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Skopje, June, 2019

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Original scientific paper

VERICA JANESKA*

EMPLOYMENT IN AGRICULTURE AND SOCIO-ECONOMIC DEVELOPMENT IN THE REPUBLIC OF NORTH MACEDONIA

Abstract

Agriculture is one of the sectors that absorbs a significant part of the labor force in the Republic of North Macedonia. Having this in mind the impact of employment in agriculture on the socio-economic development is observed in this paper, through the changes in the scope and structural features of the agricultural workers and relevant indicators for their developmental impact.

The results of the analysis show that the impact of employment in agriculture on the socio-economic development of the country was and still remains modest. Mainly it is determined by the economic status of agricultural workers and very high vulnerability of the employment in this sector (85% of them in 2017 were self-employed and unpaid family workers). This suggests that there is "hidden unemployment" in agriculture, as well as informal employment on a large scale. The financial support in agriculture in the period 2011-2017 resulted in a slight increase of formal employment. Due to low income, employment in the agricultural sector does not have a significant impact on the growth of private consumption as a major determinant of economic growth in the country. Beside that this sector is characterized by low productivity and small share in the total gross added value e.i. relatively low impact on the economic growth rates.

Keywords: employment, agriculture, socio-economic development, informal employment, gross value added.
JEL Classification: J21, J3, E24, O13

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Introduction

Agriculture was and remains a sector that absorbs a significant part of the economically active population in the Republic of North Macedonia. But, the work in agriculture has particularities compared to labor in other sectors of the economy. It is determined by the seasonal character of the majority of agricultural activities as well as of the family character and family member's involvement in the manufacturing. For part of the economically active population in this sector working in agriculture is an occupation and in the same time significant number of the employed has no income from wages. Beside that the period of employment of the family members often extends beyond the age of retirement. In these circumstances available statistical data for employment in agriculture provides inaccurate information because of different interpretation and understanding of the definition of "employment". Analysis of statistical data on employment in agriculture can provide information about informal employment i.e. the "hidden unemployment" in the country.

The aim of this paper is to identify the impact of the employment in agriculture on the socio-economic development of the Republic of North Macedonia. In that context, the relevant aspects of the main features of agricultural workers, as well as relevant indicators for their impact on employment and unemployment, revenues and purchasing power, gross value added and productivity are analyzed. Secondary data sources, mainly from the State Statistical Office of the Republic of North Macedonia, are used.

1. MAIN DEMOGRAPHIC AND SOCIO-ECONOMIC FEATURES OF THE EMPLOYED IN THE AGRICULTURE

In last decade of the past century, the volume, demographic and socio-economic characteristics of the agricultural workers in the Republic of North Macedonia have noticed major changes. After 2000, they are characterized by a relatively stable absolute volume, but more or less pronounced changes in terms of demographic, occupational and other features. The analysis of the Labor Force Survey data for the agricultural workers characteristics in the period 2007-2017 points to the following findings.

The number of employees in agriculture, despite the manifested oscillations, in 2017 compared to 2007 is bigger for about 12 percent. In the same time the increase of the total number of employees is twice as high and amounts 25.5 per cent (Table 1). As a result of such dynamics, the share of the employed in agriculture in the total number of employees in the Republic of North Macedonia decreased from 18.2 to 16.2 percent, respectively. In the observed period the number of agricultural workers was highest in the

period 2013-2015 (about 126-127 thousands). This significant increase of the agricultural workers corresponds with the implementation of the subsidy policy for agricultural activities.

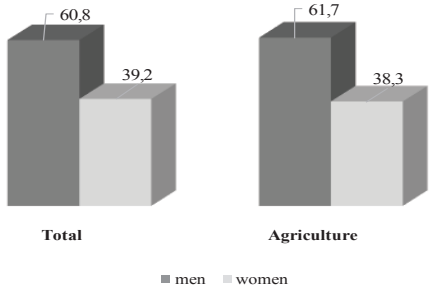
Table 1. Full time and part time employed in the Republic of North Macedonia - total and Agriculture, forestry and fishing, 2007-2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	**590234**	**609015**	**629 901**	**637 855**	**645 085**	**650 554**	**678 838**	**690 188**	**705 991**	**723 550**	**740 648**
Agriculture, forestry and fishing	107433	119498	115 581	120 597	120 893	112 623	127 186	127 438	126 126	120 303	120 311
Share (in %) of the employed in agriculture in the total	18,2	19,6	18,3	18,9	18,7	17,3	18,7	18,5	17,9	16,6	16,2

Source: State Statistical Office, Labor Force Survey, Statistical Reviews: No. 2.4.8.06/593 (2007), No. 2.4.9.12/632 (2008), No. 2.4.10.04/651 (2009), No. 2.4.11.09/692 (2010), No. 2.4.12.11/727 (2011), No. 2.4.13.06/745 (2012), No. 2.4.14.04/779 (2013), No. 2.4.15.04/813 (2014), No. 2.4.16.02/843 (2015), No. 2.4.17.02/867 (2016), No. 2.4.18.03/894 (2017).

As for the demographic features of the employees in the Republic of North Macedonia there are more or less emphasized differences between total employment and agricultural workers. In the *gender structure* in both categories the share of men remains dominant and amounts more than 60 percent (Figure 1). In last decade in the gender structure of the agricultural workers the participation of women has increased for about one percentage point, while in the total number of employees in the country it remained the same. As a result of these changes the numerical value of the indicators employment in agriculture, male (% of male employment) has decreased from 18.8 (2007) to 16.5 percent (2017) and the employment in agriculture, female (% of female employment) decreased from 17.3 to 15.9 percent, respectively.

Figure 1. Gender structure (in %) of the employed in the Republic of North Macedonia - total and Agriculture, forestry and fishing, 2017

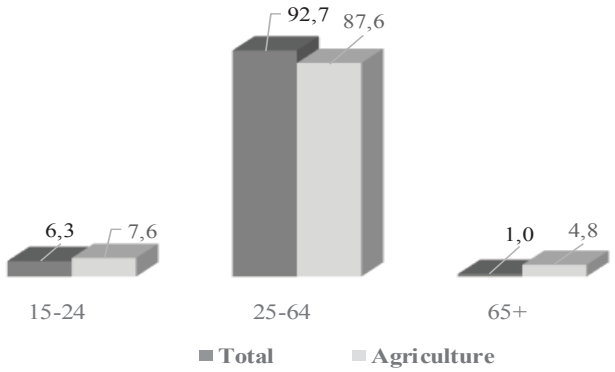


Source: State Statistical Office, Labor Force Survey 2017, Statistical Review: No. 2.4.18.03/894.

The labor force in the Republic of North Macedonia is characterized by intensified process of demographic ageing. It is particularly emphasized in some sectors, including agriculture. Labor force survey data for 2017 shows that, unlike the total number of employees in the country, in the *age structure of the agricultural workers* the share of the young labor force aged 15-24 is slightly bigger and the participation of the elderly workers aged 65 and over is about four times bigger (Figure 2). In the same time, the share of agricultural workers of the age group 25-64 (87.6 percent) is lower than that of the total employment (92.7 percent).

In 2017, about 20 percent of all employees under the age of 24 years, 15.3 percent of those aged 25-64 and 78.9 percent of the employees older than 65 years wereployed in agricultural sector. This confirms that employment in agriculture extends beyond the age of retirement.

Figure 2. Age structure (in %) of the employed in the Republic of North Macedonia - total and Agriculture, forestry and fishing, 2017



Source: State Statistical Office, Labor Force Survey 2017, Statistical Review: No. 2.4.18.03/894.

Positive changes are recorded in the structure of the agricultural workers by *occupation*. This last decade was characterized by minor or major changes in the number and share of employees with different occupations, with the most pronounced ones being those with elementary occupations and skilled agricultural and fishery workers. In the analyzed period until 2015, the number and share of the employees with elementary occupations is very high, and after that it significantly decreases (Table 2). In 2017 agricultural workers with elementary occupations amount 68742 persons and although their share

is reduced to 57.1 percent it remains dominant. As for the skilled agricultural workers after the decrease until 2011, follows a period of continuous and huge increase of their number (from 8715 in 2012 to 42312 persons in 2017) and share in the total agricultural workers (from 7.7 to 35.2 percent, respectively). It implies a major qualitative change in the structure of the agricultural workers by occupation in the Republic of North Macedonia.

Table 2. Employed in agriculture, forestry and fishing, by occupation, Republic of North Macedonia, 2007-2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	**107433**	**119498**	**116601**	**121521**	**120893**	**112623**	**127186**	**127438**	**126126**	**120303**	**120311**
Legislators, senior officials and managers	583	1002	1073	609	953	802		596	1 077	1 016	533
Professionals	1105	947	378	757	1003	1280		535	595	1265	1270
Technicians and associate professionals	1159	1421	1150	826	874	1047	1096	798	658	585	1144
Clerical support workers	1148	952	1178	811	526	602	816	626		785	992
Service and sales workers	772	685	594	495	694	854	785	1019	993	1039	1220
Skilled agricultural and fishery workers	7203	7043	3071	2468	4295	8715	17386	26331	25927	41863	42312
Craft and related trades workers	274	565	506	570	769	1198	1350	1653		720	2508
Plant and machine operators and assemblers	1832	1158	1372	1125	917	930	728		596	929	1590
Elementary occupations	93358	105724	107279	113860	110863	97194	104068	95470	95929	72101	68742

Source: State Statistical Office, Labor Force Survey, Statistical Reviews: No. 2.4.8.06/593 (2007), No. 2.4.9.12/632 (2008), No. 2.4.10.04/651 (2009), No. 2.4.11.09/692 (2010), No. 2.4.12.11/727 (2011), No. 2.4.13.06/745 (2012), No. 2.4.14.04/779 (2013), No. 2.4.15.04/813 (2014), No. 2.4.16.02/843 (2015), No. 2.4.17.02/867 (2016), No. 2.4.18.03/894 (2017).

Regarding the structure of the employed in the agriculture by economic status, in the period 2007-2017 significant changes were noted (Table 2.). They are manifested in the increase of the number of employees (37.5 percent) and of the self-employed (55.6 percent) and decrease of the number of employers for more than two thirds (67.2 percent) and unpaid family workers for about 10 thousand persons (18.2 percent). Despite these changes the agriculture remains a sector with largest and increasing share of the self-employed (from 52.7 in 2007 to 61.2 percent in 2017) and unpaid family workers (from 89.0 to 92.5 percent, respectively) in the total employment in the Republic of North Macedonia.

Table. 3 Employed by economic status, total and in Agriculture, forestry and fishing, Republic of North Macedonia, 2007 and 2017

	Total	Employed by economic status			
		Employee	Employer	Self-employed	Unpaid family worker
Total					
2007	**590234**	426662	32655	71245	59672
2017	**740 648**	564 964	33 239	95 475	46 970
Agriculture, forestry and fishing					
2007	**107 433**	12 387	4 413	37 540	53 093
2017	**120 311**	17 031	1 446	58 398	43 436

Source: State Statistical Office, Labor Force Survey, Statistical Reviews: No. 2.4.8.06/593 (2007), No. 2.4.18.03/894 (2017).

When analyzing the structure of the employed by ownership of the business subject, the share of the private sector remains dominant in the agriculture thorough the last decade (94.3 percent in 2007 and 96.9 percent in 2017). As regards the total employment, its share has increased from 69.0 to 77.1 percent, respectively.

2. SOME INDICATORS OF THE INFLUENCE OF EMPLOYMENT IN AGRICULTURE ON THE SOCIO-ECONOMIC DEVELOPMENT

The influence of employment in agriculture on the socio-economic development can be viewed from various aspects and through different indicators. Taking into account the existing conditions of the agricultural sector in Republic of North Macedonia, as well as the available data, the attention is focused on the indicators related to employment and unemployment, revenues and purchasing power, gross value added and productivity.

2.1. Employment and unemployment

In last decade the employment in agriculture, due to the relatively slower growth rate, does not have a significant impact on the total employment increase in the country. As a result, the share of the employment in agriculture in the total employment has decreased, despite the implementation of the agricultural subsidy policy.

From the aspect of the role of employment in agriculture on the socio-economic development of the Republic of North Macedonia unfavorable changes are noted concerning the structure of the agricultural workers by economic status. In last decade the number of employers has been reduced, and the increase of the number of employees is determined by the big rise of the self-employed (from 37540 in 2007 to 58398 persons in 2017). In these terms, the vulnerability of employment in this sector can be identified as a key factor. It is calculated as share of the self-employed and unpaid family workers in total employees. In the agriculture this indicator has high numerical value and in 2017 it amounts about 85%, which is four times lower than the total number of employees in the Republic of North Macedonia (19.2%). It can be concluded that vulnerability of the agricultural workers is very high, since most of them do not have formal working contracts, therefore facing a low level of workplace safety and limited access to social insurance.

In addition, dominant participation of the self-employed and unpaid family workers in the total agricultural workers indicates that there is *"hidden unemployment"* in the agriculture as well as large *informal employment*, accompanied by low living standards and poverty. In conditions of unregulated working status, part of the agricultural workers are registered as unemployed in order to provide certain social rights (health insurance, social assistance, etc.). This is confirmed by the large number of unemployed persons in the rural areas where most of the agricultural activities are realized. In 2007 it amounts more than 110 thousands, and in 2017 about 90 thousand persons. Having in mind the demographic features of the unemployed in the rural areas there is no doubt that significant part of them are unpaid family workers or informally employed in agriculture.

Agriculture is one of the sectors with the higher participation in the informal employment e.i. undeclared work in the Republic of North Macedonia. This is confirmed by the results of many projects. The results of the project Support to the Fight Against Undeclared Work shows that according to the LFS data the three most dominant sectors of employment where informal

employment was to be found in 2014 were agriculture, forestry and fishing (78%), construction (36%), wholesale and retail trade and the repair of motor vehicles and motorcycles (11%).[1] Out of the total number in the informal sector 64% are engaged in agriculture, forestry and fishing, and the second ranked sector is construction with 11%.

Labour Force Survey data shows that in the last decade on average, about 120,000 persons were economically active in the agricultural sector (out of these about 40 percent are unpaid family workers). This means that in the Republic of North Macedonia, on average, there were about 70,000 active agricultural workers. In the period 2011-2017 the number of formally employed agricultural workers who paid health insurance increased from around 18,000 to about 21,000 persons (similar to the situation with the employed agricultural workers who paid pension insurance)[2]. These figures show that approximately 30 percent of active agricultural workers were formally employed.

Over the last decade the Government of Republic of North Macedonia has paid particular attention to the support of the agricultural sector, including the payment of agriculture subsidies. In order to obtain funding or to be eligible for any financial support in agriculture (agriculture subsidies) a person must have their agricultural holdings enrolled in the Registry of Agricultural holdings in the Ministry of Agriculture, Forestry and Water Supply of the Republic of North Macedonia. Between 2011 and 2015, a total of 670 million Euros were allocated as agriculture subsidies.[3] This substantial support contributes to the development and strengthening of the competitiveness of macedonian agriculture, increase of the agricultural production and the export of agricultural products. In the same time, the subsidies increase in the agriculture resulted in a slight rise of the formally employed persons.This indicates that there is a need to consider the possibility of placing an obligation of those seeking subsidies to be registered for health and pension insurance payments.[4]

[1]Support to the Fight Against UDW - Activity 2.5 Paper with Recommendations aiming at Further Implementation of the Programme on a Mid and Long Term Period (Final document), Prepared by: Verica Janeska, JNKE 10 in collaboration with Brian Kearney KE2, Project is funded by The European Union and implemented by Consortium led by ESEP Ltd, Skopje, 31 March 2016, p. 16.

[2] http://www.piom.com.mk/informacii/statistika/266 (Last approach 20 February 2019); http://www.fzo.org.mk/ (Last approach 20 February 2019).

[3] http://vlada.mk/node/305?language=en-gb (Last approach 25 February 2016).

[4]Support to the Fight Against UDW - Activity 2.5 Paper with Recommendations ..... op., cit., p. 37

In addition, the agricultural sector has high levels of temporary seasonal workers in, for example, the fruit, vegetable, rice, tobacco growing areas. Most of these workers are employed for short periods and employers and workers benefit from lack of regulation in this sector (lack of regulation is understandable as the levels of undeclared workers in the agricultural sector is high in most countries).

2.2 Revenues and purchasing power

The available data shows that in the last decade despite the manifested changes agricultural workers remain with lowest income and small purchasing power. Regarding the income, it is mainly determined by the participation of the agricultural workers that have received pay and their structure according to the amount of the net salary. In 2017, the share of agricultural workers who received salary is about 56.0 percent and is significantly higher than in 2007 (38.1 percent). At the same time, these indicators for the total number of employees in the Republic of North Macedonia are 75.7 and 83.0, respectively (Table 3). This difference is mostly caused by the large participation of unpaid

Table. 4 Employed by net pay, total and in agriculture, forestry and fishing, Republic of North Macedonia, 2007 and 2017

	Total[1)]	Have not received pay[2)]	Unpaid family workers	Unknown	Have received pay	Net pay in denars							
						Up to 5000	5001-8000	8001-12000	12001-16000	16001-20000	20001-30000	30001-40000	40001 and more
Total													
2007	**590 234**	6 433	59 672	77 525	**446 601**	32 480	126 256	160 636	71 335	34 364	16 354	3 916	1 260
2017	**740 648**	:	46 970	78 714	**614 715**	11 719	16 828	142 532	169 181	112 652	130 714	18 827	12 262
Structure (in %)													
2007					**100,0**	7,3	28,3	36,0	16,0	7,7	3,7	0,9	0,3
2017					**100,0**	1,9	2,7	23,2	27,5	18,3	21,3	3,1	2,0
Agriculture, forestry and fishing													
2007	**107 433**	1 205	53 093	12 243	**40 892**	12 764	13 453	11 075	2 391	740	266	158	45
2017	**120 311**	-	43 436	8 795	**68 080**	7 816	9 251	27 464	12 306	6 255	3 171	778	1 039
Structure (in %)													
2007					**100,0**	31,2	32,9	27,1	5,8	1,8	0,7	0,4	0,1
2017					**100,0**	11,5	13,6	40,3	18,1	9,2	4,7	1,1	1,5

Source: State Statistical Office, Labor Force Survey, Statistical Reviews: No. 2.4.8.06/593 (2007), No. 2.4.18.03/894 (2017).

family workers in the total employment in agriculture.

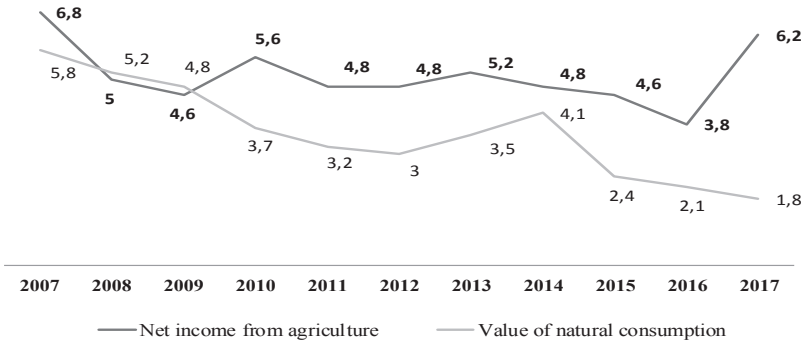
As for the amount of net salary of the agricultural workers in the observed period, the share of those with pay up to 12,000 denars (91.2% in 2007 and 66.2% in 2017) prevails. The numerical values of these indicators are significantly lower for total employment (71.5 and 27.8 percent, respectively). This means increased differences between agricultural workers and the total employment with lower income (from about 20 percentage points in 2007 to more than 38 percentage points in 2017).

Similar is the situation with workers who have net pay from 12001 to 20000 denars. Their share is 7.7 in 2007 and 27.6 percent in 2017 (agricultural workers) and 23.7 and 45.8 percent (total employment). In 2017, only a small proportion of agricultural workers had a net salary greater than 20000 denars, although their share increased substantially (from 1.1 in 2007 to 7.3 percent in 2017). For total employment, these indicators are 4.8 and 26.3 percent, respectively.

All these indicators confirm that agricultural workers and their families have a relatively small income, a modest purchasing power and a low standard of living. Therefore, despite the manifested changes, the agricultural sector does not have a significant influence on the private consumtion increase, which is an important determinant of the economic growth in the country.

It is confirmed and by the structure of the total available funds according the types of income in the Republic of North Macedonia. State Statistical Office data, obtained on the basis of the "Household Budget Survey", shows that net income from agriculture in the period 2007-2017, despite manifestated oscillations, has declining tendency (Figure 3). The share of the net income from agriculture has the highest value in 2007 (6.8 percent) and lowest in 2016 (3.8 percent). The comparison of the share of employed in agriculture and the net income from this sector shows that its participation in the creation of the total available funds has significantly reduced. This occurred during the implementation of the state policy of subsidizing agricultural activitities.

Figure 3. Share (in %) of net income from agriculture and value of natural consumptions in the total available funds of population in the Republic of North Macedonia



Source: State Statistical Office, Republic of North Macedonia, http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat__ZivotenStandard__AnketaZaPotrosuv ackaDomakinstva/125_ZivStand_mk_APDRASP_ml.px/?rxid=52248e2a-f4b2-4348-a792-7b5afcdcfd0 (Last approach on February 25, 2019)

Regarding the income from agricultural activity, the value of natural consumption should also be considered. In the observed period, its share in the structure of the total available funds according to the types of income decreases with even more emphasized dynamics (from 5.8 in 2007 to 1.8 percent in 2017) than the net income from agriculture.

2.3. Gross value added and productivity

The large representation of self-employed and unpaid family workers in agriculture confirms that the sector is characterized by low productivity and relatively low impact on the economic growth rates.

Gross value added of the agricultural sector in the period 2007-2016 increased by 63.8 percent. It is higher than that of the total gross value added in the same period (60.4 percent). Besides such a trend of growing, agriculture remains a sector in which a relatively small share of the total gross added value is created (Table 5). In the analyzed period it is in range 10.4 (2007) and 13.3 percent (2008). The numerical value of this indicator shows that the introduction of the policy for agricultural subsidies in 2011 was not

accompanied by an increase in the added value.

This situation is determined by the low labor productivity in the agricultural sector. Labor productivity, measured by annual increase in value added per employee, shows that in agriculture it is lowest compared to other sectors in the Republic of North Macedonia, and far away from the labor productivity in the agricultural sector of the European Union and other

Table 5. Gross value added in the Republic of North Macedonia - total and Agriculture, forestry and fishing, 2007-2016

at current prices

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	321 378	357 150	358 369	377 201	399 376	403 684	436 706	458 128	488 408	515 601
Agriculture, forestry and fishing	33308	47478	42997	44258	43405	42493	50327	53701	54369	54559
Share (%) of agriculture in total	10,4	13,3	12,0	11,7	10,9	10,5	11,5	11,7	11,1	10,6

Source: State Statistical Office, Republic of North Macedonia
http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat__BDP__BDPInvesGodisni__BDPsporedESS2010/375_NacSmA_Mk_09p2a_01ml.px/?rxid=94182db3-74f9-410a-a041-4e2fc9335863 (Last approach on February 25, 2019)

developed countries.

In the last report of the World Bank, it is noted that agricultural support policies increase inefficiency and slow the structural transformation by discouraging workers to move into more productive jobs, not only in agriculture, but also in industry and services.[5] The same report recommends encouraging the modernization of agriculture. An agricultural sector that works well, can promote sustainable use of resources and the economic development of rural areas. This, among other things, implies the adoption of technology in agriculture and agribusiness, which will increase the productivity of agricultural workers and its preparedness for exports. The need to revise the state aid in agriculture is derived as a priority, as the current policies distort the allocation of resources and limit the technological improvements.[6]

[5]World Bank Group: Achieving the Future for All, FYR Macedonia System Diagnosis of the Country, Diagnostic Review, November 2018, p. O-6.
[6]Ibid., p. XII

Conclusion

The results of the analysis show that in last decade there were no significant changes in the scope, demographic structure and economic status of the agricultural workers. Positive changes in their structure by occupation are recorded, manifested in significant increase of the share of skilled agricultural workers and decreases of employees with elementary occupations. Despite manifested changes the impact of the employment in agriculture on the socio-economic development of the Republic of North Macedonia mainly was determined by the economic status of agricultural workers and very high vulnerability of the employment in this sector. The share of self-employed and unpaid family workers in total employment in agriculture in 2017 is about 85% and it is four times higher than for the total number of employees in the country. It means that most of the employed in agriculture do not have formal working contracts, faces a low level of workplace safety and limited access to social insurance.

Regarding the impact of employment in agriculture on the socio-economic development of the Republic of North Macedonia, relevant indicators for employment and unemployment, income and purchasing power, gross value added and productivity are analyzed. As for the labour force economic activity, dominant participation of the self-employed and unpaid family workers in the total agricultural workers remains. This suggests that there is "hidden unemployment" in agriculture, as well as informal employment on a large scale (in 2013 and 2014 it is about 78%). The financial support in agriculture (agriculture subsidies) in the period 2011-2017 resulted in a slight increase of formal-employed agricultural workers who paid health / pension insurance (it increased from 18,000 to about 21,000 persons). It implicates the need to consider the possibility of placing an obligation of those seeking subsidies to be registered for health and pension insurance payments. In terms of informal employment decrease a "voucher" system should be implemented. A version of this scheme is where the system allows the agricultural employer to pay his workers with vouchers which can be exchanged for cash when the workers tax and social insurance number are inserted thereon.[7]

[7] Support to the Fight Against UDW - Activity 2.5 Paper with Recommendations ..... op., cit., p. 35

In the last decade, despite the manifested changes, agricultural workers remain with the lowest income and small purchasing power. It is determined by the relatively small participation of agricultural workers that have received pay and dominant share of agricultural workers with salary up to 12 000 denars in structure according to the amount of net salary. So, the employment in agricultural sector does not have a significant influence on private consumption growth as a major determinant of economic growth in the country.

The large share of self-employed and unpaid family workers in agriculture confirms that the sector is characterized by low productivity and relatively low impact on the economic growth rates. Labor productivity, measured by annual increase in value added per employee, shows that in agriculture it is lowest compared to other sectors in the Republic of North Macedonia. Although gross value added of the agriculture in the period 2007-2016 increased by 63.8 percent, it remains a sector in which a relatively small share of the total gross added value is created. The numerical value of this indicator shows that the introduction of the policy for financial support of the agriculture in 2011 was not accompanied by an increase in the added value. Based on all these indicators, one can conclude that the impact of employment in agriculture on the socio-economic development of the Republic of North Macedonia was and still remains modest.

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Original scientific paper

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FISCAL IMPLICATIONS FROM THE POLITICAL CRISIS IN THE REPUBLIC OF NORTH MACEDONIA

Abstract

In the paper fiscal implication are examined from the perspective of the political crisis[1] in the Republic of North Macedonia, which obviously still endures. As consequence of that, the economy is in a state of perpetual decline, among other things, public finances are deteriorating, i.e., there are unfavorable fiscal implications.

For this purpose, the paper analyzes in detail the separate implications of public revenues and expenditures, deficits and public debt. The results show a decline, both on the side of public revenues and on the side of public expenditures. The most important thing is that the reduction of public expenditures, especially capital expenditures, is larger part dependent from political crisis. From the analysis made it is perceived that the deficit and the debt in these crisis years were not adequately managed, nor serious structural reforms started, nor with reforms in the management of public finances.

Key words: fiscal implication; public revenues and expenditures; deficits; public debt
JEL Classification: E62

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[1] The deep political crisis, which arose from the 2015 revelations of wide-spread illegal interceptions of communications (wiretaps), continued 2016 and 2017. A welcome accord on the implementation of the Pržino Agreement was reached on 20 July 2016. Early parliamentary elections on 11 December 2016, resulted in a change of government in May 2017. Politics and society are undergoing significant change, with a renewed spirit of hope and openness. Steps are being taken to address state capture, to consolidate democracy, restore the rule of law and trust in institutions.

Introduction

The economy of the Republic of North Macedonia has suffered a lot of shocks, including the last prolonged political crisis. As a consequence of this entire period of time, there are poor economic ratios[2], ie negative or modest rates of growth and welfare. The lurking of the crisis is due to unsustainable policies, the absence of new foreign direct investment, and great uncertainty as some of more relevant factors. The longer period of adaptive fiscal policy helped support domestic demand, but also exhausted the space for action to prevent further shocks.

The positive outlook was extremely uncertain about the return of political stability. The process of political decision-making after the formation of the new government in June 2017 and the holding of the local elections of September 2017, is still not effective, with the prospect of blockade both at central and local level, although stabilization was expected in the previous mentioned period. Hence, the perception of the fiscal consequences of the last political crisis in this period is not yet clear. The available data from the beginning of the crisis are analyzed to date, so for the period 2014-2017, there seems to be nothing more than reform packages arising from the necessity for rapid integration into the EU and NATO of the country.

Otherwise, the area of fiscal policy significantly decreased in conditions of increased risks. Public debt has doubled since 2008 and is projected to reach 50% of GDP this year and over 50% in the coming years. The rapid increase in public debt is mainly due to the increase in primary deficits, which in turn reflects a combination of low tax rates and low efficiency of revenue collection, and the ineffectiveness of public expenditures, especially on social spending, transfers and subsidies on the cost side.

1. IMPLICATIONS FOR PUBLIC REVENUES IN THE REPUBLIC OF NORTH MACEDONIA

The start of the analysis begins at the level of public revenues, where it is noticeable that they have a tendency of continuous decrease, from 29.59% in 2012 to the level of 27.88% of GDP in 2016, which is a decrease of almost 2 percentage points of GDP. The main reason for this can be seen in taxes and contributions, which from 25.15% of GDP in 2012 are reduced to 23.35% of GDP in 2016 or about 2 pp. of GDP, which, in conditions of non-

[2] According to official statistics in the period 1990-2107, GDP growth was only 0.7%.

reduction of public expenditures, immediately indicates the necessary deficits in the fiscal policy of about 3% of GDP, and consequently increases the public debt. Of course, with such tendencies, the next question that arises is the sustainability of fiscal policy or public finances on the long run.

