" to participate in the market with implementation of the imputation tax system which favors external equity over retentions. A tax credit on dividend distributions was allowed to effectively lower the corporate tax burden on new equity issues for stimulation of the market expansion. In the next period, the tax policy course was altered once again when the imputation system was abolished in 2006 and the split rate system was introduced in 2009. This time investment and economic growth took more importance because the split rate system favors reinvestment of retentions over profit distributions. On the other side, the EMTRs on investments covered with external debt show negative values in the period from 2006 to 2008, with the highest negative value of -6,57% registered in 2006. After that, a small positive value of 0,39% is measured in the period 2009 to 2012. The negative prefix in the first period indicated on the existence of positive incentives that resulted in values of the cost of capital lower than 5%, automatically subsidizing the marginal investment financed with debt. Also, the marginal tax rates between debt and retained earnings are effectively equalized in the period from 2009 to 2012. Characteristically, this effect is once again due to the implementation of the split rate system under the conditions that require taxation of distributed profits and exemption of retained profits. The last fact is prove that theory has found an empirical confirmation in the practice, because this system is known for its abilities for alleviation of the effective tax burden between these two alternative sources of finance.

Generally, the categorization of *EMTRs by asset* is determined from the tax treatment of depreciation allowances for each different group of assets. It reflects the level of incentives incorporated in the domestic depreciation system. The intensity of the available incentives depend from the relation between the established depreciation rate/period for tax purposes and the real economic depreciation rate/period. Usually, when a certain group of assets is tax preferred, the applied depreciation rate/period is higher/shorter than the real economic depreciation rate/period, thus generating higher net-present value of the tax depreciation allowances. The method of depreciation is also important since different methods result with different net-present values. In more detail (see Table 4 and Table 5), the EMTRs on investments in buildings[2] vary from their highest value of 6,29% in 2009-2012 to their lowest of 2,24% in 2006, investments in equipment have slightly higher EMTRs with a range of values from 6,71% in 2007 to 4,45% in 2009-2012, EMTRs on investment in inventories vary from 8,43% in 2007 to 4,45% in 2009-2012, financial assets are the least tax favorable investment option with EMTRs varying from 10,55% in 2007 to 4,45% in 2009-2012, and finally intangibles enjoy the highest privileges of the system with EMTRs ranging from -0,27% in 2006 to 4,45% in 2009-2012. The difference in the marginal tax rate for the buildings in the period 2009-2012 is due to the real estate tax rate, which is applied only for this specific asset group.

In the following section we give attention on ***the relative trends and tendencies of the EMTRs*** in the observed period. This trends are illustrated in Figure 1, for *the EMTRs by source of finance*, and in Figure 2, for *the EMTRs by asset*.

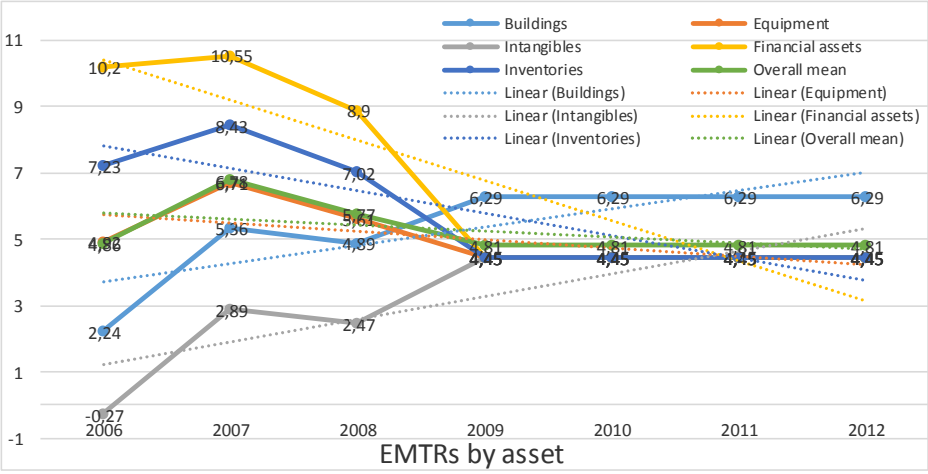
[2] Buildings enjoyed relatively high tax privileges at the beginning of the observed period, since construction is considered as one of the sectors with the highest priorities for the Macedonian government. In the following years the government's support for the construction sector was realized more in a form of direct economic measures, such as the financial assistance, in exchange for the tax incentives which are a typical indirect form of measure.

Figure 1: *EMTRs by source of finance in Macedonia, 2006-2012 (%)*



Source: *Author's calculations*

Figure 2*: EMTRs by asset in Macedonia, 2006-2012 (%)*



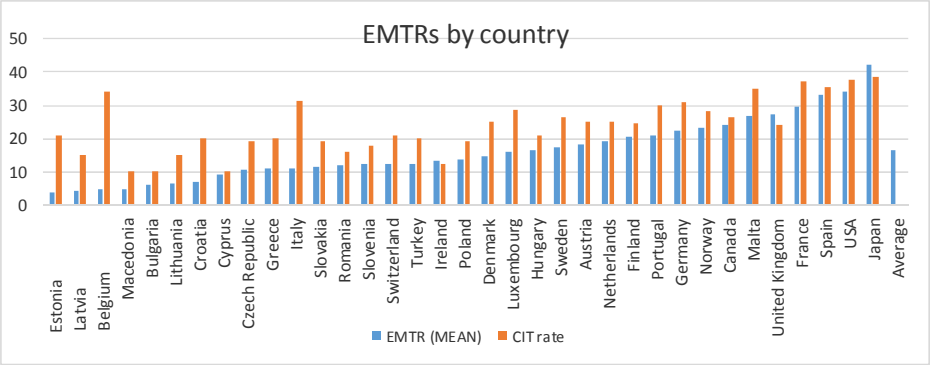
Source: *Author's calculations*

It is clearly seen that the trend lines for the debt and external equity are lightly upward slopping while the retentions manifest strong decreasing tendencies. The synergetic effect from this results in a slight downward slopping trend line for the overall EMTR by source of finance, meaning that the overall tax burden is decreasing over time. Similar conclusions can be drawn for the trend of EMTR by asset. For example, buildings and intangibles represent the group of assets with

increasing tendencies of the marginal tax burden, and inventories, equipment and financial assets are the group of assets with the opposite tendencies. Once again, the trend line for the overall EMTR by asset is modestly downward slopping. Decreasing values of the indicator in the observed period, represent a clear picture of the determination of the Macedonian tax authorities to improve the conditions for investment and to revise the overall business environment.

And finally, some notifications for ***the comparative position*** of the domestic corporate tax system, which is illustrated below in Figure 3.

Figure 3*: EMTRs by country, 2012 (%)*



Source: *Author's calculations, The Centre for European Economic Research (*ZEW*), 2012*

As it is already mentioned, the overall EMTR has decreased over the period 2006 to 2012 varying from its highest value of 6,78% in 2007 to its lowest of 4,81% in 2009-2012. The comparison between the estimated overall values of EMTRs in 2012 shows that Macedonia belongs to the group of countries with extremely low effective marginal tax burden, positioned on the 4th place with EMTR of 4,81%. From the observed group, lower EMTRs demonstrate only Belgium with 4,7%, Latvia with 4,2% and Estonia with the lowest absolute value of 3,6%. The other countries have significantly higher EMTRs mostly ranging from 10% to 20%, and on the bottom of the list, with highest values of EMTRs are positioned Spain with 33,2%, USA with 34,3% and Japan with exceptional 42,1%. Normally, for the majority of countries the EMTR is usually lower from the statutory corporate tax rate, thus indicating on the available incentives integrated in the system. For example, in Macedonia, the statutory corporate tax rate which is

officially 10% is more than twice lowered resulting in an effective tax rate of 4,81%. But, there are some countries that distinguish from this rule where the effective tax rate is actually higher than the statutory tax rate, meaning that the incentives are very restricted there, such as Japan, United Kingdom and Ireland.

Ultimately, it may be resumed that the corporate tax reform in Macedonia did achieve some improvements on its eficiency performancess and promoted itself as one of the most tax favorable in Europe.

Conclusions

This article represents a presentation of the effective marginal tax rates on corporate income in Republic of Macedonia, according to the methodology based on the Devereux-Griffith approach (1999). The objective is to measure the effective marginal tax burden on the alternative investment projects for proper evaluation of the allocation efficiency of the corporate tax system.

Estimated values ***of the cost of capital*** in the period 2006-2012 indicate that the investments financed with retained earnings and new equity issue, have the highest values. In case of investment financed with external debt, the values are mostly lower than the real rate of return.

Concerning the results of ***the EMTRs***, we can generalize similar condition as in the previous case of the cost of capital. Basically, investments with retained earnings and new equity issue generate positive values, while investments covered with external debt show negative values, automatically subsidizing the marginal investment. The analysis of the *EMTRs by source of finance* discovers that firstly, the system favored new equity issues over retained earnings in order to deliver additional support to the stock market expansion. Then, retentions became more preferable, concerning the new orientation of tax policy for support of reinvestment. The results of *the EMTRs by asset* indicate that financial assets are the least tax favorable investment option while intangibles represent the investment option with the opposite conclusion. ***The trend analysis*** in the observed period clearly shows that the trend line for the overall EMTR is modestly downward slopping, meaning that there has been decreasing tendencies of the marginal tax burden. And the analysis of ***the EMTRs by country***, undoubtedly demonstrates on the comparative advantages of the Macedonian tax system.

Annex:

Table 1: *Assumed economic parameters*

Parameters:	**Symbol**	**Value**
True economic depreciation rate	δ	
- industrial buildings		3,1%
- equipment (machinery)		17,5%
- intangibles		15,35%
- financial assets		0%
- inventories		0%
Real interest rate	r	5%
Inflation rate	π	2%

Source: *Devereux & Griffith (2002)*

Table 2: *Tax code parameters*

Relevant domestic tax parameters:	**Symbol**	**Value**
Capital allowances (straight-line method):	φ	
- industrial buildings (L=20 years)		5%
- equipment (machinery) (L=7 years)		14,28%
- intangibles (L=5 years)		20%
- financial assets (L=0 years)		0%
- inventories (L=0 years)		0%
Treatment of inventories (average cost method)	v	0,5
Treatment of financial assets	v	1
Corporate tax rate (2006, 2007, 2008, 2009-2012)	t	15%, 12%, 10%, 0%
Split corporate tax rate on distributions (2009-2012)	t^d	10%
Personal tax rates (assumed to be 0):		
- on interest income	m^i	0%
- on dividend income	m^d	0%
- on capital gains	z^*	0%
Imputation tax credit rate on dividends paid (2006)	c	7,5%
Real estate tax rate (property tax rate)	e	0,1%

Source: *CIT code of RM and Nomenclature of depreciation (2006-2012)*

Table 3: *Derived input parameters, 2006-2012*

Parameter	**Symbol**	**2006**	**2007**	**2008**	**2009/2012**
Post-tax rate of return	s	0,05	0,05	0,05	0,05
Shareholder's discount rate	ρ	0,071	0,071	0,071	0,071
Tax discrimination variable	γ	1,0811	1	1	0,9
Financial constraints variable	F				
- retained earnings	F^{RE}	0	0	0	0
- new equity issue	F^{NE}	0,00537	0	0	-0,00663
- debt	F^{DE}	0,01075	0,00796	0,00663	0
Allowances	A				
- buildings	A^{bui}	0,0788	0,0631	0,0526	0
- equipment (machinery)	A^{equ}	0,1151	0,0920	0,0767	0
- intangibles	A^{int}	0,1227	0,0981	0,0818	0
- financial assets	A^{fin}	0	0	0	0
- inventories	A^{inv}	0	0	0	0

Source: *Author's calculations*

Table 4: *The Cost of capital in Macedonia, 2006-2012 (%)*

The cost of capital (p˜)	**2006**	**2007**	**2008**	**2009/2012**
Buildings (mean)	*5,16*	*5,32*	*5,28*	*5,36*
- retained earnings	5,80	5,64	5,54	5,10
- new equity issue	5,12	5,64	5,54	5,88
- debt	4,57	4,69	4,77	5,10
Equipment (mean)	*5,31*	*5,40*	*5,32*	*5,26*
- retained earnings	5,92	5,72	5,58	5,00
- new equity issue	5,31	5,72	5,58	5,77
- debt	4,69	4,76	4,81	5,00
Intangibles (mean)	*5,04*	*5,19*	*5,15*	*5,26*
- retained earnings	5,65	5,51	5,41	5,00
- new equity issue	5,04	5,51	5,41	5,77
- debt	4,42	4,55	4,64	5,00
Financial assets (mean)	*5,61*	*5,63*	*5,51*	*5,26*
- retained earnings	6,23	5,94	5,77	5,00
- new equity issue	5,61	5,94	5,77	5,77
- debt	5,00	5,00	5,00	5,00
Inventories (mean)	*5,44*	*5,50*	*5,40*	*5,26*
- retained earnings	6,05	5,82	5,66	5,00
- new equity issue	5,44	5,82	5,66	5,77
- debt	4,82	4,86	4,89	5,00
Retained earnings (mean)	*5,93*	*5,73*	*5,59*	*5,02*
New equity issue (mean)	*5,30*	*5,73*	*5,59*	*5,79*
Debt (mean)	*4,70*	*4,77*	*4,82*	*5,02*
Overall mean:	***5,31***	***5,41***	***5,33***	***5,28***

Source: *Author's calculations*

Table 5: *Effective marginal tax rates in Macedonia, 2006-2012 (%)*

EMTRs	**2006**	**2007**	**2008**	**2009/2012**
Buildings (mean)	*2,24*	*5,36*	*4,89*	*6,29*
- retained earnings	13,79	11,34	9,74	1,96
- new equity issue	2,34	11,34	9,74	14,96
- debt	-9,41	-6,61	-4,82	1,96
Equipment (mean)	*4,92*	*6,71*	*5,61*	*4,45*
- retained earnings	15,54	12,58	10,39	0,00
- new equity issue	5,84	12,58	10,39	13,34
- debt	-6,61	-5,04	-3,95	0,00
Intangibles (mean)	*-0,27*	*2,89*	*2,47*	*4,45*
- retained earnings	11,50	9,25	7,58	0,00
- new equity issue	0,79	9,25	7,58	13,34
- debt	-13,12	-9,89	-7,75	0,00
Financial assets (mean)	*10,20*	*10,55*	*8,90*	*4,45*
- retained earnings	19,74	15,82	13,35	0,00
- new equity issue	10,87	15,82	13,35	13,34
- debt	0,00	0,00	0,00	0,00
Inventories (mean)	*7,23*	*8,43*	*7,02*	*4,45*
- retained earnings	17,35	14,09	11,66	0,00
- new equity issue	8,08	14,09	11,66	13,34
- debt	-3,73	-2,88	-2,25	0,00
Retained earnings (mean)	*15,58*	*12,62*	*10,54*	*0,39*
New equity issue (mean)	*5,58*	*12,62*	*10,54*	*13,66*
Debt (mean)	*-6,57*	*-4,88*	*-3,75*	*0,39*
Overall mean:	***4,86***	***6,78***	***5,77***	***4,81***

Source: *Author's calculations*

References:

1. Act for the methods of depreciation of the assets in RM;
2. Corporate Income Tax Code of RM;
3. Devereux M.P., Griffith R. (1999) *"The taxation of discrete investment choices"*, The institute of fiscal studies, Warwick University;
4. Devereux M.P., Griffith R., Klemm A. (2002) *"Corporate Income Tax Reforms and International Tax Competition"*, Economic Policy publications, London
5. Devereux, M.P., Griffith R. (2003) *"Evaluating tax policy for location decisions"*, International Tax and Public Finance;
6. Earnst&Young (2010) *"The E&Y 2010 Worldwide Corporate Tax Guide"*;
7. Elschner, C., Overesch, M. (2007)*"Trends in Corporate Tax Levels in Europe"*, Intereconomics;
8. King M.A., Fulerton D. (1984) *"The taxation of income from capital: A comparative study of the United States, the United Kingdom, Sweden and Germany"*, National Bureau of economic Research, University of Chicago Press;
9. King, M.A. (1977) *"Public Policy and the Corporation"*, Chapman and Hall, London;
10. King, M.A. (1983) "*The relative taxation of capital and labor income"*, Consultancy study for the Economics and Statistics Department, OECD, Paris;
11. Leibfritz W., Thornton J., Bibbie A. (1977) *"Taxation and economic performance"* An OECD study, OECD, Paris;
12. Ministry of finance of RM;
13. Nomenclature of depreciation of the assets in RM;
14. OECD (2007) *"Fundamental corporate tax reform"*, A tax policy studies, OECD, Paris;
15. OECD studies (2000) *"Alternative tax burden measures"*, OECD, Paris;
16. Personal Income Tax Code of RM;
17. Salanie B. (2000) *"The economics of taxation"*, The MIT Press Cambridge, Massachusetts;
18. State Statistical Institute of RM;

19. The Centre for European Economic Research (2012) - Zentrum für Europäische Wirtschaftsforschung (ZEW);
20. Overesch M. (2005) *"The effective tax burden of companies in Europe"*, CESifo DICE Report;

UDC 331.101.26(497.7):339.727.22(4-672EU)
Original scientific paper

Snezhana HRISTOVA*)
Biljana APOSTOLOVA)**

HUMAN CAPITAL DEVELOPMENT IN MACEDONIA: THE ROLE AND EFFICIENT USAGE OF IPA FUNDS

Abstract

The purpose of this research paper is to strengthen and broaden research on the Instrument for Pre-Accession Assistance in Macedonia, particularly to identify and address the key issues and major areas of intervention under the IPA Human Resource Development Component (IPA IV) and their role in the achievement of the programme's four Priority outcomes. The evaluation aims to explain IPA efficiency and investment in human capital from a country perspective and to gather relevant information for the national priorities in the area of human resources development. It also attempts to identify areas for concern in the implementation of the overall programme and to provide policy recommendations on how the HRD programme can improve the achievement of its main outcomes.

Despite the IPA support for the human resource development and labour market improvements (2007-2013), high unemployment still points to an underutilisation of human capital in Macedonia, with a little progress made in the area of social policy and employment and the measures supported under the IPA IV component, taken to improve access to the labour market for vulnerable groups, including persons with disabilities, remain insufficient. Generally accepted, IPA rules and procedures are complex and difficult to apply. The insufficiency of information affects all parties in both the central and local government circles, as well as in the civil sector. We assume that the low participation in the IPA programme, particularly within the HRD component, the low level of transparency and inefficient usage of the funds, is a result of the lack of multi-partnership platform for cooperation among the stakeholders, private entities and CSO's, active at this domain.

---

*) PhD, School of Business Economics and Management at the University American College Skopje E-mail: Shristova@uacs.edu.mk
**) M.Sc, Independent researcher E-mail:apostolova10@hotmail.com

Keywords: human capital development, IPA funds, labour market development, unemployment, social policy.

JEL classification: O15, 019, E22.

1. Implementation of IPA human resources development component (IPA IV) in Macedonia

The overall objective of EU financial assistance to the former Yugoslav Republic of Macedonia, the Instrument for Pre-Accession (IPA), is to support the country to implement reforms needed to fulfil EU requirements and progress in the Stabilisation and Association Process and to reach its objective of fulfilling the Copenhagen criteria. These comprise the political and economic criteria as well as the ability of the country to assume the obligations of the EU integration.

The overall strategic objective of IPA Human Resource Development Component is to to prepare candidate countries for management, implementation and monitoring of resources from the European Social Fund (ESF) in accordance with the European Employment Strategy; particularly to foster development of human capital, by improving the quantity and quality of human resources, attracting and retaining more people in employment, promoting an inclusive labour market and Investing in human capital through better education and training. The implementation of the HRD Component in Macedonia, started with the European Commission decision for conferral of management, adopted on 16 of October 2009.[1] There are two multi-annual programming documents in the area of human resource development: Strategic Coherence Framework and the Multi-annual Operational Programme Human Resources Development (OP HRD)[2], both covering the three separate filed of intervention over the period 2007-2013: Employment, Education and training and Social inclusion. IPA funds under the IV Component will be implemented through the OP HRD officially adopted by the European Commission[3] on 07 December 2007.

[1] Decision C(2009)7962 as of 16.10.2009
[2] Human Resources Development Operational Programme (HRDOP) for 2007-2013
[3] CCI n. 2007 MK 051 PO 001

The OP HRD (2007-2013) is a document for implementation of the national and European strategic priorities prepared in line with the IPA established by Council Regulation (EC) 1085/2006 of 17 July 2006. OP HRD has been prepared by the Ministry of Labour and Social Policy (MLSP) and Ministry of Education and Science (MoES) in close collaboration with all relevant national stakeholders and acts as a funds delivery framework during the programming period 2007 – 2013. In accordance with the National Development Plan 2007-2009 and the Strategic Coherence Framework (SCF), the OP HRD supports four main priorities (Table 1):

- Priority axis 1: Employment - Attracting and retaining more people in employment;
- Priority axis 2: Education and training - Investing in human capital through better education and skills;
- Priority axis 3: Social inclusion - Promoting an inclusive labour market;
- Priority axis 4: Technical assistance.

Each of the four priorities supports specific measures, which will be fulfilled through the process of preparation and implementation of system actions and projects in the areas of employment, education and social inclusion.

Table 1: Human Resource Development Component

HUMAN RECOURCE DEVELOPMENT COMPONENT (IPA IV)				
Priority Axis	**Measure 1**	**Measure 2**	**Measure 3**	**Measure 4**
Priority axis 1 **Employment**	*1.1 Further development of the Employment agency and enhancement of the employment conditions*	*1.2 Support to the implementation of the Employment Strategy And JAP*	*1.3 Tackling the situation in the labour market of young people, women and long-term unemployed*	*1.4 From Informal to Formal*
Priority axis 2 **Education And Training**	*2.1 Modernizing the educational and training system*	*2.2 Enabling access to Quality education for ethnic communities*	*2.3 Developing adult education and lifelong learning*	
Priority axis 3 **Social Inclusion**	*3.1 Fostering social inclusion of people and areas at disadvantage*	*3.2 Integration of Ethnic communities*	*3.3 Empowering relevant actors*	
Priority axis 4 **Technical assistance**	*4.1 Support to the implementation of OP HRD*			

1.1. Employment - Attracting and Retaining More People in Employment as Part of IPA IV

The main aim of this priority is to address unemployment, to support job creation and retain more people in employment, through modernisation, improvement and further development of the Employment Service Agency (ESA) and through development and implementation of new active labour policies and improved Employment Conditions. Activities funded under this priority may include: investment in information and communication technology, training for employment service staff and social partners, education for the unemployed, public relations campaigns, and advice on self-employment.[4] Furthermore, IPA Component IV provides funding to help people transition from informal to formal employment. It also supports the introduction of active employment measures, aimed at enhancing inclusion in the labour force.

[4] European Commission, European Social Fund, the Former Yugoslav Republic of Macedonia http://ec.europa.eu/esf/main.jsp?catId=390&langId=en

Priority 1 comprises of four measures, which are designed to provide appropriate assistance to the specific needs of each target group of the unemployed sections of the country.

Measure 1.1: Further development of the Employment agency and enhancement of the employment conditions. This measure aims to improve the quality and efficiency of the services provided by the Employment Agency, in order to reduce unemployment and to provide an efficient framework for labour market policies.

Measure 1.2: Support to the implementation of the Employment Strategy and the Joint Assessment Paper (JAP). This measure aims to strengthen the capacity of institutions and social partners in the area of development and managing social policies for employment, in order to be better qualified for implementation and monitoring of the Employment Strategy.

Measure 1.3: Tackling the situation in the labour market of young people, women and long-term unemployed. This measure aims to provide integration into the labour market of young unemployed, women and long-term unemployed, through specific programmes and projects for implementation of active labour measures. One of the specific objectives of this measure is to increase female employment rates in order to improve the competitive position of women in the labour market.

Measure 1.4: From informal to formal. This measure aims to decrease the number of persons engaged in the grey economy, to help people transition from informal to formal employment, to support interventions for reinforcement of the labour inspectorates, to increase the level of formal employment and to contribute for the overall labour market development in the country. The following table summarises the choices made in the OP-HRD under Priority Axis.

Table 2: Choices made in the OP-HRD under Priority Axis 1

Employment & labour market	
Potential scope	**Focus within OPHRD**
Active and preventive labour market measures to raise the employability and adaptability of the workforce, combat unemployment and increase LM participation; capacity building of labour market institutions to improve efficiency of labour markets.	Strengthening employment policy at local level; active labour measures for difficult-to-employ people, improved access of people with disabilities to employment, capacity-building of labour inspectorates and promotion of flexible forms of work.