Table 1. Revenues in the Budget of the Republic of North Macedonia and their structure, as well as relative sizes in relation to GDP (2012-2017) in million MKD

Year	Total budget revenues of Republic of North Macedonia	Total budget revenues of RM as a % of GDP	Taxes	% of tax participation in total budget revenues	Contributions	% of contributions participation in total budget	Contributions + taxes	% participation in total budget revenues	Contributions + taxes as a % of GDP
2012	138.115	29.59	76.617	55,47	40.765	29,52	117.382	84,99%	25,15
2013	140.248	27.94	78.553	56,01	42.438	30,26	120.991	86.27%	24,11
2014	145.929	27,66	85.125	58,33	44.185	30,28	129.310	88,61%	24,51
2015	161.207	28,78	92.926	57,64	47.900	29,71	140.826	87,36%	25,14
2016	169.356	28,47	100.062	59,08	50.300	29,70	150.362	88,78%	25,28
2017	179.673	29,02	103.217	57,45	52.890	29.44	157.537	88.64%	25,45

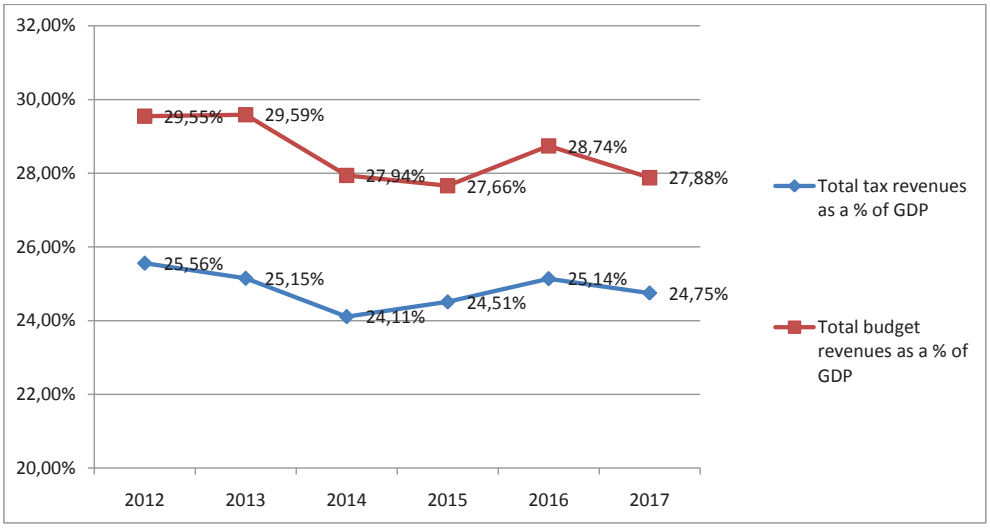
*** The nominal GDP for 2017 is estimated*

Source: own calculations based on data from the Ministry of Finance (www.finance.gov.mk)

This kind of movement of public revenues in the overall budget does impose the question of whether tax revenues, including contributions, are sufficient to finance public expenditure and whether their reduction over the years was justified. This is more visible when taking into consideration that the revenues form taxes and contributions[3] is not reimbursed from other sources of income, such as capital revenues, non-tax revenues, grants, etc. This tendency can be clearly seen from Graph 1, where it is clearly visible that the decrease in total public revenues goes in parallel with the reduction of the revenues from taxes and contributions. The gap starts increasing with the reduction of the tax rates in 2011, followed by numerous incentives for foreign investors in the process of attracting FDI, and in the last two years, exclusively as a result of the political situation in the country.

[3] Following 2007, immediately after the change in the profit and personal income tax policy, or the introduction of the so-called "Flat tax", i.e. their reduction and equalization of the rate of 10%.

Graph 1. Movement of total revenues of the Budget of the Republic of North Macedonia and total taxes and contributions, expressed as% of GDP, in the period from 2012 to 2017



Source: own calculations based on data from the Ministry of Finance (www.finance.gov.mk)

The main conclusion that can derivate from the presented graph as that the tax burden in the Republic of North Macedonia is low compared with other countries. The reforms in the tax policy, which were implemented from 2007, gave only a short-term positive effect, seen through the increase in tax revenues in 2008, but since then they register a continuous downward trend, positioning at a level about 25% of GDP, or about 28% of total revenues, which is by 10 pp. lower than the level of public revenues from OECD countries, whose average is 38% of GDP[4].

2. IMPLICATIONS FOR PUBLIC EXPENDITURES

Public expenditures represent the spending of the budget funds provided by the state in the form of public revenues, which are necessary for the functioning of the state and the fulfillment of its basic functions.

Public administration, defense, judiciary, public order and security are all paid through public expenditures, current investment, social policy, health, education, and subsidies are also covered with public expenditures.

[4] https://stats.oecd.org/index.aspx?DataSetCode=rev

In addition, depending on the type of state, the scope of funding through public revenues varies. Thus, modern non-European capitalist countries perform the classical public functions for which the state possesses an absolute monopoly, and are financed entirely through the resources provided by the state in the form of public revenues and as such are small in scope, while others finance a wider range of public services with a higher level of GDP coverage, which gives an indication of the size of the public sector[5]. In the world economy, the increase in public expenditure relative to GDP is a tendency that is characteristic of all countries in the world.

Otherwise, it is known that public expenditures are less flexible compared to public revenues, they are also sensitive to economic growth associated with the business cycle and reflect historical and current policy decisions. This is because there are more items in government spending, such as capital expenditures, payments for social benefits, administration salaries, interest payments on loans taken, and subsidies.

Table 2 presented below provides a series of data on the expenditures of the Budget of the Republic of North Macedonia, which according to the GFSM methodology is defined as the Central Government plus Funds, and also according to the economic categorization of expenditures.

What can be seen from the first glance at the data series given in the previous table is the decline in the level of public expenditures, expressed as % of GDP, below 32% of GDP from the started 2013 to 2017. This movement seems to be inevitable, i.e. comes as a result of the decline in public revenues. But at the same time, for the last two years, it is the result of the political crisis alone, the two rounds of elections for which there are constraints on the Electoral Code. This is evident, and the most visible is in the reduction of expenditures for goods and services and other transfers.

[5] General government expenditures in 2013 in the OECD countries averaged about 41.9% of GDP. Greece (60.1%), Slovenia (59.7%) and Finland (57.8%) have the highest costs, while Korea (31.8%) and Mexico (24.4%) spend the least. Between 2007 and 2009, government spending increased by an average of 5.4 pp, mostly due to measures for suppressing the effects of the global financial and economic crisis. The largest increase was registered in Estonia (by 11.7 pp) and Ireland (11.6 pp), while in Israel (0.6 pp) there was a slight decrease. In 2014, the highest expenditure was recorded in Finland (58.7%), France (57.3%) and Denmark (57.2%). Source: OECD. (2015), General Government expenditures 2007, 2009, 2013 and 2014, in Government at a Glance 2015, OECD Publishing, Paris.

Table 2. Movement of expenditures on the Budget of the Republic of North Macedonia, in millions of MKD and as% of GDP, in the period from 2013 to 2017

Indicator/Year		2013	2014	2015	2016	2017
TOTAL EX-PENDITURES		159.505	168.063	180.632	185.407	196.561
Current expendi-tures		142.894	150.440	161.965	168.433	176.698
Salaries and allowances		22.566	23.096	24.685	25.958	26.204
Goods and services		14.877	15.467	18.088	16.702	15.344
Transfers		100.845	106.787	112.734	118.902	126.762
Transfers (SSP)		1.011	962	1.592	1.517	1.879
Social transfers		74.250	78.367	82.903	89.005	94.690
Pension funds		44.954	48.073	50.285	54.622	58.084
Employment agency		1.935	1.702	1.482	1.216	1.305
Social benefits		5.941	6.462	7.489	7.571	8.261
Healthcare		21.420	22.130	23.647	25.596	27.040
Other transfers		25.584	27.458	28.239	28.380	30.193
Interest payments		4.606	5.090	6.458	6.871	8.388
Capital expendi-tures		16.611	17.623	18.667	16.974	19.863
TOTAL EX-PENDITURES		32%	32%	32%	31%	31,88%
Current expendi-tures		28%	29%	29%	28%	28,66%
Salaries and allowances		4%	4%	4%	4%	4,25 %
Goods and ser-vices		3%	3%	3%	3%	2.49 %
Transfers		20%	20%	20%	20%	20.56%
Transfers (SSP)		0%	0%	0%	0%	3.05 %
Social transfers		15%	15%	15%	15%	15,36 %
Pension funds		9%	9%	9%	9%	9.42 %
Employment agency		0%	0%	0%	0%	2.12 %
Social benefits		1%	1%	1%	1%	1.34 %
Healthcare		4%	4%	4%	4%	4.39 %
Other transfers		5%	5%	5%	5%	4.50 %
Interest payments		1%	1%	1%	1%	1.36 %
Capital expendi-tures		3%	3%	3%	3%	3.22 %

Source: own calculations based on data from the Ministry of Finance (www.finance.gov.mk)

If we compare the amount of public expenditures in the Republic of North Macedonia with the average of the OECD countries, the same conclusion applies as in the public revenues, which is that the level is well below the average (34% of GDP in 2013, compared to the average of 41.9% of GDP in the same year). The conclusion is that North Macedonia is at the extreme of low levels of public spending, similar to those in Korea, India and Indonesia[6].

Moreso, the very structure of public expenditure refers to areas where public expenditure restructuring is needed, or where reforms are needed in terms of reducing unproductive expenditures, such as salaries and allowances and goods and services, towards the expense of increasing capital expenditures and social transfers. For example, in the analysis of public expenditures and transfers, spotlight should also be given to the level of expenditures intended to finance public health, which is at a very low level compared to the expenditure on health worldwide, especially to the EU countries whose average in 2013 was 9.5% of GDP, where as in Republic of North Macedonia that percentage is somewhere at the level of 6.1% (4% public and other private sources)[7].

3. DEFICIT AND PUBLIC DEBT IMPLICATIONS

The third key component of public finances, in addition to public revenues and public spending, is the deficit or surplus in public finances. But this component, along with public debt, is the most important and reflects the government's economic and fiscal policies.

In modern fiscal theory two types of deficit are distinguished[8]:

- **Structural budget deficits**, arising as a result of expansive discretionary fiscal policy in order to stabilize the economy (reducing taxes, increasing consumption or a combination of these two measures);
- **Cyclical budget deficits**, are a consequence of automatic stabilizers in a situation where the cyclical phase of expansion has gone into a recession phase.

[6] https://data.oecd.org/gga/general-government-spending.htm
[7] Data obtained from WHO and European Observatory on Health Systems and Policies, Health system review, Macedonia, Health systems in Transition Vol. 19, No. 3, WHO and European Observatory on Health Systems and Policies, 2017.
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In other words, when presenting data on fiscal balances (deficits / surpluses) in the budgets of countries, both sizes, structural deficits, and a cyclically-adjusted budget balance are usually displayed. Namely, economic activity over time has a tendency of growth, but when moving on a trendy path, it usually fluctuates above and below the long-term trend. Such cyclical movements in the economy are reflected on fiscal movements, as automatic stabilizers. In order to exclude the effects of the fluctuations of the economic activity on the fiscal indicators and the assessment of the country's basic fiscal position, a calculation and analysis of the cyclically-adjusted budget deficit must be made. The cyclically adjusted balance is obtained by adjusting the aggregate level of the budget revenues and budget expenditures against the effects of deviation of the potential from the actual GDP.

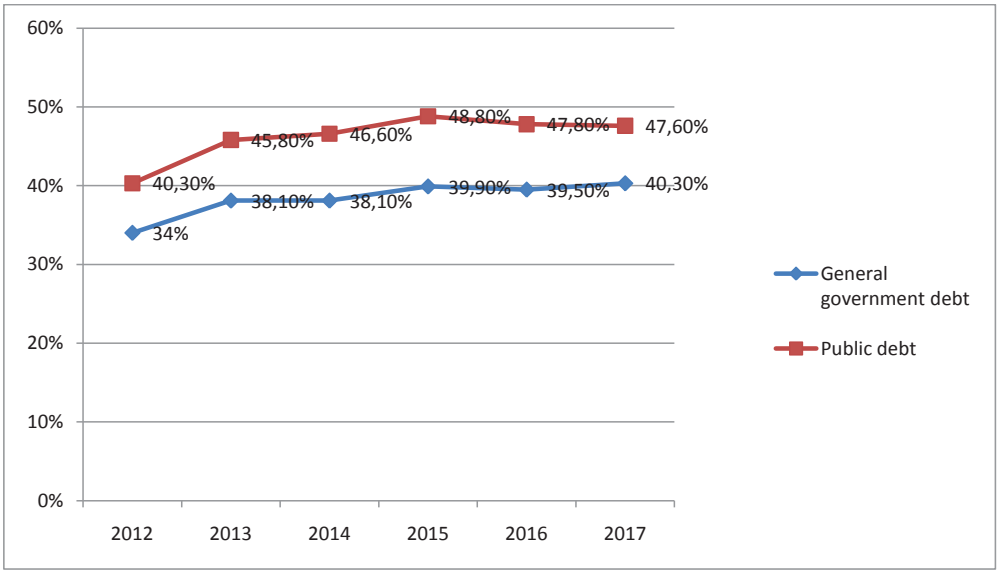
According to the Law on Budgets of the Republic of North Macedonia, the budget deficit is defined as "the negative difference between the planned, i.e. the collected revenues and the approved funds, i.e. expenditures, and it is financed with secured funds from other inflows."[9] Debt for a given period is a sum of all past budget deficits. Debt is a cumulative surplus of past spending and past earnings. Therefore, in the year of deficit, debt is increasing; in the year of surplus, debt is decreasing.

By analyzing the data on the primary balance and interest payments, from 2012 to 2017, it can be concluded that the Republic of North Macedonia is still in the "safe zone", considering that although there is a continuous increase, interest payments are still about 1% of GDP. If the data are compared with the OECD countries where the average is 2.9% of GDP, the gap does not seem so surreal10.

Faced again with the crises following the one in 2008, the government decided to conduct an expansive fiscal policy that helped keep growth and employment, but resulted in an increase in public debt from small to moderate levels. Since then, public debt has gradually increased to 46 percent in 2014, which is still below the SEE6 average of 52.6 percent in 2014, which would mean that the level of public debt from 2008 to 2017 has almost doubled and returned to the worsen level of public debt after the conflict in 2002. Graph 3 shows the state of public debt in the period from 2002 to the first quarter of 2018, expressed as% of GDP[11].

[9] Law on Budgets (Official Gazette of RM 64/05, ... 192/15), Article 2, paragraph 25
[10] https://data.worldbank.org/indicator/gc.xpn.intp.rv.zs
[11] http://www.worldbank.org/en/region/eca/publication/south-east-europe-regular-economic-report

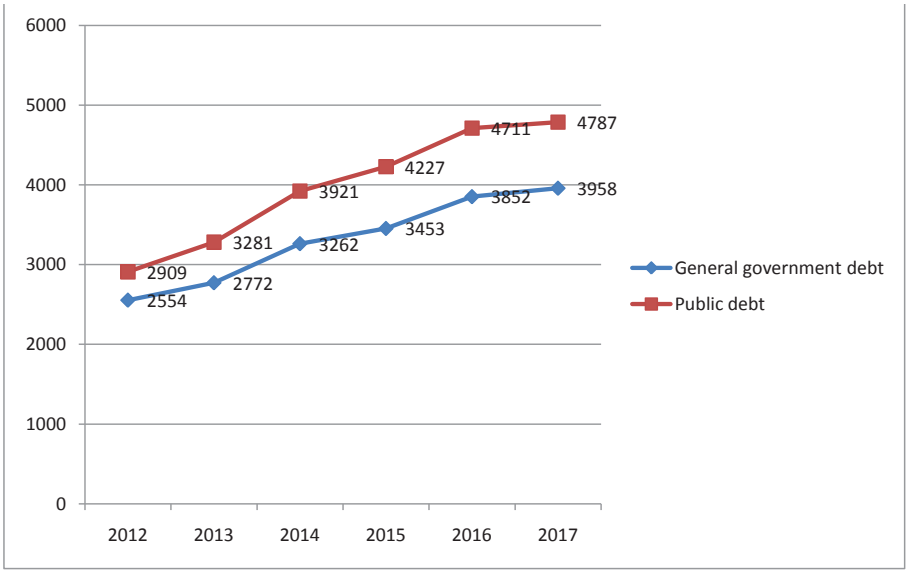
Graph 2. The state of general government and public debt in the period from 2012 to 2017, in% of GDP



Source: *Ministry of Finance (www.finance.gov.mk)*

From the graph above, it can be concluded that in the years 2002 to 2018 different trends of the public debt are present. Namely, from 2002 to 2008, public debt declined from 43.2% of GDP in 2002 to 23% of GDP in 2008. After that a tendency of continuous increase started, and in year 2016, it reached 48.8% of GDP and exceeded the level of 2002, and doubled in relation to its reduced level in 2008.While this graph shows the relative values, the nominal debt values expressed in millions of euros and their movements are shown in Graph no. 3.

Graph no 3. The state of public debt in the period from 2012 to 2017, in millions of euros



Source: *Ministry of Finance (www.finance.gov.mk)*

Looking at the nominal values, the state of the growth of public debt is worse, given that the nominal level has increased almost triple, or from the level of public debt in the amount of 2.554 million euros in 2012 at the level of 4.788 million at the end of 2017. In the structure of the public debt, however, the external debt is constantly dominated and this situation is not changing, i.e. It is maintained in the period from 2012 to 2017, with the participation of the external debt of 63% in the share of 65%, so that in the 2017 it is increased to the share of 67%. The movements of the public and government debt go in hand to hand, i.e. they have been increasing with same tendency since 2009, but with a more pronounced tendency of nominal increase in public debt, primarily due to the issuance of Eurobonds each year, from 2014 to 2017.

Conclusion

After a prolonged political crisis, stabilization is underway. Economic activity has weakened since late 2015 with the political crisis adversely affecting investor confidence. From the previously presented data it can be concluded that there are fiscal implications, they are unfavorable, and a undoubted changes in public finances are needed. The public finance in these crisis years was not adequately managed nor serious structural reforms were started. In general, the fiscal policy in this period was loose from the point of fiscal rigidity. The budget continues to increase, due to increased planed expenditures, however their realization is not sufficient and is below the planned level, this can especially be seen in the capital expenditures which are the most important expenditures when economic growth comes to question. Execution on the public expenditures is mainly for salaries on public administration and transfers (primarily due to the measures included the economic program: subsidies for proposed wage increases, the roll-out of additional employment and business incentives).

The medium-term deterioration of the fiscal deficit and public debt must be replaced with a gradual and sustained fiscal consolidation and further efforts to strengthen public financial management and increase fiscal transparency.

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Original scientific paper

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SPECIFICS OF MACEDONIAN FOREIGN TRADE OF AGRICULTURAL PRODUCTS

Abstract

This paper provides an analysis of the macedonian foreign trade of agricultural products in the period 2005-2017. It aims to explore the specifics of macedonian agricultural trade on sector and product level. The methodology used for elaboration of this paper includes methods of analysis and synthesis, based on extensive review and processing of available data.

The trade of agricultural products in the Republic of North Macedonia had share of about 10% in the total macedonian trade in 2017. The export of agricultural products rose from €266mil. in 2005 up to €504.5mil in 2017, while the import surged from €301.5mil. in 2005 up to €679.8mil in 2017. The import grew faster than the export, resulting in deepening of the macedonian agricultural trade deficit from €35.2 mil. in 2005 up to €175.3 mil. in 2017.

The structure of the macedonian agricultural trade by sectors and products is characterized with high concentration in few sectors/products. The sector of "Fruits and vegetables" has been important on both sides – export and import. On the product level, only two products - unprocessed tobacco and wine had combined share of 34.1% in total macedonian agricultural export in 2017, while meat and sugar had combined share of 15% on the import side. Such intense concentration of sectors/products imposes high volatility of macedonian agricultural trade, in particular on the export side, which requires serious strategic planning for support of the propulsive agricultural branches and potentially competitive agro-processing industries.

Key words: Foreign trade, agricultural products
JEL classification: F1, F2

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Introduction

The trade of agricultural products had share of about 10% in the total macedonian trade in 2017. It includes agro-processing industries, too. This paper provides an analysis of the macedonian foreign trade by agricultural sectors and products in the period 2005-2017. It aims to explore the specifics of the export and import of the macedonian agricultural products, in purpose of outlining the major agricultural branches for further support. The methodology used for elaboration of this paper includes methods of analysis and synthesis, based on extensive review and processing of available data.

1. VOLUME OF MACEDONIAN TRADE OF AGRICULTURAL PRODUCTS BY SECTORS

In the analysis of macedonian trade of agricultural products, two SITC[1] sector groups are included: "Food and Live animals" and "Beverages and Tobacco". The first SITS group consists of the following sectors: Live animals; Meat and meat preparations; Dairy products and eggs; Fish and fish preparations; Cereals and cereals preparations; Fruits and Vegetables; Sugar, preparations and honey; Coffee, tea, cocoa, manufactures thereof; Feeding stuff animals and Miscellaneous food preparations. The second SITC group consists of sectors of beverages and tobacco and tobacco manufactures, as suggested by its title. It is evident that these two SITC sector groups incorporate products of certain agro-processing industries, which enable more comprehensive outline of the agricultural sector. The volume of the export and import of the agricultural products in the Republic of North Macedonia is discussed below.

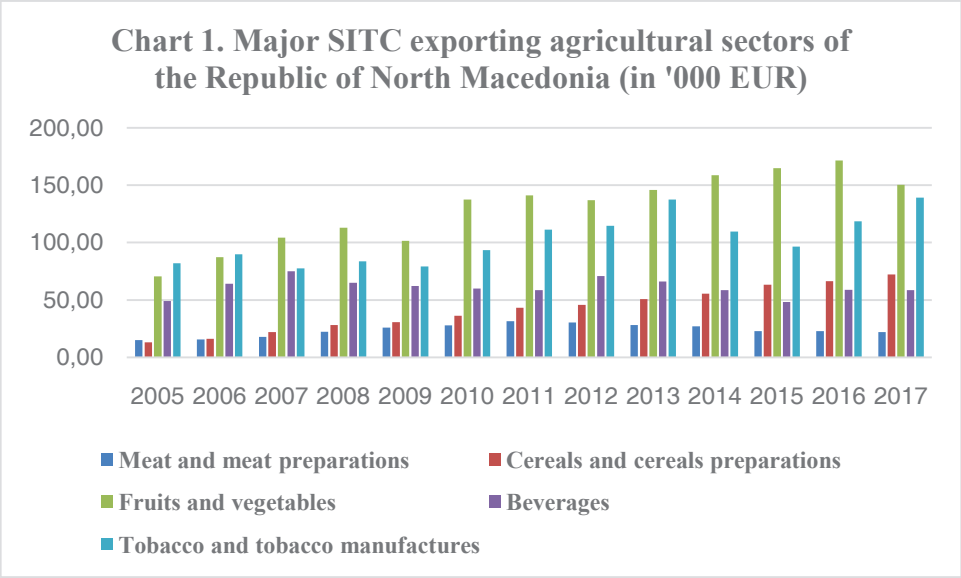
Export. On the export side, the volume of exported macedonian agricultural products almost doubled over the period 2005-2017, rising from €266mil. in 2005 up to €504.5mil in 2017. Despite significant expansion in absolute terms, the share of macedonian export of agricultural products, consisting of the above mentioned two SITS sector groups ("Food and Live animals" and "Beverages and Tobacco") in the total macedonian export declined from 16.2% in 2005 down to 10% in 2017. The decline in relative terms was due to increase of the macedonian export of industrial products,

[1] SITC – system of International Trade Classification

attributable mainly to the export of products from FDI plants in the country, predominantly of those operating in the automotive industry.

More detailed analysis of the macedonian export of agricultural products indicates that the export of agricultural products has been mostly concentrated in three sectors - Fruits and vegetables, Tobacco and tobacco manufactures and Beverages (Chart 1). Starting from 2008, an upward trend has been noticed in the category of "Cereal preparations", due to rise of confectionary industry, while "Meat and meat preparations" have been on the fifth position, with certain increase of the export in the period 2008-2014.

As evident on the Chart 1, the sector "Fruits and vegetables" had dominant position over the period 2007-2017. Its share in the total macedonian export of agricultural products ranged from 26.3% in 2005 and up to 34.9% in 2016. It decreased to 29.8% in 2017, while still holding the top position. In absolute numbers, the sector experienced increase of over 5 times over the period 2001-2016, i.e. surged from €34mil. in 2001, €70.6mil. in 2005 up to €171 mil. in 2016. In 2017, there was a decrease of export of fruits and vegetables to €150.4 mil., mostly indicating the volatility of the sector from the seasonal conditions and world trade prices.

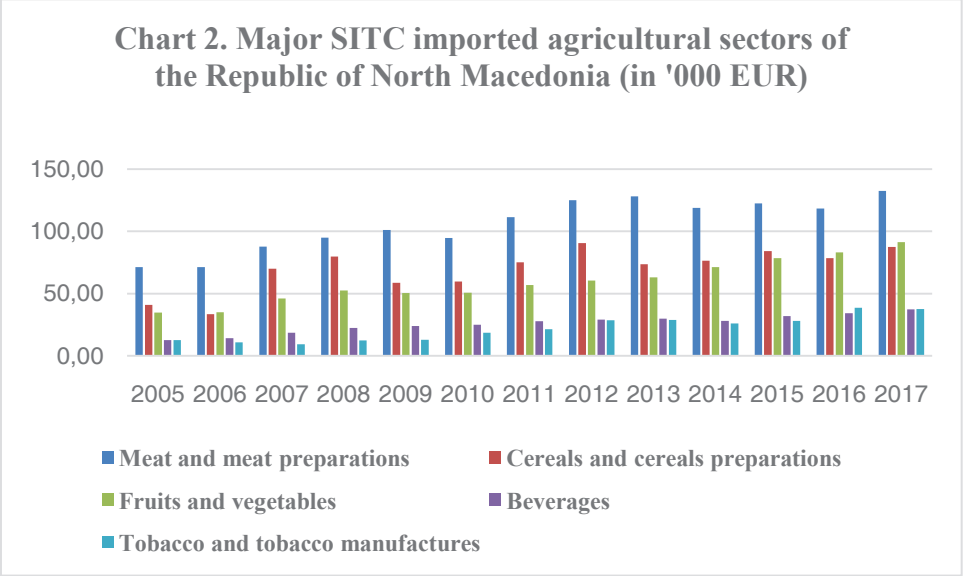


Source: *National Bank of the Republic of North Macedonia (http://nbrm.mk/nadvoresno_trgovska_razmena-en.nspx)*

Another important macedonian agricultural sector is "Tobacco and tobacco manufactures". Up till 2006, this has been the leading macedonian exporting agricultural branch. The tobacco export has grown from €82.1mil. in 2005 up to €139.2mil. in 2017. Its relative share in the total agricultural export shrugged from 43.6% in 2000 to 30.8% in 2005 and further down to 24.1% in 2016 (due to the rise of the sector "Fruits and vegetables"). However, it is still one of the most important sectors/industries in the country. Its share in the total macedonian agricultural export increased again to 27.6% in 2017. The third sector by importance is the sector of "Beverages". Its volume of export has been characterized with amplitudes, ranging from €49.2mil. in 2005 up to outmost €75mil. in 2007, and down to €58.7mil. in 2017. The increase has been mainly due to the export of wine. The other two exporting sectors on the list of top five - "Cereals and cereals preparations" and "Meat and meat preparations" have upward tendency in the recent years, although still lagging significantly behind the other three sectors.

Import. On the import side, the combined share of both SITC groups ("Food and Live animals" and "Beverages and Tobacco") in the total macedonian agricultural import ranged from 13.3% in 2003 (highest) down to 9.8% in 2008 (lowest). It stabilized at around 10% from 2014 onwards. In absolute numbers, the volume of imported macedonian agricultural products rose from €301.5mil. in 2005 up to €679.8mil in 2017. In terms of sectors, the prevailing ones in export also dominate in import, although with different significance.

As presented on the Chart 2, the sector "Meat and meat preparations" has been dominant over the analyzed period. Its share in the total import of agricultural products in the Republic of North Macedonia ranged from 26.3% in 2005, 20.4% in 2010 and 19.4% in 2017. The sector rose from €34 mil. in 2001 up to €132 mil. in 2017. Another important sector on the import side is "Fruits and vegetables". Similar like on the export's side, it experienced increase of over 5 times from 2001 onwards. It rose from €18 mil. in 2001, €34.8mil. in 2005 up to €91.4 mil. in 2017. In relative figures, the share of "Fruits and vegetables" in the total macedonian agricultural import rose from 11.5% in 2005 up to 13.4% in 2017.



Source*: National Bank of the Republic of North Macedonia (http://nbrm.mk/nadvoresno_trgovska_razmena-en.nspx)*

The third sector by importance on the import side is the sector "Cereals and cereals preparations". Its volume of import increased from €40.9 mil. in 2005 up to €87.4 mil. In 2017. Its share in the total agricultural export mostly refers to 13% over the period, with outmost share of 17% in 2007/2008. There is a potential for further increase of the import in this sector, as the respective domestic confectionary industries (those producing biscuits, waffles, candies, sweets, etc.) which use imported raw materials have registered rising trend in the last decade. In addition, the sectors of "Beverages" and "Tobacco and tobacco manufactures" are also included in the list of the top importing sectors, although these two sectors have more relevance with regards to the export, than to the import.

Trade balance. Although the export and import data of agricultural products indicate significant increase on both sides over the period 2005-2017, there has been higher growth on the import side. It resulted in deepening of the macedonian agricultural trade deficit from €35.2 mil. in 2005 up to €175.3 mil. in 2017. The positive balance was registered only in the sectors "Fruits and vegetables", "Beverages" and "Tobacco and tobacco manufactures", while in all other sectors from the two analyzed SITC groups the import prevailed over the export.

The trade of the macedonian agricultural products has been done mostly with EU and CEFTA countries, based on liberalized grounds as stipulated in Stabilization and Association Agreement (SAA) with the European Union (as of 2001) and CEFTA 2006 Agreement. The SAA stipulated immediate free access to EU market for almost all macedonian products. SAA exceptions of trade liberalization were made for sensitive products such as wine, baby beef, fisheries and fish products, for which duty free tariff quotas were agreed. On the side of import, there was gradual removal of tariffs for EU products entering the macedonian market, up till 2011, when trade liberalization was completed (with exception of several sensitive goods agreed among parties). The CEFTA 2006 Agreement[2] among non-EU countries from the Balkan region and Moldova provided regional trade with no restrictions for almost all products.

The trade liberalization with EU and CEFTA countries could be assessed as generally positive, although deepening of the macedonian trade deficit refers to the issues of quantity and competitiveness of the macedonian agricultural products. In this respect, an insight into the structure of the macedonian agricultural trade by products would be noteworthy.

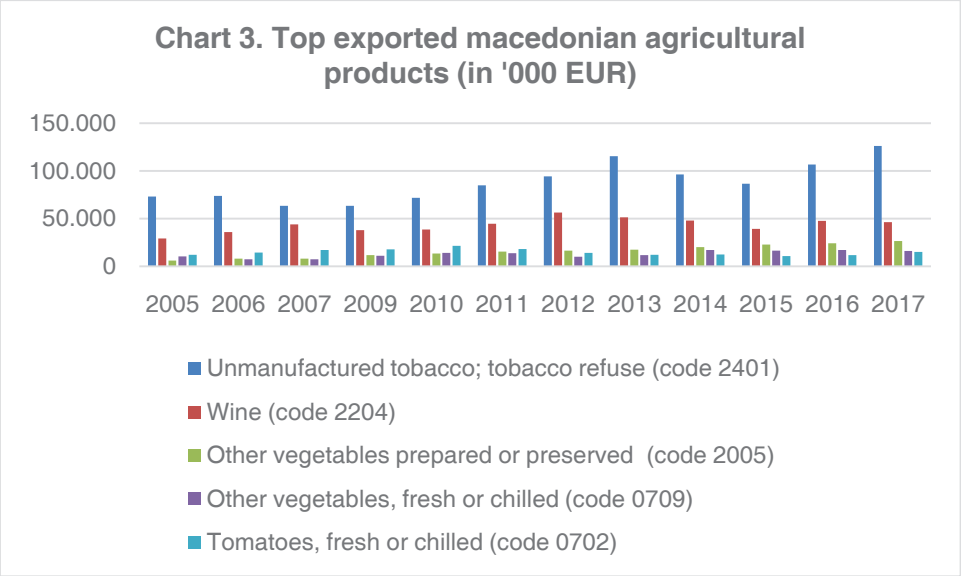
2. TRADE OF MACEDONIAN AGRICULTURAL PRODUCTS BY PRODUCTS

The data of trade by products has been derived from the INTRACEN[3] database and refer to Harmonized System (HS), level 4 digits. The purpose of the product-level analysis is to provide an insight into the export/import concentration of agricultural products and trade volatility.

Export. The top exported macedonian agricultural products are tobacco, wine and vegetables. Chart 3 represents five top exported macedonian agricultural products over the period 2005-2017. Their share in the total macedonian agricultural export ranged from 48.9% in 2005; 39.5% in 2010 and up to 45.6% in 2017. This indicates very high concentration of the agricultural export in several products, which increases its volatility.

2 http://cefta.int/legal-documents/#1463498231136-8f9d234f-15f9

3 Intracen is a database of the International Trade Centre (Joint trade Agency of World Trade Organization and United Nations). Link: http://www.intracen.org/itc/market-info-tools/trade-statistics/



Source: *INTRACEN database (http://www.intracen.org/itc/market-info-tools/trade-statistics)*

Given the nature of the "Tobacco" sector, consisting of relatively small number of products (unprocessed tobacco and tobacco preparations), raw tobacco appears as top exported macedonian agricultural product. The sector of "Fruits and vegetables" contains many different varieties, implying that the export has been scattered on large number of products. Therefore, although it is most relevant for the macedonian foreign trade as a sector, on the level of products - the raw unprocessed tobacco has dominated over the entire period of analysis. Around 90% of the total tobacco export from the Republic of North Macedonia has been in unprocessed form, which does not provide ground for higher net effects compared to processed tobacco products (cigarettes, etc.). The volume of raw tobacco export registered upward trend and ranged from €73mil. in 2005 to €126mil. in 2017 or 27.4% and 25% out of total macedonian agricultural export, respectively. Furthermore, the relative share of raw tobacco (refuse) in the total macedonian export was 4.5% in 2005 and shrugged to 2.6% in 2017. This was due to the increase of the industrial export, in particular from 2010 onwards. Over the analyzed period, the major export destination of the macedonian raw tobacco export has been EU28. Its share in the total macedonian export of raw tobacco ranged from outmost 93% in 2009 down to 70% in the last several years.

With regards to the second top exported agricultural macedonian product – wine, EU has also been the major export destination. The total export of macedonian wine (including bulky and bottled, as well as grape mist) increased from €29.1 mil. in 2005 to €46.3 mil. in 2017, out of which half was placed on EU market. The increase was mostly due to increase of bottled wine, reflecting rise of the macedonian wine industry. In relative terms, the share of bulky wine in the total macedonian agricultural export decreased from 8.3% in 2005 to 4.3% in 2017, on behalf of increase of bottled wine from 2.5% in 2005 up to 4.3% in 2017. However, the aggregated data show that the share of wine export in the total agricultural macedonian export decreased from 10.9% in 2005 down to 9.1% in 2017, owing mainly to the increase of the export of vegetables.

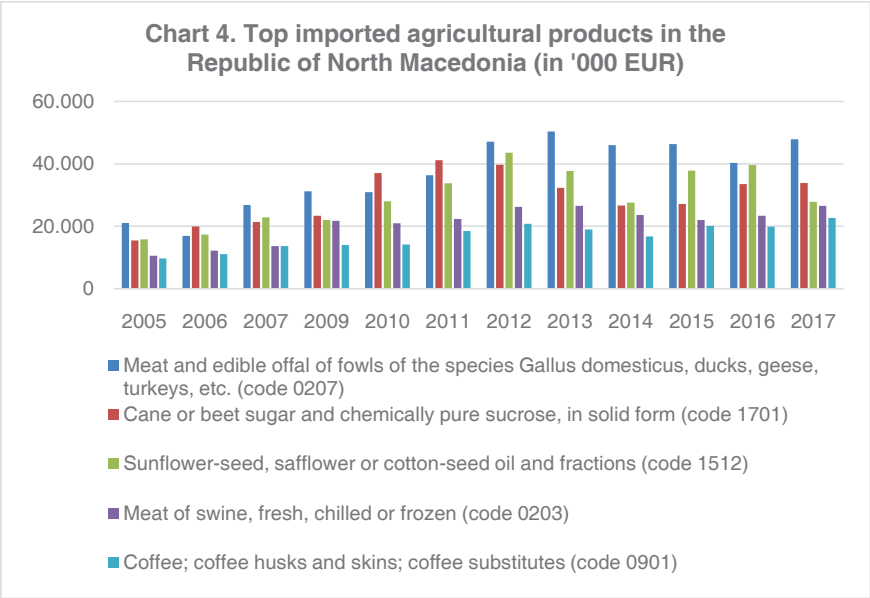
The export of different vegetables has increased over the last decade. The industry of different types of prepared or preserved vegetables has a growing trend, reflecting into third position of this category in the top exported macedonian agricultural products. In absolute terms, its export rose from €5.8mil. in 2005 up to €26.3mil. in 2017. In addition, there was an increase of the export of fresh or chilled vegetables (excluding potatoes and tomatoes which are registered in separate INTRACEN categories), consisting primarily of export of genus Capsicum (peppers) and mushrooms, which rose from €10.3mil. in 2005 up to €15.9mil. in 2017. Furthermore, tomatoes were also largely exported macedonian product, with export ranging from €12mil. in 2005 up to €15.2mil. in 2017.

From the analyzed data, it is evident that the combined share of raw tobacco and wine in the total agricultural export of the Republic of North Macedonia has been 38.3% in 2005 and 34.1% in 2017. The concentration of over 1/3 of the total agricultural export in just two products indicates lack of long-term planning in the agricultural sector which would provide greater variety of the exported products, given the natural preconditions of the country for agricultural products of good quality.

In addition to the analysed five agricultural exported products, there is another agro-related industry which ranks as a top export. The export of bread, pastry, cakes, biscuits and other bakers' wares has been growing rapidly from €11mil. in 2005 up to €59.2mil. in 2017. According to the volume of agricultural export by products, this industry has been on the second position in 2017, following raw tobacco export. It uses raw materials such as cereals, sugar, cocoa, etc., which have been primarily imported. However, it was not included in the Chart 3, as the focus of the analysis of the top five exported

products have been done in accordance to primarily domestic agricultural or agro-industrial products. This industry is predominantly import depended.

Import. Chart 4 represents top five imported agricultural products in the Republic of North Macedonia over the period 2005-2017. They include meat, sugar, edible oils and coffee. Their share in the total agricultural export of the country ranged from 28.8% in 2005; 34% in 2012 and down to 26.4% in 2017. This is rather different compared to the export, indicating higher range of imported products.



Source: *INTRACEN database (http://www.intracen.org/itc/market-info-tools/trade-statistics)*

The analysis of the top five imported products refers to the SITC classification of sectors (Chart 2) with regards to meat and meat preparations, as prevailing import sector. Chart 4 indicates that two of the top five imported agricultural products in the Republic of North Macedonia include meat products (ducks, geese, turkeys, chicken, etc., as well as pork meet), which combined share in the total agricultural import ranged from 10.5% in 2005 up to 13.5% in 2013 and down to 10.9% in 2017. In absolute figures, the value of their import rose from €31.6mil. in 2005 up to €74.5mil. in 2017. The relative decrease was attributable to the increase of the overall agricultural import in the country. Most of the import of meat has been done from EU

(predominantly from Poland, Austria, Spain), as well as Brazil and to certain extent from Serbia.

The second agricultural product by its import value in the Republic of North Macedonia has been cane or beet sugar. Its import rose from €15.4mil. in 2005 up to €33.9mil. in 2017, owing mostly to the rise of the confectionary industry, as discussed in the export section. The share of sugar in the total agricultural import has been 5% in 2005, up to 7.9% in 2010 and back to 5% in 2017. The main country of import has been Serbia, which imports sugar from Brazil and distributes it to the Balkan region. Certain amount of the macedonian import of sugar comes directly from Brazil.

The other two products in the top five include edible oils and coffee. The absolute value of both products has increased over time, while the share of edible oils in the total agricultural export has shrugged from 7.4% in 2012 to 4.1% in 2017, while coffee's share remained stable at around 3% over the analyzed period.

From the analyzed import data, it is evident that the import of agricultural products has not been highly concentrated as the export. This is logical, provided that the agricultural production in the country has been limited to certain cultures, while meat production has been insufficient even for domestic purposes, implying the need for import of variety of products.

Same as on the export side, in addition to the analysed five agricultural imported products, the import of confectionery industry products (bread, pastry, cakes, biscuits, etc.) has been also rising in the Republic of North Macedonia. In absolute terms, its import rose from €13.8mil. in 2005 up to €30.6mil. in 2017. However, the data provided above indicate much faster rise of the domestic confectionary industry. It is a positive trend, although its further growth implies the need for agricultural planning aiming to production of domestic inputs (import substitution) for this industry, in order of achieving higher net effects from trading of the confectionary products.

Prospects. The export and import analyses revealed one leading sector – "Fruits and vegetables" on both sides, while more detailed insight on the level of products indicated very high concentration, in particular on the export side. The sectors that fuel agricultural export are very few – production of tobacco, wine, fruits and vegetables. The export of lower value added products is strongly present in the export structure (unprocessed tobacco and bulky wine), which implies the need for support of the sectors which produce products with higher value (tobacco manufactures, bottled wine, processed vegetables, etc.). In this respect, the wineries, vegetables and fruit processing industries, as well

as agricultural production of currently imported products should be supported. This particularly refers to the cultures produced in the country some time ago, such as sugar beet and sugar, sunflower and sunflower oil, etc. In addition, the production of meat is rather scarce in the Republic of North Macedonia, entailing its import, while the meat processed industries are rather strong. In this respect, the exporting industries which are rather well established on the foreign markets (such as confectionary and meat processing industries) should be taken seriously into consideration by agricultural policy makers, in sense of encouraging domestic production of inputs for these industries.

It is likely to expect that the structure of the export/import of the agricultural products from/to the Republic of North Macedonia would not change significantly in the upcoming period as it is related to strong strategic planning and well organized support. In the context of the agricultural support, the country already provided significant subsidies for agricultural sector (total of 446 mil. EUR for the period 2010-2014).[4] However, no systematized data were available with regards to the allocation of the funds by sectors/branches, implying that there is lack of monitoring and evaluation system which would provide information about the effects of the subsidies-based agricultural policy.

In addition, there is a specific EU instrument for rural development – IPARD. It has been available to the Republic of North Macedonia since 2007 (to the present), aiming to support structural changes in the macedonian agriculture, more specifically in three areas: investment in agricultural holdings, investment in processing and marketing and diversification of rural economy. IPARD I (2007-2013) made available around 85mil. EUR to the macedonian farmers, while IPARD II (2014-2020) provided additional 60 mil. EUR. However, macedonian absorption of IPARD have been very limited, as evident in 2015, when de-commitment of 15mil. EUR from the allocation of the 2011 was done.[5] The de-commitment has been serious signal that the macedonian authorities must undertake measures for increase of the absorption capacity for IPARD. In addition, there is need for ensuring better implementation of the domestic instruments, too, in purpose of achievement of positive visible results of the macedonian agricultural sector and implicitly, increase of the export of higher value added products.

[4] Prizma.birn.eu.com

[5] Annual Report on the Implementation of the IPARD Programme 2007-2012: For the period 1 January 2015 – 31 December 2015, Ministry of Agriculture, Forestry and Water Economy of the Republic of Macedonia, June 2016, p. 44

Conclusion

The export and import of the agricultural products from/to the Republic of North Macedonia increased significantly over the period 2005-2017. The export rose from €266mil. in 2005 up to €504.5mil in 2017, while the import surged from €301.5mil. in 2005 up to €679.8mil in 2017. Evidently, the import grew faster than the export, resulting in deepening of the macedonian agricultural trade deficit from €35.2 mil. in 2005 up to €175.3 mil. in 2017.

The structure of the macedonian agricultural trade by sectors and products is characterized with high concentration in few sectors/products. On the sector level, "Fruits and vegetables" has been important on both sides – export and import. It has been ranked as leading exporting and second importing sector with share of 29.8% and 13.4% in the total macedonian agricultural export and import in 2017, respectively. The leading importing sector has been "Meat and meat preparations" with share of around 20% in the total import of agricultural products. Furthermore, the product-level analysis reveals that unprocessed tobacco and wine have been the most exported macedonian agricultural products (with combined share of 34.1% in total macedonian agricultural export in 2017), while meat and sugar have been the most imported agricultural products in the Republic of North Macedonia (with combined share of 15% in total macedonian agricultural import in 2017).

Such intense concentration of the sectors/products imposes high volatility of macedonian trade in agricultural products, in particular on the export side. The trade of agricultural products is related to many risks caused by climate conditions, as well as non-tariff barriers set by many countries, which jointly affect the world market prices. Diversification of the export is crucial, in purpose of achieving stable agricultural sectors which would contribute to country's development. In this respect, macedonian agricultural policy-makers should focus on strategic planning for further support of rising propulsive branches, as well toward encouraging agricultural production for import substitution. The structure of the macedonian agricultural trade needs to change in favour of faster growth of export versus import, and, particularly, towards export of products with higher value added and higher competitiveness.

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UDK 330
Original scientific paper

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CIRCULAR ECONOMIES RESOURCE EFFICIENCY, CHALLENGES AND OPPORTUNITIES FOR "GREEN" ECONOMY IN NORTH MACEDONIA

Abstract

Economic growth, increased consumption and irrational use of natural resources negatively affect the environment. Respecting resource constraints, the need to gradually change the existing unsustainable production and consumption model is emerging as one of the key challenges of sustainable development. The amount of waste is constantly increasing, and the characteristics of the waste are constantly changing in direction of its degradation, but also its negative impact on the environment, and thus the quality of life. The resource limitations, on the other hand, create an uncompetitive business environment, and this is a challenge to finding innovative technologies that will allow waste to be transformed into a resource. The aim of the research is waste as an opportunity for resource efficiency and "green" economy in North Macedonia. The survey shows that by increasing resource efficiency provides circular economic solutions that can generate economic growth and "green" jobs, and business entities increase their productivity and competitiveness.

Key words: sustainable development; environment; circular economy; resource efficiency; waste.
JEL Classification: Q01, Q53, Q56

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Introduction

The modern world is confronted with common responsibility and the necessity to align its development with the needs of people and nature, but also with the awareness that the planet must be preserved both for the present generations and for the future. Trends in climate change due to the use of energy and the use of natural resources require commitment and activities to ensure sustainable development of the country in order to reduce the impact on climate change and environmental protection.

Increased demand for products and services, caused by economic growth and improved living standards without changes in the pattern of consumer habits, generates increased use of natural resources and large quantities of waste. The demand for transport and infrastructure for transport and the disposal of materials and waste endangers the environment. The high energy intensity contributes to the emission of harmful substances in the air. Only the use of recycled materials, reasonable use and increased efficiency of resources will ensure a high level of protection and improvement of environmental quality.

This paper provides an analysis of resource efficiency in North Macedonia. It aims to investigate wastes and emissions of substances that cause acidity and tackle the issue of their negative impact on the environment and quality of life in the period from 2001 to 2017. The methodology used to make this work includes methods of analysis and synthesis, based on a detailed overview and processing of available data.

1. SUSTAINABLE DEVELOPMENT

Sustainable development is a concept that allows meeting the needs of present generations without jeopardizing the possibility of meeting the needs of future generations. Sustainable development is a framework for shaping policies and strategies for continuous economic and social development without harmful impacts on the environment and natural resources important for the future of humankind. By changing the structure of energy sources, through more intensive integration of renewable sources, efficiency in resource consumption as well as energy efficiency can reduce environmental pollution and adverse impacts on climate change. In 2015, the UN adopted

the new 15 year Global Sustainable Development Program by 2030,[1] which contains 17 sustainable development objectives. The set of indicators is organized according to the basic principles, following the economic, social, environmental and institutional dimension of sustainable development. Achieving the objectives is measured through an indicated indicator framework for each of them separately, both nationally and regionally and internationally. In the 2017 Report,[2] it was ascertained that planetary warming continued in 2016, setting a new record of about 1.1°C above the pre-industrial period, according to a statement by the World Meteorological Organization on the state of the global climate in 2016.

North Macedonia has ratified international conventions in the field of environment protection and climate change[3] in order to harmonize policies and strategies also targeted, among other things, towards sustainable development. North Macedonia, as a party to the United Nations Climate Change Convention,[4] is committed to contributing to achieve the global goal of stabilizing greenhouse gas concentrations in the atmosphere at a level that would prevent a rise in global warming by more than 2°C.

1.1 Sustainable development and North Macedonia

The economic growth accompanied by increased consumption and the irrational use of natural resources and energy negatively affect the environment and climate change. This type of production is accompanied by large quantities of waste.

According to the State Statistical Office, the total amount of generated waste per sectors of economic activity in 2016 is 694 kg/per capita, which is a decrease compared to 2014, see Table 1 and Graph 1.

[1] Resolution adopted by the General Assembly on 25 September 2015 [without reference to a Main Committee (A / 70 / L.1)] 70/1. Transforming our world: the 2030 Agenda for Sustainable Development.

[2] Report of the Secretary-General, "Progress towards the Sustainable Development Goals", E / 2017/66

[3] http: //www.moepp.gov.mk/? Page_id = 4200 (Approached on 23.01.2019).

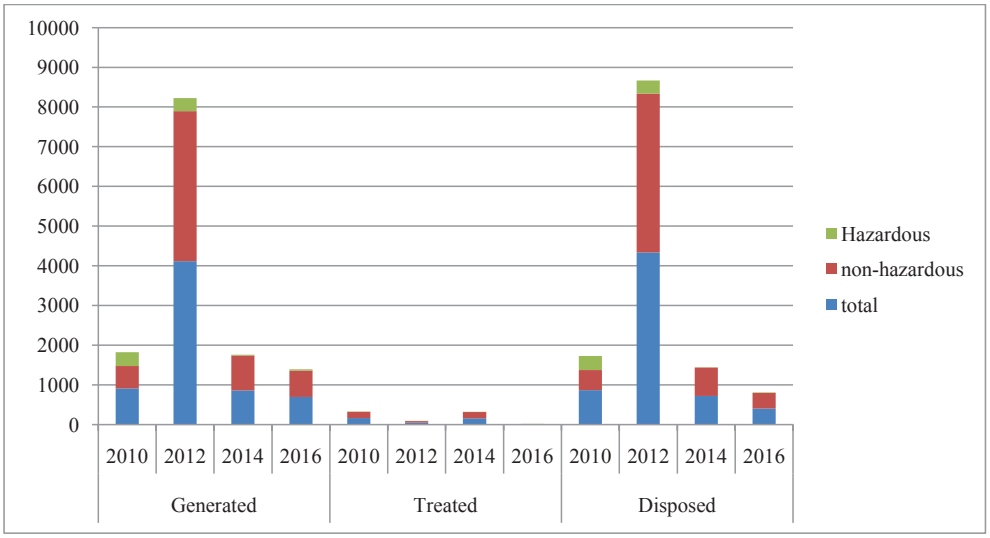
[4] Article for ratification of the United Nations Framework Convention on Climate Change ("Official Gazette of the Republic of Macedonia" No. 6/97).

Table 1. Waste in North Macedonia, 2010-2016 (kg/per capita)

	Generated				Treated				Disposed			
	2010	2012	2014	2016	2010	2012	2014	2016	2010	2012	2014	2016
total	912	4113.3	859.6	694	161.1	44.6	157.8	4	863	4333.3	718.8	404.6
non-hazardous	559	3783.6	876.5	666.3	159.2	42.2	156.1	3.5	510.1	4005.4	717.7	389.9
Hazardous	353	329.7	19.1	27.7	1.9	2.4	1.7	0.4	352.9	327.9	1.1	14.7

Source: *State Statistical Office, "Sustainable Development, 2018", Skopje, State Statistical Office, 2018, p.173.*

Graph 1. Creation, treatment and disposal of waste in North Macedonia, 2010-2016 (kg/per capita)



Source: *State Statistical Office, "Sustainable Development, 2018", Skopje, State Statistical Office, 2018, p.173.*

From the total amount of waste generated, in 2016, hazardous waste is 27.7 kg/per capita, mainly arising from the electricity, gas, steam and air conditioning supply. Total waste disposed in 2016 is 404.6 kg/per capita, nearly half less than in 2014. Disposed waste in 2016 is only 58% of the total generated waste in the same year. During 2016, treated waste is only 4 kg/per capita, while in 2014 the treated waste was 157.8 kg/per capita and 95.8 kg/per capita was processed with combustion operation, and 10.5 kg/per capita is recycled. So far composting and combustion operations have not been applied to obtain energy. In the year 2014, the amount of waste disposed of was 718.8

kg/per capita, out of which 72% were removed with a landfill operation in or over the ground and 27.7% with other removal operations. The generated communal waste, in North Macedonia, which is from households, commercial and commercial activities, business buildings, public institutions, small businesses, waste from yards and gardens, the content of waste containers, street waste and garbage from the markets is shown in Table 2.

The largest part of municipal waste in the country in 2017 was created by households in the areas covered by the municipal waste management system (83% of the total collected). The total amount of waste generated per inhabitant in 2017 is estimated at 379 kg and 1.04 kg per day. The quantity of collected municipal waste is 294 kg per inhabitant and the total quantity of collected waste is left to the landfill.

Table 2. Communal waste in North Macedonia, 2008-2017

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Communal waste generated, kg/per capita,	349	354	351	357	382	384	370	380	376	379
Communal waste, landfill, kg/per capita,	260	270	266	264	270	269	276	300	295	294

Source: *State Statistical Office, "Sustainable Development, 2018", Skopje, State Statistical Office, 2018, p.173.*

The country has a demand for energy, and especially energy for the transport of goods and people, as well as for obtaining electricity and heat, that is, the need for solid fuels and petroleum products. The generation of electricity and heat is based, for the most part, on the production in the thermal power plants, and this is done through the combustion processes, which use solid fuels and petroleum products as a resource.

Combustion of these resources releases greenhouse gases and particles that pollute the environment and thus affect climate change and human health. The ecosystems on which the thermal energy facilities operate are air, water and soil and indirectly through them and the wildlife, flora, fauna and especially the health and quality of life of people.

From combustion processes in thermal power plants, the greatest influence occurs on air through substances that cause acidity of air (SOx, NOx, NMVOC, CO, NH3, TSP). Every year, millions of tons of sulfur oxides, nitrogen oxides, carbon monoxide, particulate matter and greenhouse gas emissions and depleting the ozone layer are released into the air and the atmosphere and are known as primary pollutants in the air, on Graph 2 and in the Table 3 shows their conditions and trends, 2001-2016.

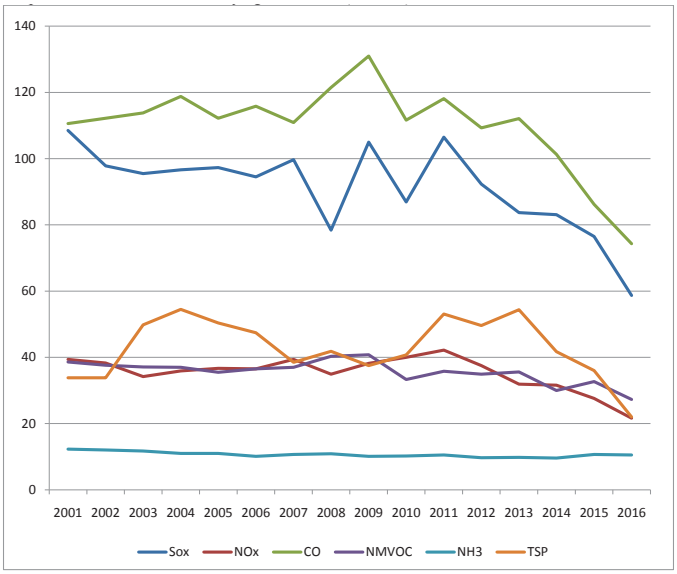
During the probation period, their variable decreasing trend was observed. The highest values of CO are in 2008. (121.5 kt/an), SOx (108.5 kt/

an) and NH3 (12.3 kt/an) in 2001, NOx has in 2011. (42.2 kt/an), NMVOC has in 2009. (40.8 kt/an), and TSP has in 2004. (54.5 kt/an). In CO and TSP emissions, the trend is variable and depends on the consumption of wood in households, which, in turn, depends on the average temperatures in the winter period. It can be noted that in recent years the emissions have been reduced due to the consumption of wood for heating of households at the expense of the increased consumption of pellets and natural gas.

Due to the reduced emissions of TSP, the reduced operation mode of the Jugohrom installation for the production of ferroalloys is also affected. The continuous reduction of SOx emissions stems from the reduced operating mode of the REK "Oslomej" installation, as well as the lower consumption of coal and fuel oil in the thermal power plants. In nitrogen oxides, the reduction of emissions is due to the modernization of REK Bitola, the reduced consumption, and the introduction of low NOx gas and burner gas and burners in heat generation installations, as a result of the lower consumption of coal and fuel oil in the thermal power plants. Emissions of NH3 are continually declining due to the reduced number of breeds.