1.2. Rules and Principles for Effective Usage of IPA IV Component Funds

1.2.1. Legal and Institutional Framework

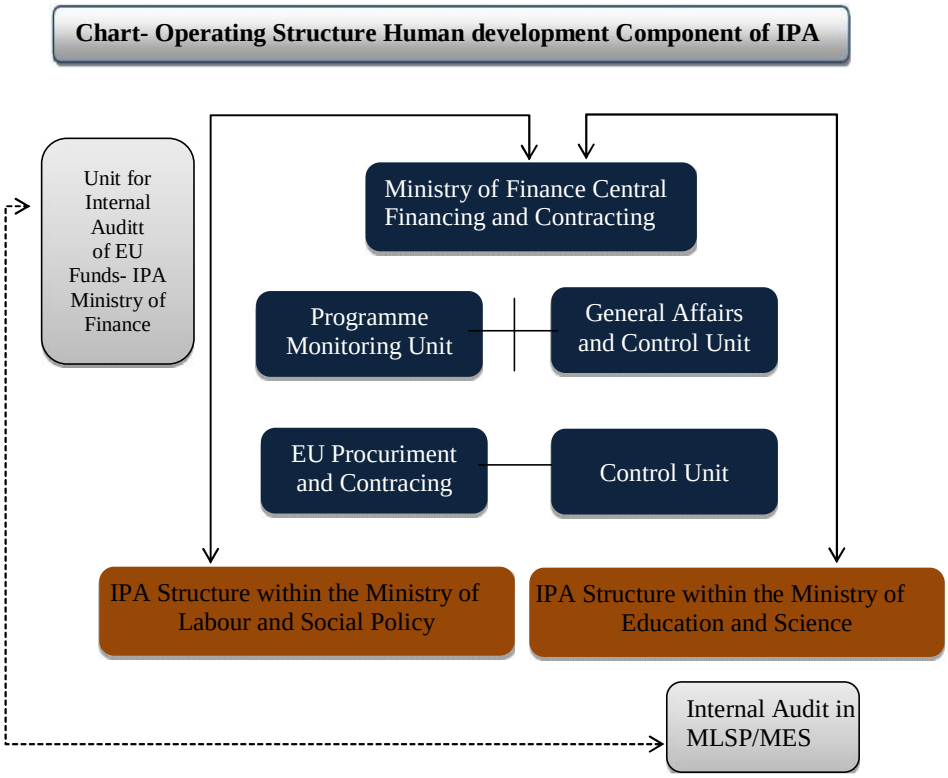
This Operational Programme will be implemented through decentralized management and coordinated by the Central Financing and Contracting Department (CFCD), set up within the Ministry of Finance. Headed by the Head of the Operating Structure (HOS), CFCD acts as a Lead Body of the Operating Structure for IPA Human Resources Development Component (see chart 1) and is responsible for monitoring the implementation of the overall HRD Programme/ projects. Part of the tasks of OS, for the programming and technical implementation of the programme, are delegated to the Ministry of Labour and Social Policy (MLSP) and the Ministry of Education and Science (MoES), where, the MLSP is responsible for technical implementation of Priority Axis 1 (Employment) and Priority Axis 3 (Social Inclusion), and the MoES is responsible for Priority Axis 2 (Education). The Priority Axis 4 - Technical Assistance will be implemented through joint cooperation of the Operating Structure for the Human Resource Development.

Looking to the future, the IPA Implementing Regulation stipulates two levels of Monitoring Committee, in order to provide

coherence and coordination in the implementation of IPA and engage all relevant actors:

- IPA Monitoring Committee (IPA MC);
- Sectoral Monitoring Committees (SMCs) for each OP.

Chart 1: Operating Structure Human Development Component of IPA



1.2.2. Financial Indicators

According to the Multi-annual Indicative Financial Framework for IPA for the years 2011-2013, the former Yugoslav Republic of Macedonia will receive an indicative allocation of €320,311,407 of pre-accession funds. The planned allocation for IPA IV component and the Financial Framework of the IPA Component IV, Priority axis 1 (Employment), are presented below respectively in table 3, 4 and 5.

Table 3: IPA Component IV- Priority axis 1 Financial Framework (2007-2013)

IPA IV Component Priority axis 1:	2007-2013	
	IPA (€)	**national co- financing (€)**
Measure 1.1	1,280,000.00	225,887.00
Measure 1.2	1,657,002.75	292,409.25
Measure 1.3	1,105,000.00	195,000.00
Measure 1.4	850,000.00	150,000.00

Table 4: IPA IV Component TOTAL value (2007-2013)

Year	**IPA IV Component TOTAL (2007-2013)**						
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Total€	3.200,000	6.000,000	7.100,000	8.400,000	8,800,000	10.380,000	11.200,000

Table 5: IPA IV Component by priority, years and measures (2007-2009)

Year	**IPA IV Component by priority, years and measures (2007-2013)**					
	IPA IV Component Total (€)	Priority axis 1	Measure 1.1	Measure 1.2	Measure 1.3	Measure 1.4
2007	3.200,000	1.299,000	175,000	94,000	1,020,000	10,000
2008	6.000,000	2.697,500	355,000	751,000	1,351,500	240,000
2009	7.100,000	2.849,500	325,000	47,000	2,167,500	310,000

Source: OP HRD (2007-2013)

2. Employment and human capital development in Macedonia

2.1. Labour Market Developments - Activity, Employment and Unemployment Rate in Macedonia (2007-2011)

The labour market performance in Macedonia had two main trends: a (mild) increase of the employment over the years, along with a low employment rate and maintenance of a high unemployment rate. The activity rate, as a percentage of the labour force in the population aged 15 + in Macedonia, is low and below the average level of the employment in the European member countries. As shown in table 6, in the period 2007-2011 the activity rate amounted to somewhat over one half, reaching in 2010/IV the highest level (to 57.8 percent). The Labour Market in Macedonia is characterised as highly segregated, both, occupational and sectoral, with a continuous employment gap between the genders. The employment rate for women is dramatically lower compared to men and over the years a negative trend can be observed: this disparity was increased from 15.7 percentage points in 2007 to 22.2 in 2011/IV (See Table 6). When observing the whole period (2007-2010) there is only a modest change on the overall employment rate from 36.2% in 207 to 39.9% 2011, which may points to a significant failure of using the human resources to their full potential.

Table 6: Labour force and activity rates

	Activity rate			**Employment rate**			**Unemployment rate**		
Year	total	Fema-les	Males	total	Fema-les	Males	total	Fema-les	Males
2007	55,7	44,1	67,3	36,2	28,4	44,1	34,9	35,5	34,5
2008	56,3	43,8	67,3	37,3	28,8	45,7	33,8	34,2	33,5
2009	56,7	43,7	68,8	38,4	29,4	47,5	32,2	32,8	31,8
2010/IV	57,8	44	69,8	39,9	32,7	52,7	30,9	32,2	31,9
2011/IV	56,5	39,2	60,8	38,5	38,9	61,1	31,8	39,8	31,4

Source: State Statistical Office, LFS (2007-2011)

According to the Labour Force Survey, The unemployment rate (15-64) is slightly decreased from 34.9% in 2007 to 31.8% in 2011, but still it is higher than the priority, as indicated in the National Employment Strategy. Whereas the participation and employment rates of women are much lower than men's, their unemployment rate in the selected years is just one percentage points higher compared to men, what shows that unemployment rates are almost equally shared between the sexes. This may reflect the willingness of women to take up low paid, but secure public sector jobs, or jobs in newly created small firms, since traditionally they are second-income family earners.(Mojsoska-Blazevski, 2011) The unemployment is also spread through all age groups (see Table 7). The highest unemployment rate in 2011 characterizes the youth (as much as 59.4 for the population 15-24 years old, where significant increase of unemployment is registered over 2007-2011/IV, increasing from 57.7% in 2007 to 59.4% in the fourth quarter in 2011), then it decreases to 29.5 for the age group 25-49, but still remains a high 25.2 percent in the age group (50-64). This means that more than half of the young people in Macedonia who are looking for a full-time job have problems finding it. It seems that the transition has distorted the regular unemployment distribution i.e. unemployment has affected even older generations, who in terms of their knowledge, experience or higher rank, should be fully employed. Also, youth have a low employment rate (13.6 percent in the last quarter of 2011) and although their employment increased somewhat in 2010, a negative trend can be observed in 2011. This can be explained mainly due to high level of young unemployment, then from their engagement in the informal work and attendance at school which also can be seen in their low labour market activity rate. The employment rate of the age group of persons aged 50-64 is 43.4% while the highest employment rate is among the age group 25-49, i.e. 55.8% (Table 7).

Table 7: Activity rates by age group

Year	Activity rate				Employment rate				Unemployment rate			
	15-24	25-49	50-64	65 >	15-24	25-49	50-64	65 >	15-24	25-49	50-64	65 >
2007	35,9	79	52,9	4	15,2	53	37,8	3,9	57,7	32,9	28,5	3,2
2008	35,9	79,4	54,9	3,9	15,7	54,3	39,5	3,6	56,4	31,6	28	8,8
2009	35	79,5	57,2	3,9	15,7	55,4	42,4	3,4	55,1	30,3	25,9	12,3
2010	32,6	82	58,4	4,1	16,1	57,2	44	3,8	50,5	30,3	24,7	5,5
2011	33,6	79,2	58	3,2	13,6	55,8	43,4	2,7	59,4	29,5	25,2	16,1

Source: State Statistical Office, LFS (working population of 15-64 years old)

According to their economic status, in 2010 72% of the working population are wage employed, 13% are self-employed; 10% are unpaid family workers and 5% are employers. Comparison with the data from the previous years (2007-2010), the structure of employment remains the same, with a modest increase of the self-employment rate for 1%, from 12% in 2007 to 13% in 2010.

Among the employed, a trend of continuous decline of the share of people with higher education is manifested, as well as stagnation of the share of people with secondary education and share of people with primary education, while the share of people without schooling and people with university degree is increasing. In the breakdown of the unemployed by education (2008-2010), a decrease in the share of people without schooling and those with completed primary education and higher education is observed, the share of people with secondary education is stagnating, while the share of people with university degree education is increasing (see table 8). The overall employment rate (for the population aged 15–74) increases with education level: from 24.7 % for workers with primary education, to around 47.2 % for workers with secondary education, to 66.2 % for university educated individuals. It can be realized that education is the main determinant of the transition from unemployment into employment.

Table 8: Activity rates by education and attainment

	Employment rate%			Unemployment rate%		
Level of education	**2008**	**2009**	**2010**	**2008**	**2009**	**2010**
No education	8,0	7,0	9,1	53,2	46,3	45,0
Primary	24,8	25,1	24,7	41,8	40,0	40,1
3 year high education	47,7	46,0	47,4	35,6	36,1	34,5
4 year high education	47,2	47,8	47,2	32,3	31,2	31,4
higher education	56,9	54,7	54,5	20,2	17,3	17,3
university degree	65,5	66,7	66,2	21,7	22,1	22,7

Source: State Statistical Office, LFS (working population of 15-64 years old)

Although the employment rate of women in 2010 is lower than men's by about 20 percentage points (shown in table 6), the difference in employment rates between the sexes decreases with educational attainment (see table 9). University-educated women have only marginally lower employment rates compared to men, suggesting that educational attainment is a stronger determinant of employment probability than gender.

Table 9: Labour market indicators by gender and education attainment in (2008-2010)

	Employment rate%			Unemployment rate%		
Level of education	**2008**	**2009**	**2010**	**2008**	**2009**	**2010**
No education	8,0	7,0	9,1	53,2	46,3	45,0
Primary	24,8	25,1	24,7	41,8	40,0	40,1
3 year high education	47,7	46,0	47,4	35,6	36,1	34,5
4 year high education	47,2	47,8	47,2	32,3	31,2	31,4
higher education	56,9	54,7	54,5	20,2	17,3	17,3
university degree	65,5	66,7	66,2	21,7	22,1	22,7

Source: State Statistical Office, LFS (working population of 15-64 years old)

Overall, the Labour Force Survey data from 2007 to 2011/IV has indicated stagnation in the labour market development and further unfavourable development of labour market indicators. To recapitulate, the Macedonian labour market is characterized by low employment and activity rates, particularly for women and young people, accompanied by high level of unemployment. As a result, the activity rate has remained particularly low, especially among women. The employment rate has basically stagnated at an extremely low level, around 37%**,** varying according to the education level. Therefore, in the forthcoming period, special attention should be paid to improving the labour market position of specific categories, such as youth, elderly and women. Unemployment is especially widespread among young people, whose employment rate is also extremely low, and among people with low education.

The deterioration in the youth job market seems to have contributed to particularly large increases in enrolment rates in higher education, since studying is the most acceptable alternative for the young people compared to the years they will have to wait for their first job. The other trend which is currently in high progress is the "brain-drain" process of the young high qualified and educated persons, thus reducing the quality of the human capital in Macedonia. Thus, despite the IPA support for the Human resource development, the data available indicates that the Human resources are not fully used in accordance with the labour market demand. The restructuring of the economy led to an overall decline in labour demand, as the low growth dynamics and the poor business environment failed to create a sufficient number of job opportunities.

2.2. National Employment Policy Framework

OP HRD[5] has been prepared in conjunction with the National Development Plan 2007 – 09 and the Strategic Coherence Framework (SCF) which will cover the period 2007 – 2013.OP HRD aims were defined in line with the following national strategic documents:

- National Employment Strategy 2010 (NES);
- National Action Plan for Employment (NAPE) 2006-08;

[5] FYR Macedonia, Multi-annual Operational Programme for Human Resource Development 2007-2012 http://ec.europa.eu/enlargement/pdf/the_former_yugoslav_republic_of_macedonia/ipa/mk_comp_4_programme_ 9_11_2007_en.pdf

- National Strategy for Development of Education 2005-2015;
- National Strategy for the Roma Decade 2005-2015, adopted in 2005;
- National Action Plans for Roma 2006-2008 (education, employment, health, housing);
- The National Action Plan for Gender Equality;
- The National Strategy for Development of Small and Medium Enterprises;
- Action Plan for Combating Grey Economy;
- Government's Working Programme for the period 2006-2010;
- Strategic Plan of the Government of the RM for 2006-2008;
- Strategic Plan of MLSP 2006-2008.

High unemployment points to an underutilisation of human capital in the former Yugoslav Republic of Macedonia, hindering its economic growth. Hence, as indicated in the OP HRD and NES, the main goal of all government priorities is to stimulate job creation, reduce rigidities and administrative barriers in the labour market, and improve efficiency of the main labour market institutions, mainly the Employment Service Agency (ESA) and employment centres.

One of the major priorities of the Government of the country is to provide sustainable economic growth and competition, higher employment rate, increasing living standard and quality of life. Towards achieving these goals, the Government has prepared a National Employment Strategy (NES) 2015, which is in line with the revised European Union Lisbon Strategy by setting targets for the employment rates following the European Union example. NES 2015 contains the medium-term employment policy up to 2015 and defines national targets and specific employment policies that will ensure achievement of those targets. The Strategy addresses the main labour market challenges, including measures for tackling youth unemployment, long-term unemployment, female unemployment and vulnerable groups; developing a skilled workforce which meets the needs of the labor market; promoting social inclusion and fight against poverty and informal economy.

As an implementation tool of the NES, the National Action Plan for Employment 2011-2013 (NAPE) was prepared and adopted by the Government with specific programmes, projects and measures for the period 2011-2013. Each year the Government also prepares and adopts

Operational Plan for Active Employment Programs and Measures. The OP encompasses both measures for increasing the quantity and quality of labour supply and measures for increasing labour demand. The OP target disadvantaged people in the labour market and in particular young people, women and long-term unemployed. Operational plan for active employment programmes and measures for 2012-2013 aims to encompass 6,000 jobless people in 2012 for which nearly 500 million MKdenars have been provided.

Another document is the Decent Work Country Programme (DWCP), which is currently put in place (2010-2013). The DWCP is closely linked with national policy priorities as set out in documents such as the National Development Plan, the National Employment strategy, the Operational programme for human resources development, the Multi–annual indicative planning document 2009-2011 (MIPD), the National Action Plan for Gender Equality (2007-2012), and with commitments from international and regional development agendas.

Main responsible institutions concerning labour market policies in the country, as well as for implementing projects under the IPA IV component, Priority axis1, are the Ministry for Labour and Social Policy and the Employment Service Agency. MLSP is responsible for policy on employment and unemployment, and for job placement services. Regarding the HRD Component, **IPA units in the MLSP are** responsible for technical implementation of Priority Axis 1 (Employment) and Priority Axis 3 (Social Inclusion). The Employment State Agency accomplishes its activity in the framework of the employment policy established in the NES 2010, 2015, NAPE 2011-2013, the Operational Plan for Active Employment Polices and other projects and programmes. Under, IPA Component IV, the first direct grant to the ESA for an amount of EUR 1.300.000, was signed in November 2010, representing an important milestone for the implementation of the Operational Programme.

3. Projects under IPA IV in Macedonia

In our attempts to apply a qualitative approach in our study, by conducting an interview with the main coordinators, for IPA IV component in the responsible state institutions- MLSP and ESA, we've been faced with a negative or no response from this governmental bodies.

Thus in preceding with our study, based on seconded data, our monitoring found a very low level of availability and accessibility of information. Overall, the level of proactive publication of information about aid activities and funding is far below the level needed for full monitoring. Much information regarding the IPA HRD Funds was either missing or presented with a minimum of detail. Similarly, information about contracts and grants, where it is made available, is not linked to budget figures, so there is no transparency about how budgets were actually spent.

Areas where information was particularly established included limited information on budgets and contracts regarding passed and current projects. This meant that even when information had been published and was on the websites it failed on the overall indicators. Particularly concerning for our study is that we weren't in a position to make any connection between current budgets on the one hand and ongoing activities on the other hand, as well as connection with the final beneficiaries. In order to Increase the transparency of the IPA funding, state agencies should provide documents readily available to the public, to ensure that their Report gives enough information about their particular project activities and achievements or provide good cross-references to where the extra detail can be found. In the absence of government regulation regarding the public disclosure of the IPA spending, current reporting quality falls far below the average level of transparency.

In the table below we present a shorts description and allocation of the IPA HRD funds, for past and current projects within the MLSP and ESA, no additional public data was available from the responsible institutions.

Table 10.Projects of the MLSP and ESA under IPA IV Component

Project purpose	Target groups	indicators	Time Frame	Finance	Responsible institutions
Combating unemployment of young, women and long time Unemployed	-young -women -long time unemployed	-number of interns -number of trained persons according the labour market demands	2010-2012	**IPA IV 1.105.000 €** National Budget Total 195.000 € 12.090.088 MKD	ESA
Combating Unemployment of young people, women and long time unemployed (Second grant)	-young -women -long time unemployed	-number of interns -number of trained people according the labour market demands	2012-2013	**IPA IV 1.954.002 €** National Budget 344.824 €	ESA
Improvements of the employment potentials- women Employability	-women -NGO	-number of trained -persons	2011-2012	**IPA IV 1.343.000 €** National Budget 237.000 €	MLSP
Supporting Social inclusion and Inclusive Labour Market	-ESA -CSW -MoES	-number of trained, -persons	2011-2013	**IPA IV 1.304.000 €** National Budget 230.118 €	MLSP
Further modernization of ESA	-employees in ESA	-Number of trained employees in ESA	2011-2013	**IPA IV 1.280.000€** National Budget 225.887	ESA
Supporting National Policy for Employment	-MLSP - MoES - MF - ESA - NBRM - social partners	-number of trained persons for monitoring and evaluation. -Improvement of the institutional capacities for evaluation of the social policies.	2010-2013	**IPA IV 1.657.000 €** National Budget 292.412 €	MTSP
Strengthening the measures against informal Work	Inspectors from The SLI	-research for informal work -number of trained inspectors	2011-2013	**IPA** **850.000 €** National Budget 150.000 €	MTSP SLI
Strengthening the Capacities for labour market integration, with a particular focus on women and ethnic minorities.		Number of persons trained for inclusion of women in the labour market -number of developed programmes	2012-2013	**IPA** **447.000 €** National Budget 78.882 €	MTSP

Source: MLSP, *National Action Plan for Employment of the Republic of Macedonia 2010-2013*[6]

[6] http://www.mtsp.gov.mk/WBStorage/Files/ap_vrabotuvanje.pdf

Conclusion

As indicated in the NES 2015 and OP HRD (2007-2013) one of the main government priorities is to stimulate job creation, reduce rigidities and administrative barriers in the labour market, and improve efficiency of the main labour market institutions.

Despite the IPA support for the human resource development and labour market improvements (2007-2013), high unemployment still points to an underutilisation of human capital in Macedonia, with a little progress made in the area of social policy and employment and the measures supported under the IPA IV component, taken to improve access to the labour market for vulnerable groups, including persons with disabilities, remain insufficient.

Due to the lack of transparency and available information in general we were unable to asses the real current capacity of the fund management under the IPA IV component in the country. There is no available data/information on the budget allocated under the IPA, nor precise details about all past and current IPA project activities within the Human Resources Development Component, thus on the basis on the data available, we were not able to fully address the obstacles barring Macedonia from fully benefitting from IPA programs.

Generally accepted, IPA rules and procedures are complex and difficult to apply. The insufficiency of information affects all parties in both the central and local government circles, as well as in the civil sector. We assume that the low participation in the IPA programme, particularly within the HRD component, the low level of transparency and inefficient usage of the funds, is a result of the lack of multi-partnership platform for cooperation among the stakeholders, private entities and CSO's, active at this domain. Currently Macedonian CSO's are hardly participating in any segment of the IPA IV component project cycle, those which are actively involved, belong to a limited and small network of CSO's, which are often not transparent, thus the degree of possible involvement of CSOs in IPA IV projects cannot be measured at this stage.

Next, we assume that another obstacle for low participation in IPA programme, both for CSO's and local governments is the co-financing obligations of the IPA, according which beneficiary institutions are supposed to fulfil the obligation using their own, public money. Experience shows that CSO's and small municipalities with small

budgets have difficulty securing the 10%-20% of the co-financing rate, considering also that the current governmental strategies of cooperation with them do not include any kind of financial support. The weak public institutions and administrative capacity as well as gaps in the level of human resources development, also hinders the ability of the country to develop strong pipelines of well prepared projects, and to ensure sufficient ownership for the programmes supported by the EU and coherence with national policies and strategies.

An effective and representative social dialogue is still lacking. The measures taken to improve access to the labour market for vulnerable groups, including persons with disabilities, remain insufficient. Consultation with relevant stakeholders on social policies needs to be reinforced. The administrative capacity has slowly been strengthened, but remains insufficient to implement properly the legislation and policies adopted. Thus, this research has shown that Macedonia is already facing significant problems with in the early stages of IPA IV component use. The Macedonian government must therefore show clear political support for the creation of necessary structures for management of EU funds in the country in order to avoid delays in preparation and secure efficient and transparent use of financial recourses from the IPA components IV.

In order to develop a pipeline of potential projects since primary responsibility for employment policy rests with the MLSP and implementation is done mainly via the ESA, these institutions must be very proactive in cooperation with relevant stakeholders at local, regional and national level and improve inter-sector cooperation with other line ministries during the programming and implementation of IPA IV funded projects. Therefore, national administration has an obligation to enhance their capacities so they can be included adequately in the country's IPA funds management.

References

1. European Commission (2009): The Former Yugoslav Republic of Macedonia 2009 Progress Report" accompanying the Communication from the Commission to the EU Parliament and the Council Enlargement Strategy and Main Challenged 2009-2010, COM (2009) 533.

2. European Commission (2008): Instrument for Pre-Accession Assistance (IPA) Multi- annual Indicative Framework for 2008-2010, COM (2008), Brussels, The European Commission.
3. European Commission (2007): Commission decision on a Multi-annual Indicative Planning Document (MIPD) 2007- 2009 for the Former Yugoslav Republic of Macedonia, C(2007) 1853 of 30/04/2007, Brussels, The European Commission.
4. European Commission, E. (n.d.). How IPA works. Retrieved from Regional Policy Info Regio European Commission. http://ec.europa.eu/regional_policy/funds/ipa/works_en.htm
5. European Commission, European Social Fund, the Former Yugoslav Republic of Macedonia http://ec.europa.eu/esf/main.jsp?catId=390&langId=en
6. European Commission: FYR Macedonia, Multi-annual Operational Programme for Human Resource Development 2007-2012 http://ec.europa.eu/enlargement/pdf/the_former_yugoslav_republic_of_macedonia/ipa/mk_comp_4_programme_9_11_2007_en.pdf
7. Instrument for Pre-Accession Assistance (IPA) Multi-annual Indicative Planning Document (MIPD) 2011-2013 the former Yugoslav Republic of Macedonia.
8. Mojsoska-Blazevski, Nikica(2011) Supporting strategies to recover from the crisis in South Eastern Europe : country assessment: the former Yugoslav Republic of Macedonia, International Labour Organization, Decent Work, Technical Support Team and Country Office for Central and Eastern Europe – Budapest.
9. MLSP, National Action Plan for Employment of the Republic of Macedonia 2010-2013 http://www.mtsp.gov.mk/WBStorage/Files/ap_vrabotuvanje.pdf
10. State Statistical Office of the Republic of Macedonia: Labor Force Survey-LFS (2007-2011); LFS (working population of 15-64 years old).

UDC 339.7:341.24(4-672 EU)
Professional paper

Marko ANDONOV[*])
Irina MAJOVSKI[**])

RELATED PARTIES TRANSACTIONS AND A BRIEF REVIEW ON THE LEGAL REGULATION OF THIS INSTITUTE IN EU

Abstract

The experiences show that there is a broad diapason of techniques and procedures being used in order to identify the possible existence of related parties transactions (RPT). The parties are considered to be related if one of them has control over the other or, it exerts significant influence over the other party in the process of making financial and other operational decisions. However, we can not say that there is a simple definition that in itself contains elements that will enable identification of all related parties transactions.

The transactions that involve the majority stockholders or their close family members directly or indirectly are potentially the most difficult kinds of identifiable transactions.

There can be a certain degree of suspicion in the efficiency of the regulatory strategies, because we should not underestimate the ability of the managers and other participants to respond to the regulatory strategies aimed to stop their activities. The essence is that the legislators, should be encouraged to review and introduce another mechanisms aside from the provisions of the company laws and regulation from the field of the securities market.

Key words: related parties transactions, regulation, disclosure, reforms, corporate governance.

JEL classification: K20

---

[*]) PhD, University American College, Skopje, E-mail: andonov@uacs.edu.mk
[**]) PhD, Institute of Economics-Skopje, E-mail: irina@ek-inst.ukim.edu.mk

Introduction

Doubtlessly, it is about a question, that is, an institute that in the last decade arouses broad interest both in the expert and scientific public; therefore it deserves appropriate observation. When we talk about the subject matter of this paper, we should have in mind that the essence of determination of the position of related parties is that the fact of relation (connection) implies that those parties (physical and / or legal) are daily involved in, or create particular business relations and operations, which those parties could misuse in order to realize their own goals and interests.

That is the basic reason why the legislations decide to determine and regulate the related parties transactions as precisely as possible.

The general impression is that recently increased attention is devoted to these problems, both in the countries that belong to the Anglo-Saxon legal system, and the legislations that belong to the continental legal system. Certainly, those processes are result of the increasing presence of the related parties transactions in the business practice. In that sense we should also emphasize that from day to day, for the purposes of realization of their plans, the related parties in their acting become more sophisticated, therefore it is increasingly difficult to comprehend their steps and intentions. This should represent, of course, a challenge to the legislators, and also for the competent state authorities and institutions, that normatively have the key role in disclosure and sanctioning of the misuses commited by the related parties.

1. Concept of related parties

There is a multitude of definitions in the literature that determine the concept of related parties. Due to the fact that the definitions of the related parties consist of listing and describing the most various relations that could appear, and result in relation (connection), one single definition cannot be distinguished. Another reason is the great complexity of the relations that could exist, as well as the impossibility to determine, that is, define all possible “connecting” elements between the physical and / or legal entities. Exactly because of it, the legal entities (trade companies, chambers, universities, guild organizations and other associations and legal entities) recently show tendencies for definition of

the related parties. Of course, these definitions are determined in the internal acts and rules of the legal entities and in their determination they take into consideration practically all elements that are the most relevant for them. However, in the definition of the related parties there are some basic elements and aspects that are found in almost all definitions. There is almost no "brief" definition of the concept of related parties.

Usually three basic types of relation are mentioned, that is, kinship relation, capital relation and managerial relation.

The kinship relation is manifested through existence of close familiar connections between the physical entities (kinship through marriage or adoption; children and parents, brothers and sisters, step-brothers and step-sisters, grandmothers, grandfathers and grandchildren; parent – guardian and a child, step-mother or step-father and step-son and step-daughter, daughter-in-law, son-in-law and parents of their spouses).

Capital relation (connection) can be best determined through the prism of the legal entities. Therefore, from the point of view of this type of relation (connection) related party is considered to be the legal entity that possesses, directly or indirectly at least 20 % of the other legal entity's voting stocks; legal entity in which at least 50 % of the members of the management or supervisory board and the board of directors are members of the management, supervisory board or the board of directors of the other legal entity; legal entity that has significant participation, majority participation or mutual participation in the other legal entity; two legal entities that are controlled by same legal or physical entity / entities and a legal entity that on other grounds is controlled by other legal entity. Regarding the determined proportional participation we should emphasize that it may vary to a certain extent, but, generally, it ranges within the frameworks presented.

During the elaboration of this paper, we will analyze some specific relations characterizing the related parties, taking into consideration the related physical parties, the related legal parties, as well as the physical entities related to legal entities and vice versa.

In the literature and the practice, we can find certain practical presentations of related entities. For example, person A is considered to be related to another person B, if the person B is:

- a wife / husband to the person A
- a relative of the person A (brothers, sisters)
- a wife / husband of a relative of the person A

- relative of the wife of the person A.[1]

As we can see, the cited definition takes into consideration those elements that result only from the kinship.

According to another definition, the related parties are considered to be:[2]

a) persons related through blood connection, marriage or adoption;
b) trade company and: a person who controls the company, if it is controlled by one person; a person who is a member of related group which controls the company; or, any other person who is related in the way described under a) with any person described under b).
c) two trade companies: which are controlled by a same person or group of persons; each person who controls one of the companies is related with the person who controls the other company; company that is controlled by one person, if that person is related with any member of the related group controlling the other company; the company that is controlled by one person, if that person is related with any member of unrelated group that controls the other company.

2. The need of definition of the related parties

What is of great importance and should be mentioned is the basic reason of the need of definition of the concept of related parties. This issue normally occurs during the examination of the related parties.

One of the possible answers to the question posed in such a way, certainly, can be found in the establishment of numerous relations among the related parties. Exactly the possibility of various relations between these parties for the purposes of realization of certain, most often, lucrative interests, and accordingly, the misuse of such position is in effect the dominant reason for definition of the related parties.

In this context, it is positive that the most of the attention, beside the definition of the related parties, attract the related parties transactions through which, in a way, their legal and factual position is embodied.

It is a common impression that recently there is increased interest for the related parties transactions both in the literature and in the

[1] www.hmrc.gov.uk/cirdmanual/related party definition
[2] Foreign affairs and international trade Canada/Export and Import Controls

practice, first of all, by the larger corporations (trade companies). It is a reason more to pay appropriate attention to the related parties transactions in this paper.

3. Concept of related parties transactions

The simpliest definition of the related parties transactions would be the one that defines this concept as a business deal between two related parties[3]. This definition, of course, does not encompasses, that is, does not elaborate the essence of the concept sufficiently. When we are speaking about related parties transactions, we should emphasize that there always should be specially prescribed provisions that should be obeyed during the realization of the related parties transactions, including one of the most important obligations which the trade companies have, that is, notification, or disclosure of the existence of such deals or transactions. Therein, we should certainly take into consideration the unbreakable relation between the conflict of interests and related parties transactions. That can be a source of the real danger of breaking out corporative scandals and other illegal business practices.

Another definition of the related parties transactions determines them as interaction between two parties wherein the one party has control or significant influence over the other party's business policies. The special connection, that is, relation can exist, for example, between one trade company and its major owners[4]. Taking the above into consideration, one issue imposes by itself, that is, which are the basic elements that would be the most relevant and that should be disclosed when we are speaking about the related parties transactions. In this context, the following are cited: the nature of the relation (connection); description of the transaction, including its amount; the effects that would result from possible changes in the contract, as well as the way of settlement of the obligations deriving from the transactions for both parties[5].

The attention that both the scientific and expert publics pay to the related parties transactions is significantly increased after the well-known and exploited corporative financial scandals with Enron and Parmalat.

[3] www.answers.com /Business and Finance/related party transaction/definition
[4] www.nextdaye.com/ accounting dictionary: Related party transaction
[5] Ibid

Exactly these scandals in the best possible way illustrate the complexity that the regulators and auditors face with when they identify the related parties transactions and the transactions motivated by frauds or other illegal actions of the companies' management. While on one hand there is broad consensus regarding the need of regulation of the related parties transactions, on the other hand there is much less consensus regarding the issue which transactions should be the subject matter of "deterrent" regulation[6].

3.1. Two alternative hypotheses for the related parties transactions

We have previously emphasized that the attention paid to the related parties transactions was a result of the recent corporative scandals. Such transactions most often represent a series of complex business transactions between the company and its managers, directors and dominant owners. From the aspect of the regulators, market participants, as well as other stakeholders, such type of transactions certainly represent potential conflict of interest that could seriously compromise the responsibility and the trust by the stockholders in the management of the company, as well as in its supervisory functions. In fact, this outlines the one hypothesis for the related parties transactions called conflict of interests hypothesis[7].

The second alternative aspect is called efficient transactions hypothesis, according to which the related parties transactions efficiently meet the determined economic needs of the company. If the related parties transactions are efficient transactions, there would be no need to increase the monitoring, that is, the supervision. As a result, there won't be any points of contacts between the related parties transactions and the strengthening of the mechanisms of corporate governance, and they would not have any special influence on the stockholders, as well. Even if it is the case (the related parties transactions being efficient transactions) the company should decide, that is, to choose whether it will increase its supervision, in order to avoid the occurrence of conflict

[6] Joseph A. McCahery and Erik P.M. Vermeulen, "Corporate governance crises and Related party transactions: A Post-Parmalat Agenda", 2005

[7] Elizabeth A. Gordon, Elaine Henry, Darius Palia, "Related Party Transactions: Associations with Corporate Governance and Firm Value", First Draft: December 2003, Current Draft: August 2004

of interests. In that case, we can expect positive connecting between the stronger corporative structures and the related parties transactions[8].

Taking into consideration the fact that the companies do not consistently announce whether, or how do they conduct supervision over the relatization of the related parties transactions, it comes out that the function of monitoring and supervision will be one of the responsibilities of the company's board of directors. According to the US experiences, for the purposes of supervision, some companies appoint independent members of the auditory commission or the corporative governance commission of the particular company, which finally approve the related parties transactions.

Despite everything, we can state that the related parties transactions play an important role, because in a way they reflect the chosen model of corporate governance, wherein these transactions become an indicator of the corporative environment in which the company exists.

4. Why it is necessary to pay attention to the related parties transactions

It is indisputable that the related parties transactions play an important role in every market economy. The transactions inside the trade company ussualy are more attractive for the firms, trade and foreign invvestmensts. Low capital costs and tax savings provide strong stimulus for concluding such a type of transactions[9]. To tell the truth, there are many examples of related parties transactions that can be beneficial for the trade companies.

As the most popular, that is, the most interesting transactions of this kind we could cite the following: (1) giving loans by the parent company to its foreign branch; (2) sales of assets (securities) to the so called companies with special investment purposes, and (3) leasing or licensing contract between the parent company and its foreign branch.

When we are speaking about the related parties transactions, the major moment of concern is the fact that most often they are not executed at market prices, but they are executed under the influence of the relation

[8] Ibid

[9] E Berglof and S Claessens, "Enforcement and Corporate Governance", World Bank Policy Research Working Paper no 3409, September 2004

or connection that exists between the two parties of the transaction. In turn, it leads to the existence of a conflict of interests for certain persons in the company.

It is very important to emphasize that for the dominant stockholders, as well as for the company's management, the related parties transactions can be a mechanism for realization of their own benefits to the disadvantage of other stockholders in the company. There is a broad spectra of legal strategies which can regulate the disclosure of the related parties transactions and the conflict of interests.

4.1. Legal experiences and visions of the related parties transactions in USA

When we are speaking about the US experience, we should emphasize that the transactions between the directors and managers of a company in which there is an obvious conflict, are not allowed[10]. However, we should take into consideration that the strategy of ban of such a kind of transactions is rather a result of a certain political- legal tradition than of a convincing effort to protect the private investors, and accortdingly, to foster equal distribution of the wealth in the society. Having this in mind, the strategy of ban of the related parties transactions did not succeed to retain the reallocation of the wealth. In fact, aside from the poor protection against one undetected transaction, the ban of such kind of transaction can really aggravate the situation in many companies, because it prevents many, in principle, successful transactions[11].

Such considerations impose the need for the regulators to allow concluding certain related parties transactions that would not finally lead to conflict of interests. This imposes the question whether it would really cause certain positive effects for the trade companies. The answers to this question are moving into direction that for the purposes of protection of the external investors of the companies against "misusing" transactions, the US state and federal laws regulate the related parties transactions, insider trading, as well as the compensation contracts between the executive officers.

[10] R. Clark, "Corporate Law", Little and Brown, Boston, 1986

[11] W.Klein, J. Ramseyer and S. Bainbridge, "Business Associations", Foundation New York, 2003

4.2. Regulation of the related parties transactions

The European Commission and the states members of EU have undertaken certain steps against the expressed weaknesses in the systems of (corporate) governance, which have especially come to express with the Parmalat scandal. The regulators from the states members of EU recommended so-called collective responsibility of the board of directors regarding the disclosure of the financial statements. The regulators have also established an obligation for the total disclosure of the related parties transactions. We will briefly present the measures created in the EU for regulation of the related parties transactions.

4.2.1. Right of informing

It is necessary to exist clearly envisaged modes by which the minority stockholders will be able to detect the possible opportunistic behavior of the majority stockholders. In that sense, the minority stockholders can collect public and private information. The main source of public information, of course, would be the periodical publications of the financial reports and statements of the company, as well as the reviewed annual statements. In Europe (EU), the so- called public companies[12] are obliged to public their annual statements according to the law. In that sense, the fourth directive of EU contains detailed requirements for preparation of financial statements of the trade companies (balance sheet, income statement), as well as annual report on the company's operations. The directive also stipulates that the prepared statements should present true, clear and fair image of the assets (resources), liabilities, financial situation, as well as for the business results of the particular company's operations[13].

It is usual that the annual financial statements of the company, according to many jurisdictions, should be adopted not later than within five months after the end of the business year, however, some trade companies can extend this period to 13 months, wherein the degree of reliability of those information, that is, statements will be lower. Especially, because the annual statements do not completely disclose the information regarding the possible transfers of the company's profits.

[12] Stock companies whose stocks are listed on authorized stock markets
[13] The fourth directive of EU for the annual statements of the companies (78/660/EEC)

It is especially important to emphasize that the direct and indirect transactions between the company and the majority stockholder, that is, stockholders, can have significant influence concerning the regularity and the accuracy of the annual statements on the company's operations.

4.2.2. Disclosure of the related parties transactions according to the EU regulation

We can say that there is a satisfactoiry level of transparency regarding this kind of transactions for all rated stock companies within the European Union. Moreover, if we take into consideration the International Accounting standard 24, as well as the national legislations.

Viewing from the aspect of disclosure of the related party transactions, no matter whether they have been concluded between the parent company and its branch, the legal party must disclose the name of the parent company, or if otherwise, the physical or the legal party with the dominant ownership. In case when neither the parent company of the legal party nor the physical or legal party that has the dominant ownership do not have obligation to prepare financial statements that would be available to the public, then the name of the next oldest parent company that prepares financial statements must be published[14]. Furthermore, the same standard stipulates that for each category of related parties, the companies are obliged to disclose in their financial statements the true nature of the relations, that is, the point of connection between the related parties, as well as to provide information regarding the transactions necessary to understand the potential effects of the existing relations[15]. This kind of reports should contain the total value of the transaction, that is, transactions, the value, that is the amount of the accounts receivable, possible provisions for the suspicious debts (liabilities) in correlation with the amount of accounts receivable.

Recently the European Union proposed increase, that is, extension of the obligation for publishing the related party transactions and the non-rated stock companies in order to restore the confidence of the public in the financial statements of those stock companies and,

[14] See, International Accounting Standard (24.12) (IAS 24)
[15] See, International Accounting Standard (17-18) (IAS 17-18)

therefore, to give a positive momentum to the integration of the markets of capital in the European Union[16].

The regulators from the European Commission ground such a view on the following: (1) the related party transactions are more often characteristic of the non- rated companies, and (2) the disclosure would not be so massive, taking into consideration the fact that those firms usually do not have complicated balance shemes in their financial statements.

It is not disputable that the majority stockholder is able to provide, or more exactly, to come to a certain information that is not publicly published and use it for its personal financial benefit. However, this stockholder has another option. Namely, the majority stockholder can transmit such the information to a member of his family, who, on the basis of the received information, will create an investment strategu that finally will provide him financial profit.

The issue whether the publicly published information is correct or incorrect, will create much less pressure if the minority stockholder, that is, stockholders have their representative in the management board of the stock company. In that case, that representative will have, although even formally, a possibility to exert influence and to monitor the operations and the decision making of the company's management board.

However, if the minority stockholders are not a part of the management board of the company, that is, they are not included in the decision making processes, they will be motivated to collect information not taking into consideration the legal mandate.

Despite the fact that the extension of the domain of transparency and disclosure of the financial statements of the companies should be encouraged, the regulators should not underestimate the high costs of disclosure of the information on the companies that are not rated at the stock markets[17].

[16] European Commission Proposal for a Directive of the European Parliament and of the Council Directives 78/660/EEC and 83/349/EEC concerning the annual accounts of certain types of companies and consolidated accounts

[17] It is considered that these stock companies have less financial power, so such costs would be a serious burden for these companies

5. Internal structure of governance

5.1. The European Union

According to the European experiences, the achievement of independence of the boards is rather problematic. In a number of states members, the majority stockholders retain their power to appoint and dismiss the organs of management of the company. One of the considerations that may have more economic logic, suggests that one way to to prevent the oportunism of the majority stockholders is to strenghten the independence of the boards and, especially the role of the non- executive directors, that is, the members of the supervisory board, in the key areas, such is the conflict of interests and related parties transactions[18].

Generally, the decisions concerning the upgrading of the executive members of the board, as well as the decisions concerning the auditory supervision, should be made by the non- executive directors, the majority of which should be independent. Regarding this, the European Commission has proposed a set of optional minimal standards to achieve the independence of the members of the boards. At the same time, the Commission has also introduced standards for so-called extended identification of the conflict of interests.

Certainly, taking into consideration the diversity of the legal systems of the states members of the EU, the European Commission has not recommended exact number of independent members od the board of directors. In that direction, the Commission has recommended that the members of the auditory commision would be from among the non-executive directors, that is, the members od the supervisory board, wherein the majority of them should be independent.

In general, it seems like the empirical literature from this field does not support the aforementioned perception that the independence of the board increases the capacities in the decision making process of the board, which also results in an increase of the firm's value. It seems that the independence is rather a subject of objective appraisal than of a simple definition.

However, the European Commission in the direction of the already undertaken steps for creation rules that will be consistent, taking

[18] BS Black, H Jang and W Kim, "Does Corporate Governance Predict Firms" Market Value, Stanford Law and Economics, Working Paper no. 237/2003

into consideration the diversity of the systems of corporative governance in Europe, has created measures that are expected to better promote the internal management in the countries where a system of management based on dominant (controlling) stockholders prevails.

6. Reforms undertaken at national level

The purpose of this part is to analyze the evolution of the mechanisms of the corporate governance with special emphasis on the related parties transactions, in some of the states members of EU. In contrast to the US example, where the evolution of these processes was relatively good published and the public was informed on the events, the development of the European jurisdictions is less available for monitoring. The reasons for that, of course, should be sought in the clear differences existing in the legal doctrine between the continental and Anglo- Saxon law. Moreover, we should have in mind that the reforms of the corporative governance in Europe are more dinstinctive (more different) creating difficulties when speaking about original (authentic) European development in this sphere. As an example for the above, we could mention the difference in the ownership structure, which becomes especially relevant in the shaping of the reforms in the corporative governance.

For example, while certain states from EU have so called system of blockholders (dominant, controlling stockholders), such as Germany, France and Italy, other countries members can be characterized by dispersed stockholder's structure (Great Britain is a typicall example). We should also emphasize that certain countries have developed so called hybrid sustem representing a combination of previously cited two systems, such is the case of Holland.

6.1. Germany

The German experiences regarding the modernization of the codes of corporate governance are focused on the increase of the competiveness of the firms, as well as stimulating the confidence in the firms' management. Taking into consideration the above cited, the special government commission for preparation of the German code for corporative governance has also prepared amendmends in several

imporatnt domains, that is, fields of corporate governance, wherein we can single out the establishment, that is, introduction of an auditory commission (committee), as well as formalizing the conflict of interests between the members of the supervisory board[19]. The supervisory board usually consists of external and independent directors and its fundamental task is to appoint and control the operation of the members of the administrative board.

It is especially important to underline that according to the German legislation, the supervisory board has the central and key role in establishing the occurrence of conflict of interests at a level of administrative board. In this direction, the German code for corporative governance determines that all members of the management board should disclose the possible conflict of interests to the supervisory board, without any delay[20].

It is characteristic that the cited code does not include the related parties transactions with parties connected with the members of the management board.

When we are speaking of the related parties transactions, we should emphasize that there is an essential difference in their determination in the German code for corporate governance and the German law on stock companies. The fundamental difference is that the code for corporate governance viewes these issues in the frameworks of the management and the supervisory boards, as presented above, while the law primarily focuses on the conflict arousing between the majority and the minority stockholders. In that sense, the law envisages an obligation for publishing, that is, disclosing the transactions between the company and other related companies in the annual statement which should be controlled and verified by an independent auditor. Of no less significance is also the prescribed obligation for loyalty of the majority toward the minority stockholders[21].

For the purposes of the effective execution of the cited obligation of loyalty, the stockholders must have the possibility to detect the possible opportunistic behavior of the majority stockholders and

[19] We should have in mind that Germany favors the two-tier system of governance with a management board and supervisory board

[20] Point 4.3.4 of the German code for corporate governance which also determined that the members of the administrative board must inform other members of the supervisory board on the existence of any conflict of interests

[21] J Dine "The Governance of Corporate Groups", Cambridge University Press, Cambridge, 2000

managers. Because of that, the German government worked out and published the so called plan by which it emphasizes the importance of the information, transparency and disclosure. Among others, it also determines that the stockholders who possess more than 1 % of the total number of issued voting stocks, valued at least 100,000 EUR, can appoint a special auditor to examine the possible misuses, frauds and violances. However, if the stockholders initiate investigation based on wrong assumptions and lies, they will bear the expenses for the appointment of the auditor and the investigation.

One of the more significant matters that the government envisages by the plan is the deepening of the possibility of the stockholders to bring legal actions against the directors and members of the supervisory board.

It is also important to emphasize that the supervisory board has a legal possibility to undertake direct measures against a member of the management board who is responsible to the company[22]. The German legislation gives the stockholders the right to require the company to undertake measures against the members of the management or supervisory board. In one such case, it is more than clear that the management or the supervisory board would be the one that would represent, that is, defend the interests of the company. This obviously results in a possible conflict of interests, for which the German legislation does not offer concrete solutions.

6.2. Holland

When we are speaking of Holland, its reputation speaks about it as a business- friendly oriented environment, as well as a state where the rules for good corporate governence are adopted and respected. However, its reputation was to some extent undermined after the occurrence of the accounting scandal with *Ahold*. In order to retain the confidence of the investors, the Holland government apppointed a special committee composed of experts and businessmen to create a new code for corporate governance. This code contains a series of improvements in the field of the good corporate governance.

From the aspect of the interests of this paper, the prepared code contains several recommendations for the related parties transactions. We can single out the recommendation of this code to request an approval

[22] Article 112 of the German law on stock companies

from the supervisory board for entering a transaction in which the members of the both boards, as well as the company have material interest[23]. Namely, the code clearly determines that the conflict of interests exists in any case, if the company has intention to conclude transaction with a legal party:

1. when a member of the management board has personal financial interest;
2. when a member of the management board is in a certain relation to a member of the management board of the company, according to the provisions of the family law, or
3. when a member of the management board of the company is a member of the management or supervisory board of other legal party.

The same procedure is also applied to the members of the supervisory board, as well as to the persons who own at least 10 % of the company's stocks. It is clear that for the transactions of the stock companies where there is an obvious conflict of interests, the consent of the supervisory board is necessary. Moreover, such transactions (if any) should be elaborated in details in the annual statement for the operation of the stock company.

Certain tendencies in the Holland law are moving in the course of requesting the members of the administrative board to inform the stockholders on certain decisions of material character that could affect their interests.

It is also worth mentioning that the Holland code for corporate governance places a significant emphasis on the need of independence of the members of the supervisory board in the stock company. Finally, the code underlines the importance of the so called *whistleblowers* (informers, reporters) in the detection and disclosure of the related parties transactions and other illegal actions. In such situations, the whistleblowers can have a central role in the clearing up the scandals, as well as in the protection of the stockholders, investors, creditors of the company, against possible harmfull actions.

[23] Principle II. 3 of the Holland code for corporate governance

7. Concluding Remarks

It seems that the reform-oriented European jurisdictions make efforts to discourage the misuse of the realization of related party transactions, not only through changes in their company laws, that are in principal focused on the improvement of the degree of transaparency, but also through preparation and adoption of codes for good corporative governance at national level. The brief review of the European legislation concerning these problems, points out that the obligatory legal mechanisms that could discipline the behavior, as well as to provide better protection of the minority stockholders are sufficiently represented. We could also see that Germany and Holland are ahead of the other countries in this sense.

However, besides the large number of the reform processes in the domain of the corporative governance within the European Union that were generally initiated by the several financial scandals, the problems related to the expert and personal capacities of the financial regulators from the European countries still remain.

We can freely state that such a situation is also present in Republic of Macedonia where the majority of the state regualtory organs are not appropriately eqquiped regarding the personal and expertise, that is, they do not have sufficient capacity to face the deceptive and manipulative actions from the presented spheres. It results that a considerable attention should be paid and the necessary reforms should be realized in the direction of strenghtening the institutional capacities of the state regulatory organs.

References

1. Berglof E. and Claessen S. (2004), "*Enforcement and Corporate Governance*", World Bank Policy Research, Working Paper no. 3409
2. Black BS, Jang H and Kim W, (2003) "Does Corporate Governance Predict Firms" Market Value, Stanford Law and Economics, Working Paper no. 237
3. Clark R. (1986) "Corporate Law", Little and Brown, Boston
4. Dine J (2000) "The Governance of Corporate Groups", Cambridge University Press, Cambridge

5. Elizabeth A. Gordon, Elaine Henry, Darius Palia (2004) "Related Party Transactions: Associations with Corporate Governance and Firm Value"
6. Joseph A. McCahery and Erik P.M. Vermeulen (2005), "Corporate governance crises and Related party transactions: A Post-Parmalat Agenda"
7. Klein W., Ramseyer J. and Bainbridge S. (2003) "*Business Associations*", Foundation New York.

UDC 339.137.2:339.564(497.7)
Professional paper

Iskra STANCHEVA-GIGOV[*])

MACEDONIAN EXPORT COMPETITIVENESS AND ITS IMPROVEMENT

Abstract

This papers deals with the issue of Macedonian export competitiveness and possibilities for its improvement. The main aim of the paper is to provide an overview of the competitiveness of the Macedonian exports with regards to the exports' structure, from the perspective of the factors of production' intensity of the export offer, variety of the exported products and exporting markets.

The methodology used in the elaboration of this paper represents a complex of classical methods, such as: inductive-deductive method, comparative method, as well as the method of analysis and synthesis, which makes it possible to come to some conclusions that directly explain the subject in question.

The results arising from the research indicate that the country needs to take a number of measures to improve the current condition of the exports and its competitiveness. It implies investment in promotional programs to build recognizable Macedonian products, enhancing the quality of exports through the implementation of international standards, raising the technological basis of industrial production, as well as improving existing and developing new infrastructure.