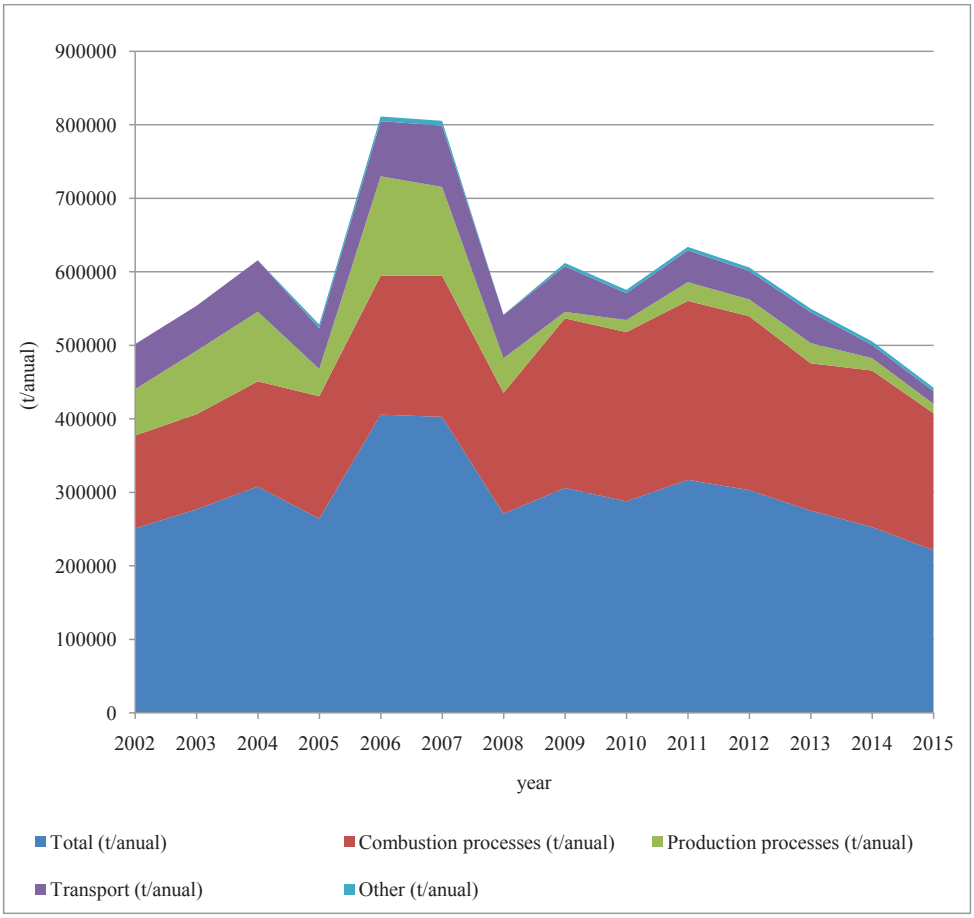
Emissions of acidifying substances by sectors are shown in Graph 3 and Table 4. From here it can be noticed that from 2002 to 2015 the combustion processes are dominant in the emission of acidifying substances, and then transport, production processes, and the rest.

Graph 2. Total emission of acidifying substances (kt/anual)



Source: *State Statistical Office, "Sustainable Development, 2018", Skopje, State Statistical Office, 2018, p.52.*

Graph 3. Structure of emissions of substances that cause acidity, by sectors



Source: State Statistical Office, "Sustainable Development, 2018".

In 2015, combustion processes account for over 84.2% of total emissions of acidifying substances, transport with 7.8%, production processes with 5.8%, and other activities with 2.2%. The impact of production processes has seen a decline in emissions since the onset of the global economic crisis by 2015, and the lowest level reached in 2009, ie 8,805 (kt/anual). Transport also has a downturn in the time of the global economic crisis, and the lowest level is seen in 2015. The decline in emissions of acidifying substances in all sectors is due to reduced activities in the sectors rather than technical and technological solutions in the same sector.

Table 3. Emission of acidifying substances

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
kt/anual																
SOx	108,5	97,8	95,5	96,6	97,3	94,5	99,7	78,4	105	86,9	106,5	92,3	83,7	83,1	76,5	58,7
NOx	39,4	38,3	34,2	35,9	36,7	36,5	39,4	34,9	38,2	40	42,2	37,5	31,9	31,6	27,6	21,6
CO	110,6	112,2	113,8	118,8	112,2	115,8	110,9	121,5	131	111,6	118,1	109,3	112,1	101,3	86,2	74,3
NMVOC	38,6	37,6	37,1	37	35,5	36,5	37	40,3	40,8	33,3	35,8	34,9	35,6	30	32,7	27,3
NH3	12,3	12	11,7	11	11	10,1	10,7	10,9	10,1	10,2	10,5	9,7	9,8	9,6	10,7	10,5
TSP	33,8	33,8	49,8	54,5	50,4	47,4	38,5	41,8	37,5	40,7	53,1	49,6	54,4	41,7	36	22

Source: *State Statistical Office, "Sustainable Development, 2018".*

Table 4. Total emission of acidifying substances by sectors

	Total (t/ anual)	Combustion processes (t/ anual)	Manufacturing Processes (t/anual)	Transport (t/anual)	Other (t/anual)
2002	250736	126530	62936	61270	-
2003	276812	129319	86259	61234	-
2004	307841	143176	94798	69867	-
2005	264185	166515	37120	55471	5079
2006	405663	188874	135369	75084	6336
2007	402705	192028	120731	83422	6524
2008	270802	164561	47075	59048	118
2009	306015	230658	8805	62071	4481
2010	287723	230242	16422	36607	4453
2011	316945	243525	25452	43265	4703
2012	302977	236608	22906	38779	4684
2013	274948	200550	27570	42152	4676
2014	252691	213015	16771	18091	4813
2015	221207	186450	12732	17195	4832

Source: *State Statistical Office, "Sustainable Development, 2018".*

2. CIRCULAR ECONOMY

The current linear production model is based on the transformation of resources into finished products and after usege their disposal as waste, that is, "take-make/use-waste". This model is not sustainable because of the growing negative impact on climate change and the limitation of natural resources. Its application is time-limited from an environmental and economic point of view. Reducing the available natural resources, population growth, the level of environmental pollution, operational problems especially in large cities in waste disposal are problems that the society has been facing for decades. In our country, the linear model was applied during the expansive growth of the economy, when the use of resources was uncontrolled, the consumption of energy per product was high, while the environmental impact was not measured. Thus, large quantities of waste are generated which is inadequately treated and delayed. Environmental investment decisions were left for some other time, while environmental pressure increased with large amounts of garbage that remained at the local level and within the ranks of companies that went bankrupt. As a result of the long-running economy based on linear economy, North Macedonia now has about 1,000 municipal "dumps", especially in rural areas, which are not recorded and 43 active landfills with a total area of about 2,433 (1000 m2).[5] From total generated waste (694 kg/par capita), in 2016, treated waste is only 4 (kg/per capita), or 0.6%, is treated waste.

In the near future, growth in resource prices, growth in energy costs, growth of population migration to cities is expected, and especially the deterioration of the climate conditions in the region and North Macedonia.

The economy of developed European countries is increasingly drifting away from the model of linear economy and transits to a circular economy, which is based on the product-waste-product model. The concept of circular economy implies the use of resources in production in a way that prolongs the value of products and services, reduces the level of waste material that has never been reused, has increased resource utilization, and at the end of the usege of products and services they are returned to the production process to create a new value.

[5] State Statistical Office, "Environmental Statistics, 2017", Skopje, State Statistical Office, 2017, p.57.

Circular economy is a measure for the realization of the goals of sustainable development and it entails long-term investment in resource and energy efficiency, sent by reducing harmful emissions, replacing fossil fuels with renewable sources and producing and trading with sustainable "green" products, thus closing the "product-waste-product" circle. The main source of economic growth is the increased reuse of material from products that have completed their "life cycle" and the less use of new resources. This model promotes not thinking about waste but about the product, i.e., how they are designed, how recyclable they are, how they are produced, and how friendly they are to the environment. The products should be so designed that they can be easily reused, disassembled, repaired, or recycled. In this production, renewable energy sources are used.

North Macedonia with the model of circular economy could get a chance for sustainable development, a "green economy", environmental protection, a new quality of life. The circular economy offers the opportunity for a more sustainable and more competitive economy, which brings benefits such as: more innovative and more efficient ways of production and consumption; protecting businesses from lack of resources and unstable prices; opportunities for local jobs and social integration; optimization of waste management, which increases recycling and reduces landfill disposal; energy savings, because fewer production processes require less energy; environmental benefits in terms of climate and biodiversity, air pollution, soil and water.

3. RESOURCE EFFICIENCY, CHALLENGES AND OPPORTUNITIES

Resource supply is limited, and reserves of natural resources are constantly decreasing. Increased global demand increases the pressure on the environment, and competition for many resources also increases. Many natural resources are fundamental to our health, well-being and quality of life, so it is necessary to respect the natural limitations of the planet.

The effectiveness of resources involves the use of limited resources on Earth in a sustainable way. We depend on natural resources - metals, minerals, fuels, water, soil, trees, fertile soil, clean air and biodiversity - for our survival. They all represent vital inputs that maintain the economy.

Increased resource efficiency is key to securing growth and jobs. It brings great economic opportunities, reduces costs and increases competitiveness. Therefore, new ways should be found in all the steps on the chain of value:

to improve resource management, reduce investment, optimize production processes, management and business methods, improve logistics, change consumerism models and minimize waste. New products and services need to be developed.

Efficiency of resources will help stimulate technological innovation, increase employment in the green technology sector with rapid development, open up new export markets and use consumption through more sustainable products.

In the EU, resource efficiency research[6] has been done covering small and medium sized enterprises in the EU28 and other countries, including North Macedonia. Small and medium sized enterprises in the EU28 count more than 20 million and account for 99% of business entities in European business and absorb more than two-thirds of their employment. Such a structure of business entities is characteristic of North Macedonia, that is, in 2017 small and medium enterprises are represented by 99.7% of the business structure.[7]

In the Survey,[8] at the level of the EU28, the most common stock for the efficient use of resources taken by small and medium sized enterprises is by minimizing waste (65%), energy saving (63%), saving materials (57%), saving water (47%) and recycling by reuse of material or waste in their company (42%).

In North Macedonia, the most common actions for efficient use of resources are activities that are carried out by minimizing waste (20%), energy saving (22%), saving materials (26%), saving water (14%) and recycling with reuse of material or waste in their company (13%). And in the next two years, in North Macedonia, activities are planned for resource efficiency by minimizing waste (19%), energy saving (29%), saving materials (25%), saving water (16%), recycling by reusing material or waste in their company (16%), designing products that are easier to maintain, repair or reuse (6%), selling their own waste to another company (12%), mostly using renewable energy (for example, own production through solar panels, etc.) (4%).

6 European Commission: Flash Eurobarometer 456-SMEs, resource efficiency and green markets, European Union, January 2018.

7 State Statistical Office: Number of active business entities, 2017, Announcement-number / No: 6.1.18.14 from 23.03.2018.

8 European Commission: Flash Eurobarometer 456-SMEs, op.cit., pp.97-156.

For the complexity of the administrative or legal procedures, as the difficulties encountered by companies when trying to establish actions for efficient use of resources, in the EU 28, 33% of the companies consider it, and in North Macedonia 32% of the companies.

In terms of environmental action costs, 24% in the EU 28 were reported as difficulties in resource efficiency, and 15% in North Macedonia. As difficulties in resource efficiency, 22% of EU companies see an adjustment to environmental legislation, and in North Macedonia, this is 30% of companies. Regarding the updated technical requirements of the legislation, 20% of the companies declared themselves as difficulties in resource efficiency, and in North Macedonia 11% of the companies. Regarding the lack of specific ecological expertise, as the difficulties encountered by companies when trying to establish actions for efficient use of resources, at the level of the EU28, 20% of companies declared themselves, while in North Macedonia, 14% from companies. Regarding the difficulties in choosing the appropriate actions for resource efficiency in the company, at the level of the EU28, 20% of the companies declared themselves, and 18% of the companies stated in North Macedonia. As a lack of demand for efficient products and services in the EU28, 17% of the companies declared themselves, and 18% of the companies said that in North Macedonia about it. As a result of the lack of procurement of the necessary materials, parts, products or services at the level of the EU28, 14% of the companies stated, and 22% of the companies stated in North Macedonia.

In North Macedonia, most of the companies (53%) believe that the actions taken for efficient use of resources have slightly reduced the production costs over the past two years, and the same opinion is shared by most of the companies in the EU28 (37%). In the EU 28, the largest percentage (55%) of companies reported that over the past two years, for more efficient resources, they invested 1% or less on average annually, and in North Macedonia, the largest percentage (36%) of the companies reported that they invested from 1 to 5% or less on average per year.

In the EU28, most companies (60%) in their efforts for a more efficient resource rely on their own funds, and in North Macedonia, even 86% of the companies share the same opinion.

Grants and subsidies are considered as the best form of assistance to improve the efficiency of the resources of the largest percentage of companies in the EU28 (36%), and in North Macedonia, this opinion is shared by also most of the companies (41%).

Green products and services are those with a dominant function of reducing environmental risk and minimizing pollution and resources. The majority of European small and medium-sized enterprises (63%) do not currently offer green products or services and do not have a plan to do so, and in North Macedonia this percentage is even higher, accounting for 76% of small and medium sized enterprises.

Conclusion

Transition from linear to circular economy will enable the reduction of pollution of the environment and responsible management of resources that gives a better quality of life and a secure future. Circular economy represents an opportunity for contributing to sustainable development in North Macedonia. It achieves greater competitiveness of the economy and creation of new jobs. The circular economy requires the application of new technologies and modernization of society, increased participation of all, changing the awareness and habits, but also the business model.

Recycling and waste treatment are the first major step in changing the way of thinking of businessmen and the overall cultural orientation of society.

The perceptions of the situation regarding the resource efficiency in North Macedonia only confirm the need to adopt a strategy for the implementation of the circular economy or at least special programs or transitional projects for transition to a circular economy. These documents should include measures and activities that take into account the expressed attitudes and needs of small and medium sized enterprises as a pillar of economic activities in North Macedonia. In particular, good European practice regarding waste minimization activities, energy saving, material saving, water saving, recycling with reusege of material or waste in the company itself, designing products that are easier to maintain, repair or reuse, the sale of one's own waste to another company, mostly the use of renewable energy (for example, own production through solar panels, and the like). Bearing in mind the fact that even 86% of companies, in their efforts for a more efficient resource, rely on their own financial resources and, with this effect, the cost of production is slightly reduced, it is necessary to support resource efficiency activities through the grants allocation system and subsidies.

Regarding the complexity of administrative or legal procedures, such as the difficulties encountered by companies when trying to establish actions for the efficient use of resources, they need to be revised in order to facilitate and

adapt to the actual conditions and needs. In terms of difficulties in implementing legal solutions, lack of specific environmental expertise, difficulties in selecting appropriate actions for the efficiency of the company's resources, lack of demand for efficient products, provide consulting opportunities through appropriate state support and assistance.

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Original scientific paper

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IMPORTANCE OF THE AGRICULTURAL SECTOR FOR THE ECONOMIC DEVELOPMENT OF THE REPUBLIC OF NORTH MACEDONIA

Abstract

This paper analyse the role and importance of the agricultural sector for the economic development of the Republic of North Macedonia. The focus of the research is on the indicators that present the agricultural sector as real GDP and gross added value in the agricultural sector in the Republic of North Macedonia, for the period from 2000 to 2016.

General conclusion is that GDP growth in the Republic of North Macedonia in the analysed period arise from the household production and gross investment. Also, agriculture is one of the four dominant sectors beside trade, industry and construction that contribute to economic growth in the Republic of North Macedonia. The share of the agriculture, forestry and fishing sector in the real GDP in the Republic of North Macedonia is around 13%. The largest contribution from agriculture to the GDP of the Republic of North Macedonia arise from the Southeast, Pelagonia and Polog region. Therefore, measures and activities for stimulating economic growth should mostly be directed towards these regions. The relative share of the gross value added of agricultural production in the Republic of North Macedonia is around 10% of GDP and it considered to be important sector for economic development.

Keywords: agricultural sector, real GDP, gross added value, Republic of North Macedonia
JEL Classification: Q1, E01, O18

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Introduction

Agro-complex is the basic sector for the development of economies. Only agricultural sector provides food for people and material means of subsistence. Therefore, agricultural sector has significant role and importance primarily for survival and provision of living conditions, but also a major role in the future development of the economy. Agriculture is a sector that produces raw materials for the development of the processing and service industries. History confirms that the development of agriculture, also the increase in productivity in agriculture is the essential condition that drives economic development. Lessons from the developed economies confirm that the transformation of the agricultural sector is a necessary condition for moving towards greater industrialization.

The role and importance of agriculture for the economic development is perceived in several ways:

- Provides food for people, as well as materials and raw materials for the processing sector and other sectors in the economy;
- Food production and agricultural products, as well as raw materials and materials for the processing industry, increase the GDP of the economy and contribute to economic growth;
- Employs and hires low-skilled labour, as well as highly educated workers, enables the employment and involvement of the local rural population;
- Satisfying the needs of the people engaged in the agricultural sector, create a new one and increase the aggregate demand for goods and services in the economy;
- The realization of sales revenues, as well as wages and salaries of the employees in the agricultural sector create new savings and increase the total savings in the economy;
- Export of agricultural products provides inflow of foreign currency for the economy.

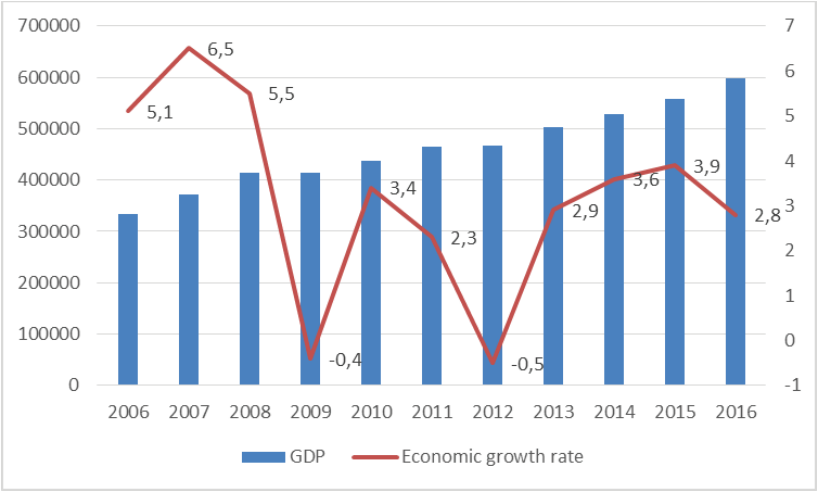
The role of the agricultural sector, in this paper, can be seen through the contribution to the real GDP, especially the value added. The importance of the agricultural sector can be set to a higher level in accordance to its potential. The essential precondition is the transformation of the traditional way of agricultural production and its modernization, which will increase the productivity using the potential capacities.

1. IMPACT OF THE AGRICULTURAL SECTOR ON THE GDP IN THE REPUBLIC OF NORTH MACEDONIA

Gross domestic product is the basic indicator of the economic development. The importance of the agricultural sector for the economic development is measurable and analyzed through the share of the agricultural production in the creation of the real GDP. The analysis incorporate the review of the real GDP and the economic growth rate, covering the period of 2006 to 2016. Also, the analysis cover the review of the share of agriculture in GDP in the Republic of North Macedonia and by the eight regions.

Gross domestic product in million euro, starting from 2013 to 2015, shows a slight increase. The economic growth rate in the analysed period shows cyclical oscillations. Thus, the highest level of 6.5% was realized in 2007 and in the next two years it declined. In 2008, the economic growth rate was 5.5%, while the biggest drop was recorded in 2009, leading to a negative economic growth rate of -0.4%. The decline was a consequence of the great global financial and economic crisis that began in 2008 in the United States and soon spread to the European Union, with repercussions affecting almost all economies in the world.

Figure 1 GDP and economic growth rate in the Republic of North Macedonia, 2000-2016

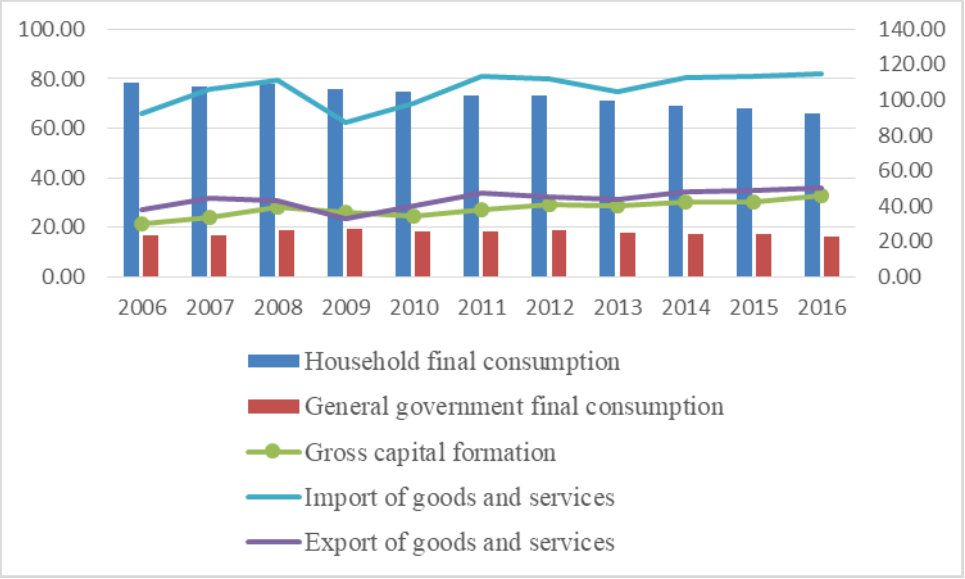


Source: *State statistical office of the Republic of North Macedonia, Statistical review: National economy and finances, No. 3.4.11.01/677 (2009); 3.4.13.02/740 (2011); 3.4.16.09/860 (2014), News Release No. 3.1.16.05 from 30.9.2016 and No. 3.1.17.05 from 29.09.2017*

The stabilization of the crisis in the following years result in positive changes in the economic growth rate, that in 2010 amounted to 3.4% and in 2011 it was reduced to 2.3%. Negative economic growth of -0.5% was realized in 2012. Positive changes in the rate of economic growth, are present in 2013 (2.9%) and 2014 (3.6%). In 2015, the economic growth is 3.9%, while in 2016 it is evident that the decrease is 2.8%.

Expenditure method of the GDP analysis refers to data on final consumption (government and household consumption), the state of gross investment and foreign trade. The trend line of exports and imports of goods and services is rather symmetrical. Export of goods and services is at a lower level (from 37.8% in 2006 and 49.97% in 2016 as % of GDP, in contrast to import from 54.8% to 66.84% of GDP).

Figure 2 Structural participation of the GDP components according the expenditure method, in the Republic of North Macedonia, 2006-2016



Source: *State statistical office of the Republic of North Macedonia, webpage, http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat__BDP__BDPInves-Godisni__BDPsporedESS2010/325_NacSmA_Mk_06cM2_mk.px/table/tableView-Layout2/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef, (last approached on 15.08.2018)*

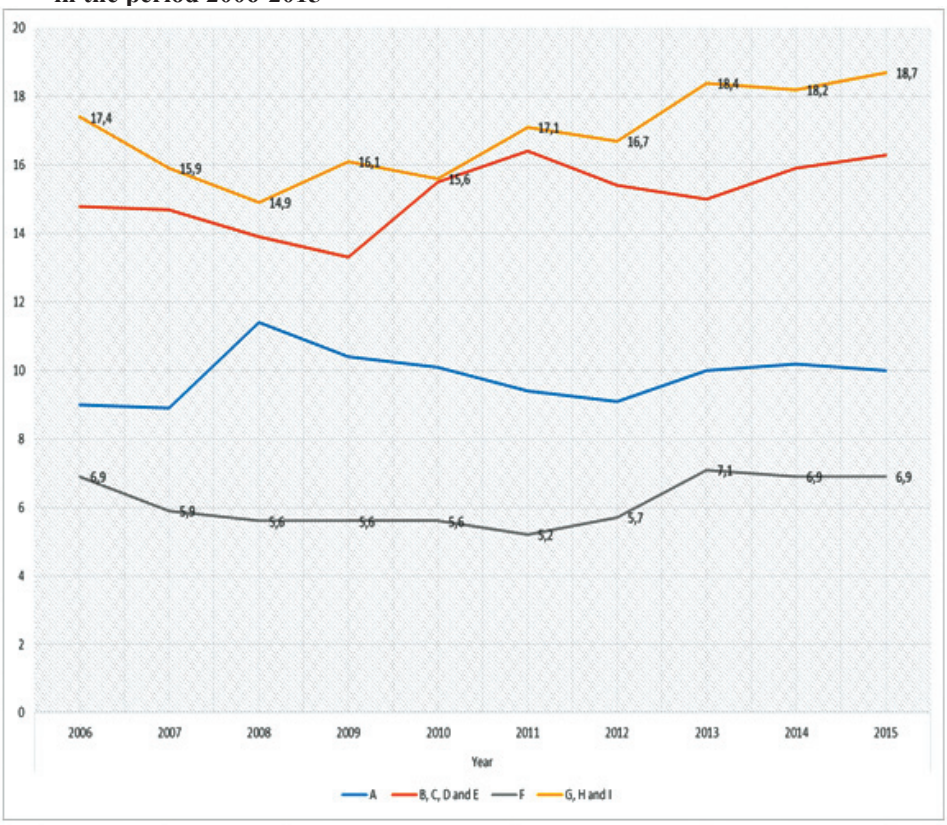
Increased gross investment (26.9% in 2011 and 32.59% in 2016) in the period after the global crisis primarily is a result of increased activity in the construction. This includes capital investment in the public sector such as construction of infrastructure facilities, investments in free economic zones, reconstruction of the transport network in the country, as well as realization of projects for improvement of the energy and communal infrastructure, improvement of the conditions of the educational, social and health system.

Clearly visible is the large share of household consumption, and much less the share of government spending. Although a slight decrease in the share of household final consumption is noticed during the entire analyzed period, it does not cause an increase in government consumption. On the contrary, it ranges around 17% of GDP. Accordingly, the conclusion from the data presented for the share in GDP is that the economic growth is the result of the current consumption of households and gross investments. Household consumption by definition, is the amount of the final consumption expenditure made by resident households to meet their everyday needs, such as: food, clothing, housing (rent), energy, transport, durable goods (notably, cars), health cost, leisure and services.[1] Therefore, the consumption of household is one of the key engine that drives economic growth and the agricultural sector with food production and agricultural products, as well as raw materials and materials for the processing industry, are the essential for the economy and economic growth.

The structure of GDP by sectors gives an overview of the contribution of each sector in the economy. The agriculture sector includes the production of forestry and fishing. That is why, in the analysis, should always be taken into account that this data refers to the total annual production of agriculture, forestry and fishing. The share of the agriculture, forestry and fishing sector in the real GDP in the Republic of North Macedonia is around 13%. Participation changes are shown in the following figure.

[1] Household accounting, household spending – OECD data, https://data.oecd.org/hha/household-spending.htm

Figure 3 Share of the dominant sector in GDP in Republic of North Macedonia in the period 2006-2015



Note: A - Agriculture, forestry and fisheries; B, C, D and D - Mining and quarrying, manufacturing industry, Electricity, gas, steam and air conditioning supply, Water supply, waste water disposal, waste management and environmental remediation activities; F - Construction; E, F and Z - Wholesale and retail trade, repair of motor vehicles and motorcycles, Transport and storage, Accommodation and food service activities.

Source: *State statistical office of the Republic of North Macedonia, webpage, http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat__BDP__BDPInves-Godisni__BDPsporedESS2010/375_NacSmA_Mk_09p2a_01mk.px/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef, (last approached on 10.8.2018)*

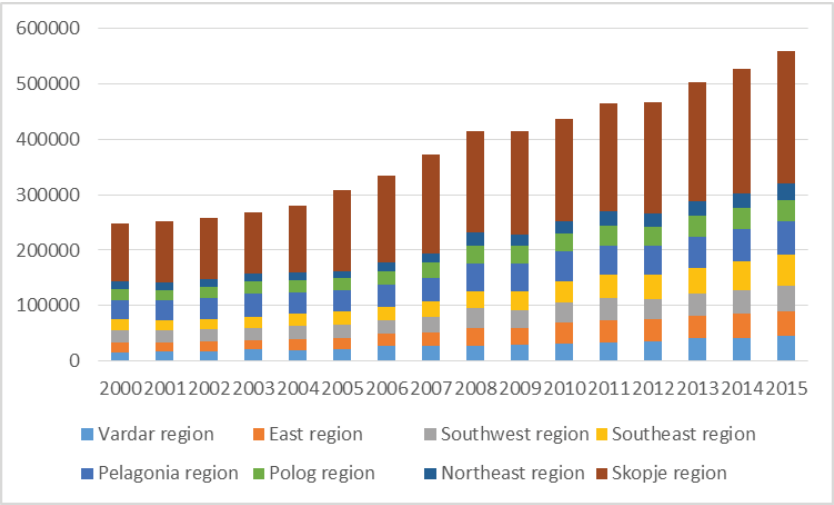
Agriculture is one of the four dominant sectors that contribute to economic growth in the Republic of North Macedonia. According to the data on the participation of the sectors in the GDP in the Republic of North Macedonia, the largest share has the wholesale and retail trade, the processing industry and the construction industry. An important contribution to the economic growth in the Republic of North Macedonia in the analyzed period is the growth of construction and wholesale and retail trade.

2. GDP AND AGRICULTURAL SECTOR IN THE REPUBLIC OF NORTH MACEDONIA, BY REGIONS

Another aspects of analysis in this paper is the regional economic development. Therefore, it is considered the real GDP that is realized in the eight territorial regions in the Republic of North Macedonia (Vardar, East, Southwest, Southeast, Pelagonia, Polog, Northeast and Skopje region). Real GDP expressed in millions of denars in the regions is shown in Figure no. 4.

Planning regions differ according to their basic characteristics. The largest region by area, the Pelagonia region has the most populated areas, but it is characterized by low population density (50 citizens per km²). While, otherwise the smallest Skopje region has an extremely densely populated area (319 citizens per km²). Rural municipalities are present in all planning regions, but the largest part of the population lives in major urban centres, which indicates an uneven concentration of the population in the regions.

Figure 4 GDP in million denars by regions, in the period 2000-2015

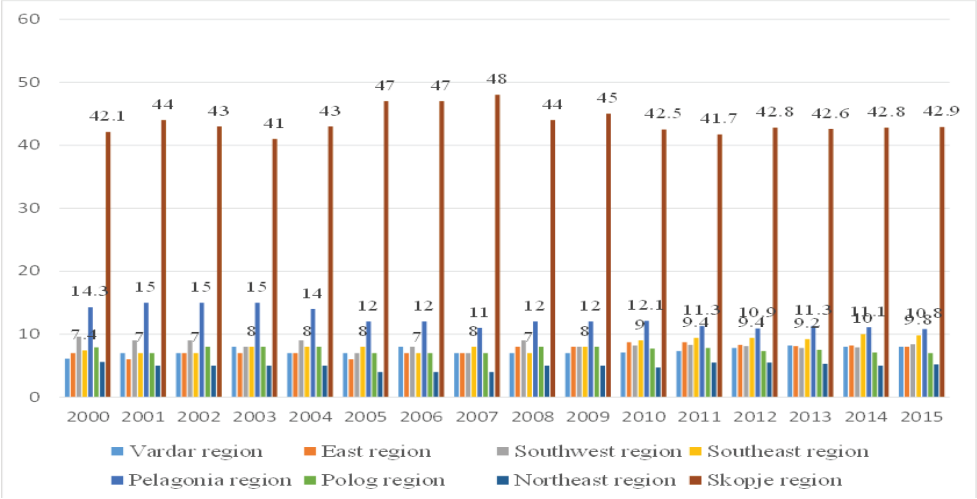


Source: *State statistical office of the Republic of North Macedonia*

According to the presented data, the highest GDP is realized in the region of Skopje and in the second largest, the Pelagonia region. In the period 2010-2015, there is an increase in real GDP in the South-East region. Thus, in 2000 in this region, GDP was realized in the amount of 18,328 million denars.

The trend of growth is present in all regions, but in the Southeast region the growth is most noticeable. In 2015, the real GDP in this region is 54.796 million denars. The GDP growth in the Pelagonia region is also evident. In 2000 the GDP in this region is 35,652 million denars, while in 2015, 60,293 million denars. "The Republic of North Macedonia has characteristics of a monocentric development model, with the Skopje region distinguishing itself as the core of development, while all other regions are far behind."[2]

Figure 5 Structural participation of the regions in the real GDP, in the Republic of North Macedonia, 2000-2015



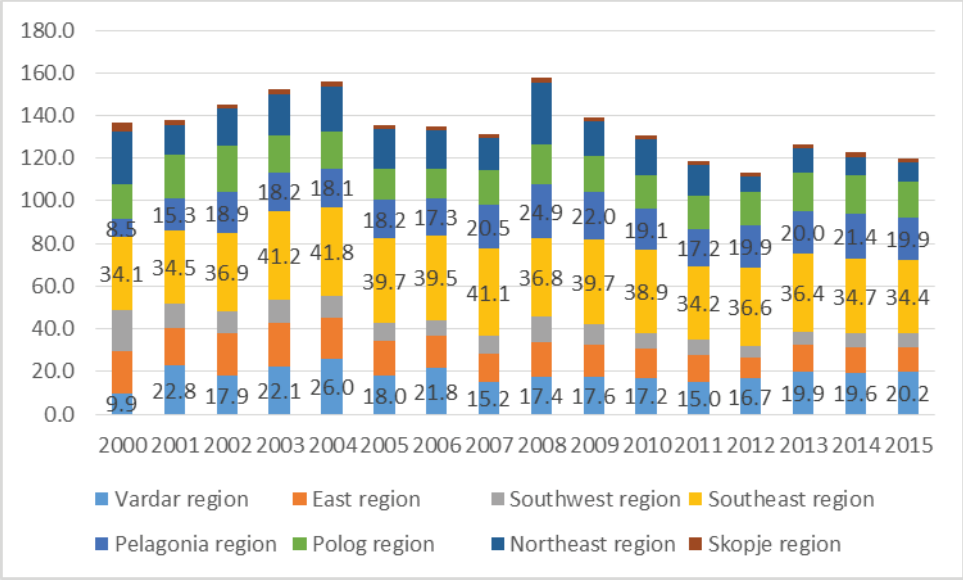
Source: *State statistical office of the Republic of North Macedonia, webpage, http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat__BDP__BDPInves-Godisni__BDPsporedESS2010/675_NacSmA_Reg_BDPreg_mk.px/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef (last approached on 10.8.2018)*

In this point of view the analysis is completed with the structural participation of the each region in the realized GDP in North Macedonia. The largest share, ranging from 41-48%, is present in the Skopje region, while the second region, with a size range of 10-15%, is the Pelagonia region. The share of the Southeast region ranges from 7-10%. This is also confirmed here by the increase in the realized GDP in this region in the period 2010-2015, when the Southeastern region's share in GDP is 9% in 2010, 9.4 in 2011, 10% in 2014 and 9.8% in 2015.

[2] Strategy for Regional Development of the Republic of Macedonia 2009-2019, Official Gazette of the Republic of Macedonia, No. 119, 30.9.2009, p. 22

The participation of the agriculture, forestry and fishing sector in the GDP realized in the regions of the Republic of North Macedonia shows interesting results. The largest share of agriculture in real GDP is realized by the South-East region and it ranges from 34.1% to 41.8%. The Pelagonia region realized about 20% of GDP, Vardar's about 17% and the Polog region (the lowest value of 14.2 in 2006, to 21.8 herbs in 2002).

Figure 6 Structural participation of the agriculture, forestry and fishing sector in the real GDP in the regions, 2000-2015



Source: *State statistical office of the Republic of North Macedonia, webpage, http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat__BDP__BDPInves-Godisni__BDPsporedESS2010/375_NacSmA_Mk_09p2a_01mk.px/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef,*

(last approached on 10.8.2018)

Different regions show separate specialization for certain agricultural products. In the Vardar region the most common is the production of cereals, fruit and grape production. In the East region, the most important crops are rice and potatoes. The potential for this production is huge in this region and it should be promoted. The Southwest region is specific by the fragmentation of the arable land, so it isn't suitable for intensive agricultural development. Therefore, it have potential for livestock and grape production.

Agricultural production in the Southeast and Pelagonia region is the most important. The production of the vegetables in Southeast region and the tobacco, cereals and grape production in the Pelagonia region have the potential to increase its production and also export. The Pelagonia region is recognized by its livestock, also production of milk and dairy products. The region of Polog is also familiar with livestock, which could be considered as comparative advantage of this region. Precondition for the intensive agricultural production in this region are not sufficient, but the production of specific product like beans, apple, lamp, yellow and white cheese are the important brand product for exporting promotion.

Extensive agricultural production is present in the Northeast region, but proceeds are negligible. The transition into organic agricultural production can increase the possibilities for development of the region. Certain potential for livestock and vegetable production development is also present in the Skopje region. The conditions for development of other agricultural branches are limited due to the high level of urbanization of the region.

Mainly, the largest share of GDP arises from the Skopje region. But contrary to this claim, evidence show that Skopje region has the lower share of agriculture. Measures and activities for stimulating economic growth should mostly be directed towards the Southeast, Pelagonia and Polog region. These regions in fact realize the largest contribution from agriculture to the GDP of the Republic of North Macedonia.

3. GROSS VALUE ADDED IN THE AGRICULTURAL SECTOR IN THE REPUBLIC OF NORTH MACEDONIA

Gross value added by definition is the value of output less the value of intermediate consumption, it is a measure of the contribution to GDP made by an individual producer, industry or sector. The importance of agriculture and the value added that is created in this sector is particularly important for economies such as the Republic of North Macedonia. In the study "Agricultural Value Added and Economic Growth in the European Union Accession Process"[3], an empirical study was carried out to confirm the impact

[3] Rahmiye Figen Ceylan, Burhan Özkan, Agricultural Value Added and Economic Growth in the European Union Accession Process, New Medit No. 4/2013

of agricultural production and added value and its particular importance for the countries with associative membership for the EU.

The study uses the Cobb-Douglas production function and by applying the Solow model, the impact of agricultural production in the Member States of the European Union and candidate countries for the Union in two periods: 1995-2007 and 2002-2007 is determined and measured.

The results of the survey show that GDP per capita is higher in EU countries compared to non-EU countries. The impact of the added value of agricultural production on per capita income is higher in the period from 2002-2007.Therefore, the established elasticity of the gross added value of the agricultural production of GDP per capita of 0.22 and with an estimated 1 point risk, can be reach the increase of 1% GDP per capita. The result confirms that the average per capita income is 5.6% among EU members. The positive effect of the EU membership is also present. That was evident for the countries from the Central and Eastern Europe that join the EU family in the previous period. One of the main factors explaining this condition is the effect of the free movement of goods, services, persons and capital, and the specific implementation provisions developed in accordance with these principles. Agriculture secures its importance in terms of contribution of the economy of both member and candidate countries of the European Union. The study confirms the positive effect of the added value of the agricultural production on GDP per capita, on the economic development in the global market and large economy. The positive impact of agricultural value added on per capita income, even when the new member countries has significant fundamental agricultural production and trade, considered that agriculture has to be an important sector.

In spite of it, this paper focuses on the gross value added of the agricultural production in the Republic of North Macedonia. The analyzed period is the same, from the 2006 – 2016. Figure 7 presents the date for the gross value added in the agriculture in the Republic of North Macedonia, and the evidence shows increase.

Figure 7 Gross value and gross added value of the agricultural production in the Republic of North Macedonia, 2000-2015 In million denars

Source: *State statistical office of the Republic of North Macedonia, webpage, http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat__BDP__BDPInves-Godisni__BDPsporedESS2010/725_NacSmA_Reg_BDVPoDejRev2Esa10_mk.px/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef (last approached on 10.8.2018)*

The amount of the gross value added in the 2000 is 25.105 million denars. This amount in 2015 has been more than twice increased and the realized value was 54.369 million denars. The absolute values of gross value added include and reflect changes and price impacts, but still the positive trend of increase in the production of agriculture, forestry and fishing sector is present.

Comparative analysis of the share of gross value added in agriculture with the Western Balkan and some selected European countries is good for benchmarking. [4]The relative share of the gross value added of agricultural production in the Republic of North Macedonia is around 10% of GDP. Even the data of the absolute values show increase, relative participation show constant value.

Data for the Albania's share are rank from 17% to 23%, in Serbia, where the gross added value of agricultural production of 18.34% of GDP in 2000 decreases each year and in 2016 recorded the lowest value of 6% of GDP.

[4] World Bank statistical database, webpage, https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?view=chart, (last approached on 14.08.2018)

In Turkey the share is also reduced from 10% (2000) to 6% of GDP (2016).The European average of the share of gross value added of agricultural production (2.12 in 2000 and 1.43 in 2017) and in the European countries is much lower.

CONCLUSION

The Republic of North Macedonia achieves positive economic growth. In the years after the global financial crisis from 2009 to 2016, it is primarily the result of the increase in gross investment in construction and final consumption of households. The agriculture, forestry and fishing sector accounts for around 13% of the GDP of the Republic of North Macedonia. The dominant sectors are wholesale and retail trade, manufacturing, construction and agriculture. According to relative participation, agricultural production can have a greater influence in the creation of GDP and to be an accelerator of economic development. Taking into account the percentage of created gross added value from agricultural production, with appropriate measures and activities of modernizing agricultural production and better placement of agricultural products, the possibility of achieving higher economic growth is increasing. Strategies for the development of the planning regions in the Republic of North Macedonia should focus on the application of measures that will stimulate agricultural production, especially in the Southeast, Pelagonia and Polog region, which until now record high participation of agricultural production in GDP.

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THE MAIN FEATURES ON THE EMERGED ASIAN FOREIGN EXCHANGE MARKETS

Abstract

Foreign exchange trading has long been concentrated in the financial centers as London, New York and Tokyo, but as major western markets face up with structural and macroeconomic challenges, especially with the latest world financial crises from 2007, turnover is beginning to shift to Singapore, Hong Kong and Shanghai, on the Asian markets. Many emerging market currencies in Asia showing strong fundamentals for growth, and some of the region's financial centers taking a more pragmatic approach to regulation, the region offers attractive opportunities for foreign exchange practitioners.

In this paper, we have done a more detailed analysis of the Asian foreign exchange centers, as Singapore, Hong Kong, China and Japan. The movement of their currencies and turnovers shows higher growth rates than the currencies of other regions after 2010, particularly true for The Japanese yen, the Chinese yuan, Singaporee's foreign exchange market, the largest market in Asia, Hong Kong, the largest financial centers in the world for high market performance and justify their growing importance in the global foreign exchange market.

Keywords: foreign exchange market; currencies; market turnovers
JEL Classification: G15

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Introduction

The foreign exchange market as one segment of the financial market is by far the largest and most liquid market in the world, with $5.1 trillion turnover each day, according to latest estimates[1]. But geo-political risks, low interest rates and structural change in the banking sector have put the brakes on the market's unstoppable growth trajectory and could bring further change in the distribution of foreign exchange turnover across products, counterparties and geographies in the years to come.

The 21st century is an era of currency wars, which have a major impact on the positioning of national economies in the global world. There is no choice of means and methods for world economies to dominate the world, in which key weapons are currencies. Thus, strong national currency policies modify the national and world foreign exchange markets and, among other factors, are the reason for the last global financial crisis.

Among the most significant changes is a potential shift of foreign exchange activity into Asia, the second financial part of the world foreign exchange markets. Financial centers including Tokyo, Hong Kong and Singapore have growing foreign exchange markets, but as traditional western financial centers have come under pressure from regulatory and macro-economic forces, firms are now preparing for movement in Asia-based trading and are looking at what they need to do in order to capitalize on this shift.

The turnover of Asian currencies kept pace with other currencies, and since 2010 shows higher growth rates than the currencies of other regions. This is particularly true for the Chinese yuan, which is currently on the list of ten most traded currencies in the world. It is characteristic that Asian currencies keep up the trend with respect to the exchange rate, but also in terms of their instability. The currencies of large-scale countries and better fundamentals tend to respond faster to newly emerging market conditions, unlike other currencies without these features, where more instabilities and decreases in their value were manifested. Despite the global financial crisis, deviations from real parity were minimal.

A common feature of Asian markets is the belief that they will have some development, the vulnerability will be present as to why regional currencies

[1] Triennial Central Bank Survey of foreign exchange and OTC derivatives markets in 2016, February 2018.

are a popular motive for the global trading strategy and other investment strategies, and all currencies quickly respond to the changes in the world's leading currency-dollar. It should be noted that the post-crisis period is characterized by reduced currency risk, primarily due to the general reduction of interest rates on a global level. This means that if monetary policies and economic performance are beginning to be dynamised more than now, currency risk and expected exchange rate movements can be restored.

In addition we will review the trends of some major Asian markets, such as the foreign exchange market in Singapore, Hong Kong, Japan and China.

1. SINGAPORE'S FOREIGN EXCHANGE MARKET

Singapore's foreign exchange market is a fast-growing market. It is the largest market in Asia and the third market in the world, after London and New York. Foreign exchange market in this country is of great importance due to its free-market economy that foreign exchange trading contributes to a large extent by maintaining a market balance. The exchange rate of the Singapore Dollar, which was introduced in 1967 and is exchangeable since 1973, is now fluctuating, which according to ISO 4217 Code is marked as SGD. Singapore exchange market is growing just because of the growing importance that receives the Singapore dollar on the world currency market, especially due to its increased level of liquidity. The monetary authority in Singapore is the main financial institution in Singapore. It is solely responsible for regulating the exchange rate of the Singapore Dollar.

According to the latest published data2, the average daily trading volume on Singapore's foreign exchange market in April 2018 was $ 523 billion, which is 8% more than the trade in October 2017. This expansion was driven by the rise of Asian currencies such as the Chinese yuan, Japanese yen and the Korean won.

The exchange rate in Singapore varies according to the exchange rate of the Singapore Dollar against other currencies in the world. The monetary authority in Singapore oversees the foreign exchange trading of financial institutions in Singapore.

[2] SURVEY OF SINGAPORE FOREIGN EXCHANGE VOLUME IN APRIL 2018, The Singapore Foreign Exchange Market Committee, 24th July 2018, accesible on the: http://www.sfemc.org

The main goal of the government is to maintain a stable financial structure in Singapore with the help of foreign currency devices and thus contribute to the growth of thenational economy.

The table no. 1 below gives the ratio of the Singapore dollar to other world currencies. The table shows that the Singapore dollar is more valuable than the world's leading currencies, such as the US, Canadian and Australian dollars, then the British pound, the euro, and the Swiss franc.

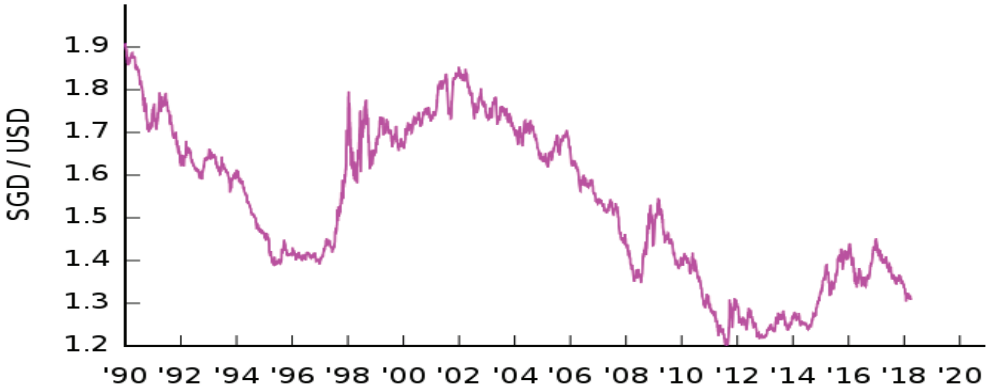
Table no. 1: Comparison of the Singapore Dollar against other world currencies, July 30, 2018

	1 SGD	in SGD
American Dollar	0.734062	1.362283
Brazilian Real	2,722651	0.367289
British Pound	0.559315	1,787902
Canadian Dollar	0.957178	1.044738
Chinese Yuan	5,007076	0.199717
Danish Krone	4,675291	0.215253
Euro	0.627612	1,593341
Hong Kong Dollar	5.761287	0.173572
Indian Rupee	50,399657	0.019841
Japanese Yen	81,515695	0.012268
Malaysian Ringgit	2.977657	0.335835
Australian Dollar	0.992231	1.007830
South Korean Won	820,441885	0.0012192
Swiss Franc	0.727681	1.374229
Canadian Dollar	0.957178	1.044738

Source:*Google finance, accessed on 30 july 2018.*

The next few charts presented historical relation to the US dollar, Japanese yen and euro.

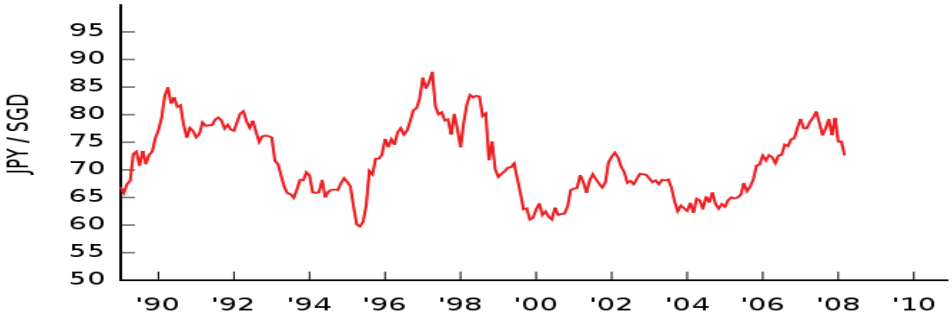
Chart no. 1: Ratio of the Singapore Dollar to the US Dollar, 1990 - 2018



Source: *http://www.federalreserve.gov/releases/H10/hist/*

From the charts 1, above and charts 2 and 3 below, we can see fluctuation and decline by 2015 contrary tree currencies and then reverse the growth trend. The decline is most pronounced in relation to the Euro, and then to the US dollar, while against the Japanese yen fluctuations are more moderate.

Chart no. 2: Ratio of the Singapore Dollar to the Japanese Yen, 1990 - 2010



Source: *http://www.boj.or.jp/type/stat/dlong/fin_stat/rate/index.htm#forex*

Chart no.3: Ratio of the Singapore Dollar to the Euro, 1999-2018

Source: http://www.boj.or.jp/type/stat/dlong/fin_stat/rate/index.htm#forex

From the chard it is obviously that the fluctuation in the said period is in the margins 1.4 to 2.2 EUR compared to the 1 Singapore dollar, which also coincides with the emergence and growth of the euro until the latest financial crisis, when it reached the peak of this currency, in order to followed by a continuous downward trend until 2015, when it returns to the lowest position, so that until 2017 there are mild fluctuations. As it is seen, that the latest trend is, however, rise against the euro.

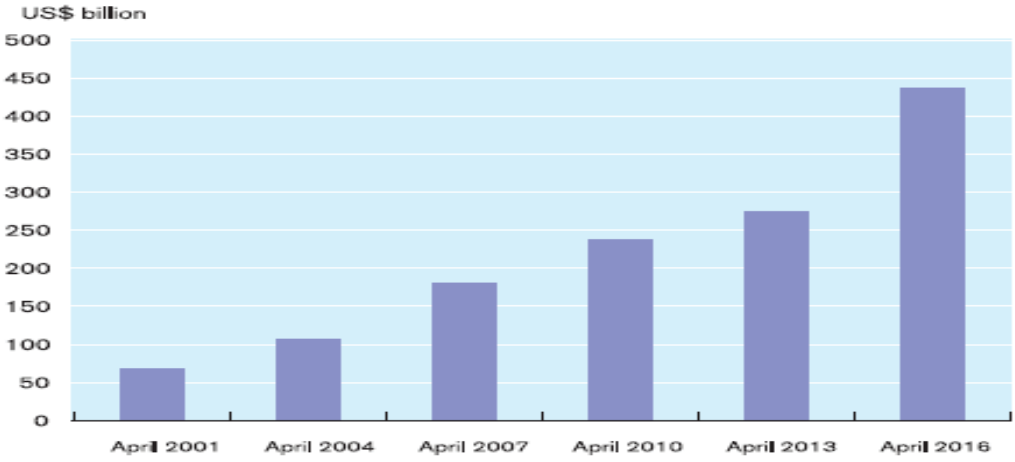
The Daily averages turnover of the Singapore's foreign exchange market was growing for tree times for the period of 1995-2016. Namely, from 107 billion USA in 1995, it is growth on 242 in 2007, on 266 in 2010, on 383 in 2013 and 517 in 2016[3].

2. HONG KONG'S FOREIGN EXCHANGE MARKET

Hong Kong's foreign exchange market is also one of the largest foreign exchange markets in the world, it ranks fourth in the world. According to the latest available data from the Basel Bank, as can be seen from Chart no. 4 below, this biggest shift (from 59%) was done in the last three years, when, at the same time, this foreign exchange market ranged from fifth to fourth place in the world. So the average turnover of the foreign exchange market in April 2016 amounted to 436 billion US dollars.

[3] Triennial Central Bank Survey of foreign exchange and OTC derivatives markets in 2016, February 2018.

Chart no. 4: Average daily turnover on the foreign exchange market in Hong Kong, April 2001 - 2016, in billions of US dollars



Source: *Triennial Central Bank Survey of foreign exchange and OTC derivatives markets in 2016, accessed on July 2018.*

As can be seen from Table no.2 below, the most traded currency in April 2016, with 96,8% is the US dollar. In terms of pair transactions, then it can be seen that trading is the largest, with 21.2% participation in total transactions, between the Japanese yen and the US dollar, it can also be noted that this share, compared to the previous three years has significantly increased (from 16.6% in the same period in 2013). Follow, pairs the US dollar and Asian currencies to fourth place, with 13.2%, slightly more than in the previous comparable period, being ranked trading between the US dollar and the euro.

Table no. 2: Average daily turnover in the Hong Kong foreign exchange market, in April 2013 - 2016, by currency pairs, in billions of US dollar

	Average daily turnover				
Currency pair	April 2016	Share (%)	April 2013	Share (%)	Change (%)
HKD / USD	53.8	12.3	47.3	17.2	13.7
HKD / RMB	0.7	0.2	0.5	0.2	52.8
of which: HKD / CNH	0.6	0.1	0.4	0.1	58.9
HKD / CNY	0.1	0.0	0.1	0.0	26.8
HKD / EUR	0.5	0.1	0.8	0.3	-42.1
HKD / JPY	0.3	0.1	0.4	0.1	-16.8
HKD / GBP	0.2	0.1	0.2	0.1	12.2
HKD / AUD	0.2	0.0	0.5	0.2	-56.4
HKD / CAD	0.1	0.0	0.1	0.0	26.7
HKD / Other	0.2	0.0	0.2	0.1	-5.0
Subtotal	*56.0*	*12.8*	*49.9*	*18.2*	*12.3*
USD / JPY	92.5	21.2	45.7	16.6	102.5
USD / RMB	76.0	17.4	48.6	17.7	56.2
of which: USD / CNH	67.1	15.4	30.6	11.1	119.6
USD / CNY	8.8	2.0	18.1	6.6	-51.0
USD / EUR	57.5	13.2	33.0	12.0	74.2
USD / AUD	31.7	7.3	20.8	7.6	52.5
USD / SGD	22.7	5.2	12.2	4.5	86.0
USD / GBP	20.9	4.8	15.0	5.4	39.8
USD / KRW	15.7	3.6	8.0	2.9	96.5
USD / NZD	11.1	2.5	5.9	2.2	87.9
USD / CAD	7.4	1.7	5.7	2.1	30.9
USD / TWD	6.9	1.6	4.6	1.7	49.4
USD / INR	5.5	1.3	3.5	1.3	58.0
USD / CHF	3.6	0.8	3.5	1.3	5.6
USD / Other	17.3	4.0	10.3	3.7	68.6
Subtotal	*368.9*	*84.5*	*216.7*	*78.9*	*70.2*
EUR / JPY	2.6	0.6	2.4	0.9	9.1
EUR / GBP	0.8	0.2	0.6	0.2	37.7
EUR / AUD	0.5	0.1	0.3	0.1	46.2
EUR / Other	2.0	0.5	0.9	0.3	116.9
Subtotal	*6.0*	*1.4*	*4.3*	*1.6*	*39.3*
JPY / AUD	1.6	0.4	1.4	0.5	11.3
JPY / CAD	0.2	0.1	0.0	0.0	458.6
JPY / NZD	0.2	0.0	0.1	0.0	112.0
JPY / Other	1.8	0.4	0.6	0.2	232.8
Subtotal	*3.8*	*0.9*	*2.1*	*0.8*	*83.1*
Other currency pairs	1.9	0.4	1.6	0.6	12.6
All currency pairs	436.6	100.0	274.6	100.0	59.0
Other OTC products	0.0001		0.0002		-53.0
Total foreign exchange transactions	436.6		274.6		59.0

Source: *Triennial Central Bank Survey of foreign exchange and OTC derivatives markets in 2016, accessed on July 2018.*

The country is one of the largest financial centers in the world for high market performance. This is recognized by the authorities in Hong Kong, but also in China and under the basic law of this country, this international financial status must be maintained.

The main arguments for high market performance are:

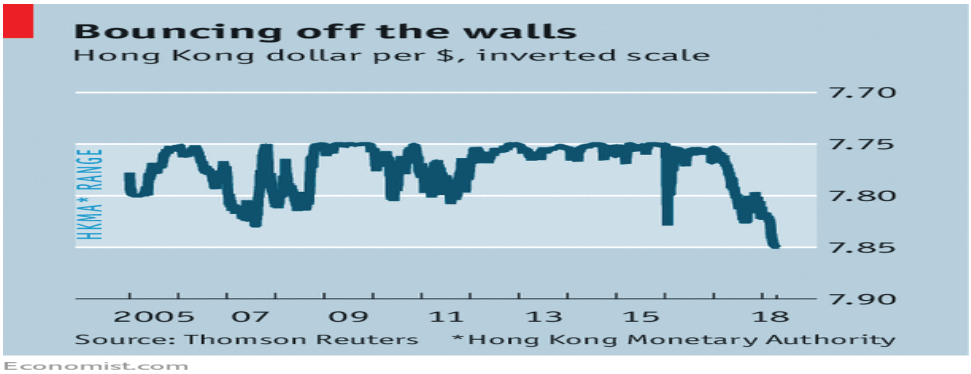
- Brilliant infrastructure;
- Political stability;
- Financial and trade relations with China;
- Free business environment;
- Lack of control over the foreign exchange market and over capital;
- Low operating costs;
- The whole country is an international financial center.
- Financial professionals in the country are very efficient and well trained.

Monetary authorities (**The Hong Kong Monetary Authority/HKMA**) recognize the need to maintain such conditions on the foreign exchange market. Behind the high growth rates in the foreign exchange market in Hong Kong stand:

- The volume of regional and international trade;
- The fact that the country is an international financial center;
- Derivative products;
- Speculative trading.

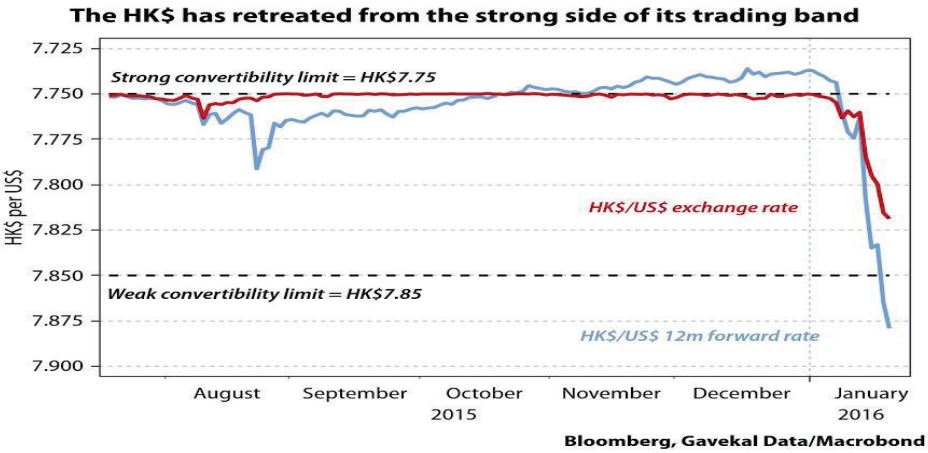
From the foregoing, it is evident that Hong Kong's foreign exchange market works exclusively on the principles of laissez-faire theory, which means that in the short and long term, the market itself is regulated by market trends despite frequent speculation. Pegged exchange rate regime (pegged to the US dollar at the level of 7.80 dollars for US $ 1 from October 1983) is followed in Hong Kong and it helps maintain the stability of the Hong Kong dollar. The stable exchange rate is a key factor in maintaining economic and political stability in the country.