Key words: competitiveness, export, recognizable brand, technology and innovation, infrastructure

JEL classification: F1, F23, L15, O33

[*]) Ph.D. Institute of Economics-Skopje E-mail: iskra@ek-inst.ukim.edu.mk

Introduction

In the past two decades, one of the fundamental premises of the Macedonian economic policy has been building of an open market economy, based on the principles of liberalization and integration of markets. This resulted in greater trade openness of the country, enabling possibilities for easier access of the domestic products to the foreign markets, but also implied increase of the competition on the domestic markets. In this perspective, the domestic companies, in particular the exporting ones faced many challenges to produce export products of sufficient quality for the foreign markets, as well as to keep up with the increasing competition on the domestic market. However, the increase of the companies' competitiveness is related to many factors, out of which some needs to be treated by the state, within the frame of the economic policies in this sphere.

In order to improve the competitiveness of the Macedonian economy, a consistent policy should be taken which includes programs and measures to reduce the cost of doing business in Macedonia; to introduce regulations for improvement of the business climate; to introduce new standards for the quality improvement of the products; as well as to provide maximum support to innovation in business (new ideas, designs, patents, licensing and branding). This will contribute for the Macedonian products to become more recognizable on the domestic and foreign markets. Implicitly, it would fundamentally affect not only the export competitiveness, but would contribute to the greater integration of the Macedonian companies into the supply chains and other forms of internationalization of the economy.

In this context, the paper deals with the competitiveness of the Macedonian exports and possibilities to its improvement. In the first section of the paper, it provides an overview of the competitiveness of the Macedonian exports with regards to the exports' structure, from the perspective of the factors of production' intensity of the export offer, variety of the exported products and exporting markets, while the second one ~~it~~ provides a detailed overview of certain possibilities for improving the export competitiveness.

1. Competitiveness of Macedonian exports

In order to be practically implemented and/or upgraded, the competitiveness of a nation has to be measured. The literature contains vast number of methodologies, while there are also regular (annual) reports on the competitiveness of some countries in the world based on a specific methodology developed by the World Economic Forum.[1] According to the World Economic Forum ranking of Macedonia according competitiveness is positioned at 79th place (out of 142), so that positioning is better than average ranking of countries in the region in 2010 and 2011 (Table 1). The basic requirements are better than average, due to the achieved degree of macroeconomic stability, but indicators of market efficiency and technological readiness are worse than average. The basic requirements enable the countries to follow the model of factor-operated development, as they specialize in the industries based on natural resources and labor - intensive industries. At this stage of development, competitiveness depends mainly on the stable macroeconomic framework, well-functioning public and private institutions, adequate infrastructure and a healthy and educated workforce. On the other hand, performances in business efficiency and innovation are very weak and they are crucial for improving competitiveness, especially the exports competitiveness. In order to move up in the scale of quality and to increase their efficiency, the countries should transit to the stages of development that are driven by efficiency and innovation. According to this index, the Macedonian economy is still fragile and its competitiveness is still based on labor force and low productivity.

[1] Proceedings of International Conference, Editor – PhD Silvana Mojsovska, **Regional Trade Integration in South East Europe: Benefits and Challenges,** Institute of Economics – Skopje, 2013, p.74

Table 1: Ratings on Global Competitiveness Index (GCI) and its components in the SEE

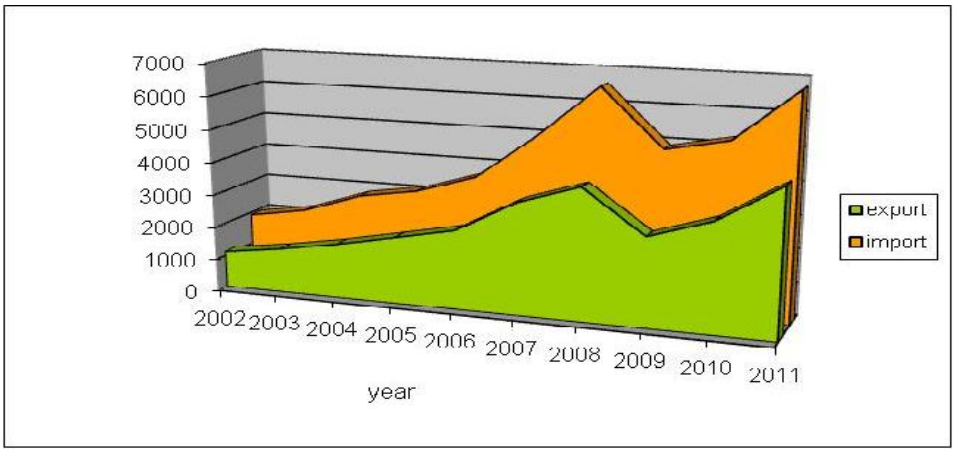
	Republic of Macedonia	Serbia	Montenegro	Croatia	B&H	Albania	Moldova
GCI 2011–2012 (from 142)	**79**	**95**	**60**	**76**	**100**	**78**	**93**
GCI 2010–2011 (from 139)	79	96	49	77	102	88	94
GCI 2009–2010 (from 133)	84	93	62	72	109	96	n/a
Basic requirements (60.0%)	**69**	**88**	**57**	**52**	**92**	**71**	**102**
Institutions	81	121	42	90	109	57	106
Infrastructure	86	84	63	39	99	72	96
Macroeconomic environment	37	91	94	70	78	86	103
Health and primary education	80	52	59	48	58	65	86
Efficiency enhancers (35.0%)	**87**	**90**	**63**	**72**	**102**	**82**	**103**
Higher education and training	80	81	48	56	86	82	83
Goods market efficiency	63	132	39	114	115	43	98
Labor market efficiency	72	112	45	116	85	49	75
Financial market development	82	96	35	87	124	107	105
Technological readiness	67	71	53	38	73	62	78
Market size	107	70	130	72	97	101	122
Innovation and sophistication factors (5.0%)	**104**	**118**	**59**	**82**	**108**	**102**	**127**
Business sophistication	105	130	70	88	108	78	117
Innovation	105	97	50	76	104	123	128

Source: Author's calculations based on data from The Global Competitiveness Report 2011-2012, World Economic Forum, 2011

In the case of the Republic of Macedonia, the standpoint is that the performance in terms of exports and international capital transactions provide credible depiction of the degree of its competitive abilities. The main point lays in the fact that, since it is a very small economy, in order to ensure sustainable growth of living standards, it is of vital interest for the Republic of Macedonia to create business environment appropriate for creation of export products with (relatively) higher added value, and to attract larger scope of foreign direct investment.[2]

[2] Ibid., p. 75

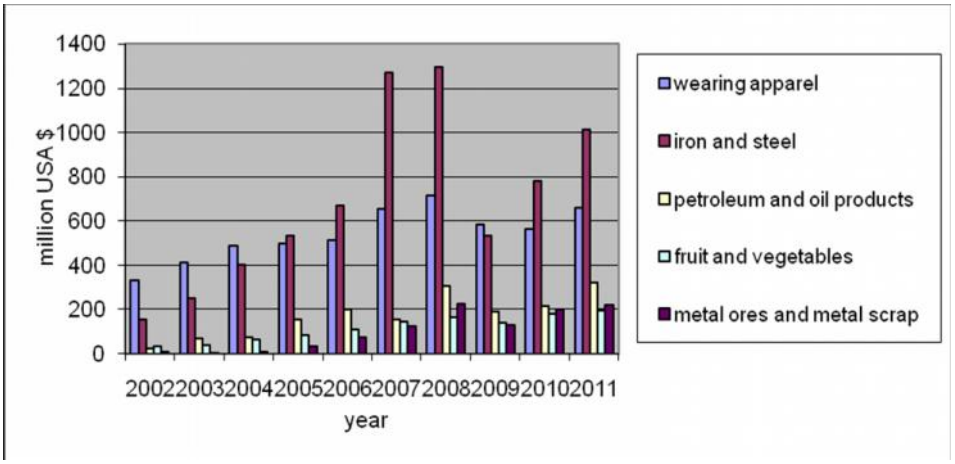
Chart 1: Macedonian export and import, 2002-2011 (million USA $)



Source: Prepared based on data from NBRM

The Chart 1 provides a view on the trend of the Macedonian export and import in the period 2002-2011. The analysis points out that despite all the changes and improvements made within the Macedonian foreign trade system, the country did not manage to realize a significant reduction in the trade deficit. This is confirmed by the fact that in the ten-year period of analysis there is permanent predominance of imports over exports in the analyzed period (Chart 1). The relatively high trade deficit is due to the lack of competitive ability of the economy, especially in the export.

Chart 2: Five products with the biggest share in Macedonian export by SITC (2002-2011)

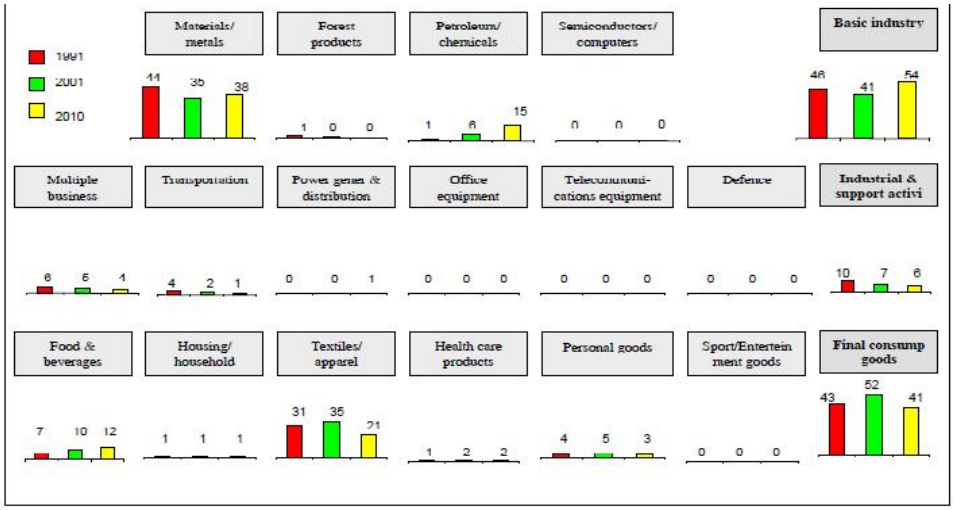


Source: Author's calculations based on data from NBRM

The trade deficit and the insufficient competitiveness of exports is a problem that arises from the structural features of the economy. Macedonian economy is characterized by a low degree of export diversification, i.e. dominance of two main product groups - textiles and metals (Chart 2). The same could be concluded out of the Chart 3, too. More specifically, Macedonian export products contain very low component of value added; more precisely, Macedonian competitiveness is revealed in three clusters: materials/metals, textile/apparel and food/beverages; however, the products of the materials/metals cluster are mostly primary/intermediate products which are further processed into final (consumer) goods in production capacities abroad; in the textile/apparel cluster Macedonian companies actually perform the service of sewing using low-skilled – and mostly female – labor force; while in the case of the food/beverages cluster Macedonian exports are mostly primary/intermediate agricultural products sold on regional (neighboring) markets; exports of the petroleum/chemicals cluster, which have increased in last couple of years, comprise petroleum derivatives from Macedonian refinery sold solely on the market of Kosovo.[3]

[3] Ibid., p. 77

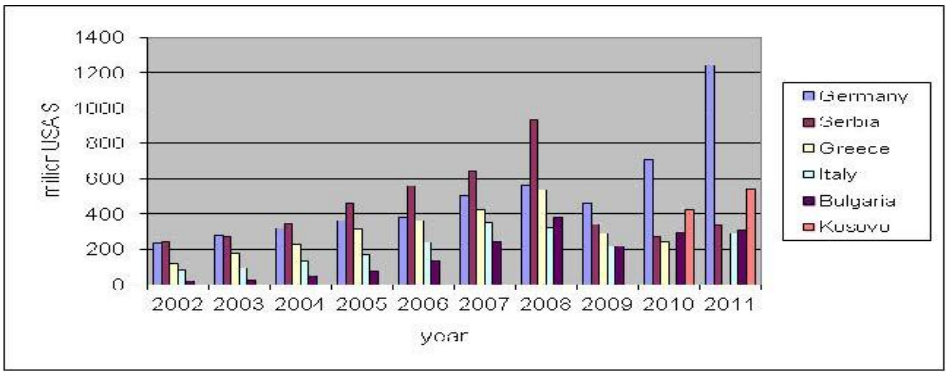
Chart 3: Cluster Map of Macedonian exports (in % of total exports)



Source: Vanco Uzunov, "Competitiveness of Macedonian Economy During the Transition Period (1991-2011)" in the ed."Proceedings of International Conference (Editor Silvana Mojsovska), **Regional Trade Integration in South East Europe: Benefits and Challenges,** Institute of Economics – Skopje, 2013, p.76

Besides the product concentration, the Macedonian export is characterized also with relatively high geographic concentration, i.e. in the past ten years, the export has been concentrated in a relatively small number of countries (five to six countries - Germany, Italy, Greece, Bulgaria and neighboring countries). It could be argued that the small number of the partner countries is due to the fact that Macedonia is not really exporting new products, but traditional products on the traditional markets (Chart 4).

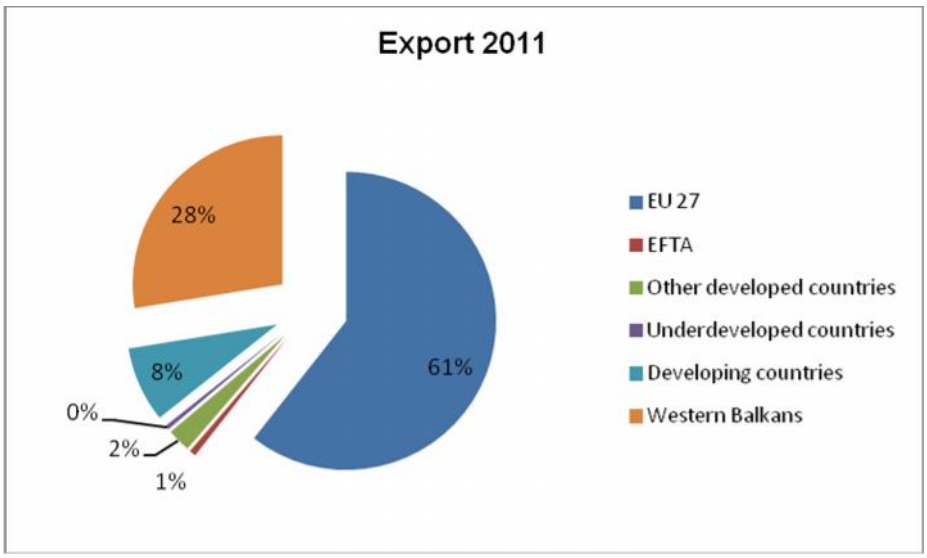
Chart 4: Macedonian largest export markets in the period 2002-2011



Source: Author's calculations based on data from NBRM

With regards to the exporting markets analyzed as economic blocks (Chart 5), the EU-27 remains a major export partner which consumed about two-thirds (61%) of the Macedonian exports in 2011. Furthermore, the second group of countries where Macedonia has mostly exported its products was the group of Western Balkans countries that accounted for about 28% of total country's exports in 2011.

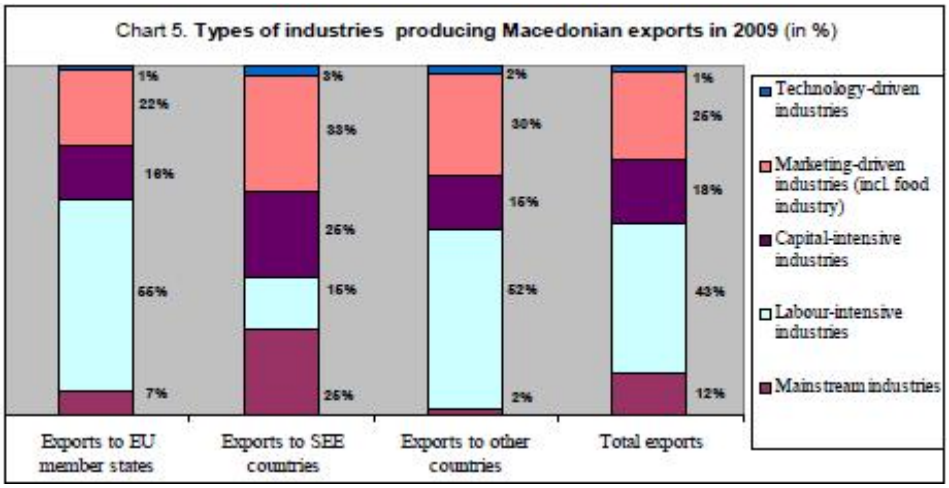
Chart 5: Macedonian exports of goods in 2011, according to Economic blocks



Source: Author's calculations based on data from State Statistical Office of Macedonia

A more detailed analysis of Macedonian export competitiveness in relation to EU and SEE states is presented on Chart 6 whereas, depending on the average utilization of production factors, Macedonian exports are distributed into five types of industries. This distribution confirms the notion about the low competitiveness of Macedonia vis-à-vis EU economies, since largest part of Macedonian exports to EU states are produced by labor-intensive industries; second largest share have exports produced by market-led industries (which include food industry); third is the share of exports manufactured by resource-based industries; while the share of exports produced by technologically intensive industries is negligible. The structure of Macedonian exports to SEE countries in this context is somewhat different, which verifies the fact about the somewhat higher competitiveness of Macedonia vis-à-vis SEE countries.[4]

Chart 6: Types of industries producing Macedonian exports in 2009 (in %)

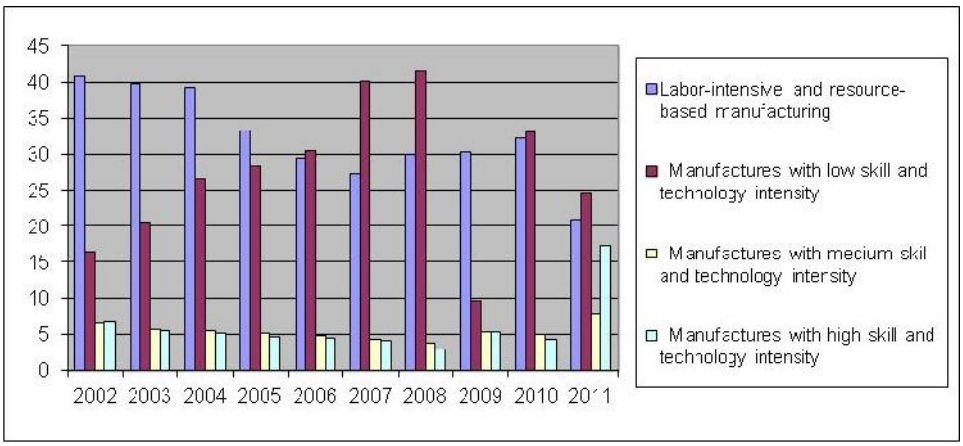


Source: Vanco Uzunov, "Competitiveness of Macedonian Economy During the Transition Period (1991-2011)" in the ed."Proceedings of International Conference (Editor Silvana Mojsovska), **Regional Trade Integration in South East Europe: Benefits and Challenges,** Institute of Economics – Skopje, 2013, p.80

[4] Ibid. p. 79-80

Also, the small volume of the exports results from the use of modern equipment and technology in the production process, therefore, implying only a low share of the high-technologically intensive products in the export structure (Chart 7). According to the graphical illustration on Chart 7, Macedonia has a small share of high-tech exports, i.e. the predominate export products are produced in labor-intensive and resource-based manufacturing based on low skills and technological intensity.

Chart 7: Macedonian export products by factor intensity, 2002-2011 (as a percentage share of total exports)



Source: Author's calculations based on data from UNCTADStat

It is widely known that the technology is the most important factor in today's global knowledge economy, and it affects the quality and prices of the products. The current development of the companies in the country, especially small and medium enterprises, indicates that many of them have no modern technologies which certainly affect the quality and value added of their products, as well as their ability for establishing cooperation within the global supply chains with foreign companies. The level of investment in new equipment and technologies for most of the domestic companies is quite low and very small finances are invested in research and development. This can be confirmed by the structure of the Global Competitiveness Index, in particular the section which ranks the

countries according to their ability to use already available technologies, as part of the sub-index for technological readiness.[5]

In addition to the lack of research and development for new products, it is interesting to note that many of the Macedonian companies do not make proper research and analysis of the international markets, i.e. do not make adjustments to their production program according to the demand on those markets. Therefore, many companies do not have a strategic commitment to the export orientation. Any prolonged concentration of exports in a few "imperfect" sectors will simply increase the vulnerability of the economy. Hence, it is necessary to ensure increase of the productivity and efficiency of the existing exporters through innovation and creating services for export promotion and diversification of exports with timely anticipation of the market dynamics and adequate response to the changes. In short, the companies, as well as the state have to sharpen their focus on markets and industries of interest, and to undertake specific measures on their respective levels.

Having in mind the situation in the Macedonian export, it is important to emphasize that the creation of the competitive export performance of the national economy requires complex and synchronized actions by economic agents, their associations (clusters, chambers of commerce, etc.), as well as additional policy measures to stimulate production for export.

Considering the poor state of affairs of the Macedonian exports competitiveness and the need for its improvement, the next section of the paper will deal with some of the activities that should be undertaken on macro level.

2. Some ways to improve the competitiveness of Macedonian export

Considering the above mentioned aspects of the competitiveness of Macedonian exports, we will focus on some necessary activities that have to be undertaken on macro level in purpose of raising exports' competitiveness. In particularly, we would focus on the increasing export by applying aggressive promotional-advertising programs, raising the technological basis of industrial production, as well as improvement of existing and development of new infrastructure.

[5] The Global Competitiveness Report 2011-2012, World Economic Forum, 2011, (www.gcr.weforum.org)

2.1. Raising export by applying more aggressive promotional-advertising programs

One of the issues usually related to the increase of the exports' of the Republic of Macedonia is the increase of the competitiveness of the exporting products. As presented in the previous section, the Macedonian export products are generally characterized by low stage of processing, higher cost price (due to low productivity and cost-efficiency) and low competitiveness on the foreign markets which implies realization of small foreign currency income. Furthermore, most of the products are bulky and related to extensive transport costs, with poor quality, inadequate design and packaging, as well as insufficient attention paid to their promotion, which makes them even less competitive. In addition, the insufficient competitiveness of exports is a consequence of the relatively small number of Macedonian products that holds quality and other certificates according to the requirements of the foreign markets. Therefore, the adjustment of the domestic production to be compatible to the demand and standards on the foreign markets should be one of the fundamental tasks of the industrial and foreign trade policy. Hence, in order to increase the volume of the Macedonian exports, it is necessary to assure adequate production by assortment and quality (according to the quality standards of foreign markets), good packaging, advertising and promotion.

The Republic of Macedonia already has a Strategy for export promotion, which includes activities such as market research of the targeted foreign markets, cooperation with the business community, promotion of the national economy and building a good reputation, diversification of the export structure, use of outsourcing in the business processes, such as joint centers for services, defining export goals, as well as creating the right balance between FDI and the exports support of local companies. According to the Strategy, and in purpose of diversification of the Macedonian export structure in the medium-term period, the state provides support for export of products and services from traditional sectors (textile industry, metal industry, agro-business), and new sectors (pharmaceutical industry, chemical industry, information industry, medical devices, alternative energy, tourism, call centers, etc..).

Also, it should be stated that the current situation with regards to the Macedonian exports is characterized with very limited presence of brands, which could be exported on the foreign markets. The export of

the products which includes intellectual property and high technology is very limited, thus contributing to the country to lag behind with regards to the brand recognition. In this context, Macedonian policy makers should undertake necessary activities to support development of Macedonian brands, as necessary step to increase the export competitiveness.

With regards to the potential for brand development, the Macedonian food and textile industries are sectors with the greatest capacity to create a recognizable brand. This especially applies to food production, as Macedonia has a good basis for the development of identifiable products, because of the high quality and authenticity of the Macedonian food. No less important is the wine, that although exported in small quantities, it certainly presents a recognizable product on the developed countries' markets. Furthermore, considering the growing market segment for healthy food on a global scale, as well as Macedonian favorable conditions for organic production, one of the branches that should be supported by the state should be related to the organically produced food. Measures related to brand development would certainly have an impact on export competitiveness, therefore, implying need for redesign of the existing policies.

2.2. Raising the technological basis of industrial production

The innovation and technical-technological basis, that are fundamental elements of competitiveness of each economy in contemporary trends of globalization, imposes new working practices for Macedonian enterprises. In such circumstances, enterprises are faced with the challenges of competition dictated by the broader market, and they need to introduce new technologies and innovations in purpose to be competitive on the market.

The indicators from the Global Competitive Index imply that most of the companies in Macedonia, especially small and medium enterprises, do not have modern technologies and implicitly, they have difficulties to establish partnerships with foreign companies in terms of their inclusion in the global supply chains. This can be confirmed by the Global Competitiveness Index, which ranks the countries according to their ability to use the already available technologies. In addition, another section of the Global Competitiveness Index measures capacity for innovation of the country, which is a part of the innovation sub-index

(Table 1). These data show that Macedonia is categorized into countries with relatively low level of technological development. The Macedonian economic growth much more depends on the ability to import certain technology, rather than the ability to take some innovative ventures. The indicator for the use of available technologies is relatively low and points out the need to undertake appropriate measures and instruments to improve this situation.

At this stage of the economic development, besides emphasizing the importance of technology for the Republic of Macedonia, it should be noted that domestic research, aimed at developing technologies and innovations, must also be increased. For this purpose, the companies have to establish connection with universities and innovators through implementation of research and development projects. The state, through its institutions, should be a strong catalyst in these processes. In this context, the government prepared a comprehensive Strategy for development of innovation for the period 2012-2020, and the legal setting to encourage innovation, which includes Fund for innovation and technological development. The aim of the Fund is to provide finances for promotion of innovation activities in the form of: grants for co-financing of the newly established start-up and spin-off companies, co-funded grants and conditional loans for commercialization of innovation, equity investments, and co-financed grants for technology transfer and technical assistance. This Fund shall contribute for the Republic of Macedonia to make a better performance with regards to the criteria of the EU Lisbon Strategy, which stipulate provision of 3% of GDP for investment in research and development. According to the statistics, currently, the allocation for research and innovation has been 2% in the European countries and only 0.4% in the Republic of Macedonia.[6]

By implementing the above policies in the field of technological development and innovation, it could be expected that the domestic companies will increase their technological capacity, although this is a long-term process which requires serious commitment by the state.

[6] http://www.economy.gov.mk/ministerstvo/3993.html

Conclusion

The data presented in this paper about trends and structure of Macedonian foreign trade, clearly indicate that the export competitiveness of the country has been rather low, mainly owing to the low efficiency and low productivity of the macedonian industry, as well as limited and outdated technological base. Such situation requires more serious attention by the policy makers, i.e. policies and measures that will result in expansion of the export structure strengthening the competitiveness of domestic firms on foreign markets, as well as reduction or substitution of imports.Taking this into consideration, future actions to increase competitiveness must be realized through multidisciplinary action of multiple policies. Particular emphasis should be placed on those segments that can give results in terms of encouraging exports and improving sectors' competitiveness.

Some of the ways to increase exports and improve its competitiveness are: attracting investments in sectors that are not present in Macedonia, creation of products with higher added value, improving the business environment, investing in infrastructure, improving the corporate management, as well as investment in quality management and employees by companies. Thereby, as part of the restructuring of the Macedonian industry, the policy makers should especially encourage and support activities for increasing the competitiveness of the export supply through the implementation of relevant international quality standards; investment in knowledge, technological development and innovation; investment in infrastructure and creating recognizable products (brands) with high added value intended for satisfying specific export markets. Although these activities are primarily the responsibility of individual businesses entities, however, the appropriate national policies can significantly contribute to the progress of this process.

References

1. Gutierrez Eva, Export Performance and External Competitiveness in The Former Yugoslav Republic of Macedonia, South-Eastern Europe Journal of Economics, 2007
2. Ministry of Economy of the Republic of Macedonia, Industrial Policy of the Republic of Macedonia 2009-2020, June 2009

3. Program to Improve the Competitiveness of Macedonian Products and Services in 2009, Official Gazette of R. Macedonia, no. 3 - Pg. 95, January 9, 2009
4. Proceedings of International Conference, Editor – PhD Silvana Mojsovska, Regional Trade Integration in South East Europe: Benefits and Challenges, Institute of Economics – Skopje, 2013
5. The Global Competitiveness Report 2011-2012, World Economic Forum, 2011
6. Toševa G., The Effect of Liberalization of the Foreign Trade Policy of The Republic of Macedonia, Institute of Economics - Skopje, Skopje, 2011
7. Trends in the Foreign Trade of Macedonia in 2009, University American College-Skopje, Skopje, 2010
8. Growth Competitiveness Index in Macedonia, http://www.globalpropertyguide.com/Europe/Macedonia/competitiveness
9. http://www.key.com.mk/categories/view/253
10. http://www.mchamber.mk//upload/Documents/centar%20za%20kvalitet/Sto%20e%20HACCP.pdf

UDC 330.55(497.7)
330.567.4(497.7)
(Professional paper)

Sami BISLIMI[*])

SOME ASPECTS OF THE GROSS DOMESTIC PRODUCT GROWTH AND THE DOMESTIC CONSUMPTION INCREASE IN THE REPUBLIC OF MACEDONIA

Abstract

This paper deals with some aspects of the gross domestic product growth and the domestic consumption increase in the Republic of Macedonia. The paper aims through in-depth insight into the changes in the share of particular sectors in creating the gross domestic product (GDP), than the changes in the total supply and demand of goods and services on the domestic market, as well as in the foreign trade, to identify the implications from the increase in the domestic consumption on the most significant macroeconomic indicators. The analyzes shows that the maintenance of the current level of the domestic consumption (above the level of the effective GDP) have negative consequences and implications, due to the following reasons: The high level of the final consumption share in the GDP does not give opportunity to increase the investments, as a precondition to expand the production possibilities of the domestic economy; The covering of a significant part of the domestic consumption through increased import of goods leads to increase of deficit in the trade balance as well as the deficit on the current account; The covering of a significant part of the domestic consumption through increased import of goods and services leads to additional indebtedness and increase of the total and cumulative public debt of the country. The author evaluates that such situation of the Macedonian economy on long term is unsustainable.

Key words: gross domestic product, domestic consumption, trade deficit, current account, balance of payments, public debt

JEL classification: E01; E20

---

[*]) PhD, FON University, Skopje, E-mail: sami.bislimi@fon.edu.mk

Introduction

The issues related to the supply and demand of goods and services from a domestic origin, as well as the ratio between these supply and demand and imported goods and services, causes permanent interest of the scientific and experts public opinion. The increase of the share of the import in forming the aggregate supply, as well as the relative decrease of the share of the export in forming the aggregate demand implies numerous consequences. They are manifested on the economic growth, the level of the trade deficit, the deficit of the current account, on the state of the balance of payments as well as the level of the total and the cumulative public debt.

In last decade the increase in the domestic consumption in the Republic of Macedonia was accompanied by the relative decrease of the share of the goods from the domestic origin, as well as the increase of the participation of the so-called socially valuable goods and services in forming the added value. Therefore, the aim of the study in this paper is, through consideration of the changes in the share of particular sectors in creating the gross domestic product (GDP), than the changes in the total supply and demand of goods and services on the domestic market, as well as in the foreign trade, to identify the implications from the domestic consumption increase in the Republic of Macedonia on the most significant macroeconomic indicators.

In this research, the period 2001-2011 is observed and data from several relevant Macedonian institutions (State Statistical Office, the Ministry of Finances and the National Bank etc.) are used.

1. Some methodological aspects of the calculation of GDP

We consider that the current methodology for calculating the GDP in the Republic of Macedonia and its implementation here and in the other undeveloped countries and developing countries, although is in accordance with the methodology for calculating the GDP in the developed countries, is inappropriate. The use of this methodology creates unreal picture about the growth in particular sectors in the economy, and with that for the changes of the entire economic growth of the national economy.

According to the current methodology, the growth of all sectors constitutes the growth of the entire economy. However, the contribution of the particular sectors in the economy differs, depending on whether are created real goods (commodities), then production and other services or are created so-called accrual values (socially valuable goods – services). While, in the real sector are created new values in material shape (commodities), in the service sector (wholesale and retail, financial sector, insurance, catering, traffic and communications etc.) are created services which are offered in the market, while in the public sector (public administration and defense, mandatory social care, education, health and social matters, other communal activities, cultural activities, common and personal service activities) are created only the so-called accrual values, a special type of services which can't be quantified separately nor their value can be confirmed in the market. For example, if in the higher education is created a new highly educated cadre (human capital) which does not correspond with the demand on the labor market, such cadre remains as unused human potential. Although large financial funds are spent for its creation, they don't have any contribution in the creation of the new value.

The increase of the number of employees in the public and state administration over the optimal number, as well as the increased amounts of funds for purchasing commodities and services, also significantly do not contribute in the increase and improvement of the quality of the public services. Each additional spending of funds in these sectors above the optimal level is registered as expenditure in the function of creating new additional services, where those additional accrual services represent a base to increase the added value, and with it a base to increase the economic growth rate of the national economy. However, a question is raised about how much and to whom those additional services serve? With that we don't mean that the public sector should not exist or that the services they offer are not needed, but we consider that the participation of these sectors in creation of the GDP should be limited to a certain level.

2. Share of the particular sectors in creation of the GDP

Pursuant to the current methodology, the basic components which compose the GDP are: the added value of all sectors of the national economy, plus the taxes of production minus the subventions. However, the greatest importance in forming the GDP has the added value, which essentially represents a newly created value of the national economy. Beside the level of the newly created value, of a particular importance for one national economy is its structure, respectively whether such newly created value is appropriate to the needs and demands of the market. In that sense, based on the data of the State Statistical Office about the added value by sectors in the Republic of Macedonia, several conclusions can be drawn (Appendix 1).

- The added value in the sector agriculture, hunting, forestry and fishing, then the sector mining and extraction of ore, the processing industry, the sector of supply with electrical energy, gas and water, and construction, which compose the so-called real sector, in the period 2001-2011, is increased for 83.6%, respectively from 85.698 to 157.361 million MKD[1]. Due to the lower dynamic of the added value growth in the real sector compared to its dynamic in the other sectors, the share of this sector in the total added value of the national economy decreased. In the analyzed period, the share of the real sector in the total newly created value by years is: 43,9% (2001), 42,5% (2002), 42,2% (2003), 40,6% (2004), 40,5% (2005), 40,7% (2006), 41,5% (2007), 41,3% (2008), 41,2% (2009), 39,2% (2010) and 38,9% (2011);
- The added value created in the sector wholesale and retail, hotels and restaurants, traffic, warehousing and communications, financial sector and activities related to real estate, in the period 2001-2011 is increased for 83.6%, respectively from 66.904 to 122.843 million MKD. The share of the added value in these sectors in the total added value shows tendency of decrease from 34.3% in 2001, 33.6% in 2007 and 30.4% in 2011.
- The added value created in the other sectors (public administration and defense, mandatory social care, education, health and social matters, other communal, cultural, common and personal service activities) in the analyzed period has increased for about three times

[1] The growth of the added value in these sectors by years in this period is: -1,4% (2002), 10,7% (2003), 6,6% (2004), 2,0% (2005), 10,5% (2006), 15,7% (2007), 13,5% (2008), 0,1% (2009), 1,0% (2010) and 5,3% (2011).

(from 42.628 million MKD in 2001 to 124.019 million MKD in 2011). As a result of this, the share of the added value of these sectors increased in the total newly created value from 21.8% (2001), to 27.5% (2004) and 32.7% in 2011.

From the previously stated it can be concluded that great changes have occurred regarding the share of the particular sectors in creating the total newly created value in Republic of Macedonia. The decrease of the growth of the real sector and its share in the total newly created value assumes further deepening of the differences between the supply and demand of the goods created by the real sector in the country.

3. Total supply and demand of the domestic market

Total supply of goods and services on the market consists of the amount of the newly created value, respectively the gross domestic product of the national economy and the import of goods and services, as basic components of the aggregate supply. The ratio between the newly created value (GDP) and the value of the total import points out on the level of the import dependency of the national economy. The increase of the share of the import in forming the total aggregate supply represents a significant indicator which shows that due to the insufficient size and inappropriate structure of the supply of goods and services from domestic origin, a larger part of the aggregate demand (domestic demand and the export) is covered with the import of goods and services.

The share of the particular components of the aggregate demand in each country is different, and depends on the level of the economic development, the goals of the economic policy, the habits of the consumers, tradition etc. The countries with a higher level of economic development are characterized with a relatively larger share of gross investments and export in the total aggregate demand. In the undeveloped and developing countries prevails the share of the final consumption in the total aggregate demand. The components of the total supply and demand in the Republic of Macedonia, according to the State Statistical Office data, are presented on the Appendix 2. Based on these data it can be concluded that:

- Due to the lower dynamic of the GDP growth (index 197.4) compared to the total supply of goods and services growth (index 221) in the period 2001-2011, it came to a higher growth of the import of goods

and services (index 263.6), particularly the import of goods (index 278.9). The increase of import has caused increase of the share of import in the total aggregate supply (from 35.6% in 2001, 43.3% in 2008, respectively 42.5% in 2011). The share of the import of goods in the total aggregate supply is increased from 29.5%, to 37.6% and 37.2% respectively. In the same time, the share of the import of services in the total aggregate supply noticed a tendency of decrease (from 6.1% in 2001, 5.7% in 2008 to 5.3% in 2011);

- The largest part of the total supply of goods and services (72.7% in 2001, 71.2% in 2008 and 68.7% in 2011) is intended for covering of the domestic demand, while the remaining part of the total supply for export. The largest part of the domestic consumption (88.4% in 2001, 79.8% in 2008 and 83.6% in 2011) is covered with the newly created value of the domestic economy (the effective GDP). These indicators suggest to the relative decrease of share of the newly created value of the domestic economy in the coverage of the domestic consumption. The share of the final consumption in the total domestic consumption shows tendency of decrease (83.8% in 2001, 78.6% in 2008 and 77.3% in 2011), which implies increased participation of the other components of the aggregate consumption. In the same time oscillations are noticed in the share of the final consumption in the GDP (94.8% in 2001, 98.5% in 2008 and 92.4% in 2011);
- The export of goods and services in the period 2001-2011 shows a tendency of high growth (index 255.2), considerably over the level of growth of the GDP (index 197.4). The relatively higher rise of the export is primarily a result of the lover level of export of the basic year of the analysis (2001). The share of the total export of goods and services in the total aggregate demand shows a tendency of increase (27.2% in 2001, 28.9% in 2008 and 31.3% in 2011), which means increasing coverage of the import with export. It is particularly significant the increase of the export of services of a domestic origin as one qualitative change in the foreign trade.

From the previously stated it can be concluded that the current level of the domestic consumption (above the level of the effective GDP) in long term cannot be maintained due to: 1) The high share of the final consumption in the GDP does not give opportunity to increase the investments as a precondition for expansion of the domestic economy; 2) The coverage of the considerable part of the domestic consumption through increased import of goods and services leads to an increase of

the negative balance of the current account on the basis of the so-called current transactions; 3) The coverage of the significant part of the domestic consumption through increased import leads to an increased total and cumulative public debt.

4. Implications of the domestic consumption increase

The domestic consumption increase over the level of the achieved GDP, beside the short term positive effects, can cause serious negative implications on the development of the national economy. In conditions when the domestic economy for a longer period is facing the problem of insufficient and inappropriate supply of goods and services and increased import, negative implications of the policy of stimulating the domestic consumption increase are possible. They are manifested on the: economic growth and development, the balance of payments, the total and cumulative public debt.

4.1. Economic growth and development

The increase of the domestic consumption not always mean that is the best and potentially the most accurate approach in resolving the accumulated problems, especially not in the economies which are faced with insufficient supply of goods and services of a domestic origin. Due to the failure, respectively the partial success in conducting the economic reforms, especially to the so-called structural reforms, Macedonian economy remained insufficiently reformed to cope with the requests and challenges which were imposed by the changes of the economic system in the country and in the external environment, particularly the liberalization of the internal market.

The insufficient investments in expanding of the production capacities, as well as in changing the current production structure of the domestic economy, restricts the capabilities for increase of the economic growth rate and the development. In these circumstances it cannot be expected an increase of the competitiveness of the domestic economy, especially on the external market. The increase of the productivity and the rational utilization of the available resources, are the basic preconditions for increase of the economic growth rate and domestic supply, as well as for successful participation in the market (internal and

external) on competitive basis. A contrary, the growth of the domestic consumption will only bring increase of the import. In this respect, interesting are the indicators for the efficiency of the total and additional domestic consumption in the Republic of Macedonia (Table 1).

Table 1: Some indicators for the efficiency of the total and additional domestic consumption in the Republic of Macedonia, 2001-2011

In million MKD

Year	GDP	Additional GDP	Total consum-ption	Additional consum-ption	Gross invest-ments	Additional invest-ments	GDP / Total consum-ption	Additional GDP / Additionalconsum-ption	GDP / Gross invest-ments	Additional GDP / Additionalinvest-ments
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
2001	233841	-	264530	-	42760	-	0,88	-	5,46	-
2002	243970	10129	293070	28540	50275	7515	0,83	0,35	4,85	1,34
2003	258369	14399	300837	7767	49447	-828	0,86	јан.85	5,22	-
2004	272462	14093	327285	26448	59902	10455	0,83	0,53	4,54	1,34
2005	295052	22590	345235	17950	62913	3011	0,85	1,25	4,68	7,5
2006	320059	25007	377137	31902	68809	5896	0,84	0,78	4,65	4,24
2007	364989	44930	432288	55151	89928	21119	0,84	0,81	4,05	2,12
2008	411728	46739	515892	83604	110405	20477	0,79	0,55	3,72	2,28
2009	410734	-994	499290	-16602	106378	-4027	0,82	-	3,86	-
2010	434112	23378	515270	15980	110790	4412	0,84	1,46	3,91	5,29
2011	461730	27618	551955	36000	125398	14608	0,83	0,76	3,68	1,89
Total	**3707046**	**227889**	**4422789**	**285930**	**877005**	**82638**	**0,83**	**0,79**	**4,22**	**2,75**

Source: Own calculations based on the data of the State Statistical Office of the Republic of Macedonia.

From the data and the indicators in the Table 1 it can be concluded that:

- The increase of the total domestic consumption was not accompanied with appropriate increase of the revenues of the Macedonian economy. The highest amount of revenue on a unit domestic consumption is achieved in 2001 (0.884), while the lowest in 2006 (0.797). The decline of revenues on a consumption unit is due to the decrease of the efficiency of the additional domestic consumption. In the period 2001-2011, on one unit of additional domestic consumption are realized 0.797 units of additional revenue, which is under the achieved level of revenue from a unit of regular domestic consumption (0.838).
- The increase of the gross investments, as part of the total domestic consumption, also doesn't have a positive influence on the increase of the revenues of the Macedonian economy. On every unit of

gross investments in the domestic economy, the revenues are decreasing from 5.468 in 2001 to 3.682 revenue units in 2011. The decrease of the revenues of gross investments is due to the decrease of the additional revenues of every unit of additional investments in the analyzed period.

From previously stated it can be concluded that the increase of the domestic consumption has no effects on the increase of the revenues of the Macedonian economy, and with it on the economic growth rate and the development. Primarily, that is due to the unfavorable structure of the domestic consumption (dominant share of the final consumption), then the increase of the stocks, as well as the growth of the nonproductive investments which have almost no feedback effects on the development of the national economy. Without change of the current structure of the domestic consumption on behalf of the investments, which would lead to the expansion of the production capabilities of the domestic economy to create additional new value, we can't expect any positive effects from the increase of the domestic consumption on the economic growth and the development of the Macedonian economy.

4.2. Implications on the balance of payments

We consider that the increase of the domestic consumption, in conditions when the domestic economy is not in a position to answer (by size and structure) to the increased needs of goods and services on the domestic market, is unjustified. From those reasons, Republic of Macedonia is facing with a continuing increase of the import, which causes further growth of the deficit in the balance of payments, and with that an increased outflow of funds from the current account. That is confirmed by the data from the Ministry of Finance for the current account balance and capital account, respectively the balance of payments in the period 2005-2011 (Table 2).

Table 2: The balance of payments in the Republic of Macedonia in the period 2005-2011

In millions of Euros

	2005	2006	2007	2008	2009	2010	2011
Current account:	**-121,3**	**-44,9**	**-414,8**	**-853,3**	**-483,3**	**-191,1**	**-224**
1.Current transactions (net)	-883,2	-998,2	-1149,3	-1746,4	-1523	-1408	-1584
- goods (net)	-858,5	-1020,4	-1174,8	-1750,7	-1551	-1468	-1682
- services (net)	-24,7	22,2	25,5	4,3	28	59,9	98,1
2. Incomes (net)	-91,5	-28,4	-277,7	-90,9	-91,7	-149,2	-120,8
3. Curent transactions (net)	853,3	981,8	1012,1	984	1131,4	1366	1480,2
Capital account:							
Financial and capital transactions	**127,7**	**38**	**447,6**	**851,2**	**466,1**	**190,5**	**227,9**
a.Capital transactions (net)	-1,7	-0,8	3,7	-12,2	20	9,1	21,3
b. Financial transactions - net	129,4	38,8	444	863,5	446,2	181,4	206,6
- direct investments (net)	74,9	344,6	506,9	409,4	171,9	219,9	336,8
- portfolio investments (net)	200,8	73,1	114,4	-50,7	104,3	-63,6	-42,1
- other investments (net)	201,6	-81,4	-75,5	453,2	239,3	66,1	243,2
- gross official reserves	-347,9	-297,6	-101,8	51,6	-69,4	-41,1	-331,3
Errors and omissions	-5,3	6,9	-32,8	2,1	17,1	0,5	-3,6

Source: Ministry of Finance of the Republic of Macedonia, Bulletin of the Ministry of Finance, No. 03/2007, 03/2009, 03/2011 and 03/2013.

The data in the Table 2 indicate several significant conclusions:

- As a consequence of the foreign trade deficit increase, the net inflow of funds on this basis in the current account is considerably decreasing (from -883.2 in 2005 to -1.583.7 million euros in 2011). Significant increase in the trade deficit was noticed in 2008 when it reached 1.746.4 million euros. In the same time the net inflow of funds in

the current account on the basis of other revenues decreases (for 91.5 in 2005 and 120.8 million euros in 2011). Despite the net inflow of funds growth on the basis of the current transfers (from 853.3 in 2005 to 1.480.2 million euros in 2011), they were not sufficient to cover the net outflow of funds from the foreign trade exchange and the net outflow of funds on other basis (interest and other). As a consequence of the increased outflow of funds from the current account in the analyzed period the negative balance of the current account was increased (from 121.3 in 2005 to 224.3 million euros in 2011);

- The current account deficit in the Republic of Macedonia is covered through increase of the net inflow of funds on the capital and financial account. On the basis of capital transactions, the net inflow of funds in 2005, 2006 and 2008 is negative (-1.7, than -0.8 and -12.2 million euros respectively), while the remaining years although the net inflow on the capital account was positive, its numerical values were minimal. In such a situation, it was necessary to increase the net inflow on the financial account, as a possibility to cover the negative balance on the current account. The highest net inflow of funds on the financial account was achieved in 2007 (444.0 million euros), then in 2008 (863.5 million euros) and 2009 (446.2 million euros).

Pursuant to stated previously it can be concluded that the trade deficit in the entire analyzed period is significantly higher of the net inflow of funds on the basis of current transfers. It means that beside the increased inflow of these funds, they were insufficient to cover the total amount of the negative balance on the current account. In such a situation it was necessary the current account deficit to be covered by the increased inflow of funds on the capital, and particularly on the financial account.

4.3. The influence on the total and the cumulative public debt

The increase of the import of goods and services for meeting the needs of the domestic market has a negative influence not only on the current account but also on the level of the total debt and of the cumulative debt. If we bear in mind the fact that the goods and the services provided through import, mostly are designed to meet the needs of the final consumption (to the households and the final public consumption), while a relatively small part for an investment consumption, than it’s understandable that alongside with the growth of

the import is increased the public and the private debt (internal and external).

That's a practice in all modern economies which are faced with such problems. The only difference in regard to the indebtedness between the countries with determined goals and priorities in development compared to the countries without recognizable goals and priorities in development, consists of the fact that the first mentioned countries use the funds from borrowings for development goals, i.e. increase of the production capacities of the national economy, while the other mentioned countries use the same funds for economic and social survival. The data from the Ministry of Finance, related to the total (public and private) and cumulative public debt of the Republic of Macedonia in the period 2005-2011 are presented in Table 3.

Table 3: The total and public debt of the Republic of Macedonia in the period 2005-2011

In million Euros

	2005	2006	2007	2008	2009	2010	2011
GDP	**4676**	**5231**	**5965**	**6720**	**6677**	**7057**	**7504**
External public debt	1477,78	1207,37	1057,35	1109,94	1324,87	1424,85	2061,11
External private debt	1040,31	1233,06	1783,7	2194,23	2455,49	2680,87	2785,5
External debt-gross	2518,09	2503,42	2841,05	3304,16	3839,43	4299,33	4846,61
1. State sector	1528	1065,56	897,71	906,33	1055,84	1104,1	1464,24
2. Monetary sector	52,66	51,99	9,01	9,15	71,74	76,42	310,82
3. Banking sector	192,02	269,88	387,85	384,07	467,75	576,49	564,75
4. Other sectors	475,84	786,69	1115,71	1321,91	1417,72	1562,79	1622,68
5. Borrowings of related parties	269,57	329,3	430,77	682,7	826,39	979,53	884,12
External debt of the central government	-	-	877,2	921,3	1105,3	1173,8	1582,1
Internal debt of the central government	603,7	651,2	552,8	465,5	491,6	536,8	506,7
External public debt/GDP	**31,6**	**23,08**	**17,72**	**16,5**	**19,83**	**20,19**	**30,55**
Total external debt/GDP	**53,85**	**47,85**	**47,63**	**49,16**	**57,49**	**60,92**	**64,58**
Total debt of the central government/GDP	**-**	**-**	**23,97**	**20,63**	**23,9**	**24,21**	**27,82**
Total debt/GDP	**66,76**	**60,29**	**56,89**	**56,09**	**64,86**	**68,53**	**71,34**

Note: In the internal public debt is not included the debt of the local government and the public enterprises.
Source: The Ministry of Finance of the Republic of Macedonia, Bulletins of the Ministry of Finance, No. 03/2007, 03/2009, 03/2011and 03/2013.

Based on the data from the Table 3, following conclusions can be drawn:

- The total external debt of the Republic of Macedonia in the period 2005-2011 is increased from 2.518.09 in 2004 to 4.846.61 million euros in 2011. The share of the gross domestic debt in the GDP of the country

is increased from 58.85% in 2005 to 64.58% in 2011. In the structure of the external debt, the share of the private external debt (except in 2004 and 2005) is the biggest, as a result of the measures of the Government of the Republic of Macedonia for a preterm return of part of the debt towards certain international financial institutions. Such a policy was conducted until 2011 when it came to a significant increase of the external public debt of the country (from 1.424.85 million euros in 2010 to 2.061.11 million euros in 2011) which implicates a significant increase of the external public debt share in the GDP (from 20.19% in 2010 to 30.55% in 2011);

- The debt of the local government and the debt of the public enterprises are not included in the internal public debt. Therefore, every further analysis of the internal public debt would be incomplete and it would not reflect the real situation and the changes of the internal public indebtedness.

From all previously stated we can conclude that due to the deficit on the current account, as well as the deficit in the balance of payments as a consequence of the increased total domestic consumption above the level of the achieved revenue (the effective GDP), in the analyzed period Macedonia was faced with a need of additional sources of funds, primarily on the additional public and private indebtedness in the internal and external financial market. Such approach for providing necessary funds from additional sources led to increase of the total and cumulative public debt of the country.