Chart no. 5: Movement of the Hong Kong Dollar against the US Dollar, 2005 - 2018



It is best seen from charts no.5 and no.6 below, where the long and the short term is an evident trend of stable Hong Kong dollar against the US dollar within the set margins.

Chart no. 6: Movement of the Hong Kong Dollar against the US Dollar, 2015 – 2017



3. FOREIGN EXCHANGE MARKET IN CHINA

The next market in importance is the Chinese foreign exchange market. In short, the Forex market seems very important segment of the Chinese economy. The official currency is the Chinese Yuan / Renminbi Yuan, symbolized as

CNY. The exchange rate of the yuan depends on the relationship with other currencies. The regime of the exchange rate is fluctuating and depends on changes occurring in the international trade and commercial scenario.

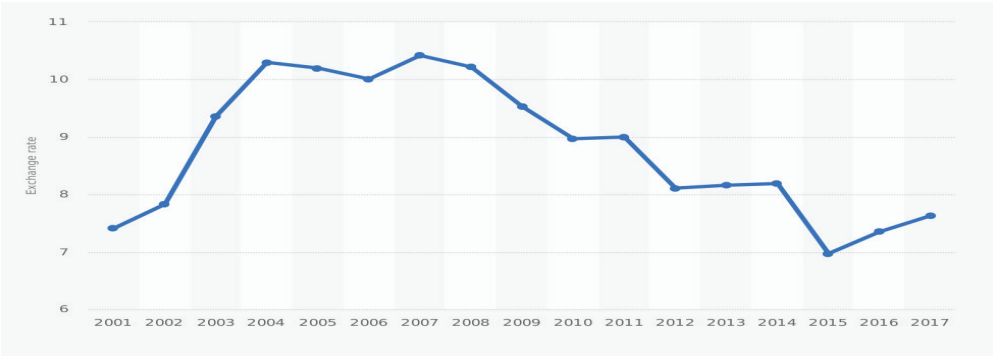
Otherwise, in order to influence the economic instability, China in 1995 fixed the exchange rate at the level of 8 yuan per 1 dollar and as such held the till July 2005, when liberalized monetary policy by introducing certain fluctuation margin, which over time widened (from the initial +/- 0.3% to +/- 2% in 2014). In 2015, China is taking further steps to fluctuate the yuan beyond these margins, which according to the monetary authorities is allowed, in order to take into account the effective impact on the market from the previous day. Thus, according to the current foreign exchange system, fluctuations of the yuan are allowed within the limits of +/- 2%, and official foreign exchange adjustments are made every day and are published in the Shanghai Foreign Exchange Center, every day at 9:15 am, local time[4].

It is known that China has made serious efforts to integrate into the global economy, first, by promoting the yuan to become an international reserve currency, similar to the dollar, the British pound, the euro and the Japanese yen, by requiring the yuan to be included in the basket of currencies that support the IMF's accounting currency - special drawing rights. Therefore, in December 2015, the IMF decided that it would do that and since October 2016, the Chinese yuan is part of the basket of currencies that support its currency - special drawing rights / SDR. However, the yuan is still far from being the world's leading currency, that is, the currency in which foreign reserves will be stored in many countries in the world, it is 8th in 2016, accounting for only 4% in the total volume of trading and although the strongest opponent, yet powerless to attack the absolute primacy of the US dollar.

The graphs below illustrate the movements of the Chinese yuan against the euro and against the US dollar. From them it can be seen that until the beginning of the crisis, in 2008, the euro is rising, but then the situation changes with the growth of the yuan by 2015, in order to show a slight tendency of growth since then, but on a lower level.

[4] http://www.safe.gov.cn/wps/portal/!ut/p/c4/04_SB8K8xLLM9MSSzPy8xB-z9CP0os3gPZxdnX293QwN_f0tXA08zR9PgYGd3Yx8fE_2CbEdFAM9sw9Y!/?WCM_GLOBAL_CONTEXT=/wps/wcm/connect/safe_web_store/state+administration+of+foreign+exchange/rules+and+regulations/126b7a00450008779a739bf683a4b761

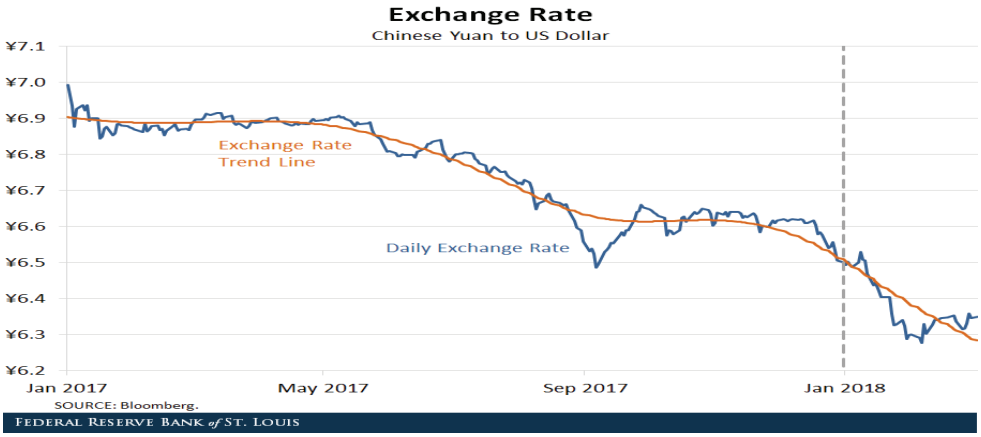
Chart no. 7: Movement of the euro against the yuan, 2001 - 2017



Source: *https://www.statista.com/statistics/412827/euro-to-yuan-average-annual-exchange-rate/*

On the other hand, in relation to the US dollar, in the last year, that is, from January 2017 to January 2018, it shows a declining trend, but in a narrow range, from 6.9 to 6.3 yuan per 1 US dollar.

Chart no. 8:The movement of the yuan against the US dollar, January, 2017 to 2018



Thus, with the growth of international trade in China, the yuan's trading on the world's foreign exchange markets is growing. The value of the yuan is determined by the Chinese Central Bank and depends on many factors. These are: the volume of trading in yuan, the supply of yuan in the foreign exchange market and numerous other factors.

Trading on the Chinese foreign exchange market is carried out by numerous banks and foreign exchange trading agencies. They offer excellent services customized according to customers and determine the exchange rate accordingly, but are generally competitive and cheaper. Trading is done electronically, thanks to that, it is traded 24 hours a day, all days of the week.

Otherwise, China maintains strict rules for individuals and banks with regard to the yuan exchange rate regime, therefore the currency is not considered fully convertible. Investors who sell dollars or other foreign currencies for the yuan must sell them directly to the Chinese Central Bank. It includes this in the country's gross foreign reserves and then prints local currency.[5] Gross foreign exchange reserves are used for interventions in the foreign exchange market. They are mostly in US dollars and in US government bonds. China, with around 1.25 trillion US dollars, is the largest single custodian of US government bonds.[6]

Table no. 3 below shows the current foreign currency exchange rates on the Chinese currency market. It can be seen that all major world currencies have an approximate identical exchange rate against the yuan, ranging from 1 British pound to 0, 07 yuan, to 1 New Zealand dollar by 0.17 yuan.

Table no. 3: Current exchange rates in China

Currency	Exchange Rate with Yuan
A$ (Australian Dollar)	0.15
C$ (Canadian Dollar)	0.14
Euro	0.10
NZ Dollar (New Zealand)	0.17
Sterling Pound (United Kingdom)	0.07
U.S. Dollar (United States)	0.13

Source:*World Finance, Foreign Exchange (Forex) Market, Foreign Exchange Market China, accessed on July 2018*

[5] When China opened the economy for foreign investors in the 1980s and 1990s, it began to accumulate large amounts of dollar reserves. It now holds the world's largest stock of reserves, which are accrued to the level of 3.2 billion US dollars, http://www.tradingeconomics.com/china/foreign-exchange-reserves.

[6] http://www.theepochtimes.com/n3/1976470-does-china-have-enough-reserves-to-defend-its-currency/

From the foregoing, it is evident that China leads a strong currency policy. According to some analyzes[7] have estimated that the yuan is undervalued by more than 10% in order to be cheaper in the foreign exchange market and thus further build China's competitive advantage, and it pledged to hold large amounts of US Treasury bonds.

4. FOREIGN EXCHANGE MARKET IN JAPAN

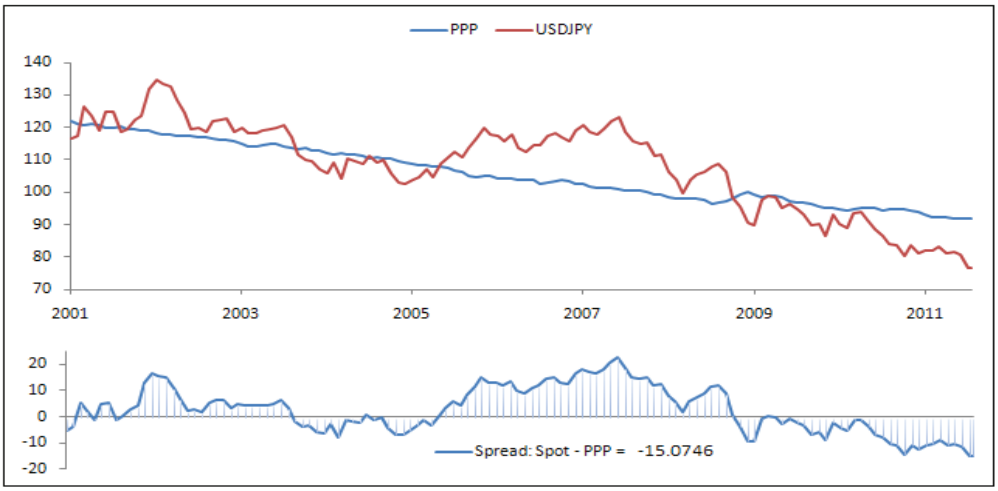
The Japanese yen is the official currency of Japan. According to ISO 4217 Code, the Japanese yen has JPY tags. It was introduced in 1871. The Japanese yen is the third traded currency on the world market in 2016, with a high share of 21.6%, following the US dollar and the euro. This currency is also widely used as a reserve currency after the dollar, the euro and the British pound.

The Japanese currency market is more prosperous day by day. It also provides tremendous support for the Japanese economy. The yen exchange rate is determined by the Bank of Japan, which is the main bank in Japan. It is also solely responsible for the issuance of Japanese money. The exchange rate is determined by the exchange rate of the yen against other world currencies. The Bank of Japan undertakes a number of activities in order to stabilize the Japanese foreign exchange market. There are numerous banks and foreign exchange trading agencies operating on the Japanese currency market.

In Japan, the fluctuating exchange rate was introduced in February 1973. Then, the foreign exchange market has experienced numerous ups and downs in terms of exchange rates. In order to annul the negative consequences of fluctuations, the Bank of Japan intervened many times without jeopardizing the growth of the market. Tokyo, the Japanese capital, is one of the three main world trade centers, in addition to London and New York. So far, the ratio between the US dollar and the Japanese yen is 1 dollar for 115.86 yen. But the actual fluctuations are illustrated in Chart no. 9.

[7] http://www.cnbc.com/2015/08/28/china-dumping-treasurys-heres-what-you-must-know.html

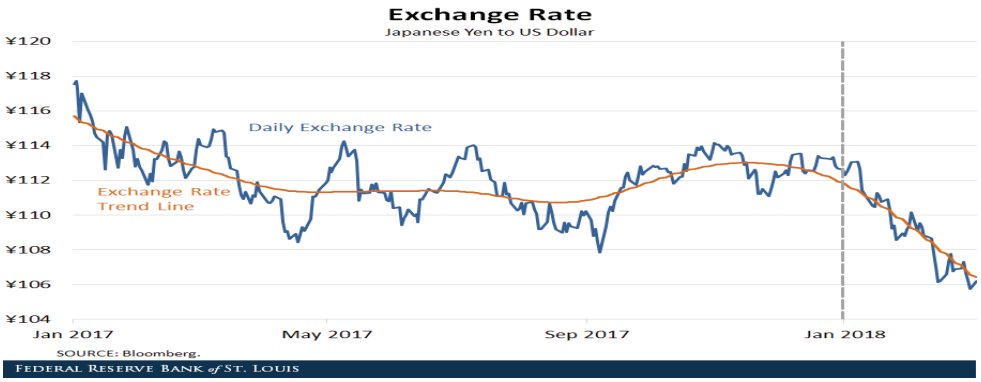
Chart no. 9: Movement of the US dollar against the Japanese yen, 2001-2011



Source: *USDJPY: US Dollar Japanese Yen Exchange Rate Forecast.*

On Chart no. 10 a more recent illustration is given of the movement between the Japanese yen and the US dollar. From the chart it is evident that in the last year there are fluctuations of around 112 yen per 1 dollar, with this year the trend goes down, below this value, to 106 yen per 1 dollar.

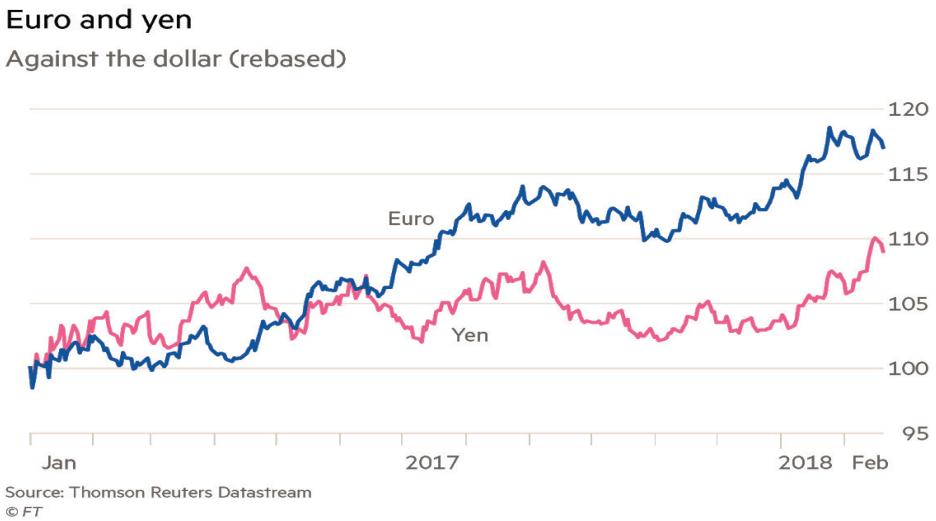
Chart no. 10: Movement of the Japanese yen and the US dollar, January 2017 – 2018



Source: *Federal Reserve Bank of St. Louis, Washington.*

The chart no.11 below illustrates the relationship between the euro and the Japanese yen against the US dollar, also in the last year from January 2017 to January 2018.

Chart no. 11: Movement of the euro and the yen against the US dollar, January, 2017 to 2018



Source:*Financial times, 4 August 2018.*

From the Chart it can be seen that in this one-year, recent period, the two currencies the euro and the yen have an identical trend against the US dollar.

Conclusion:

In this paper, we have explored the recent development and functioning of the foreign exchange markets in Asia. From the given analysis of the foreign exchange markets in Asia we can conclude that they are highly developed, with good infrastructure, have political stability, a free business environment, diversity in the supply of financial instruments and have low operational costs. Turnover for Asia currencies has kept pace and in many cases shown a higher rate of growth since 2010 than for currencies from other regions.

If we take into consideration that the European currency market is experiencing a decline in the value of the euro relative to the other major currencies (US dollar, Japanese yen), which is due to the emergence of the European debt crisis, the trend of market regulation discourages participants

from further trading and moving to other, more liberal markets and offshore destinations and probably London's leading position as the largest financial center with BREXIT is jeopardized, we can expect that Asian financial centers will still receive an even bigger place.

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Original scientific paper

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THE ROLE OF CENTRES FOR DEVELOPMENT OF PLANNING REGIONS IN IMPLEMENTATION OF POLICIES FOR BALANCED REGIONAL DEVELOPMENT IN REPUBLIC OF NORTH MACEDONIA

Abstract:

The central issue of this paper is the condition of regional economic development and entrepreneurship in the Republic of North Macedonia. The research is aimed at determining the current policies for regional economic development, implemented measures and forms for its support, achieved results from the created policies, etc. The Centers for Development of the Planning Regions are detected as main carriers of policy for achieving a balanced regional development on the territory of the Republic of North Macedonia. For that purpose, the focus of the research is to analyze the situation in these institutions, to assess the justification of their existence and to highlight the outcome of the implemented policies up to now. The conclusions are based on the primary data sources, which give a true insight into the work of the Centers and provide a solid basis for drawing conclusions about the justifications of their existence, the success of the implemented policies etc. They also give us a quantified insight into the benefits from existence of these institutions. The paper is important in many aspects. The data also provides opportunities for further research about the different level of the development achieved in the regions, the reasons for these differences etc.

Key words: entrepreneurship; economic development; regional development
JEL Classification: O1, O10, O18

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Introduction

For a realistic overview of the economy in the Republic of North Macedonia, the current state of the economy should not be consider separately from the historical context and the decisions made in the past. In this context, it is important to mention the decision from July 1, 2005, that initiate the decentralization process when local authorities committed themselves to mobilizing local resources and took responsibility for managing local economic development. Local authorities and the business community are those who need to commit themselves to gather local capacities, resources, research etc., and address problems in a more comprehensive way.

In general, historical experiences regarding the role of local authorities in local development, confirm that the role of local governments in animation of entrepreneurial ideas and initiatives is crucial – *their organization, their staff capacity, their will to cope with administrative-bureaucratic procedures and obstacles, their consistency to realize local development plans and their entrepreneurial behavior.* It should be known that before starting the process of decentralization, the level of centralization of the finances in Republic of North Macedonia in the early transition years was exceptionally high (less than 2% of the total budget revenues were allocated to the municipalities). With the new territorial division and fiscal decentralization the situation has changed.

At the beginning, the decentralization process was not easy at all; the capacity to transform the municipalities was not satisfactory. The municipalities i.e. local governments neither organizational, nor technically were capable of initiating the local economic development process. For that purpose, it was necessary to reorganize, equip with personnel, invest in appropriate institutional support and other forms of support for the development of entrepreneurship, fostering partnership between enterprises etc.

Exactly in the implementation of the decentralization process, the municipalities recognize their role as carriers not only of their economic development, but in accordance with their competencies, they are elevated into an important subject in planning of the economic development of the country by strengthening the development of the regions.

Regional development is a new policy aimed at increasing the competitiveness and attractiveness of each region, by strengthening the capacities for planning and implementation of specific projects funded from the state budget, but also from other sources of funds.

The policy of balanced regional development can be presented as a new step in the decentralization process: expanding and deepening of decentralization process in order to achieve balanced and sustainable development of the whole territory of the Republic of North Macedonia using the method of polycentric development; reducing the disparities between and within the planning regions and raising the quality of life of all citizens; strengthening the innovation capacity of the regions, optimal use of natural resources, human capital and economic characteristics of different regions; preservation and development of special identity of the planning regions, as well as their affirmation; revitalization of villages; support of inter-municipal and cross-border cooperation, etc.[1]

It is important to mention that in the role of the biggest drivers of regional development, the Centers for Support of Regional Development appear. Their role and influence will be discussed in addition.

1. MEASURES FOR SUPPORT OF ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT - CENTERS FOR DEVELOPMENT OF PLANNING REGIONS

According to contemporary trends, the Republic of North Macedonia follows the experiences of other countries and has implemented a significant part of popular measures to support entrepreneurship and economic development. These are standard measures that have already been confirmed in the part of economic results. In this context, we will only inspect a few of them.

One of the competencies which The Law of Self-Government of the Republic of Macedonia defines for municipalities is that they are responsible for their local economic development, determining the development and structural priorities, supporting the development of small and medium enterprises and entrepreneurship, developing a local network of institutions and agencies for promoting the partnership etc.[2]With the help of UNDP throughout Macedonia, Local economic development offices (LEDs) have been opened in eight municipalities[3] with the main task of helping to build and implement economic policies. The role of the LED offices is most clearly

[1] Law of balanced regional development, (2007), Official Gazette of Republic of Macedonia, No 63

[2] Law of Local Self-government, (2002), Official Gazette of Republic of Macedonia, No 5

[3] Fiti T., Hadzi Vasileva-Markovska V., Bejtmen M., (2007) Entrepreneurship, Faculty of Economic, Skopje, p. 246

contained in projects for which they apply to various donor organizations. Furthermore, Business incubators were also established in the Republic of Macedonia. As institutions aimed at supporting new and still small companies they offer chipper services in order to reduce the business cost at the start-up phase.[4] The first five Business incubators were established in Stip, Prilep, Makedonska Kamenica, Delcevo and Krusevo. Until now, the YES incubator with a location in Skopje that is still working on projects for education and stimulation of entrepreneurship can be distinguished as a successful example.[5] Concerning cluster forms of association, the first specific steps for organized support of formal entrepreneurial networks in Macedonia were undertaken by USAID within the Macedonian Competitiveness Project (MCA). Its main activity was to promote and strengthen the five industrial clusters selected under this project: cluster for lamb and sheep cheese, tourism cluster, cluster for information and communication technologies, wine cluster and cluster for textiles.[6] Considering the fact that Republic of North Macedonia is characterized by a highly represented textile industry, and if we also take in consideration the companies of Foreign Investment from different industries, the rise of building industry in the last decade, the development of subcontracting by performing various subcontractor related activities with products, equipment and services by small business is a reality. In the area of stimulation and support of innovation in micro, small and medium enterprises The Fund for Innovation and Technology Development was established and it is still working. This Fund offers support to research on innovation development that will create new jobs and will contribute to economic growth and development, while improving the business environment to develop the competitiveness of companies.[7]

All this measures are aimed at supporting and stimulating economic activities both at state level, as well as local and regional level.

However, consideration should be given to the concept of economic development in Republic of North Macedonia, which provides division of the entire territory on regions. The concept of balanced regional development proved to be functional, and is maintained thanks to the Centers for Development of the Planning Regions established in each of the planning regions.

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[4] Pinson, L., Jimmet, J., Steps to small business start – up, Kaplan Publishing, 2006, p. 42

[5] http://www.yes.org.mk/Default.aspx?r=6&l=63&c=22

[6] Bezovski, Z., (2007), Entrepreneurial networks, "Entrepreneurship – problems, dilemmas and perspectives", Economics Institute, Skopje, p. 216

[7] http://www.fitr.mk/

Planning regions in The Republic of Macedonia were adopted in the Assembly of Republic of Macedonia on September 29, 2009. Officially, North Macedonia is divided on 8 (eight) planning regions, which serve for statistical, economic and administrative purposes. However, it should be known that besides regions, the first administrative divisions of North Macedonia are the municipalities.

According to the division of regions, The Republic of North Macedonia is composed of eight regions:

- Vardar Planning Region, which has 9 (nine) municipalities in his composition. The Center is based in Veles.
- Southwest Planning Region, which has 13 (thirteen) municipalities in his composition. The Center is based in Struga.
- Southeast Planning Region, which has 10 (ten) municipalities in his composition. The Center is based in Strumica.
- East Planning Region, which has 11 (eleven) municipalities in his composition. The Center is based in Stip.
- Pelagonia Planning Region, which has 9 (nine) municipalities in his composition. The Center is based in Bitola
- Polog Planning Region, which has 9 (nine) municipalities in his composition. The Center is based in Dzepciste.
- Northeast Planning Region, which has 6 (six) municipalities in his composition. The Center is based in Kumanovo.
- Skopje Planning Region, which has 17 (seventeen) municipalities plus the City of Skopje. The Center is based in Skopje.

The Centers for Support of the Planning Regions according to the Law on Balanced Regional Development have been established in order to support the regional economic development and to contribute to reducing the regional disparities. Their main task is strengthening the network capacities of the local and rural community, the business sector, stimulating the development on local and regional level, strengthening the principle of public-private partnership and raising the quality of life. They represent points in which policies for regional development are implemented, resulting from the close cooperation and coordination between central and local government.[8]

[8] http://brr.gov.mk/mk

2. IMPLEMENTING THE POLICY AT THE REGIONAL LEVEL

The regional institutions i.e. Centers for Development of the Planning Regions play an important role in the process of regional development in the Republic of North Macedonia. The Centers as main operational bodies responsible for implementing the policy of balanced regional development represent a fundamental link in the regional development processes in the country. Hence, this paper focuses at issues related to the current situation of the Centers for Regional Development.

According to the Law on Balanced Regional Development each of the Centers participate in the planning of the development at the level of planning region; the implementation of development projects; informing and coordinating the relevant factors for development; providing expert support of the municipalities, associations etc. in preparation of regional development projects; supporting the cooperation among municipalities; mobilizing financial resources from international funds and the European Union; promoting the development prospects of the planning region, supporting the competitiveness through active support of the private sector, and other activities aimed at supporting the development of the planning region.

The tasks of the Centers are clearly highly complex. On one hand, they are responsible for the planning the development activities at the regional level, i.e. preparation of Programmes for Regional Development, and on the other hand, they are responsible for preparation and implementation of all projects financed by different sources, but mostly from state Programmes for Balanced Regional Development . They are also responsible for fostering cooperation at the regional level, between municipalities and also between other stakeholders: the business community, NGOs, the scientific - research sector etc. The Ministry of Local Self-Government by amending the Law redefined much of the responsibilities of the Centres and also the manner of obtaining finances i.e. running costs (salaries) are not covered any longer, but the financial means by the MLSG and the municipalities are strictly provided for financing of activities of the CRDs. I.e. by signing of the Agreement, the activities of the CRPR are specifically stated and should be fulfilled in order to receive funding, therefore much of the responsibility for the success/ failure for development of the region will be transferred to the Centres. This also introduces a system for performance of the contractual activities which will be followed by the MLS and the municipalities on a quarterly basis.

Among other things, the Centres are allowed to charge a fee for managing external projects and management of projects financed through the MLS and BfRD which by now have not received compensation seeing that the way they were constituted they were treated as an "extended arm" of the BfRD and received 50% funding by the MLS. This Amendment aims, on one hand to put the Centres in a position where they would have minimum means of subsistence secured, and on the other hand to indirectly influence the way they contemplate their duties and obligations from which the region should gain. All stakeholders should perfectly understand their role in this policy and each of them should individually contribute to its implementation.

Ideally, the Centres would have to be responsible for the spreading and fostering of the regional culture in the regions, for building cooperation within and between regions in the country and beyond, to nourish the regional policy pathway thus leading the region towards innovation, research and development, and encouraging all possible forms of cooperation and association (clusters, public-private partnerships, etc.), the region to become an attractive place for investors, both domestic and foreign, and of course to apply for projects, as until now, but not to engage the entire workforce in projects as it is currently done.

In regards to the Policy for Balanced Regional Development, i.e. in terms of the overall system of balanced regional development, the Centres for Regional Development facilitate unified approach in the development, primarily in institutional sense, because they provide certain balancing of the differences regarding the level of development within the regions, i.e. overcoming the disparities in the municipal development, and above all their administrative capacities. The existence of identical structures in each of the planning regions is an essential pre-condition to foster a unified approach in the development.

In this context, the strengthening of Centres and ensuring their long-term sustainability is of utmost importance for the sustainability of the overall system for a balanced development of the North Macedonian regions, which do not have developed technological infrastructures nor possess highly specialized workforce and special skills.

The successful functioning of the Centres and the continuous strengthening of their capacities to mobilize financial resources, means paving the way for a more dynamic regional development.

3. METHODOLOGY

The analysis was prepared on the basis of data collected with respect to the operational costs of the Centres for development of the planning region (CRDs) and to the funding available for implemented projects.

Table 1: ***Operational costs of the Centres for development of the planning region (CRDs)***

Year 2017									
Region									
No	Operational costs	Sources and value of the finances (MKD)							Comment
		MLS (planned)	MLS (implemented)	Municipalities (planned)	Municipalities (implemented)	Other sources	Total (planned)	Total (implemented)	
1	Co-financing								
2	For implementation of projects								
Total									

The table for operational costs of the CRDs in 2017 required information about the amounts planned and received during 2017 from different sources of financing. The indicated sources of financing arise from Article 62 from the Law on balanced regional development, to which an additional column was added for other sources of financing.

Table 2: Implemented projects by the CRDs in 2017

Region									
No	Name of the project	Source and value of finances (MKD)							Comment
		MLS	Other ministries	BfRD	Donator	Municipalities	Other sources	Total	
1									
2									
Total									

This table asked information about implemented projects by the CRDs in 2017 with indication of their title and value. As possible sources of financing for the projects the following was given: Ministry of Local Self-government (MLS), the Bureau for Regional Development (BRD), Donors, Municipalities and other sources.

Both tables were sent to all 8 planning regions and data was filled in by the CRDs.

The collected information was analyzed for each of the regions separately, followed by a comparative analysis to determine differences between the regions.

The findings from 2017 were also compared to those of 2016. The cost effectiveness of the CRDs was also prepared by calculating the projects-operational costs ratio

4. ANALYSIS OF FINANCING OF THE CRDS

4.1. Operational costs

The presented figures arise from the date submitted by each of the 8 Centres for development of the planning region.

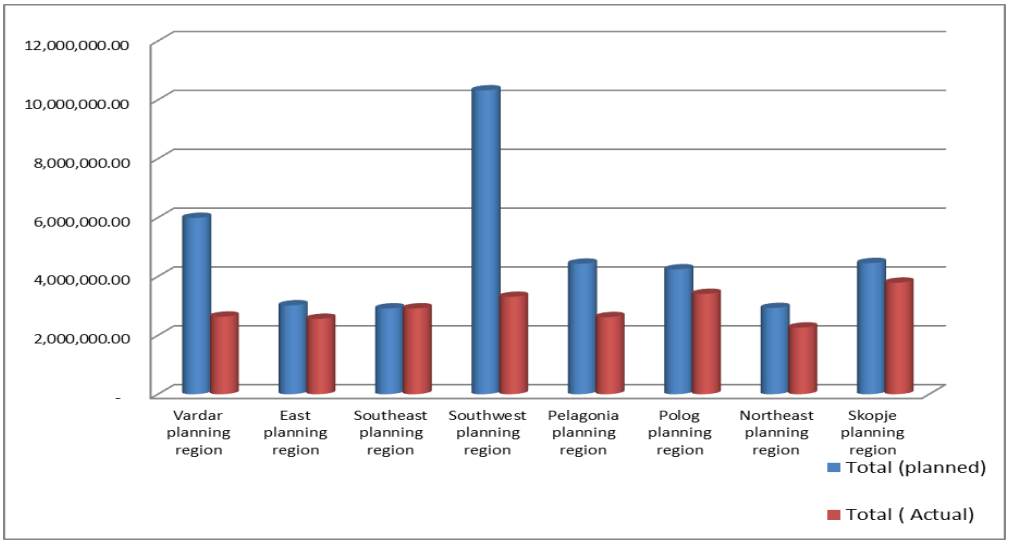
The total amount of funds received by the CRDs in all 8 planning regions for covering operational costs in 2017 is 23.495.962 MKD.

Table 3: ***Overview of assets for operational costs of the CRDs in 2017 (planned/ actual)***

Year 2017	Sources of finanace and budget						
Region							
	MLS (planned)	MLS (actual)	Municipalities (planned)	Municipalities (actual)	Other sources	Total (planned)	Total (Actual)
Vardar planning region	1,200,000.00	1,200,000.00	4,789,378.00	1,434,431.00	-	5,989,378.00	2,634,431.00
East planning region	1,200,000.00	1,200,000.00	1,818,580.00	1,361,035.00	-	3,018,580.00	2,561,035.00
Southeast planning region	1,200,000.00	1,200,000.00	1,714,160.00	1,714,160.00	-	2,914,160.00	2,914,160.00
Southwest planning region	1,200,000.00	1,200,000.00	9,121,891.00	2,109,119.00		10,321,891.00	3,309,119.00
Pelagonia planning region	1,600,000.00	1,600,000.00	2,832,220.00	1,019,230.00	-	4,432,220.00	2,619,230.00
Polog planning region	1,200,000.00	600,000.00	3,041,250.00	2,806,855.00		4,241,250.00	3,406,855.00
Northeast planning region	1,200,000.00	1,200,000.00	1,727,870.00	1,062,610.00		2,927,870.00	2,262,610.00
Skopje planning region	1,200,000.00	1,200,000.00	3,255,218.00	2,588,522.00		4,455,218.00	3,788,522.00
Total	10,000,000.00	9,400,000.00	28,300,567.00	14,095,962.00	-	38,300,567.00	23,495,962.00

Source: Own research

Graphic 1: *Overview of assets for operational costs of the CRDs in 2017 (planned/ actual)*



Source: Own research

The main sources of financing remain to be the MLS and the municipalities from the particular regions.

Considering that the municipalities are still the main financing source of the CRDs it is important to further analyze the received funds by each CRD. (The planned financing of the operational costs of the CRDs from the municipalities in each of the regions varies and it is determined by number of inhabitants in the region and the set amount per capita). The table above indicates the differences between the planned i.e. expected amounts from the municipalities and the funds received, shown in absolute amounts. While some of the CRDs have managed to receive 100% from the projected amount, such as in the case of South East planning region, others have marked much lower percentages (Graphic 1).

By following the CRDs in a longer period among the reasons for nonpayment from the municipalities the following can be noted: lack of interest and positive believe for the benefits of regional development by some municipalities, weak Regional Councils, blocked municipal accounts, different performance of the CRDs etc.

4.2. Implemented projects

In 2017 the CRDs of the 8 planning region have implemented a total of 70 projects, ranging from the lowest number of 2 projects in the Skopje region to 13 projects in the Vardar planning region. The total value of implemented projects in all 8 planning regions in 2017 is 399.676.635 MKD, ranging from the lowest value of 9.5169.852 in the Skopje planning region to 107.700.648 in the East planning region.

Table 4: ***Implemented projects in 2017***

Year 2017									
Region	No. of projects	Sources and budget for projects (MKD)							
Region	Број на проекти	MLS	Other ministries	BfRD	Donors	Municipalities	Other sources	Total	Total (EUR)
Vardar planning region	13	400,000.00	0.00	9,835,806.00	4,737,216.00	4,453,911.00	0.00	19,426,933.00	315,885
East planning region	10	360,000.00	19,394,994.00	11,215,653.00	70,276,567.00	6,453,434.80	0	107,700,648.80	1,751,230
Southeast planning region	11	1,152,838.82	0.00	14,307,217.00	3,076,254.67	18,304,184.00	43270153	80,110,647.49	1,302,612
Southwest planning region	4	7,867,524.00	3,590,000.00	9,075,508.00	1,008,864.00	1,798,987.00	0	23,340,883.00	379,527
Pelagonia planning region	9	0.00	50,000.00	12,481,161.00	32,948,250.00	6,869,877.00	0	52,349,288.00	851,208
Polog planning region	12	0.00	50,000.00	19,589,688.00	0.00	0.00	5,314,220.00	24,953,908.00	405,755
Northeast planning region	9	0.00	35,840,404.00	21,518,380.00	38,241,352.00	6,451,272.00	0	102,051,408.00	1,659,372
Skopje planning region	2	7,079,024.00	0.00	0.00	0.00	2,090,828.00	0	9,169,852.00	149,103
Total	70	16,459,386.82	58,925,398.00	88,187,607.00	145,551,287.67	41,968,582.80	48,584,373.00	399,676,635.29	6,498,807

Source: Own research

The graphics below show the total budget of implemented projects by each of the CRDs in the year 2017 and the main sources of financing. The leading CRD according to the value of implemented projects i.e. the CRD of the East PR is showing dominant financing by other donors, whereby the participation of the national funds for regional development distributed by the MLS/BRD have a small share.

It is obvious that the structure of financing of projects (investments through projects) in all 8 regions is very different. While the participation of financing of regional development through the central budget distributed

through the MLS/BRD in some regions participates with only 7% (East PR) in other regions such as Southwest it reaches 73%, becoming a dominate source of project financing. In the East, Northeast and Southeast planning region the donor financed projects and projects from other sources are highly notable.

The table 6 shows the implemented projects for the period 2009-2017 per year and per region and gives a cumulative overview of all regions per year for the given period.

5. COST EFFECTIVENESS OF CRDS

By using the data for operational cost of the CRDs and the data for implemented project, analysis can be made in terms of cost effectiveness by each of the CRD and cumulative for all planning regions for the period 2009-2017.

The Table 6 shows the ratio of implemented project and spent funds for operational costs of the CRDs from the 8 planning regions. The data is given per planning region and year, cumulative.

Table 5: Cost effectiveness of CRDs - projects/operational costs

	Ratio/Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total	Ranking
East	Finace for projects (MKD)	20,301,064.00	22,900,230.00	42,206,747.00	39,410,783.00	92,946,694.00	109,866,407.00	206,339,916.00	271,323,681.00	107,700,648.80	912,996,170.80	0
planning	Operat. Costs	2,760,106.00	2,410,987.00	3,217,508.00	3,584,148.00	3,543,000.00	3,593,129.00	2,603,580.00	2,524,070.00	2,561,035.00	26,797,563.00	0
region	Finance for project/oper. costs	7.36	9,5	13,1	11,0	26,2	30,6	79,3	107.49	42.1	34.1	1
Pelagonia	Finace for projects (MKD)	0	9,723,035.00	11,096,913.00	68,733,211.00	9,056,435.00	12,677,443.00	65,170,324.00	66,848,582.50	52,349,288.00	295,655,231.50	0
planning	Operat. Costs	0	1,019,329.00	2,481,547.00	3,139,868.00	2,710,465.00	3,836,255.00	5,593,103.00	3,429,790.00	2,619,230.00	24,829,587.00	0
region	Finance for project/oper. costs	0	9,5	4,5	21,9	3,3	3,3	11,7	19.49	20.0	11.9	4
Polog	Finace for projects (MKD)	0	18,583,511.00	10,458,936.00	2,050,460.00	6,228,558.00	41,347,361.00	18,812,165.00	71,239,895.00	24,953,908.00	193,674,794.00	0
planning	Operat. Costs	4079790	5488658	3608278	2,983,420.00	3,540,828.00	3,662,102.00	0	2,924,671.00	3,406,855.00	29,694,602.00	0
region	Finance for project/oper. costs	0,0	3,4	2,9	0,7	1,8	11,3	0	24.36	7.3	6.5	6
North east	Finace for projects (MKD)	-	27,379,486.00	22,978,030.00	2,784,400.00	9,410,519.00	42,419,906.00	77,595,594.00	35,532,234.00	102,051,408.00	320,151,577.00	0
planning	Operat. Costs	2,622,307.00	3,409,666.00	3,347,613.00	4,101,949.00	3,620,839.00	2,640,585.00	2,109,410.00	2,154,410.00	2,262,610.00	26,269,389.00	0
region	Finance for project/oper. costs	0	8,0	6,9	0,7	2,6	16,1	36,8	16.49	45.10340182	12.2	3
Skopje	Finace for projects (MKD)	9,290,139.00	1,163,800.00	5,858,339.00	4,853,907.00	6,078,188.00	18,148,801.00	8,408,319.00	9,591,450.00	9,169,852.00	72,562,795.00	0
planning	Operat. Costs	72,470.00	2,788,230.00	3,762,607.00	3,844,467.00	3,402,544.00	3,848,201.00	4,156,022.00	3,671,011.00	3,788,522.00	29,334,074.00	0
region	Finance for project/oper. costs	128,2	0,4	1,6	1,3	1,8	4,7	2,0	2.61	2.42042992	2.5	8
Southeast	Finace for projects (MKD)	20,293,990.00	20,018,714.00	5,375,082.00	33,006,214.00	22,340,838.00	38,368,660.00	44,854,946.00	116,902,075.00	80,110,647.49	381,271,166.49	0
planning	Operat. Costs	1,705,397.00	3,292,408.00	2,854,222.00	3,269,460.00	3,030,336.00	3,245,726.00	2,356,360.00	2,791,730.00	2,914,160.00	25,459,799.00	0
region	Finance for project/oper. costs	11,9	6,1	1,9	10,1	7,4	11,8	19,0	41.87	27.5	14.98	2
Southwest	Finace for projects (MKD)	300,000.00	5,491,371.00	11,201,568.00	2,383,740.00	9,902,855.00	14,110,543.00	21,102,767.00	33,277,803.00	23,340,883.00	121,111,530.00	0
planning	Operat. Costs	1,382,621.00	3,581,377.00	3,462,799.00	3,244,936.00	3,392,305.00	3,316,880.00	1,658,278.00	5,180,921.00	3,309,119.00	28,529,236.00	0
region	Finance for project/oper. costs	0,2	1,5	3,2	0,7	2,9	4,3	12,7	6.42	7.1	4.2	7
Vardar	Finace for projects (MKD)	8,981,755.00	60,000.00	4,914,405.00	4,384,785.00	5,601,008.00	14,138,892.00	56,262,170.00	38,739,694.00	19,426,933.00	152,509,642.00	0
planning	Operat. Costs	434,207.00	1,595,083.00	1,683,601.00	1,686,515.00	1,853,159.00	2,406,336.00	2,205,940.00	2,364,065.00	2,634,431.00	16,863,337.00	0
region	Finance for project/oper. costs	20,7	0,0	2,9	2,6	3,0	5,9	25,5	16.39	7.4	9.0	5

From the table, that shows the period 2009 – 2017, it can be noted that the most successful CRD from all 8 planning region is the CRD of the East PR, which has managed for every MKD spent for covering costs for its operations to secure 34,1 MKD investments in projects. This Centre is far ahead of the second best centre with achieved a ratio of 14,98 i.e. Southeast, followed by Northeast region with 12,2. Significantly lower are the ratios achieved by the Southwest region 4.2 and Skopje region with ration of 2.5.

For 2017, most successful CRDs from all 8 planning region is the Centre for development of the Northeast planning region, which has managed for every MKD spent for covering costs for its operations to secure 45,1 MKD investments in projects and Centre for development of the East planning region which has managed for every MKD spent for covering costs for its operations to secure 42,1 MKD.

Conclusions

On regional level Centers for Development of the Planning Regions play the most important role in the process of regional development in the Republic of North Macedonia, being main operational bodies responsible for implementing the policy of balanced regional development.

This analysis derives main conclusions from the findings from the two studied dimensions: operational costs and implemented projects, and their analysis based on the ratio of project costs and operational costs.

From the aspect of implemented projects, it is evident that the structure of project financing in all eight regions is very different. While some of the regions are still mainly focused on implementing projects financed by the central budgets via MLS/BRD, others have achieved significant results by utilizing other sources of financing, such as international donors and other national ministries.

The East, Southeast and Northeast planning region proved to be more successful in acquiring external funds and showed higher level of effectiveness in their implementation, compared to the rest of the regions. They have more diverse structure of external funds, with predominantly donor financing for project implementation. They also have managed to have highest volume of implemented projects with continuous growth over the period 2009-2016 and produce higher project-costs ratio.

With regard to cost effectiveness, the ratio of money spent for operational costs to implemented projects from region to region is very different. Skopje

region which has second highest budget for covering operational costs has achieved lowest ratio costs-project implementation, with only 2,4 in 2017. On the other hand, Northeast planning region achieved the highest ratio of 45,1.

The average ratio of money spent for operational costs to implemented projects for the period 2006- 2017 is 11,9. The average ratio of money spent for operational costs to implemented projects of CRDs for 2017 is 19,8.

The presented findings provide enough evidence to derive main conclusion that Centers for Development of the Planning Regions are key drivers for implementation of regional development policy on regional level in the Republic of North Macedonia.

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Original scientific paper

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THE IMPACT OF HUMAN AND SOCIAL CAPITAL ON INCREASING THE INCOME OF THE POPULATION IN THE RURAL MUNICIPALITIES IN THE REPUBLIC OF NORTH MACEDONIA – CASE STUDY FOR THE MUNICIPALITY OF ZELENIKOVO

Abstract

This paper focuses on the asset-based development approach which main purpose is to strengthen the diverse resources in the local community that increase the capacity of the population to improve their quality of life. Resources are capital in different form such as human and social capital. Hence the main hypothesis of the paper is: increasing individual human capital and individual social capital affects the increase in the average monthly income of the population in the rural areas in the Republic of North Macedonia. Research was conducted on a sample of the population of the municipality of Zelenikovo in order to prove the paper hypothesis. The expected results of the paper are proving the working hypothesis and thereby encouraging a new way of thinking of the local authorities for development of the local communities.

Keywords: asset-based development approach, human capital, social capital, rural communities, income generation
JEL Classification: O1, O15, O18

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Introduction

The asset-building development approach based on utilising indigenous resources is fast gaining global attention and recognition. The fundamentals of this approach lie in the ethos that when a local community attain the capability to strengthen and further the varied and diverse resources that exist in the community, it attains an autonomous capacity to improve its quality of life. The resources take a different form of capital such as human and social capital.

The approach determines the development of local communities to execute planning strategies, building and using resources that are enabling their population's capability to ascertain a higher quality of life. The basis of the approach is the claim that topical resources will not regenerate local development if the resources are left to markets and central government to build. Practice shows that development which is solely directed by local authorities and local organization enables better linkage between resources and needs of local communities.

Resources can be defined as talents, skills or capabilities of individuals, organizations or institutions in the local community. The former Vice President of the Ford Foundation, Merlin Oliver, explained resources as "a special means that an individual, organization or the local community can use to reduce or prevent injustice or poverty". He defined resources as a stock that can be used or an asset that can be shared, transferred through generations. As poor people gain access to resources, they can increase the control of different aspects of their lives.

Prioritizing focus on building assets for local development as opposed to focusing solely on how to alleviate current needs, presents a significant change in planers ideology for community development. This interpretation of local development highlights the significance of identifying the underdeveloped resources. While numerous types of resources exist, the identified group that encapsulates the concept of community assets exists in the following categories: human, social, physical, financial, natural, political and cultural. In defining the term 'resources' in this discussion, we assume the concept that the community's assets (i.e. resources) are not used for their own direct advantage or easily available to the group population. For example, individuals may have skills and knowledge that are not corresponding to the requirements of their employers and vice versa or the area may have natural resources, with the potential to generate profit. The goal of this approach is to identify these assets and through mobilizing, building and organizing them, enable the local population to use them to increase their quality of life.

These forms of resources in a rural community are frequently referred to as capital due to the concept that they are defined as a wealth used to create an even greater one. For example, investing in education (i.e. human capital) generates increased value for the workforce. Similarly, investment in social relations (i.e. social capital) enables the generation of social resources through help from friends, neighbours and acquaintances to be used in the future.

1. HUMAN CAPITAL

Human capital is an indispensable resource in the local community. Defined as accumulated knowledge through education or work experience, developed skills and competences, talents and health status of people, this resource is often vastly underutilized and underdeveloped in many communities. In a report released by the World Economic Forum for Global Human Capital, this term is defined through four elements: the level of formal education of the population; formal education of the next generation workforce and continuous adjustment and upgrading of the current workforce; applying and accumulating the skills of population; breadth and depth of use of advanced skills at the workplace. This report, published in 2017, shows that 62% of the world's human capital has been developed, respectively 38% of human capital is undeveloped and unused[1].

Although the major part of the economic literature treats the issue of human capital individually, focusing on the people's motivation to gain higher level of education or to develop additional skills, the focus of the asset-building approach is in the relationship between the workers, employers and institutions. More specifically, the resource-based approach focuses on building networks for the development of the workforce in order to improve life standard. An adequately educated and skilled workforce is necessary for economic development. Local communities face several problems in the development of the workforce. If the local authorities provide training for work positions which are not required in the local community by its employers, the trained people ultimately leave the local community to find adequate work for their acquired knowledge. If the local community offers job positions for which there is no local qualified workforce, employers will be forced to hire staff from other communities, minimizing the positive effect of community investment.

[1] World Economic Forum, Global Human Capital Report 2017, page 3

The development of human capital can be hampered by the failure of local businesses to invest in staff training because of the fear of losing such an investment – i.e. once trained, personnel can leave the company for another because of better working conditions. In today's dynamic times, workers are much more inclined to change their working environment. Here is an opportunity for the local communities, with the support of non-governmental organizations, to address the problem and to alleviate the cost of training workers.

Local communities can undertake different activities to build competent workforces sourced from their own locations. The idea is that if the skills and knowledge of the local workforce are increased, there will be employment and promotion to higher qualified job positions with the subsequent opportunities for higher incomes. Increased revenues will in turn stimulate consumption, thus opening up new opportunities for economic exchange in the local environment, resulting in an overall higher quality of life for all the entire community. The specific strategies and goals that local communities can undertake are[2]:

- Preparing the future workforce - introducing the career counseling process, showcasing jobs from all domains and tertiary education preparation in secondary schools, strengthening technical education, investing in soft skills training.
- Maintaining the workforce - developing partnerships to provide childcare services, creating better working conditions, increasing support to employers in order to maintain the workforce, enabling resources to be used for transport, offering training after employment to manage the inflows of assets, advocate a minimum wage policy in the local community.
- Advancing the workforce – increasing the success of completing higher education and training to develop new skills in the home-grown market, upgrading the workforce through forming business clubs that will participate in grants.
- Expending the workforce - developing partnerships that will offer solutions to facilitate access to workers from the wider area, making efforts to attract skilled workers that are needed by the local employers, linking the education sector to the business sector, raising the opportunities for retired persons and workers on a part-time basis.

[2] Gary Paul Green, Anna Haines, Asset Building & Community Development, SAGE Publications Inc. Los Angeles, 2016, page 136

- Promoting entrepreneurship - establishing loan funds for local business initiatives, business management and administration training, providing technical support for entrepreneurs.
- Support for environmental improvement projects - projects related to the construction of energy-efficient facades, renewable energy and environmental management.

2. SOCIAL CAPITAL

The practitioners dealing with the development of local communities have long recognized the importance of social ties in the organizing and mobilizing of the residents. Social connections and networks serve as a form of capital because they require investment in time and energy. The social capital can be defined in many ways. Typically, emphasis is placed on the aspects of social structures (trust, norms and social networks) that lead to collective action. The most common indicators of social capital are the turnout of citizens at elections, encounters in the local community, communication between people, participation in volunteer activities, participation in social groups and organizations.

Many of the local communities in the world are interested in measuring and monitoring their social capital. Although this is a long-term and costly process, the following variables can be taken into the measurement of social capital:

- Citizen involvement - participation in local action groups
- Social networks – the level of contact with friends, neighbors, relatives and acquaintances.
- Social inclusion - number of organizations such as religious organizations, business clubs, political organizations, labor organizations in which individuals participate.
- Trust - a level of trust in people in the community
- Perception and attachment to the local community

Theorists explain how social capital operates and produces benefits in several ways. Primarily, social networks are an important source of information. For example, employment seekers very often use their friend and acquaintance networks to gain information regarding potential job opportunities. Researches on this subject indicate that most people rely on such contacts to find work and that this source of information has greater benefits than others.

Likewise, the process of house searches are significantly facilitated when there is a extended network of friends to supply information.

Secondly, social connections and networks can be a factor of strong influence, such as friend or family member recommendations for a prospective job applicant or personal introduction to small business owner to open new market opportunities.

Thirdly, the social capital also serves as a form of social letter of credit. Employers assume that the individuals that are members of the same social organization have similar working habits. Finally, the social capital helps to shape the identity. The interaction between the members in a social network is the primary source of social identity. This contributes to greater solidarity between the groups[3].

The documentation of the elements that build the social capital can provide information on organization in the local community, thereby pointing out the aspects of social infrastructure that need to be improved. For example, if a local community has a large number of local organizations and residents communicate on a daily basis, but in the local community there is distrust between individuals and authorities, then the first step that must be taken is the implementation of activities in the direction of strengthening the trust.

3. RESEARCH AND ANALYSIS OF RESULTS

Zelenikovo Municipality is located in the northern part of the Republic of North Macedonia, located in the far south-eastern part of the Skopje valley near the city of Skopje. The territory of the municipality of Zelenikovo covers an area of 176.95 km2 and borders with 4 municipalities. The municipality itself has an expressed rural character and covers 14 settlements within its borders. Municipality of Zelenikovo has 4077 inhabitants which in terms of the size of the territory shows that the municipality of Zelenikovo has a population density of 23.04 inhabitants per km2, which counts among the sparsely populated areas[4]. As a rural and economically underdeveloped municipality, Zelenikovo enters the municipalities that are our subject of research.

[3] Field J, Social Capital , Routledge New York, 2004, page 14
[4] http://www.zelenikovo.gov.mk/

3.1 Research Methodology

A case study of a sample of Zelenikovo's the population was conducted to determine the impact of the individual human and social capital on increasing the income of the population of rural areas in the Republic of North Macedonia. Participants in the questionnaire were Zelenikovo municipality residents that are capable of working and who are employed or earning an income on the basis of working engagement. Conducted between 10th -20th November 2018, the survey involved the creation of a questionnaire distributed electronically (e-mail, social networks and platforms for communication) to the residents of the municipality of Zelenikovo. The questionnaire comprises of 10 questions gleaning answers to measure the level of monthly average income, human and social capital, at an individual level.

According to the data of the State Statistical Office for estimating the population, in 2017 the municipality of Zelenikovo had a total of 3,467 inhabitants over the age of 18 years. Through the survey, a total of 158 able-bodied residents of the municipality of Zelenikovo were questioned, who were employed or earned income on the basis of working engagement, 116 respondents gave valid answers that have been used for analysis and confirmation of the hypotheses of this scientific paper.

3.2 Analysis of the results

Multiple regression analysis was implemented for the analysis of the results and confirmation of the hypotheses of this scientific paper. Working hypotheses of this paper are:

- The increase in the individual human capital affects the increase in the average monthly income of the population in the rural areas in the Republic of North Macedonia
- The increase in the individual social capital affects the increase in the average monthly income of the population in the rural areas in the Republic of North Macedonia

In the multiple regression model, one dependent variable is set, which denotes the average monthly income of individuals based on salary or other working engagements by contractual agreement and three independent variables - years of formal education, number of training courses to increase knowledge and skills, and dummy variable that indicates whether individuals have a large number of friends they often communicate with. Therefore the regression model is:

(1) Monthly average income = $\beta_0 + \beta_1$years of education + $\beta_2$number of trainings + $\beta_3$friends + u

The first two independent variables (years of education and number of trainings) indicate proxy measures for human capital, while the independent dummy variable (a large number of friends that often communicate) indicates a measure of social capital.

Table 1 Multiple regression analysis

Dependent variable: MONTHLY INCOME
Method: Least Squares
Sample: 1 116
Included observations: 116

Variable	Coefficient	Std.Error	t-statistic	Prob
C	8773.001	2528.765	3.469283	0.007
Education	773.379	214.9682	3.597644	0.005
Trainings	797.752	284.2703	2.806317	0.0059
Friends	6569.578	1127.682	5.825734	0.00001
R-squared	0.43769	Mean dependent var		20943.97
Adjusted R-squared	0.422628	S.D. depedent var		7138.01
S.E. of regression	5423.815	Akaike info criterion		20.06886
Sum squared resid	3.29E+09	Scwarz criterion		20.16381
Log likelihood	-1159.994	Hannan-Quinn criter.		20.10741
F-statistic	29.05949	Durbin-Watson stat		2.096894
Prob(F-statistic)	0.0000001			

Source: Author's calculations

From the obtained results of the conducted research on a sample from the municipality of Zelenikovo, the following regression equation was obtained:

b0= 8,773.00 , b1= 773.38 , b2= 797.75 , b3= 6,569.57

(2) Average Monthly Revenue = 8,773.00 + 773.38 years of education + 797.75 number of trainings +6,569.57 friends

Since the working hypotheses predict a positive relationship between the dependent and each of the independent variables, we can confirm the positive relationship because each regression coefficient has a positive value. If the years of education and the number of trainings are reduced to 0, from the model we can conclude that the average monthly income of the inhabitants

of the municipality of Zelenikovo, is 8,773.00 MKdenars in the case when the individual stated that there are not many friends with whom he or she often communicates and 15,342.58 denars if the individual stated he or she had a large number of friends with whom he or she often communicated. The slope of the years of education with average monthly incomes indicates that the increase in the average monthly income is 773.38 denars for increasing one-year education of individuals, setting a constant number of trainings and whether the individual has many or few friends personally. The slope of the number of trainings with the average monthly income indicates that the increase in the monthly income is 797.75 denars for visiting one additional training for the people from the municipality of Zelenikovo, keeping under the constant number of years of education and whether the individual has or not a large number to friends. By citing the constant number of years of education and the number of trainings of individuals, the vast majority of friends whom they frequently communicate increase average monthly income by 6,569.57 denars, rather than those individuals who do not have a large number of friends they often communicate with.

The regression model has a coefficient of determination Rsquare = 0.4377 which shows that 43.77% of the variation in the average monthly income of individuals is explained by the variation in the years of education, the number of trainings, and the number of friends with whom the individuals communicate. The rest of the variation in average monthly income is explained by other factors not included in this model.

In order to test the significance of the regression model we will use the F test. With this test we will determine whether there is a significant link between the dependent variable and the set of independent variables. To examine this test we will set the following zero and alternative thesis:

H0: $\beta 1 = ... = \beta K = 0$ (there is no linear relationship between the dependent variable and the independent variables)

H1: $\beta j \neq 0$ (there is a linear relationship between the dependent variable and at least one independent variable)

Using a 0.05 level of significance, the critical value of the F distribution with 3 independent variables and 112 levels of freedom is 2.70. From the regression analysis table we can notice the value of F statistics that is 29.05 which means that we reject the zero hypothesis because 29.05> 2.60. Confirmation for the rejection of the zero hypothesis is also the p-value which is lower than 0.05. We can conclude with 95% certainty that at least one

independent variable is related to the average monthly salary of individuals in the municipality of Zelenikovo and that this model is statistically significant.

To determine whether each of the independent variables has a significant effect on the monthly average salary, we will conduct an individual t-test for each of the independent variables. The rule for rejecting the zero hypothesis for each relationship of an independent variable with the dependent variable is the value of the t-statistic of each regression coefficient greater than or less than the critical value of t for 112 degrees of freedom which is 1.98 or -1.98. From the regression table we can see that all t-statistics of the independent variables are higher than 1.98 indicating the thesis that between each independent variable and the dependent variable has a significant relationship. This thesis is also confirmed by the low values of the p-statistics of each independent variable.

We can also conclude that the model does not contain serious multicollinearity which is a problem for the validity of the model. The correlations of each independent variable with the dependent variable are greater than the correlations between the independent variables indicating a model without serious multicollinearity. The correlations between independent variables are of medium degree.