Conclusion

Based on the obtained results from the research of the share of particular sectors in creation of the GDP, the movements in the total supply and demand of goods and services in the domestic market, the changes in the foreign trade exchange, as well as the implications of the rise of the domestic consumption in the Republic of Macedonia in the period 2001-2011, several conclusions can be drawn.

The changes regarding the share of particular sectors in creation of the total added value, which are manifested in decrease of the real sector share, lead to a deepening of the differences between the added value which is created in the real sector on one hand, and the demand of those goods on the market on the other hand. The relative decrease of the

share of goods of a domestic origin as well as the relative increase of the share of the so-called socially valuable goods and services in forming of the added value has negative implications on the development of the domestic economy, which supply does not correspond to the structure of the domestic demand.

The increase of the domestic consumption does not have positive effects on the increase of the revenues of the domestic economy, and with that on the economic growth rate and development. That's due to the unfavorable structure of the domestic consumption (dominant share of the final consumption), the increase of the so-called nonproductive investments which don't have almost any feedback effects on the development of the Macedonian economy. Without change of the current structure of the domestic consumption on the benefit of the investments which would lead to expansion of the production possibilities of the domestic economy, cannot be expected any significant positive effects from the increase of the domestic consumption.

The coverage of the needs of the domestic consumption with goods from import has led to the increase of the deficit in the foreign trade exchange, significantly over the level of the net inflow of funds on the basis of current transfers. Beside the increased inflow of funds on the basis of current transfers, they are not sufficient to cover the total amount of the negative balance of the current account. The coverage of the deficit of the current account is conducted through the increased inflow on the capital and particularly on the financial account. As a consequence, it imposed the requirement for provision of additional sources of funds, primarily through indebtedness in the internal and external financial market. Such approach of provision of funds led to the increase of the total and cumulative public debt.

From everything previously stated it can be concluded that each increase of the domestic consumption which does not correspond with the size and the structure of the supply of goods and services of a domestic origin leads to increase of the import and with that to the increase of the deficit in the trade balance. Also, the increase of the trade deficit implies further increase of the deficit on the current account, additional indebtedness and increase of the total and cumulative public debt of the country. We consider that such situation of the Macedonian economy on long term is unsustainable.

Literature

1. Abel Andrew, Bernanke S. Ben, *Macroeconomics 2*, United States, Economic conditions, Addison Wesley, 2001, (translated into Macedonian language), 2009.
2. Begg D, Fisher S, Dorubin R, *Economics*, (translated into Macedonian language), Nik List, Skopje, 2000.
3. Block B. Stanley, Hirt A. Geoffrey, Foundations of Financial Management, McGraw-Hill Irvin Companies, New York, Copyright 2008, (translated into Macedonian), Global Communications, Skopje, 2008.
4. Fiti Taki, *Introduction into the modern macroeconomic*, Faculty of Economic – Skopje, Jugoreklam, Skopje, 2002.
5. Krugman R., Obstfeld Maurice, *International Economics*, published by Pearson Education, Inc., publishing as Addison-Wesley, Copyright 2009, (translated into Macedonian), Tabernakul, Skopje, 2009.
6. Mankiw N. Gregory and Taylor P. Mark, *Economics*, published 2006 by Cengage Learning (translated into Serbian), Datastatus - Belgrade, SP PRINT, Novi Sad, 2008.
7. Ministry of Finance of the Republic of Macedonia, Bulletins of the Ministry of Finance, No. 03/2006, *03/2007, 03/2009, 03/2011*, 03/2012 *and 03/2013*.
8. State Statistical Office of the Republic of Macedonia, *News Release, No. 3.1.13.7*
9. Uzunov Nikola, *Threshold of self-development, particularly of the Republic of Macedonia*, Economic development, No. 1,2,3, Journal of the Institute Economic – Skopje, 2003.

Appendix 1

Added value in Republic of Macedonia, by groups of sectors, in the period 2001 - 2011

In million denars

Years	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
A.B. Agriculture, hunting, forestry and fishing	22957	24557	28649	30041	30991	33530	33109	41341	39845	43739	44659
C. Mining and quarrying	1312	960	976	1029	1397	1569	2604	4350	4137	6692	6915
D. Manufacturing	39887	37925	38933	38921	43627	49627	64083	70634	67856	59089	64503
E. Electricity, gas, water, steam and air conditioning supply	10041	9146	11651	10961	10028	10162	9516	11159	15034	16021	13744
F. Construction	11801	11893	13366	14558	15761	17587	20835	20258	21110	23902	27540
G. Wholesale and retail trade	26076	27348	28006	35672	38649	43268	47355	50270	53583	72236	77694
H. Accommodation and food service activities	3410	4088	4621	4144	4245	4710	5565	5952	5051	4940	5535
I. Traffic, warehousing and communications	21694	20610	20789	20374	23459	26134	29017	33143	32234	18424	22707
J. Financial and insurance activities	7420	7427	5426	6742	7412	8785	10619	11090	10562	9838	14633
K. Real estate activities	8304	8168	8382	8771	7964	9378	12806	17449	17621	1927	2274
L. Public administration and defense, compulsory social security	14445	16145	16984	17874	20760	21141	22757	26677	29852	51673	48300
M. Education	8048	8688	9433	9907	10246	10811	11329	12467	14224	15315	15396
N. Human health and social work activities	8690	9361	9889	9642	9664	10602	12304	13577	15707	15526	16058
O. Arts, entertainment and recreation; Other service activities	5548	5553	5472	5954	6165	7124	7495	10548	13200	13262	14979
Inputted rents	5597	6723	19277	20771	21093	21898	24084	28535	18929	28564	29286
1. Value added – total	**195230**	**198592**	**221852**	**235361**	**251452**	**3E+05**	**313478**	**357450**	**358945**	**381158**	**404223**
2. Taxes minus subventions	**38611**	**45378**	**36517**	**37101**	**43600**	**43735**	**51511**	**54278**	**51789**	**52954**	**57507**
GDP – by current prices	**233841**	**243970**	**258369**	**272462**	**295052**	**3E+05**	**364989**	**411728**	**410734**	**434112**	**461730**

Years	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
	S T R U C T U R E (in %)										
A.B. Agriculture, hunting, forestry and fishing	11,75	12,36	12,91	12,76	12,32	12,13	10,56	11,56	11,10	11,47	11,05
C. Mining and quarrying	0,67	0,48	0,44	0,44	0,55	0,57	0,83	1,21	1,15	1,75	1,71
D. Manufacturing	20,28	19,10	17,55	16,53	17,35	17,96	20,44	19,76	18,90	15,50	15,96
E. Electricity, gas, water, steam and air conditioning supply	5,14	4,60	5,25	4,66	3,99	3,68	3,03	3,12	4,19	4,20	3,40
F. Construction	6,04	5,99	6,02	6,18	6,27	6,36	6,64	5,66	5,88	7,48	6,81
G. Wholesale and retail trade	13,35	13,77	12,62	15,15	15,37	15,66	15,10	14,06	14,92	18,95	19,20
H. Accommodation and food service activities	1,75	2,06	2,08	1,76	1,69	1,70	1,77	1,66	1,41	1,29	1,37
I. Traffic, warehousing and communications	11,11	10,38	9,37	8,65	9,33	9,46	9,25	9,27	8,98	3,67	5,70
J. Financial and insurance activities	3,80	3,74	2,44	2,86	2,95	3,18	3,38	3,10	2,94	2,58	3,62
K. Real estate activities	4,25	4,11	3,78	3,73	3,17	3,40	4,08	4,88	4,91	0,50	0,51
L. Public administration and defense, compulsory social security	7,40	8,13	7,65	7,59	8,25	7,65	7,26	7,46	8,31	13,55	11,95
M. Education	4,12	3,37	4,25	4,21	4,07	3,91	3,61	3,48	3,96	4,02	3,81
N. Human health and social work activities	4,45	4,71	4,46	4,10	3,84	3,83	3,92	3,80	4,37	4,07	3,97
O. Arts, entertainment and recreation; Other service activities	2,84	2,79	2,46	2,53	2,45	2,58	2,39	2,95	3,68	3,48	3,70
Inputted rents	3,05	4,41	8,72	8,85	8,40	7,93	7,74	8,03	5,30	7,49	7,24
1. Value added – total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Source: State Statistical Office of the Republic of Macedonia, Publications and News Releases (by current prices, revised data).

Appendix 2

The structure of the offer and demand of goods and services in the Republic of Macedonia, 2001-2011

In million denars (by current prices)

Years	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
I. GDP-	**233841**	**243970**	**258369**	**272462**	**295052**	**320059**	**364989**	**411728**	**410734**	**434112**	**461730**
1. Value added	195230	198592	221852	235361	251452	276324	313478	357450	358945	381148	404223
2. Taxes – subventions	38611	45378	36517	37101	43600	43735	51511	54278	51789	52954	57507
II. Import of goods and services	**129780**	**141882**	**140812**	**163637**	**180403**	**206296**	**258410**	**313721**	**248822**	**283324**	**342111**
1. Import of goods	107166	124062	119888	138656	153259	178445	223571	271870	212657	243676	298903
2. Import of services	22614	17819	20924	24981	27145	27851	34839	41851	36165	39649	43208
Total offer of goods and services	***363621***	***385852***	***399181***	***436099***	***475456***	***526356***	***623399***	***723449***	***659556***	***717436***	***803841***
I. Domestic consumption	**264530**	**293070**	**300837**	**327285**	**345235**	**377137**	**432288**	**515892**	**499290**	**515270**	**551955**
1.Final consumption	221770	242795	251391	267382	282322	308328	342361	405487	392912	404480	426557
Households	163788	188179	199026	213884	227944	250309	279880	330399	314376	324096	345262
Government	57983	54616	52364	53499	54378	58019	62481	75088	78536	80384	81295
2. Gross capital formation	42760	50275	49447	59902	62913	68809	89928	110405	106378	110790	125398
-.Gross fixed capital formation	34716	40448	42110	42286	48868	56485	71557	86403	81872	82968	94537
- Change in inventories	8043	9828	7377	12616	14045	12324	18371	24002	24506	27822	30861
II. Export of goods and services	99091	92781	98343	108815	130220	149219	191111	209557	160267	202166	251866
1. Export of goods	78625	71994	73742	82531	100662	117135	151292	164490	117658	153354	195639
2. Export of services	15894	16387	20549	22319	25493	29208	36373	42260	37873	42707	49203
. 3. Non-resident purchases	4572	4399	4052	3965	4065	2876	3446	2807	4735	6105	7024
Total demand of goods and services	**363621**	**385852**	**399181**	**436099**	**475456**	**526356**	**623399**	**723449**	**659556**	**717436**	**803841**

Source: State Statistical Office of the Republic of Macedonia, Publications and News Releases (by current prices, revised data), Ministry of Finance of the Republic of Macedonia (Bulletins for particular years).

UDC 336.02:339.732(4-672EU)
338.23:336.74]:339.732(4-672EU)
Professional paper

Vasilka GABER[*])
Stevan GABER[**])
Ilija GRUEVSKI[***])

COORDINATION OF EU POLITICS

Abstract

The EMU framework for policy coordination relies on the assignment principle: the ECB is responsible for the single monetary policy, while other economic policies are carried out by governments under subsidiary principle respecting the rules and procedures laid down in the Maastricht Treaty and the Stability and Growth Pact (SGP). The policy assignment and institutional arrangements of EMU underline the importance of economic and monetary stability as a precondition for a smooth functioning of the monetary union. Policy co-ordination can be defined as supranational rules or norms which are agreed by all Member States, which leave primary responsibility for the policy area with national authorities, but set limits on their discretion. The EC Treaty mentions various forms of economic policy coordination: the broad economic policy guidelines, multilateral surveillance and the excessive deficit procedure. The maintenance of fiscal discipline is crucial for the credibility of the single monetary policy and sustained economic growth in the context of price stability. The aim of this paper is to analyze and discuss the coordination of fiscal and monetary policies in EMU, applied methods and principles of policy coordination, process of macroeconomic coordination and the assessment of the coordinative effects.

[*]) PhD Student, University St's "Cyril and Methodius", Economic faculty, Skopje, E-mail: vasilka.gaber@yahoo.com
[**]) Ph.D.Assistant Professor, "Goce Delcev" University, Stip, Macedonia, E-mail: Stevan.gaber@ugd.edu.mk
[***]) Ph.D.Teaching Assistant, "Goce Delcev" University, Stip, Macedonia, E-mail: Ilija.gruevski@ugd.edu.mk

Key words: fiscal policy, coordination, methods and principles, assessment, monetary policy

JEL Classification Numbers: H11, H30, H77, H87, E5

1. Introduction

Before the foundation of the EMU, policy coordination in the EU relied on two main methods: harmonization of policies based on general rules of conduct and a delegation of the Community institutions. EMU has expanded the scope of coordination under both methods. The implementation of a common monetary policy of the Euro system is an example of delegation. Fiscal boundaries of the Excessive Deficit Procedure and the Stability Pact and growth are examples of coordination based on the rules in EMU. But in addition to these traditional methods, Maastricht process and development of the Union during the 1990's also introduced new forms of coordination that were based on dialogue, exchange of information, "peer pressure" and conviction.[1]

Reliance on "soft" law enforcement or peer pressure and persuasion, suggests that member states were not ready to give up sovereignty over their additional economic policies. The scope of policies covered by the existing coordination processes vary from budget policy, the labor market till the regulatory policies at the national level.

Coordination of policies can have narrow and broad agenda. With the narrow agenda, the coordination is limited on monitoring of national economic policies of the Member States and challenging practices, which are expected to worsen the quality of the macroeconomic performance of EMU, for example in terms of price stability. Excessive Deficit Procedure (EDP) is an example of coordination within such a narrow agenda. Coordination within the narrow agenda leaves space and freedom of member states to independently determine their political objectives, instruments and methods of implementation. Within the broader agenda, coordinating policy goes beyond that and develops an explicit framework for cooperative policies. This means agreement in

[1] "Peer pressure" (the pressure of a social group or community) - represents influence that is carried out by the "peer" group, observers or individuals in order to encourage others to change their behavior, values and attitudes to conform to the norms of the group, in the case of the EU or EMU union community.

terms of common political goals and methods for achieving the goals. Coordination of policies in EMU today, apart from the single monetary policy and the administration of the single market, continues to take place within a narrow agenda, with "unconditional" nature in the sense that the participating countries (and the ECB, where applicable) inform each other of their intentions in accordance with the given expectations about future economic conditions. What would happen if those expectations failed to realize, however, is not part of the different procedures. This limitation is particularly important in the context of coordination of monetary and fiscal policy in EMU, where key strategic issues include short term and develop transparent rules for reactions to shocks that can greatly help in guiding the expectations of the private sector.

2. Participants in the coordination process

Under Article 99 of the Treaty on European Union, the Member States should coordinate their economic policies at EU with the Council of Ministers with the participation of all 17 states and the obligatory presence of the European Commission and the ECB. Council for Economic and Financial Affairs (ECOFIN) is in charge for discussions and decisions about government deficits, public spending and taxes, while the Council for Employment and Social Affairs deals with employment and social policy. In the coordination procedures established by the agreement, the Council adopts guidelines and recommendations for economic policy based on the 16 majority votes on a proposal from the Commission. In addition, there are local committees under the Council of Ministers who prepare his work .

In order to meet the specific requirements of coordination among the participants of the eurozone, the European Council in 1997 in Luxemburg founded the Eurogroup (also known as 12 eurogroup) finance ministers of the member states of the EMU. Because the Eurogroup has no formal authority for decision - making, its role is limited to assessing the economic situation and discuss major political issues of the eurozone. The group is chaired by the Minister of the Member State of EMU which is responsible for chairing the EU, while in periods when the presidency is in the hands of a country that is not a member of EMU, by the minister of the next member of the EMU which

should assume the presidency. This subgroup of ECOFIN meets to discuss about the ECOFIN meetings.

The European Commission is present at meetings of the Council and the Eurogroup. The Commission has the right to set the political agenda for Council meetings and provide analysis for multilateral surveillance. Economic and Financial Committee (Economic and Financial Committee-EFC) has advisory and preparatory functions for Council meetings. It consists of representatives of national administrations and the national central banks, as well as two representatives from the European Commission and European Central Bank. Within the limits set by the agreements negotiated by national governments, the two institutions, EFC and EU played a leading role in the coordination process, for example, by proposing and developing different procedures discussed below. While the European Commission and EFC cover the macroeconomic and financial issues, the Economic Policy Committee (Economic Policy Committee-EPC), which consists of representatives from the Ministries of Economy, is primarily responsible for structural policies.

EMU experience suggests that the willingness of governments to “peer” pressure is not the same in all countries. Large states, in particular, are less likely to respond to peer pressure on the desired way, because the desire to be "good European" usually plays a much weaker role in their domestic policies than in smaller countries. This is indicated by the observation that the share of EU initiatives in the overall legislative initiatives is generally lower in the parliaments of large countries such as Germany, where 15-20 % of all initiatives due to the implementation of EU initiatives (see von Beyme 1997), than in smaller countries like Belgium, where it is around 50 %.

The collapse of fiscal discipline observed in the period 1999-2001, and the fact that France and Germany have taken significant tax measures without correspondonce to their stabilization programs also supports the impression that the effectiveness of peer pressure to ensure reliable large commitment of members is limited. Effectiveness of the recommendations made at EU level to guide national budget recommendations is limited by several procedural hurdles. In many Member States of the EMU, program and budget stability are prepared by the various administrative units. Hence, the relationship between these processes is weak in many countries. A further difficulty in this context is that the procedures for coordination of policies do not always include

relevant parties (actors) nationwide. Indications from the negotiations at EU level often lead only to statements with good intentions in order to convince other relevant actors on national level.

Article 113 forms the basis of the agreement for dialogue between the Council and the ECB. It provides for the participation of the ECB on Council meetings where they discuss issues related to monetary policy. In turn, the President of the Council shall be entitled to participate in meetings of the Governing Council of the ECB and to submit proposals for consideration by the Governing Council. However, it should be noted that although the President of the EU Council represents all states, however, it is not always a good interlocutor of the ECB to discuss the policy mix in the euro area. This is partly recognized in practice when the presidency of the EU falls under a non- eurozone member by which the President of the Council is represented by the chairman of the Eurogroup, i.e. the Minister of Finance of the next Member State to preside over EMU. President of the ECB is always invited to participate in meeti
ngs of the Eurogroup.

The process of Cologne, informal macroeconomic dialogue, was introduced under the German presidency in 1999. It consists of a two-year, informal consultations between public authorities and representatives of the social partners, without setting goals. The social partners are represented by their respective organizations at European level. The dialogue focuses on issues of monetary policy, fiscal policy and wage policy. The exchange takes place at the political and technical level between the ECB, ECOFIN, Councils of Labour and Social Policy, the Commission and the social partners.

3. Macroeconomic coordination

The open method of coordination, introduced the Summit in Lisbon, is essential to coordinate the processes of coordination in accordance with the objectives of the EU. The last method is not an additional process to others (such as *Broad Economic Policy Guidelines-BEPGs, the process of multilateral surveillance, the Excessive Deficit Procedure, the Stability and Growth Pact, Cologne Process),* but the concept of how to link existing procedures. His task is to highlight the fact that the processes are interacting with political objectives, such as employment and growth .

Under Article 99 of the TEU (Treaty if EU), the Guidelines of broader economic policy (BEPG) form the center of the process of coordination of economic policy at the community level. BEPG consolidate various existing processes (Luxembourg, Cardiff and Cologne) and seeks to harness the synergies between them. BEPG also references the form of multilateral surveillance procedure, under which control the consistency of national economic policies BEPG and functioning of EMU in general.

The multilateral surveillance procedure implies the ability to make reliable estimates or public policy evaluation of certain Member States and to provide confidential and public recommendations to their governments. European Council decides by unanimous vote for BEPG, on the proposal of the European Commission and the ECOFIN recommendations. From 2001 onwards, it is used an improved framework for developing and monitoring the implementation of BEPG, which explicitly includes various decision makers and actors at national and EU level in order to strengthen the accountability for final implementation.

As in the period before EMU, the coordination of economic policy aims to ensure that countries will not engage in policies that undermine the smooth functioning of open markets - competitive devaluations are a traditional example. However, a broader eurozone needs policy coordination**.** The distinction between the EU and EMU is emphasized especially in this context. The BEPG does not make sufficient distinction between economic goods that are exchanged between all member states, such as the single market, and those that are exchanged between Member States of the euro area, such as price stability in the EMU. At EU level, the internal market is a reference point for policy coordination. As in the period before EMU, the coordination of economic policy aims to ensure that countries will not engage in policies that undermine the smooth functioning of open markets - competitive devaluations are a traditional example. However, a broader eurozone needs policy coordination.

Fiscal policy remains in national governance of the Member States of the EMU, but under several restrictions. Basic procedures for the implementation of fiscal policy in the EU are: an excessive deficit procedure (EDP), multilateral surveillance procedure (MSP - Articles 99, 100, 111 TEU) and the Pact for Stability and Growth (SGP). The rule "No-Bail-Out" or "no salvation" (Article 103 of the TEU, Article 21 of

the ESCB Protocol) protects member states to become responsible for the financial obligations of the other members against their will.

EDP includes term (Article 3 of the Protocol) that member states of the EMU should implement appropriate institutions at the national level to facilitate the fulfillment of their commitments to sustainable public finances. Unlike the obligation of all Member States to have independent central banks, however, there is no explanation of what this commitment means in practice. For members of EMU, EDP is an unconditional obligation to avoid excessive deficits. In addition, EDP calls for medium budget positions close to balance or surplus. The higher the ratio debt/GDP of a country, the greater should be its efforts to quickly reduce the ratio. According to this pact, if a country has an excessive deficit, it should immediately take corrective action to reduce the budget deficit. EDP and SGP allow the imposition of financial sanctions in such situations - a feature that distinguishes them from other procedures of coordination. In the context of the SGP, Member States of the EMU are required to publish annual stabilization programs which present major fiscal decisions and budgetary choices on the path towards the medium-term objective for budgetary positions close to balance or surplus. Council considers that the strategy of budgetary policy and economic targets continue to meet the requirements of SGP and BEPG . In order to prevent an excessive deficit, the Council may give early warning in accordance with Article 99 of the Treaty.

Namely, although the combined application of EDP and SGP confirms the importance of fiscal discipline for the conduct of monetary policy, the practical operation of these agreements has not been satisfactory in the EMU for several reasons. **First**, procedures focus on the performance of individual Member State without taking into account the position of overall fiscal policy of the euro area as a whole. Implicitly, the organizational structure of these contracts is based on the assumption that to be close to equilibrium is unconditional best contribution of fiscal policy to macroeconomic stability in the euro zone. While this may be true in the long run, more analysis of eminent economists shows that stability requires different combinations of monetary and fiscal policies in different phases of the business cycle. **Second**, the procedure focuses on narrow deficits and debts. In the context of policy coordination, emphasizing the importance of moderate borrowing in EDP and SGP is justified only if there is a strong presumption that national fiscal policies affect macroeconomic

performance in EMU and cause horizontal spillover effects mainly through their capital markets.

Under the existing framework for coordination of policy formulation and monitoring the achievement of the objectives will be conducted within BEPG. Other processes, such as EDP and SGP, as well as processes of Cardiff and Luxembourg described below, aim to provide a detailed analysis of the relevant policy areas. Namely, it is interesting to note that the recommendations were directed to Ireland by the Commission and the Council in 2001 for greater fiscal disicpline were carried out under Article 99 (BEPG), although the analysis was done according to the SGP (Fisher and Reitano, 2001). Deviations occurred in the past and more recently witnessed the incompleteness of the framework for coordination of fiscal policy provided by EDP and SGP.

However, in order to make any assessments about the coordination of policies, it is necessary to know the overall legal and informal framework and appropriate processes that Member States should respect and implement.

4. Assessment of the coordinative effects

The ongoing process of policy coordination in the last few years have proved inadequate for ensuring fiscal discipline and effective policy coordination in EMU. Numerous criticisms were directed at the weaknesses of these coordination mechanisms and fueled significant debate in the direction of reforming the overall governance framework and implement the necessary measures to strengthen the coordination of fiscal policies and stability in the eurozone and the European Union. Through the analysis presented in the previous section, I realized that in the long run monetary policy can achieve price stability without cooperating with fiscal policy. The central bank can choose the rate of inflation for monetary union without affecting the output of individual Member State or the Union as a whole. However, in the short term, there is potential conflict between monetary policy and national fiscal policies, since both interact in the determination of aggregate demand in the monetary union. If the central bank firmly targets price stability, fiscal policies at the national level will result in clear distributional conflict (Jürgen von Hagen and Susanne Mundschenk, 2002). Governments will fight for a larger share of aggregate demand to achieve their desired

levels of output, while the central bank will offset the combined fiscal impulses. If fiscal impulses are expensive, it will appear strategic equilibrium where the central bank will prevent shocks to the demand and aggregate fiscal stance will resist shocks on the supply side. Namely, if the central bank tolerates deviations from price stability in the short term, fiscal and monetary policy in this case would be completely interdependent on the aggregate level. Given the fact that each of these authorities affect the goals of other authorities, coordination of policies between them is more important in achieving the desired results for both authorities. Ignoring the interdependence between monetary policy and national fiscal policies in the short term will lead to undesirable macroeconomic performances on monetary union. Many economic analysys argue that limiting fiscal policy on the operation of automatic stabilizers do not address the question of policy coordination. Rather, it destabilizes aggregate output and implies that countries will compete for the aggressiveness of their optimal automatic stabilizers as a result of the implemented monetary reaction .

The answer to these short-term conflicts requires agreements between Member States on common stance of fiscal policy on aggregate level, harmonization of fiscal stance with the union's monetary policy, procedures that explicitly represent aggregate preferences regarding the replacement of output and inflation at EMU level, and making optimal choices about these preferences. Existing processes and mechanisms for policy coordination are inadequate to address relevant conflicts at the EMU. They are not sufficiently focused on the EMU macroeconomic variables and provide a framework for binding agreements between governments and generally between the central bank and individual governments.

In fact, these processes of policy coordination may be able to provide a basis for expressing distribution conflicts between member states, clarity about the negative effects that the policy of one country may have on other countries through the EMU variables and significant "peer" pressure to encourage necessary reforms. However, they do not provide a framework for detailed analysis of important conflicts or binding agreements between governments to ensure the consistency of their individual fiscal policies with the political goals of national and aggregate level of monetary union. Hence, the current institutional arrangements largely maintains the Member States in an uncooperative political game. One implication is that the central bank law does not want

to engage in joint policy-making with the fiscal authorities, because it can not count on the reliability and safety of possible agreements with national fiscal authorities. Thus, lack of commitment and responsibility between governments implies inability to achieve effective coordination and commitment between monetary policy and national fiscal policies.

5. Conclusions

The global financial crisis exposed weaknesses in the economic governance framework of the EU, and of the euro area in particular, and severe shortcomings in its implementation. Some Member States had already accumulated large fiscal imbalances in "good times". However, the Stability and Growth Pact (SGP) – the fiscal surveillance mechanism in place to safeguard the stability of Europe's Economic and Monetary Union (EMU) – did not provide sufficient incentives for the correction of these fiscal imbalances, particularly after the reform of the SGP in 2005. The financial and economic crisis led to a further deterioration in fiscal positions, owing to the effects on budgets of automatic stabilizers in the tax and benefit systems, the fiscal stimulus packages introduced by governments to counter the economic downturn, and the support provided to the financial sector.

The Treaty on the Functioning of the European Union (TFEU) specifies a clear division of responsibilities between European and national policy-makers in EMU. Monetary policy is inherently indivisible in a monetary union, and in the euro area it is thus conducted at the supranational level. By contrast, economic policies, such as fiscal and structural policies, have remained largely the competence of national governments and reflect national political preferences. Close coordination between monetary and fiscal policy is essential for sustainable economic growth in a context of price stability and viable external accounts. Effective policy coordination makes it easier for policymakers to achieve their objectives efficiently, in part by ensuring their commitment to mutually agreed objectives. Without efficient policy coordination, financial instability could ensue, leading to high interest rates, pressures on exchange rates, rapid inflation, and an adverse impact on economic growth.

Before EMU, policy coordination in the EU relied on two main methods, harmonization of policies based on common rules of behavior,

and delegation to community institutions. EMU has expanded the scope of coordination under both methods. EMU has expanded the scope of coordination under both methods. The conduct of the common monetary policy by the Euro system is an example for delegation. The fiscal strictures of the Excessive Deficit Procedure and the Stability and Growth Pact are examples for rules-based coordination in EMU. Policy coordination can have a narrow or a broad agenda. With a narrow agenda, coordination is limited to monitoring the national economic policies of the member states and challenging practices that are expected to worsen the quality of the EMU's macro economic performance, e.g. with regard to price stability. The Excessive Deficit Procedure is an example for coordination under such a narrow agenda. Coordination with a narrow agenda leaves the member states the freedom to choose their policy goals, instruments, and methods of implementation. With a broad agenda, policy coordination goes beyond that and develops an explicit framework for cooperative policies. This requires agreement on a set of common policy goals and methods to achieve these goals. Apart from the single monetary policy and the administration of the Single Market, today policy coordination in EMU proceeds under a narrow agenda.

Existing processes for policy coordination in EMU may perhaps provide a basis for expressing the distributional conflicts among the member states, for expressing concerns about policies in one country that could have negative effects on others through the EMU aggregates, and for peer pressure encouraging reforms. However, they provide no framework to analyze the relevant conflicts in detail or to arrive at binding agreements among the governments assuring the consistency of their individual fiscal policies with their policy goals at the national and the aggregate level. Thus, the current institutional setup largely keeps the member states in a non-cooperative policy game. One implication is that the central bank is rightfully reluctant to engage in cooperative policymaking with the fiscal authorities, as it cannot count on the reliability of agreements it might enter into with the governments. Thus, the lack of commitment among the governments implies an inability to commit between the monetary and fiscal authorities.

The current economic governance framework was never fully implemented and has even been weakened since the start of EMU. It thus failed to prevent the crisis in the euro area. The economic surveillance framework in place for fiscal policies was not applied sufficiently rigorously and available sanctions were not implemented. According to

the Economic Commission there are several measures that are going to improve the economic governance framework of the EU: (1) more "automaticity" and less room for discretion in the operation of the preventive and corrective arms of the fiscal and macroeconomic surveillance framework; (2) the creation of a macroeconomic surveillance framework with a clear focus on euro area countries that are less competitive, have sustained current account deficits or have high levels of public and private debt; (3) strict deadlines to avoid lengthy procedures, and the elimination of "escape clauses"; (4) the introduction of additional political and reputational measures for compliance with the rules of the governance framework; (5) more ambitious benchmarks for establishing the existence of an excessive deficit; (6) the early and gradual application of financial sanctions under the proposed macroeconomic surveillance framework; (7) more ambitious requirements as regards the adjustment path towards a country's medium-term budgetary objective; (8) improvements in the quality of annual and quarterly economic statistics, in terms of both their timeliness and their reliability; (9) guaranteed quality and independence of fiscal and economic analysis; (10) a commitment on the part of the euro area countries to swiftly enhance their national budgetary frameworks; and (11) the creation of an effective crisis management framework, with any financial assistance being based on strong conditionality that avoids moral hazard.

References

1. Amtenbrink, F. and Haan, J. de (2003), *"Economic Governance in the European Union – Fiscal Policy Discipline Versus Flexibility"*, Common Market Law Review 40: 1057-1106.
2. Begg, I., Hodson, D. and Maher, I. (2003), *"Economic Policy Coordination in the European Union"*, National Institute Economic Review, No. 183, p.66.
3. Belke, A. and Gross, D. (2009), *"On the benefits of fiscal policy coordination in a currency union: A note"*, Empirica, Vol.36 (1), pp.45-49.
4. Gros, D. and Alcidi, C. (2010), *"Fiscal Policy Coordination and Competitiveness Surveillance: What solution to what problems?"*, CEPS Policy Brief, No. 213.

5. Hagen, J. V. and Mundschenk, S. (2002), "*Fiscal and monetary policy coordination in EMU*", Central Bank of Chile, Working Papers N° 194.
6. Schwartz, P. and Castañeda, J. (2008), "*Monetary and fiscal policies under EMU: do we need more coordination in times of economic distress?*", Report for the Committee on Economic and Monetary Affairs (European Parliament), preparatory to the "Monetary Dialogue with the ECB".

UDC 005.332.4
Professional paper

Katerina RISTOVSKA[*])

RESOURCES – BASE FOR COMPETITIVNESS

Abstract

Globalization of world markets and the internationalization of companies inevitably led to changes in the management of the enterprises. Because of this, there are numerous challenges that the companies must deal with in order to survive and create a sustainable competitive advantage.

Competitive strategy of companies consists approaches and initiatives which need to be taken in order to attract more customers and to satisfy their needs, while opposing to competitive pressures and strengthen its market position.

Strategy and objectives of the company are directed towards the proper management and use of resources, reduce of costs, maintain market position, meeting the demands of the consumers and above all, maintain long-term competitive advantage over its rivals. In achieving this goal, the company approaches towards utilization of advanced technologies and information systems, as well as proper utilization, allocation and development of resources and capabilities of the company.

Keywords: Competitive Advantage, Resources, Capabilities, Strategy.

JEL classification: M13, M21, L22.

[*]) Master in MBA – Management, Faculty of Economics – Skopje at the University St Cyril and Methodius, E-mail: katerina.ristovska@gmail.com

Introduction

Changes in environment and modern trends of internationalization and globalization impose certain changes in the operation of companies. Over the past decade major contributions in the field of economics and strategic management are made, that draw attention to resources. The main contribution for the resources in the companies is the theory of competitive advantage. Its logic is relatively simple. It starts from the assumption that the desired outcome of managerial effort within the company is competitive advantage which will be maintained.

Achieving competitive advantage which will be maintained enables the company to increase its profitability. The question of how to increase the profitability of the company and how to maintain a competitive advantage in terms of resources, the answer lies in the possession of certain key resources that have specific characteristics such as value, inability to copy and uniqueness. Competitive advantage can be maintained to obtain if the company effectively deploy these resources to its products and markets.

The current competitive conditions of the developed economies of the world market are becoming increasingly dominant and create difficulties in the survival of companies. Realizing that the company is not enough to be mediocre in their competitiveness actualized the need to create strategies for designing new products and services that would attract the attention and interest of the consumers.

1. The resources and their role in creating competitive strategy

Resources are inputs into the production process of the company - investment equipment, skills of employees, patents, finances and talented managers. Resources include a range of individual, social and organizational phenomenon[1].

Resources, by themselves, do not produce a competitive advantage. The production technology of the company, unless protected by patents or other restrictions, can be purchased or imitated by

[1] Teece, J. David: "Explicating Dynamic Capabilities: the Nature and Micro foundations of (Long Run) Enterprise Performance", *Fundamentals of Business Strategy*, Vol. 5, SAGE Publication Ltd, London, 2007, pp. 516.

competitors, but when the production technology is integrated with other resources and establish a capability that can develop and result in to competitive advantage. Thus, competitive advantage can be created through a unique set of few resources. Physical assets alone usually cannot enable the company to maintain competitive advantage[2].

In some cases, resources or capabilities help the company to increase its revenues and reduce costs, but the company gets only a temporary advantage because competitors can quickly imitate. Many e-businesses in the early 21st century have seriously reduced their profits because of the new (or existing) competitors who very easily copied their business models. A significant example is Priceline.com, which offers to the consumers to buy online tickets and a wide range of other products. It was too easy for competitors (for example, the association of major airlines) to copy the products and services of Priceline. Resources and capabilities must be rare and valuable, difficult to be imitated or difficult to replace in order the company to achieve competitive advantage which will be maintained over time[3].

Because all resources lose their value, an effective corporate strategy requires continuous investment in order to maintain and build valuable resources.

The competitive strategy of the company consists of business approaches and initiatives taken to attract customers and to meet their needs, to counter competitive pressures and strengthen its market position. Business strategy not only cares for competitiveness and competition, but also how management plans to deal with all the other strategic problems that may be faced in business. The basis of competitive strategy of the company consists of internal company initiatives that lead to superior value for customers. But also it contains offensive and defensive moves to counter competitors, actions for exchange of resources to improve the long-term competitive ability of the company and market position, as well as efforts to respond to any market conditions[4].

When managers will identify the resources and strengths of the company, should be carefully assessed their competitive value and their

---

[2] Hitt, A. Michael, Ireland, R. Duane, Hoskisson, Robert E.:*Strategic Management – Competitivness and globalization*, Nelson Education Ltd, 2005, pp. 91-91.

[3] Dess, G. Gregory, Lumpkin, G. T., Marilyn, L. Taylor:*Strategic Management – creating competitive advantage*, McGraw-Hill, Irwin, 2005, pp. 88.

[4] Thompson, A. Arthur, Struckland III, Jr. A. J.:*Strategic Management – Concepts and Cases*, McGraw – Hill, Irwin, 2011, pp. 124-125.

importance in building strategy. Some advantages of resources and competitive capabilities are more important than others because they give more power to the strategy or they are major factors in participating in a stronger market position and higher profitability. Most companies are well supported with competitive valuable resources, much less a competitive superior resources. Many businesses have a mix of resources - one or two valuable resources, some good, satisfactory to the average. Only a few companies, usually the strongest leaders in the industry, possess competitive superior resources. The principle of building the strategy is simple: the company strategy should be tailored to align with company resources - taking into consideration the strengths and weaknesses. Managers should build their strategies exploiting capabilities - its most valuable resources and avoid strategies that have tough requirements in areas where the company is weakest. Companies who are lucky enough and have specific skills or other competing superior resource must wisely implement their strategy, because their value will decrease with time and competition[5].

2. The impact of resource management in the building of competitive advantage

One of the main strategic decision-making processes that the managers are facing is deciding which resources to develop and direct. Top managers spend a lot of time analyzing, selecting, developing and directing the necessary resources to enable the company's competitiveness. These resources and competitive advantages must be constantly upgraded or modified to enable the company to maintain its competitive advantage over other companies in the market[6].

Managing the process of identifying and developing resources required from the managers examining the weakness of resources that must be corrected to ensure that the current strategy of the company will be competitive in the future. It is therefore important to evaluate the

[5] Collis, J. David and Cynthia A. Montgomery: "Competing on Resources: Strategy in the 1990s", *Fundamentals of Business Strategy*, Vol. 5, SAGE Publication Ltd, London, 2008, pp. 140-150.

[6] Hill, W. L. Charls and Gareth, R. Jones:*Strategic Management – An Integrated Approach*, Houghton Mifflin Company, 2007, pp. 91-97.

quality of competitive advantages, resources and skills needed in the current and desired strategy and competitive position in the future.

Two issues must be considered when determining specific strengths required for the strategy: Do the strengths support the competitive advantage position, resources and capabilities of the company and whether they can be implemented effectively? Starting with the strengths that the company possesses, strategist determines the unique features of the company's current strengths - those that are different from those of competitors. These features can include competitive advantages and capabilities. Once you determine the critical advantages, the strategy has been developed to use the same.

3. Building and maintaining competitiveness

"What is meant by competitive advantage and why is it important? "Hutchison" is trying to get its advantage by promoting the 3G- technology wireless – communication. This is an example of an attempt to create a competitive advantage because they were the first to have made the move and got ahead through this technical innovation"[7].

Competitive advantage is necessary but not sufficient condition for continued market share because the company at some point needs a capability not just to be better than the competitors, but also the ability to earn above normal profits to justify its participation.

If the company is poorly positioned in the market, in one industry, or execution of one activity, which is characterized by a good return on investment, the competitive advantage is not sufficient to support further action in this industry. The company could face a reduction in the number of consumers while external factors are beyond its control. In this situation the strategic goal of the company should focus on looking for new industry that can build different competitive advantage. A company may have a competitive advantage, but to be badly placed. Or, it may be well positioned, but with lack of competitive advantage because cannot achieve relevant essential skills. Achieving competitive advantage involves expanding the resources of the company, developed from strategy into capabilities, to use the strengths of the opportunities that are provided by the external environment. Positioning is a part of

[7] Collin, White: *Strategic Management*, Palgrave Macmillan, 2004, pp. 269.

this, but the development of competitive advantages reflects positioning and effective use of any resource.

To maintain an advantage for short term requires constant development of capabilities and restructuring of certain resources in different skills. Because of this, must carefully monitor changes in the environment. It includes a combination of good follow of changes and better management of resources than competing companies operating in the same market. Without potentially competitive advantage, strategy cannot be developed. Identification and development of competitive advantage is the center of strategy formulation[8].

Profit that can be earned from the resources and capabilities, not only depends on their ability to build a competitive advantage, but how long that advantage will be held. This depends on whether the resources and capabilities are sustained and whether competitors can copy the competitive advantage they offer. Resources and capabilities are easy to copy if you are transferable and replicable[9].

Conclusion

Taking into consideration the current conditions of competition in the market, only those companies that provide the best allocation of resources, succeed to be the most competitive and continue to exist despite all else that must be diversified or to look for any other business that will be more successful.

It can be concluded that the resources and their allocation are those which decide the success of the company and its market share. Global markets worldwide and current competitive conditions are becoming more prevalent and contribute to hindering the fight for survival of companies.

In order to exploit opportunities and neutralize the environment threats, available resources, companies must be valuable and rare among current and potential competitors to the company. Also of paramount importance in achieving competitiveness is a resource to be difficult for imitation by competitors and to do not have strategic equivalent replacement. Such resource, by themselves contribute to achieving

[8] Ibid, pp. 269-271.

[9] Grant, Robert M.: "Analyzing Resources and Capabilities", *Contemporary Strategy Analysis,* Wiley, 2007, pp. 124-125.

competitiveness in the market, which leads to domination over rivals only when they are properly allocated, are used and managed.

The fact that there is not enough companies to be mediocre in their competitiveness, questioned the need for creating strategies for new products and services which would increase the interest of consumers. Therefore, arises the need to achieve sustainable competitive advantage that enables companies to increase their profitability. But the company's ability to increase its rate of profit depends also on attractiveness of the industry.

Nowadays, in conditions of market economy, where competition is fierce and where profit is monitored, as the main motive in running a business, a successful management of resources is essential. Market research, developing new products, improving existing products, creating the most adequate distribution system and promotion are just some of the activities that a company must take over if it wants to achieve or maintain own market competitiveness.

The competitive advantage of companies can be manifested in various ways, through the ability to produce low cost, strong expertise in e -commerce, technological know - how, without manufacturing defects, expertise in providing consistently good customer service, excellent skills in advertising or unique talent for advertising and promotions. Also, by having equipment, attractive locations, widespread distribution, ownership of valuable natural resources, computer network and information system and significant amounts of cash. But what is essential is experienced and capable workforce, skilled workers in key sectors, motivated and dynamic staff, intellectual capital, know - how management and organizational learning embedded in the organization. Today more attention is given to organizational resources and valuable invisible resources, so it can be distinguished the systems for quality control, licensed technology, patents, loyal customer bases, strong credit rating, purchasing system, well-functioning internal communication company, an e -commerce exchange of information with key suppliers and customers, computer manufacturing, a system for doing business online, brand image, company reputation, goodwill of customers and motivated and dynamic workforce.

Competitive company is a company which in a short time develops new products to the market, has strong distribution network, strong partnerships with major suppliers, excellent R & D- sector for development of new products, a high level of organizational agility in

adapting to market conditions and exploitation of opportunities, well trained officials customer service or system of conducting business online.

What can be derived as a conclusion from this analysis is that the continued investment and development of resources keeps companies competitive on the global markets and provides long-term survival and profitable operation.

References:

1. Collin, White: *Strategic Management*, Palgrave Macmillan, 2004
2. Collis, J. David and Cynthia A. Montgomery: "Competing on Resources: Strategy in the 1990s", *Fundamentals of Business Strategy*, Vol. 5, SAGE Publication Ltd, London, 2008
3. Dess, G. Gregory, Lumpkin, G. T., Marilyn, L. Taylor:*Strategic Management – creating competitive advantage*, McGraw-Hill, Irwin, 2005
4. Grant, Robert M.: "Analyzing Resources and Capabilities", *Contemporary Strategy Analysis,* Wiley, 2007
5. Hill, W. L. Charls and Gareth, R. Jones:*Strategic Management – An Integrated Approach*, Houghton Mifflin Company, 2007
6. Hitt, A. Michael, Ireland, R. Duane, Hoskisson, Robert E.:*Strategic Management – Competitivness and globalization*, Nelson Education Ltd, 2005
7. Teece, J. David: "Explicating Dynamic Capabilities: the Nature and Micro foundations of (Long Run) Enterprise Performance", *Fundamentals of Business Strategy*, Vol. 5, SAGE Publication Ltd, London, 2007
8. Thompson, A. Arthur, Struckland III, Jr. A. J.:*Strategic Management – Concepts and Cases,* McGraw – Hill, Irwin, 2011

UDC 005.73(430)
005.73(520)
Professional paper

Kristina KOVACEVIK[*])

THE USE OF BRAINWASHING IN THE PROCESS OF CHANGING THE ORGANIZATIONAL CULTURE OF THE GERMAN AND JAPANESE WORKERS

Abstract

German and Japanese companies are recognized as one of the most successful and profitable worldwide. Their planetary success greatly results from the characteristics of the cultures they share. Both have strong cultures which in one hand can be a source of competitive advantage, but on the other can be an obstacle for future growth and development. Changes are permanent and inevitable, so at some point of time both of these cultures would have to change. The changes' success depends on the ability to persuade groups and individuals to change the way they work, think, act and so on.

The purpose of this research is to identify the opportunity for using brainwashing in the process of changing the organizational culture of the German and Japanese workers. To fulfill the purpose of the research, several goals must be completed: to explain the organizational culture of German and Japanese workers, to explain the method of brainwashing and its use in organizational context. The research is based on qualitative approach, and uses the methods of analysis, synthesis, induction and deduction.

The findings show that brainwashing is a method that has the potential to cause long-term changes. Brainwashing may not be the only one or the best, but scientists must consider seriously the possibility of applying this method, sole or in combination with other methods.

Keywords: brainwashing, organizational culture, change, Japanese worker, German worker

JEL classification: M14, M54, O57

---

[*]) M.Sc.Younger assistant, University "Goce Delcev" Stip, ,Faculty of Tourism and Business logistics, "Krste Misirkov" b.b., Stip, Macedonia
E-mail: kristina.kovacevik@ugd.edu.mk

1. Organizational culture of the German worker

From its foundation until today, Federal Republic of Germany has one of the most successful economies in the world. Today German economy is the fifth largest economy in the world by GDP by purchasing power parity[1], the fourth largest economy in the world by nominal GDP[2], first national economy in Europe[3] and the third largest exporter in the world.[4] In 2012, the labor force is 44.01 million workers, while the unemployment rate is low at 6.5%. 15.5% of the population is below the poverty line.[5]

It is among the largest and most powerful political forces in the European continent and a technological leader in many fields with a high level of innovation.[6] Highly skilled workforce, extensive capital and low levels of corruption[7] are attributes that further describe the German economy.

1.1. Human resources management

German companies achieved their planetary success through hard and efficient work, which undoubtedly has roots deep in the character traits of the human resources. Qualities that are important and expected from German managers are the ability for self-promotion, willingness for hard working, ability to guide, analytical thinking and having knowledge of the business environment. The leadership's main characteristic is

[1] Country Comparation: GDP (purchasing power parity), CIA Factbook 2013, https://www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html;
[2] Field Listing: GDP (official exchange rate), CIA Factbook 2013 ,https://www.cia.gov/library/publications/the-world-factbook/fields/2195.html ;
[3] GDP at current market prices, 2001, 2010 and 2011, http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:GDP_at_current_market_prices,_2001,_2010_and_2011.png&filetimestamp=20121204113534 ;
[4] Country Comparison: Exports, CIA Factbook 2013, https://www.cia.gov/library/publications/the-world-factbook/rankorder/2078rank.html ;
[5] German Economy, CIA Factbook, https://www.cia.gov/library/publications/the-world-factbook/geos/gm.html;
[6] Andrew. J.P, DeRocco, S. E., Taylor, A., The innovation imperative in manufacturing: How the United States can restore its edge?, The Boston Consulting Group,
[7] Corruption Perceptions Index 2012, Transparency International, http://cpi.transparency.org/cpi2012/results/#myAnchor1 ;

practicing strong and decisive guidance.[8] Managers usually obtain their position using their skills, knowledge and diligence, and their authority derives from their expertise and competence. Most of the top managers, or 84%, have college degrees.[9] They usually begin their careers as specialists in a particular area, and later prove their ability by providing quality solutions for specific problems, often using their own power of persuasion. This kind of characteristics in fact have sociological background and largely derive from the educational system.

German workers have low index on Power Distance meaning they expect and accept democratic relationships.[10] Moreover, the German culture has high scores on Individualism and Masculinity. In other words, Germans tend to behave as individuals, not as members of groups, they are confident with a competitive spirit and highlight success in the workplace much more than "quality of life" and good personal relations.[11]

1.2. Authority

The authority of German managers derives from their position in the organizational hierarchy, which they usually get through proven competence, technical or commercial. Having respect for authority is a German value and therefore authority is automatically acquired. Authority means and comes automatically which in turn influences the way decisions are made. Open discussions are acceptable on the meetings. Anyone can participate and give their opinion, but only in relation to the topics being discussed. The managers evaluate the arguments, make decisions and delegate tasks. They don’t doubt the execution of tasks, no matter whether the person selected to perform

---

[8] Дракулевски, Љ. Лидерство, основа за ефективен стратегиски менаџмент, Економски факултет – Скопје, 1999, 215;

[9] Academics in management – Germany's hidden advantage, Roland Berger Strategy Consultants, 2012, http://www.rolandberger.com/media/pdf/Roland_Berger_Akademiker_im_Chefsessel_20120618.pdf ;

[10] Ardichvili, A., &Kuchinke, K. P., Leadership styles and cultural values among managers and subordinates: a comparative study of four countries of the former Soviet Union, Germany, and the US. Human Resource Development International, V (1), 2002, 99-117;

[11] Ibid, 99-117;

them agrees with them. Only top managers are in position to review the capabilities and decisions of other managers.

In German companies can be expected: large number of organizational levels, direct control, many formal rules, sufficiently specific job expectations, centralized decision-making and authority that derives from the position in the organizational hierarchy.[12] In other words, in accordance to the great power and influence of those who have higher positions in German organizational culture there is more control, a number of regulations and centralized decision making.

1.3. Decision making process

The decision making process in Germany is mainly based on facts and logic. Objective facts are considered as essential and crucial when decisions are made. To make good decisions in business negotiations the preferred approach is based on logic and information analysis, rather than intuitive approach based on a well-developed network of personal relationships.[13]

Germans are very honest and task-oriented, and interpersonal relations have less significance. They are reserved and make a clear separation between private life and work. Developing personal relationships with Germans, especially when doing a business, requires a longer time. Much attention is paid to the objectives that have to be achieved, and this can be seen in the precision of the activities schedule, meeting plans and achievement of deadlines.

1.4. Communication style

Germans are very direct and that's why the rest of the world sometimes perceives their behavior as rude and confrontational. Open criticism often demonstrated during business meetings should not be considered as a personal rejection, but as criticism of different aspects of the problem or project. German society is individualistic, but when it comes to making business decisions, although there is a tendency for everyone to look out for their own self-interest, still they are very careful

[12] Peterson, R. B., & Garrison, J. S., Culture As An Intervening Variable In the Technology Organization Structure Relationship, *The Academy of Management Journal, XIV* (1),1971, 139-142;
[13] Ibid;

to make decisions that are good for everyone's interest and by achieving consensus. Business relationships are usually based on mutual benefit, and the desire to achieve own goals and success is coupled with a deep sense of responsibility for what's good for the society. In most cases when decisions are made, besides the financial benefits for the company, it is also considered as important the benefit for the workers.[14]

2. Organizational culture of the Japanese worker

Japanese organizational culture and its management philosophy are considered to be ones of the most researched and studied, partly due to the phenomenon known as "Japanese post-war miracle". Namely, it is a period of spectacular economic growth during the sixties, seventies and eighties years of the last century, when the average GDP growth was 7.5% and 3.2% in the eighties and early nineties years of the last century.[15]

In the nineties, this growth has largely slowed during the so-called "Lost decade", largely because of the effects of so-called "Japanese price bubble"[16] and domestic policies for extrusion of speculative excesses from the stock and real estate markets. After 2000, the next years are years of modest economic growth, accompanied by several recessions. The sharp decline in business investments and in global demand for Japanese products at the end of 2008 resulted with recession. Government demand stimulus helped the economy to recover in late 2009 and early 2010, but the disaster in 2011 again pulls down the Japanese economy. Two years after the disaster, the economy again largely recovers and in 2012 it has the fourth largest GDP by purchasing power parity.[17]

---

[14] Ibid;

[15] Ryan, L., "The "Asian economic miracle" unmasked: The political economy of the reality". *International Journal of Social Economics***27** (7–10): 802–815.1 January 2000, http://www.emeraldinsight.com/journals.htm?articleid=847636&show=abstract ;

[16] Watkins , T., Valley, S., Alley, T., The Bubble Economy of Japan, San José State University Department of Economics, http://www.sjsu.edu/faculty/watkins/bubble.htm ;

[17] Japan Economy, CIA Factbook, https://www.cia.gov/library/publications/the-world-factbook/geos/ja.html;

2.1. Japanese management philosophy

Japanese management philosophy is a direct reflection of its culture and there is a high degree of consistency between the Japanese culture and the way Japanese corporations operate. The core of this philosophy can be seen through some basic principles in which Japanese believe: trust the workers, build employee loyalty, invest in training, treat employees as you treat the resources, give awards to employees for their achievements, decentralize the decision making process and always reach consensus.[18]

Groups of well-trained employees for decision making, often make decisions about specific areas of responsibility. While German experts individually spend a lot of time in solving technical problems, Japanese workers collaboratively seek solutions to improve results.[19]

Japanese managers are reserved, quite, always hear the speaker, have a sense of understanding, discipline, introspectiveness and orientation towards others.[20]

2.2. Loyalty and family orientation

Japanese culture is collectivist, meaning it emphasizes membership in groups or communities, and group welfare is above individual. Individual victims are not only necessary, but they're common and part of Japanese life. Japanese employees have strong feelings of loyalty and commitment to the organization.[21] Moreover,

---

[18] Cole, R.E.``Learning from the Japanese: prospects and pitfalls", Management Review, Vol. 69 No. 9, September,1980, pp. 23-42; Harper, S.C., ``Now that the dust has settled: learning from Japanese management", Business Horizons, Vol. 31 No. 4,July/August,1988 pp. 43-51; Ouchi, W.G. (1981), Theory Z, Addison-Wesley, Reading, MA;

[19] Apfelthaler, G., Muller, J.H., Rehder, R.R., Corporate global culture as competitive advantage: Learning from Germany and Japan in Alabama and Austria?, Journal of World Business, 37, 2002, 108-118;

[20] Мицески, Т., Менаџмент, Интерен авторизиран материјал, Економски факултет, Штип, 2009, стр. 177-180;

[21] Tang, L.T., Kim, K., J., O'Donald, A., D., "Perceptions of Japanese organizational culture-Employees in non-unionized Japanese-owned and unionized US-owned automobile plants", Journal of Managerial Psychology, Vol. 15 Iss: 6, 2000, 535 – 559;

relationships of lifetime interdependence exist between Japanese workers and companies in which they work.[22]

There are cases in which Japanese companies provide accommodation, food, etc. to their employees instead of cash return. This mode of operation is similar to the way one household functions, so the companies are often described as "families". The existence of harmony is the element that is emphasized the most in the Japanese organizational philosophy.

2.3. Communication and decision making

As a result of the long-term commitment to the company and established networks of friends, Japanese companies prefer teamwork and usually communicate “face to face”. During the decision making process, the manager won’t make the final decision until the parties included don’t get enough time to elaborate their views and feel that they have been fairly heard. Also, they are willing to support the decision and its implementation, even if they personally do not agree that the decision made, is the best one. Once they accept a proposal and make the decision, it would be difficult to change. They usually stick strictly and consistently to their arguments. Consensus is required from all the members who took part in the negotiations in order to change the decision previously made.[23] Because of this condition for consensus, the decision making requires a lot of time and Japanese are often criticized for this by the outsiders involved in the negotiations. Japanese people do not pay enough attention to deadlines and limited time. They lead the negotiations on a peaceful and calm manner despite the pressures.

3. The method of brainwashing

Mind control (also known as “brainwashing,” “coercive persuasion,” “thought reform,” and the “systematic manipulation of psychological and social influence”) refers to a process in which a group or individual systematically uses unethically manipulative methods to

[22] Abegglen, J. C., 21st-century Japanese management : new systems & lasting values, New York : Palgrave Macmillan, 2006;

[23] Chang, L.C., A Study on Japanese Culture and Styles of Business Negotiation, Journal of Global Business Management, Vol. 5, N. 1, April, 2009;

persuade others to conform to the wishes of the manipulator(s), often to the detriment of the person being manipulated.[24] Therefore this method destroys the individual feeling for control of personal thoughts, behavior, emotions and/or decisions,

3.1. History of brainwashing

Originally administered by totalitarian regimes, this method was directed against dissidents and was designed to serve for military purposes. It was first used in the Tavistok Clinic, founded in 1921 in England to serve as the psychological warfare arm of the British monarchy.[25] Later, examples of use can be found in the Soviet Union, Nazi Germany, U.S. and China.

The term "brainwashing" was first used by Edvrad Hunter in 1950 in his paper "New Leader". During the Korean War Hunter wrote a series of books and articles on Chinese brainwashing and tried to clarify why such a large percent of American prisoners during the Korean War had deserted to the side of the enemy.[26]

3.2. The use of brainwashing in organizational context

In organizatios this method can be used to reduce the negative effects of practicing hierarchy, power and authority, as well as to prevent conflicts. Today's leaders must have adequate knowledge of behavioral psychology and neurology. In the past, organizational change attempts focusing solely on structural aspects of organizations systematically failed because they were ignoring the fact that change can't occur without a simultaneous change in mindset, behavior and beliefs of individuals who are part of the organization. The level of success of the changes in large organizations depends on the ability to persuade hundreds, or thousands of groups and individuals to change the way they work and people will accept the transformation only if they can be

[24] Langone, M.,„Cults: Questions and Answers", International Cultic Studies Association, http://www.csj.org/studyindex/studycult/cultqa.htm

[25] Thompson, S., Steinberg, J., Tavistock mass murderers are brainwashing your children, Executive Intelligence Review, Vol. 20, N. 44, November 12, 1993, http://www.larouchepub.com/eiw/public/1993/eirv20n44-19931112/eirv20n44-19931112_026-tavistock_mass_murderers_are_bra.pdf,

[26] Taylor, K., Brainwashing: THE SCIENCE OF THOUGHT CONTROL, Oxford University Press Inc., New York, 2004 16-17;

persuaded to think in a way different than before. In fact, managers must change mental attitudes and opinions of their workers.[27] Moreover, to make a real, long-term change individuals not only need to change the way they think about their work, but they also need to change the way they think about themselves.

When hiring new employees, companies use socialization techniques, through which new employees acquire the knowledge, skills and behaviors necessary to become effective organizational members and "insiders". Studies show that these techniques generate positive outcomes for new employees such as higher job satisfaction, better results, greater commitment to the organization and reduce stress and intentions to leave the organization.[28] Socialization helps or somehow forces individuals to adapt their own behaviour to match the expectations of the organization, which is a form of brainwashing. No matter how well an organization implements the processes of recruitment and selection, new employees are not fully indoctrinated into the organizational culture. Because of this it is possible to distort the already established beliefs and habits. That is why organizations want to help new employees adapt according to their culture. This adjustment in fact is a change of thinking, behavior and decision making of individuals, but unlike the method of brainwashing, it lacks the coercive element of the process. The new employees are aware of and have the right to make their own choice about whether to accept the new job position, which implies the need to adapt to the established organizational culture. Also, the method of brainwashing doesn't allow processing of different information than that imposed by the source of information, which is not the case with the process of socialization. Unlike socialization that accepts forms of behavior that are close but not identical, brainwashing means strictly controlled conditions, forms of behavior and performances, without possibility for choices and modified forms of behavior as a final result. Thus, it can be concluded that

[27] Price, C., Lawson, E., "The psychology of change management," mckinseyquarterly.com, June 2003, http://www.mckinsey.com/insights/organization/the_psychology_of_change_management;

[28] Ashford, S. J., Black, J. S., Proactivity during organizational entry: The role of desire for control. Journal of Applied Psychology, 81, 1996, 199–214; Kammeyer-Mueller, J. D., Wanberg, C. R., Unwrapping the organizational entry process: Disentangling multiple antecedents and their pathways to adjustment. Journal of Applied Psychology, 88,2003, 779–794; Fisher, C. D., Social support and adjustment to work: A longitudinal study. Journal of Management, 11, 1985, 39–53;

brainwashing is a form of socialization, but not every process of socialization is also brainwashing.

4. Potential for applying the method of brainwashing in the process of changing the organizational culture of the German and Japanese worker

The management of changes in companies is important because: nothing is permanent and unchangeable, environmental changes threaten the survival of the company, the changes are a source of new opportunities, organizational structures reduce the flexibility of organizations. The implementation of real, vital and profound change in companies, as opposed to apparent and superficial change, is impossible without changing its organizational culture. Many authors point out that the most common reason why organizational change attempts fail to materialize as planned, is the frequent neglect of aspects relating the organizational culture.[29] Before any change occurs, it is important to understand the depth of the roots of the culture.

Changing an organizational culture means changing the beliefs, values, attitudes and assumptions of organizational members and consequently changing the way they work, make decisions and behave. The stronger the culture and the greater the consistency of beliefs, values, attitudes and assumptions of various organizational members, the more difficult to change it.

The German organizational culture, as well as the Japanese one, is recognized as particularly strong organizational culture, with deeply rooted and mutually accepted values. Both cultures are considered as a source of competitive advantage for these two nations. However, the success of the companies in 21 century largely depends on the ability to change. In this context, one question inevitably arises: how cultures that are characterized as strong, such as German and Japanese, can meet this challenge and can be a subject to deeper change?

Necessity comes from the fact that 21 century is a century of extreme rapid development of productive forces, technical and communication revolution and robotics, which in some way replaces people. Into this type of constitution of the economic development,

[29] Balogun, J., Johnson, G. 'Organizational restructuring and middle manager sensemaking'. Academy of Management Journal, 47,2004, 4: 523–49;

firmly constructed production relations and rules of organizational culture will become obstacles and will cause negative effects. Therefore the acceptance of a new organizational culture, or at least of certain segments that will mean new values, principles and rules of behavior is a necessity and is closely determined by the final production effects. Analogous is the question about finding models that will contribute to successful organizational culture change. Brainwashing may not be the best or the unique perspective opportunity, but scientists from different profiles can seriously consider the possibility of applying this method in order to change the minds, sole or in combination with other methods.

"Neuroleadership" is a neologism that is formulated to reflect the application of concepts and knowledge from the neurology into the organizational context and its leadership.[30] Advances in brain analysis technology enabled scientists to track the movement of thought through the brain in a way similar to the way blood can be tracked through the blood circulation system. Changes affect the prefrontal cortex and its excessive load can cause feelings of fatigue, fear and anger, because it is connected with the emotional centers in the brain. That's how you can see the impact of the application of different management tactics on employees. The traditional way of management by giving orders and doing control doesn't lead to long-term behavioral changes. Giving people orders to change and explaining how to do it affects the prefrontal cortex and the emotional centers of the brain. The more we try to convince people that we are right and they aren't, the more they resist. Normally, the brain will try to defend itself from the threats. Our brains are so complex that it is a real rareness the way we see and understand the situation to be exactly the same with the way someone else sees and understands the same situation.[31]

These findings suggest that traditional management tactics are mainly based on the principles of animals training, rather than on psychology and neurology principles. Managers promise bonuses and promotions (e.g. the carrot for the rabbit) for those willing to change their

[30] Rock, D., Schwartz, J., The Neuroscience of Leadership, Strategy and Business Journal, 30 May, 2006, http://www.strategy-business.com/article/06207;

[31] Rock, D., Schwartz, J., The Neuroscience of Leadership, Strategy and business journal May 30, 2006, http://www.strategy-business.com/article/06207?pg=7 ; Lawson E., Price, C., The psychology of change management, McKinsey & Company, June 2003, http://www.mckinsey.com/insights/organization/the_psychology_of_change_management;

behavior and penalize (the stick) those who resist by delegating them less important tasks or dismissal. This type of human resources management is unsuccessful because the findings show that people's primary motivation in the workplace aren't the money, but their personal interest about the work, good working environment and good working relationships with colleagues and superiors.[32]

Therefore the potential for changing the organizational culture of Japanese and German workers can be recognized and realized by applying knowledge from neurology and psychology sciences, and the method of brainwashing is a combination of these two. This method, applied sole, or in combination with other methods and activities, such as conducting trainings and making changes into the educational systems, could contribute to long-term changes in the organizational cultures of this two nations and thereby further increase their competitiveness. Individual expert decision making of the Germans, as well as the collective one with strict prerequisite for achieving consensus of the Japanese, can be obstacles for businesses in today's competitive world. The quiet and peaceful manner of deciding of the Japanese, as well as the open criticism of Germans have their own advantages and disadvantages. Only psychological methods and knowledge from neuroscience in combination with other methods have the potential to change a collectivist culture into individual, a formalized, firm organization into flexible and adaptable one, a centralized working into decentralized, and an organization in which exists aversion to risk into organization which accepts risks. In any case, the need for change must be consistent with the market needs and demands, in order to increase the competitiveness of companies.

Conclusion

Germany and Japan are considered among the greatest and most powerful political forces in the world and technological leaders in many fields. German and Japanese companies, which are in the hearth of their economies, their success largely owe to their employees and established organizational cultures. These two cultures, although with different characteristics, are recognized as strong organizational cultures. German culture is culture of expertise, individualism, formal, centralized

[32] Ibid;

decision-making and masculinity values. On the other hand, Japanese culture is culture of consensus and collectivism, loyalty, decentralized decision-making, harmony and tranquility.

Changes in 21 century are evident and happen everywhere, within national and international events, in the way companies are structured and operate, in political and socio-economic problems and solutions, as well as in social values and norms. Neither German nor Japanese companies are exempted from the need for change management, no matter how successful their mode of operation is. At some point the sources of competitive advantage can stop being that and in some cases may even become an obstacle and competitive disadvantage. The success of changes in organizations depends on the ability to persuade hundreds, or thousands of groups and individuals to change the way they work and people will accept this transformation only if they can be persuaded to think in a different way than before about their job. In fact, managers must change the mental attitudes and opinions of their workers - a task which can't be underestimated. However, individuals not only need to change the way they think about their work, but for real change to happen there is a need to change the way they think about themselves. Brainwashing is a method that has the potential to cause this kind of changes and it replaces the old ways of thinking, behavior and decision-making with new ones. Brainwashing may not be the only one or the best perspective opportunity, but scientists with different profiles can seriously consider the possibility of applying this method for conscious changing, sole or in combination with other methods.

References

1. Abegglen, J.C. (2006): 21st-century Japanese management : new systems & lasting values, New York : Palgrave Macmillan;
1. Andrew. J.P, DeRocco, S. E., Taylor, A. (2009): The innovation imperative in manufacturing: How the United States can restore its edge?, The Boston Consulting Group;
2. Ardichvili, A., & Kuchinke, K. P. (2002): Leadership styles and cultural values among managers and subordinates: a comparative study of four countries of the former Soviet Union, Germany, and the US, Human Resource Development International, V (1);

3. Ashford, S. J. and Black, J. S. (1996): Proactivity during organizational entry: The role of desire for control, Journal of Applied Psychology, 81;
4. Balogun, J., Johnson, G. (2004): Organizational restructuring and middle manager sense making, Academy of Management Journal, 47;
5. Chang, L.C. (2009): A Study on Japanese Culture and Styles of Business Negotiation, Journal of Global Business Management, Vol. 5, N. 1;
6. CIA Factbook, (2013): Country Comparation: GDP (purchasing power parity), https://www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html (17.06.2013);
7. CIA Factbook, (2013): Country Comparison: Exports, https://www.cia.gov/library/publications/the-world-factbook/rankorder/2078rank.html (17.06.2013);
8. CIA Factbook, (2013): Field Listing: GDP (official exchange rate), https://www.cia.gov/library/publications/the-world-factbook/fields/2195.html (17.06.2013);
9. CIA Factbook, (2013): German Economy, https://www.cia.gov/library/publications/the-world-factbook/geos/gm.html (17.06.2013);
10. Corruption Perceptions Index (2012): Transparency International, http://cpi.transparency.org/cpi2012/results/#myAnchor1 (17.06.2013);
11. Eurostat, (2012): GDP at current market prices, 2001, 2010 and 2011, http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:GDP_at_current_market_prices,_2001,_2010_and_2011.png&filetimestamp=20121204113534 (17.06.2013);
12. Fisher, C. D., (1985): Social support and adjustment to work: A longitudinal study. Journal of Management, 11;
13. Hofstede, G., Mooij, M., (2010): The Hofstede model: Applications to global branding and advertising strategy and research, International Journal of Advertising, 29(1), http://www.mariekedemooij.com/articles/demooij_2010_int_journal_adv.pdf (19.06.2013);

14. http://www.rolandberger.com/media/pdf/Roland_Berger_Akademiker_im_Chefsessel_20120618.pdf (17.06.2013);
15. Hunter, E., (1956/1959): Brainwashing: the story of men who defied it. London: World Distributors, Manchester;
16. Kammeyer-Mueller, J. D., Wanberg, C. R., (2003): Unwrapping the organizational entry process: Disentangling multiple antecedents and their pathways to adjustment. Journal of Applied Psychology, 88;
17. Langone, M.,„Cults: Questions and Answers", International Cultic Studies Association, http://www.csj.org/studyindex/studycult/cultqa.htm (25.06.2013);
18. Laws, J. and Tang, T.L.P., (1999): Japanese transplants and union membership: the case of Nissan Motor manufacturing Corporation", SAM Advanced Management Journal, Vol. 64 No. 2;
19. Lawson E., Price, C., (2003): The psychology of change management, McKinsey & Company, http://www.mckinsey.com/insights/organization/the_psychology_of_change_management (01.07.2013);
20. Lioud, L.B., Rue, L.W. (1991): Human Resources Management, Boston;
21. Mendenhall, M., Punnett, B.J., Ricks, D., (1995): Global Management, Blackwell Publishers, Cambridge, Massachusetts;
22. Oxford English Dictionary;
23. Price, C., Lawson, E., The psychology of change management, (2003) http://www.mckinsey.com/insights/organization/the_psychology_of_change_management (26.06.2013);
24. Reuvid, J, Millar, P, (2002): Doing Business with Germany, Consulting Editors Second edition, Kogan Page, London;
25. Richardson, James T., (2004): Regulating Religion: Case Studies from Around the Globe, Kluwer Academic/Plenum Publishers;
26. Rock, D., Schwartz, J., (2006): The Neuroscience of Leadership, Strategy and Business Journal, http://www.strategy-business.com/article/06207 (01.07.2013);

2. Roland Berger Strategy Consultants (2012): Academics in management – Germany's hidden advantage,
27. Schein, E. H., (1985): Organizational Culture and Leadership. San Francisco, CA: Jossey-Bass;
28. Singer, M.T., (2003): The process of Brainwashing, Psychological Coercion and Thought Reform, Cults and New Religious Movements, A Reader. Ed. Lorne L. Dawson. Malden: Blackwell publishing, http://www.uky.edu/~aubel2/eng104/paranoia/pdf/singer.pdf (25.06.2013);
29. Tang, L.T., Kim, K., J., O'Donald, A., D., (2000): Perceptions of Japanese organizational culture - Employees in non-unionized Japanese-owned and unionized US-owned automobile plants, Journal of Managerial Psychology, Vol. 15 Iss: 6;
30. Taylor, K., (2006): Brainwashing: The Science of Thought Control, Oxford: Oxford University Press;
31. Theodor Adorno - Else Frenkel-Brunswick – Levinson, D., J., Sanford, N., (1950): The Authoritarian Personality, New York: Norton & Co;
32. Thompson, S., Steinberg, J., (1993): Tavistock mass murderers are brainwashing your children, Executive Intelligence Review, Vol. 20, N. 44, November 12, http://www.larouchepub.com/eiw/public/1993/eirv20n44-19931112/eirv20n44-19931112_026-tavistock_mass_murderers_are_bra.pdf (25.06.2013);
33. Warshak, R. A., (2010): Divorce Poison: How to Protect Your Family from Bad-mouthing and Brainwashing, New York: Harper Collins;
34. Дракулевски, Љ. (1999): Лидерство, основа за ефективен стратегиски менаџмент, Универзитет „Св. Кирил и Методиј“: Економски факултет – Скопје;
35. Мицески, Т, (2009) Менаџмент, Интерен авторизиран материјал, Универзитет Гоце Делчев: Економски факултет - Штип;
36. Постолов, К, (2001): Теорија на организација, Универзитет „Св. Кирил и Методиј“: Економски факултет – Скопје;

Guidelines for Authors

Economic Development is an international journal publishing scientific and professional papers of economic theory and practice in broader sense, referring to different scientific fields (economics, management, demography, etc.) and scientific areas, as well as interdisciplinary papers. The journal also publishes other articles of scientific and professional interest: essays, professional papers, reviews and book reports, notes on scientific meetings, and alike. The journal is looking forward to cooperation with researchers from the country and abroad.

The journal publishes papers written in English language however, papers in other languages can also be published with a special decision by the editorial board.

The journal will accept only those manuscripts that have not been published or accepted for publication, nor are being considered for publication elsewhere. The authors guarantee that the paper accepted for publishing has not been published before in other publication.

The papers are subject to review and scientific categorization. Based on that, the paper can be categorized as: 1) original scientific paper; 2) notes; 3) preliminary communications; 4) reviews; 5) conference papers; or 6) professional paper.

The paper should be written in *MS Word*, font *Times New Roman*, font size *12*, line spacing *1*. The articles should not exceed *4000* words, while other manuscripts (essays, professional papers, reviews and book reports, notes on scientific meetings) should not exceed *2000* words.

The manuscript should be arranged in the following order: *authors' names***,** *title of the article*, *abstract***,** *text* (structured in several sections), *conclusion***,** and *references*. The *abstract* (in 100-200 words) should contain concise overview of subject of the paper, methodological approach, main results and conclusions. Five key words and JEL classification number should be written under the abstract.

The papers are submitted to the editorial board of the journal by electronic mail. The first page should include author's name, academic title (if any), affiliation(s), complete mailing address (including e-mail, telephone and fax numbers). Submitted paper should be written in English language (professionally edited and grammatically correct).

Quotations and notes should be elaborated as footnotes and marked successively with Arabic numbers. The scope of quotations and notes should be limited to 15 lines.

References in the text should be cited as follows:
(Rosenbloom, 2004: 56-70)
Abbreviations such as "ibid", "op. cit" are not used.

Tables, graphs, pictures and other illustrations should be presented in Arabic consecutive numbers. The references or data sources of the tables and graphs should be cited below, preceded by any additional comments or explanations. Tables, graphs, pictures and other illustrations are prepared in black and white techniques presented appropriately in the text. All graphs and illustrations and diagrams should be additionally submitted in their original electronic form (jpg, gif, xls, and alike). If presented data have been previously published, it is the authors' responsibility to obtain any required permissions prior to submission.

References
References should be listed in alphabetical order at the end of the article, in the following manner:
Books:
Rosenbloom, B. (2004), "*Marketing channels: a management view*", Mason: Thomson South -Western
Articles in journals:
Helpman,E., Melitz, M. & Yeaple, S. (2004), "Exports versus FDI with heterogeneous firms", *American Economic Review*, 94(1), 300-316.
Internet source:
Cassarino, J.P. (2009), "*EU Mobility Partnership: Expression of a New Compromise*" in: Migration Policy Institute-Migration Information Source, September 2009,
[http://www.migrationinformation.org/Feature/display.cfm?ID=741]
(28.11.2009)

Corporate source:
OECD (Organisation for Economic Cooperation and Development) (2003), *"National accounts of OECD countries"*, Vol.1, 1990-2001, Paris: OECD

If there are more papers cited from one author and published in the same year, letters are added to the year. e.g. (2010a), (2010b), etc.

Upon submission of manuscripts the editorial board 1) sends the paper to a researcher-reviewer 2) informs the author about possible suggestions or comments on the manuscript that need to be revised or 3) informs the author that the paper has been rejected. Only positively reviewed manuscripts are published in the journal. Provided the manuscript is refused, (the editor is not obligated to present reasons for refusal), the author may submit the paper elsewhere. Submitted manuscripts will not be returned to the author. Once the manuscript is accepted for publication, the author must not publish the paper in other journal without consent of the editorial board.

The papers should be sent in electronic form to the editorial board of the journal on the following e-mail address:
E-mail: eis@ek-inst.ukim.edu.mk