Table 2 Correlation between variables

	EDUCATION	TRAININGS	FRIENDS	INCOME
EDUCATION	1.00	0.45	0.19	0.47
TRAININGS	0.45	1.00	0.13	0.41
FRIENDS	0.19	0.13	1.00	0.50
INCOME	0.47	0.41	0.50	1.00

One of the assumptions of the multiple regression analysis is that each observation of a random error has the same probability distribution with zero and variance constant. In order to confirm this assumption, a Breusch-Pagan test of the regression model was conducted.

From the conducted test, we can conclude that there is no heteroscedasticity in the model, that is, the assumption that random errors in the equation of regression have a common variance. This can be proved by the coefficient obs * R-squared, whose value is 1.849. At a level of 5%, the critical value for 3 degrees of freedom is 7.815. Because 1.849 <7.815, it can be concluded that in the model there is no heteroscedasticity.

The assumption of the standard linear regression model is that the random error has a normal distribution. In order to test this assumption we will carry out the Jarque-Bera test in which the zero hypothesis is: H0: The residuals are normally distributed. We will accept the zero hypothesis as correct if the calculated value of the JB test statistic is less than the critical value with 2 degrees of freedom.

The coefficient of JB test statistics with a value of 3.42 is less than the critical value with 2 degrees of freedom which is 5.991, indicating that we accept the zero hypothesis that the residuals are normally distributed. This means that the assumption of the regression model that a random error has a normal distribution is fulfilled.

In order to test the validity of the hypothesis for the exact specification of the model, we will also use the RESET test that determines the probability of having a missing variable, a wrong functional form or another specification error. The test conducted through F-statistics. If the resulting F-statistic value is greater than the critical value of F-statistics then we reject the zero hypothesis that the true specification of the model is linear, which means that the actual specification of the model is non-linear. The critical value of F-statistics with 3 independent variables and 112 levels of freedom is 2.70. From Table 5 we can notice that the value of F-statistics from the RESET test by including two additional regressors is 2.05. As 2.05<2.70, we conclude that there is no specification error in the model which means the regression model has the right shape.

From the conducted multiple regression analysis it can be established that the model is valid and that the two hypotheses of this scientific work have been proven, that the increase in the level of human and social capital affects the increase in average monthly incomes among individuals in rural areas. The local governments as a local community development policy to increase household incomes should take into account investment in the development of individual human and social capital.

Conclusion

The main engines in the asset-based development approach to local community development are local residents. The involvement of local residents in the development process is essential. The process of development of local communities starts with mobilizing and organizing the residents in the organization; setting the vision for the local community, planning,

implementing and evaluating the activities. The application of the asset-based development approach to the development of local communities involves the exploitation and building of a different type of capital that contributes to increasing the quality of life in communities such as individual human and social capital. Increasing the individual human and social capital affects positively on increasing the income of the population in rural communities. From the conducted survey on a sample of the population from the rural municipality of Zelenikovo and then creating a multiple regression analysis model, we can conclude that the average monthly income of the inhabitants of the municipality of Zelenikovo is increasing with each additional investment in years of education, number of completed trainings for attaining further education and increasing the number of friends with whom they regularly communicate. The local authorities should take into consideration investing in the individual human and social capital to increase the income of the population, which will also mean increasing the economic activity and the quality of life in the local community

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E-BANKING – USAGE, ADVANTAGES AND CHALLENGES

Abstract:

The Internet has had a lot of influence on the expectation and the behavior of the banked individuals. Banks have started facing different challenges more than before, and new competition has risen. The bank customers' data has become difficult to protect. Thus new opportunities and channels to capitalize these changes were opened. Different omnichannel strategies that offer seamless connection between the channels, while at the same time being simple and less time-consuming for the consumers have been developed. More convenient and "smartphone-adapted" measures have been taken against data security frauds.

This research investigates the effects of the Internet evolution on the banking industry. The change in consumer's behavior is analyzed with the purpose of getting a better understanding of their needs and preferences. The observed differences between the channel of banking services and their influence towards the customer's choice as well as a possible link between them is demonstrated.

The research findings were analyzed using statistical tests in SPSS. Preferred methods of payment were analyzed as well as security awareness among the respondents. The data was analyzed using statistical tests to prove their reliability and validity. Also a recommendation for further research is developed.

Key words: Internet; e-Banking; banks; customers; services
JEL Classification: G21 Banks • Depository Institutions • Micro Finance Institutions G32 Financing Policy • Financial Risk and Risk Management

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1. INTRODUCTION AND LITERATURE REVIEW

The Internet represents a boundless revolution in all the worlds' communication systems. By benefiting from communication technology, banking is not an exception to this statement and has joined the era of global communication[1].

The best way for banks to maintain a close relationship with their customers has been for them to provide new digital banking services. This effect has been achieved by the banks being able to offer reduced costs for their customers thanks to the Internet, while at the same time being always available for them which leads to higher customer satisfaction[2]. Instant gratification, outstanding service quality, simple, intuitive processes, 24/7 availability, self-service, transparency of products and pricing, personalization and tailoring, and a consistent experience across channels is what customers are expecting today [3].

The customers are the ones that control the banking relationships today. Switching banks, customer behavior and meeting demands is now easier than ever. Banks have enough time to adjust to these changes. They have to change the way they approach their customers and the way they interact with them. Giving them flexibility, choice, control, speed and convenience are one of the key features [4]. Many channels are available today to the banks in order to enable them to satisfy all their consumer's needs.

While online and mobile banking are the dominant channels, where the biggest focal point is, the branch services should not be left out either. People are not abandoning the branches yet. They seem to still crave human interaction too. It seems like customers, in order to get the service they need, would not necessarily always choose the same channel.

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[1] Rashidi, E., Mansoori, E: Discussing the effects of Internet Banking on Customer Satisfaction. 5th ed. [ebook] Centre for Info Bio Technology (CIBTech), 2015, p.182. Available at: http://www.cibtech.org/sp.ed/jls/2015/02/jls.htm [Accessed 21 May 2018].

[2] Rashidi, E., Mansoori, E: Discussing the effects of Internet Banking on Customer Satisfaction. 5th ed. [ebook] Centre for Info Bio Technology (CIBTech), 2015, p.182. Available at: http://www.cibtech.org/sp.ed/jls/2015/02/jls.htm [Accessed 21 May 2018].

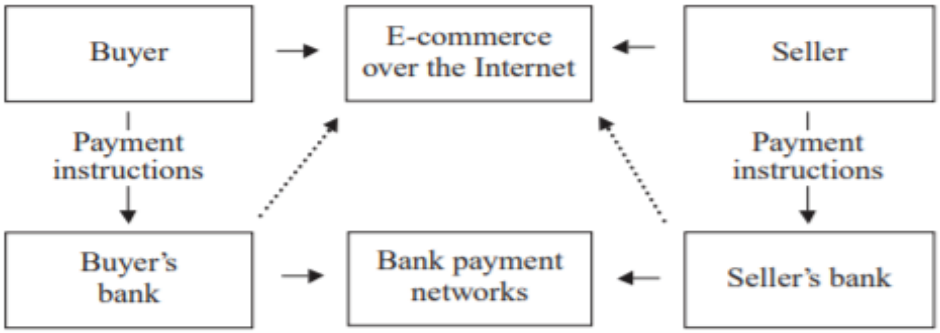
[3] EY: The relevance challenge: What retail banks must do to remain in the game. 2016, [Online] Available at: ey.com [Accessed 21 May 2018]

[4] EY: The relevance challenge: What retail banks must do to remain in the game. 2016, [Online] Available at: ey.com [Accessed 21 May 2018]

The choice of channel is mostly decided on by the specific needs at a specific time.

On the other hand, e-Commerce growth is skyrocketing. While the electronic – based system has existed since the 1960s[5] its structure and features have changed a lot. The banks have to be able to offer a mixture of different payment systems to service the growing demands of e-commerce. Some banks have the tendency to even offer products designed specifically and exclusively for e-commerce purposes.

Figure 1: Role of the banks in e-commerce.



Source: J. Wenninger, The Emerging Role of Banks in E-Commerce, Research and Market Analysis Group of the Federal Reserve Bank of New York, 2000, p.2.

As shown in Figure 1, banks are the mediators between Business-to-Business as well as Business-to-Customer e-Commerce. Their main role is to provide a seamless flow of means through the e-Commerce channels and make it as fast as possible. Faster payments also known as immediate payments, instant payments or real-time payments represent the modernization of payments. Speed and continuous service availability are the virtue of this type of payment while at the same time offering real-time (or nearly real-time) clearing and availability of funds.

While digital banking opened a lot of new channels and possibilities for the banks to increase their role in the economy and capitalize the changes, it also opened a lot of challenges. Data security is one of the biggest. The Internet is providing a greater access to data to everybody who makes the data available for manipulation and misuse. There exist a number of fraud types, and the worst part is that the customers are unaware of it.

[5] Journal of computer mediated communication Wiley International library, 2006,12.

For this purpose, banks have to always keep an eye on it and make sure they are backed up with security systems that are strong enough and also appropriate authentication tools.

Finally, banks and financial service organization should have the leading role in the origins of data-driven business. The consumers constantly seek for assurance that their data is safe with their chosen bank and that it is only used for the sake of better service quality following afterwards.

In the context of the previously described background, this research will investigate the effects of the Internet evolution on the banking industry. The change in consumers' behavior will also be analyzed for the purpose of getting a better understanding of their needs and preferences. The overview of the many benefits of the digital banking will be presented as well as the challenges the banks and their customers are facing. A detailed description of the existing methods of payment will be given and an analysis of the most preferred one will also be provided. The clear connection between the evolution and the increase of security risks will be presented as well as the many precautions and strategies banks are creating to be better at preventing them. All the analyses and findings should help understand consumer behavior and preferences of direction that the banks should take, to be able to keep loyal customers[6].

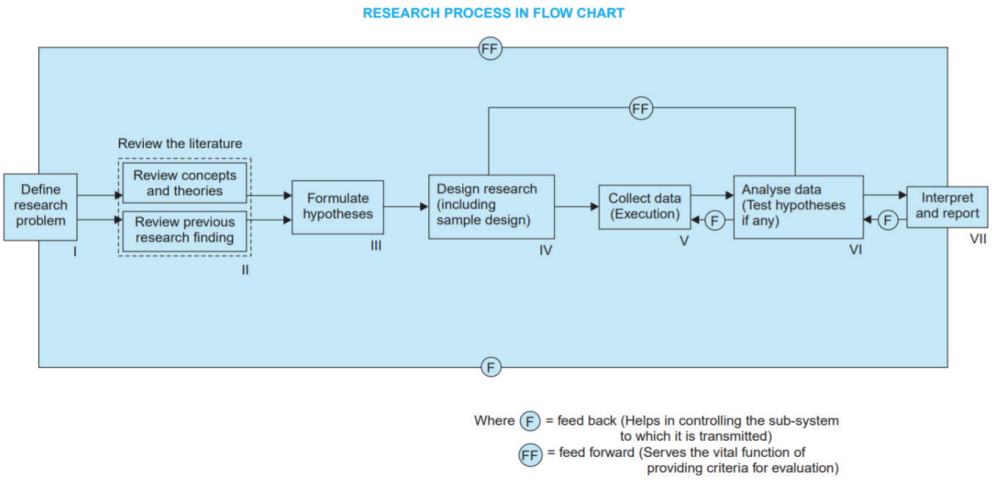
2. RESEARCH METHODOLOGY

The research findings were analyzed using statistical tests in SPSS. The data collection offered insights into the different activities, traditional, online and mobile banking, that were used as well as the way in which they are experienced. Furthermore, preferred methods of payments were analyzed as well as security awareness among the respondents. The data was analyzed using statistical tests to prove their reliability and validity. Additionally, a recommendation for further research was developed.

This research process will be guided by the research process flow chart shown in Figure 2.

[6] Fujitsu: Banking on privacy: Data Security and trust in Financial services [online], 2000, Available at: uk.fujitsu.com [Accessed 21 May 2018].

Figure 2: Research process in flow chart.



Source: Kothari, Research Methodology, Methods and Techniques. 2nd ed. Jaipur, India: New age International Limited, 2007, p.11.

Figure 2 indicates that the research process is based on a number of closely related activities. These activities are not mutually exclusive, separate or distinct nor must they necessarily follow a strict prescribed sequence; on the contrary quite often, they overlap.

After the preliminary literature review into the topic the initial idea was further refined, and the hypotheses were defined. The preparation of the research methodology was conducted at the same time as the literature review in the beginning, to be able to find enough theoretical information and develop the process further. The defined research problem was whether people would choose electronic banking over traditional, in most cases, and how high the security awareness when banking online is. The next step was coming up with a hypothesis, which is simply an educated and testable guess about the answer to the research question. The main feature of this hypothesis was to make a prediction. When conducting a research, these predictions help the explanation of the studied problem, together with the related variables. The hypothesis that is tested is called null hypothesis or hypothesis of no difference and includes a statement of equality. An alternative hypothesis to the null hypothesis was also set to include the statement of inequality. These two hypotheses (null and alternative) are complementary. The following set of hypotheses was formed:

H0: There is no relation between people choosing one of the digital channels of banking and their features of being fast, convenient and simple.

H1: There is relation between people choosing one of the digital channels of banking and their feature of being fast, convenient and simple.

By testing, data gathering and analysis, the set hypotheses can be either supported or disproven. Based on this, a quantitative research was chosen to gather and analyze the data. The quantitative research was described by Bryman[7] as a collection of numerical data as a way of establishing the connection between the theory and the research while having an objective perception of social reality. The data was gathered with the help of a conducted self-completion questionnaire. A self-completion questionnaire has shown to be quite effective in quantitative research by being based on mostly closed questions that are easier to answer; it is short and has a design that is easy to follow.

3. DATA COLLECTION: CONDUCTING A SELF-COMPLETION QUESTIONNAIRE

The collection of all relevant data was done by conducting an online self-completion questionnaire. The questionnaire was formed with the idea to be easy to understand, not to be too time-consuming and to be based on closed questions in order to increase the response rate. The questionnaire was sent out to people from different countries (North Macedonia, Denmark, Germany, USA, France, Hungary, Greece…) with the purpose of finding the similarities as well as the differences between people's behavior on the studied topic based on the country they are coming from. There was no certain target of age group chosen due to the fact that the research is not limited only to one age group and it was also valuable to see the influence of the age as a variable in the outcome. A questionnaire was chosen over an interview because the validity of the answers was highly important and affecting the answers in any way by the interviewers (present in a case of an interview) is avoided. In this way respondents feel more confident to give the answers they want and don't feel biased or pressured in more than one-way. Lastly, these types of questionnaires are shown to be more convenient since respondents can do them when they find it most suitable. In order to improve the response rate, the presentation of the survey was designed as clearly as possible by using only one style for general

[7] Bryman, A:. Social Research Method. 4th ed. New York: Oxford University Press, 2012, Available at: http://www.statista.com/statistics/274774/forecast-of-mobile-phone-users-worldwide/ [Accessed 24 Feb. 2018].

instructions, one for headings, one for questions and one for closed answers. For the same purpose closed vertical questions were chosen. The instruction about how the answers should be entered was proven clear since there weren't any unclear answers or unanswered questions. The questions and answers were kept together in order for the respondents to not to forget the question while searching for the suggested answers. The closed questions offer a set of answers to choose between, in order to help the respondent and make it clearer where the question is headed, in case of doubt. A set of personal questions was included in the beginning of the questionnaire for respondents to provide personal information such as age, education and country of residence which were then set as variables in the hypothesis testing. The rest of the questions were designed using the general rule of thumb which means they were related to the research questions.

4. DATA ANALYSIS

As a tool for analyzing the collected data, a bivariate analysis was chosen. Bivariate analyses represent analyses with two variables at a time to uncover whether the two variables are connected[8]. In this case, the relationship between the convenience of ease and speed of banking online and the choice of electronic above traditional banking is explored. This means that a connection between the variations in one variable with variation on another variable is researched. Using contingency tables, the relationship between the two variables are shown. A contingency table is a frequency table that allows the two variables to be simultaneously analyzed which makes it simpler to examine the relationship between both[9]. With the help of the contingency tables we could determine the patterns of association. For this purpose, the SPSS was used. Lastly, a test of statistical significance will follow to avoid sampling error. A test of statistical significance provides a sense of confidence that the results deriving from this study based on a randomly selected sample are generalizable to the population from which the sample was drawn. The first step in this test was setting the null hypothesis.

[8] Bryman, A:. Social Research Method. 4th ed. New York: Oxford University Press, 2012, Available at: http://www.statista.com/statistics/274774/forecast-of-mobile-phone-users-worldwide/ [Accessed 24 Feb. 2018].

[9] Bryman, A:. Social Research Method. 4th ed. New York: Oxford University Press, 2012, Available at: http://www.statista.com/statistics/274774/forecast-of-mobile-phone-users-worldwide/ [Accessed 24 Feb. 2018].

Next was establishing the level of statistical significance together with the correlation coefficient. A level of statistical significance of ρ < 0,05 was chosen and analyzed. In this way we can decide with confidence whether to accept or reject the null hypothesis because if we get the level of statistical significance of ρ<0,05 we can conclude that there are only 5 chances in 100 that this correlation will arise due to chance alone.

In addition, a number of frequency tests were ran for all of the other variables not directly tested in the hypothesis.

4.1. SPSS analysis, tests

The first step in the analysis was to run frequency tests for the variables of each question in order to better show the results of the conducted survey. The frequency analysis as a descriptive statistical method is used to show the number of occurrences of each response chosen by the respondent.

Hypothesis testing

A bivariate analysis was used to test the previously set hypothesis. A contingency test of frequency was used to test whether the reason behind customers choosing the electronic way of banking over digital was due to the fact that they find it faster, more convenient and easier. Two different tests had to be performed to make the same comparison for both online and mobile banking. The cross tabulations were run by using the chi square test to get the level of statistical significance. When looking at the tables from the tests[10] the most important value to look at is the asymptotic significance. This value represents the level of statistical significance or ρ – value. This coefficient is important, and it is used as an indicator of how likely the previously set null hypothesis is. The ρ – value also helps to make sure that we avoid making one of the two most probable types of errors. Type 1 error - to accept the null hypothesis as true when in fact it is false. Type 2 –the opposite, rejects the null hypothesis when in fact it is right. The ρ – value varies from 0 -1 where 1 is absolutely certain and 0 is impossible. In order to test this hypothesis, a ρ < 0,05 was set as a measure for rejecting the null hypothesis. When looking at both tables of contingencies and the chi square test for both we can see that in both the result is ρ = 0,00.

[10] Appendix 1

This value is reliable enough for rejecting the null hypothesis because there clearly is a relationship between both online and mobile banking being fast, convenient and simple for people to choose over the traditional way of banking and 5 in 100 chances of being wrong. The problem faced while running these tests was having too many expected values <5 which makes our analysis unreliable. In the cross tabulation regarding the online banking testing there are 13 cells (81.3%) that have an expected count less than 5. In the testing regarding the mobile banking 12 cells (66.7%),there was an expected count less than 5.

In order to be able to know for sure that the type 2 error does not appear in the analysis, the test was ran again but using the Fisher's exact test which is found to be more suitable for this case. After conducting it, the result was the same ρ of .000.

Based on this, the set null hypothesis for this research was rejected. The conclusion brought is that there is a statistically significant relationship between the choice of electronic banking over traditional banking, with the electronic banking being convenient, simple and fast.

5. FINDINGS

The purpose of conducting the survey was to present statistical evidence of the stated literature review. The survey also helped decide whether to accept or reject the previously set hypotheses. After the detailed aforementioned statistical analysis and running the contingency tests in SPSS, the outcome was that people choose electronic ways of banking, mobile and online, based on their features of being fast, simple and convenient.

In the findings of this thesis an emphasis is put on the need of the consumer and the experience the same is expecting when banking no matter whether we are talking about traditional or electronic banking. Convenience is what makes people feel like they have full control of their finance and choose among different ways to withdraw cash and manage their day to day monetary activities. Being able to do it 24/7 is also a strong feature. Time is a valuable thing. Today's life tempo does not allow having too much time to spend on things that are not supposed to be our main activities. The more the bank can offer ways of saving their consumers' time, the more loyal and more active they will be. The transfers being faster online, with just one mouse click away was what gave the electronic way of banking an advantage at the beginning.

Another thing consumers are seeking for and still find very important is human interaction. This could be seen as the strongest virtue of the branches. It is the only thing that separates them from the online services.

There are many ways banks can capitalize on the way things look now, and being able to offer the customer a seamless omnichannel could be one of them. On the one hand they work on the electronic banking features and update them with the same speed the technology is developing. On the other hand, they make sure that the branches are aligned with this and offer comparable services with the online ones by adding the human factor as a plus. Online and brick and mortar should be connected. One example would be if the bank is able to write detailed but at the same time simple and easy to understand explanation of the services available when the customer comes to purchase those services in the branch. It would go much faster since they would already be prepared. That way long queuing can be avoided, and more customers can be serviced in shorter time sequences.

Security is an important element of the preferred banking channel. Safety is the first thing that comes to mind when thinking about our finances. Even though maybe not every consumer is aware of the security risks when going online, it is still important for the banks to always set it as a priority in their daily work.

Conclusion and further implications

Four main patterns of behavior that people have towards their way of banking were identified. The first one was in relation to the different banking services. It was stated that online and mobile banking is used mainly for checking the bank statement, transfer money and pay bills. The branches are visited mostly for services in relation to cash while also for some to pay bills as well. In relation to consulting services there was no clear indicator whether it is preferred to be done online or in a branch. Secondly, regarding the perception of the different channels, while mobile and online banking are considered to be fast, convenient and simple the branch visits are also found convenient and simple but too long. Thirdly, in relation to the security awareness the findings show that a very small percentage of people find online and mobile banking risky and are not that aware of the possible risks when exposing your data online. Lastly, carrying cash tends to be avoided and credit/debit cards, if possible contactless, is the preferred method of payment. Therefore, banks should focus on giving their customers seamless and simple solutions if they want to keep having loyal customers.

The research gives an insight into the effects that changes in the banking services have on both the customer and the bank. As an opportunity, the development of the Internet started offering a lot of possibilities for the customers to make their banking easier and available 24/7. For the banks, this development gives rise to different channels through which they could offer their services and attract their customers. An insight into the most important services and features that need to be taken in consideration when acquiring a new customer or trying to keep the already existing ones, should be part of the strategy of the bank and should always be seamless, safe and simple. The observed differences between the channel of banking services and their influence towards the customer's choice as well as a possible link between them has been demonstrated.

On the other hand, keeping the data of the customers and their money safe is becoming a bigger and bigger challenge for both the banks and the consumers. With a lot of data being widely exposed thanks to the Internet keeping track of it, it is becoming difficult. Customers' lack of awareness and concern over it makes it even more difficult. There are not enough precautions taken on their side which makes them even more vulnerable and exposed. These findings can be seen as a direction for reaction on the side of the banks, and a way for them to try and find a way to make customers realize this and learn what they should also do on their side to prevent it.

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Appendix 1: Results of the contingency tables for the purpose of testing the hypotheses

Data relating to usage of Online banking!

Case Processing Summary	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
How would you describe your online banking experience? * Do you use online banking?	107	100.0%	0	0.0%	107	100.0%

Q1: How would you describe your online banking experience?

Q2: Do you use online banking?

Crosstabulation			Online banking?		Total
			No	yes	
		Count	2	0	2
		% within Q1	100.0%	0.0%	100.0%
		% within Q2	28.6%	0.0%	1.9%
	Compli	Count	1	0	1
		% within Q1	100.0%	0.0%	100.0%
		% within Q2	14.3%	0.0%	0.9%
	Conven	Count	0	50	50
		% within Q1	0.0%	100.0%	100.0%
		% within Q2	0.0%	50.0%	46.7%
	Fast	Count	2	14	16
		% within Q1	12.5%	87.5%	100.0%
		% within Q2	28.6%	14.0%	15.0%
	Risky	Count	2	0	2
		% within Q1	100.0%	0.0%	100.0%
		% within Q2	28.6%	0.0%	1.9%
	Safe;F	Count	0	3	3
		% within Q1	0.0%	100.0%	100.0%
		% within Q2	0.0%	3.0%	2.8%
	Simple	Count	0	29	29
		% within Q1	0.0%	100.0%	100.0%
		% within Q2	0.0%	29.0%	27.1%
		Count	0	4	4
		% within Q1	0.0%	100.0%	100.0%
		% within Q2	0.0%	4.0%	3.7%
Total		Count	7	100	107
		% within Q1	6.5%	93.5%	100.0%
		% within Q2	100.0%	100.0%	100.0%

Chi-Square Tests				
	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	78.378a	7	.000	.000
Likelihood Ratio	39.652	7	.000	.000
Fisher's Exact Test	35.840			.000
N of Valid Cases	107			

13 cells (81.3%) have expected count less than 5. The minimum expected count is .07.

Data relating to usage of Mobile banking!

Case Processing Summary	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
How would you describe your mobile banking experience? *Do you use mobile banking?	107	100.0%	0	0.0%	107	100.0%

Q1: How would you describe your mobile banking experience?

Q2: Do you use mobile banking?

Cross tabulation			Mobile banking			Total
				no	yes	
Rn		Count	0	15	1	16
		% within Q1	0.0%	93.8%	6.3%	100.0%
		% within Q2	0.0%	62.5%	1.2%	15.0%
	Conven	Count	1	1	41	43
		% within Q1	2.3%	2.3%	95.3%	100.0%
		% within Q2	100.0%	4.2%	50.0%	40.2%
	Fast	Count	0	2	14	16
		% within Q1	0.0%	12.5%	87.5%	100.0%
		% within Q2	0.0%	8.3%	17.1%	15.0%
	Simple	Count	0	1	24	25
		% within Q1	0.0%	4.0%	96.0%	100.0%
		% within Q2	0.0%	4.2%	29.3%	23.4%
	Too low	Count	0	0	2	2
		% within Q1	0.0%	0.0%	100.0%	100.0%
		% within Q2	0.0%	0.0%	2.4%	1.9%
	Too risky	Count	0	5	0	5
		% within Q1	0.0%	100.0%	0.0%	100.0%
		% within Q2	0.0%	20.8%	0.0%	4.7%
Total		Count	1	24	82	107
		Q1	0.9%	22.4%	76.6%	100.0%
		Q2	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests				
	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	81.624a	10	.000	.000
Likelihood Ratio	77.851	10	.000	.000
Fisher's Exact Test	74.904			.000
N of Valid Cases	107			

a. 12 cells (66.7%) have expected count less than 5. The minimum expected count is .02.

UDK 640.4:338.121
Original scientific paper

CVETANKA RISTOVA*

HOUSE ALWAYS WINS: ECONOMIC GROWTH AND DEVELOPMENT OF MACAU'S HOTEL CASINO INDUSTRY

Abstract:

The No.1 casino rule is that the house always wins. At the end of the day, the house always wins because hotel casinos are businesses. They have to turn a profit to stay alive. Macau has done well for itself in recent years, and now its' the world's gambling capital, which continues to see consistent growth in its hotel casino industry. According to data from the International Monetary Fund (IMF) Macau, a city with an area of only 30 square km and a population of 650,000 in 2018 had a gross domestic product (GDP) per capital of US $ 122,500 which made Macau the second - richest city in the world.

Keywords: casino, development, economy, hotel, Macau
JEL Classification: O10, O40, Z32

Introduction

Macau, a former Portuguese colony situates at Southern China, at the edge of Pearl Delta River, is the only place in China that allows gaming. Macau is one of the world largest casino destinations and has been a gambling metropolis for over 150 years. The Macau hotel casino industry evolved from a single monopoly in the past to multiple local and foreign franchises in the present and its' economic prosperity had been dramatic thanks to the astonishing expansion of the gaming and hospitality sector. Macau has been the pioneer of the gaming industry in regard to Asian casinos, but American as, well, where the period from 1999 to 2015 is marked by the opening-up

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of Macau's gaming market, the following-up explosive gaming growth, and the first period of decline in decades. The papers focus is on evaluating the industry's effects on economic growth and development in the hotel casino industry.

1. WHEN DID IT ALL BEGAN? HISTORIC PERSPECTIVE

China's answers to America's Las Vegas is Macau. But gambling is not new in Macau. It has been a regulated economic activity since the mid-nineteenth century, even as Chinese territory under Portuguese administration when officially in the 1850s the first legal licensing system were incorporated. Though, these licenses were not controlled in the right ways which lead to corruption and other illegal activities in the city.

As a way of trying to take control of this problem from 1930 onwards the government gave the rights in a form of gambling licences such as monopoly contracts over clusters of games, which have passed through the hands of three different groups until the sector was recently open to foreign competition. Hou Heng Company, headed by Fok Chi Ting, was the first to win the monopoly licence for the operation of all forms of approved casino games in 1930. Later the gaming monopoly given to the Tai Xing Company in 19341. Only Chinese games were played at that time. The most popular game played was believed to be Fantan and Pai Kao. This monopoly was intact until 1961, when on January 1st 1962 the former government granted Sociedade de Turismo e Diversoes de Macau (STDM), now SJM Holdings, owned by Mr. Stanley Ho a monopoly to operate all gambling2. SJM Holdings introduced western-style gambling, including casinos, greyhound racing, horse racing, and sports betting into Macau.

Macau returned to the People's Republic of China in 1999 as a special administrative region, which means it has different laws to the mainland. Here gambling is legal, and at the beginning of the millennium, Macau's new government began in 1999 to plan and promote the city as an "Asian Las Vegas". Macau had released its monopoly system on the operation of the gaming industry and started to gear towards a wholesome development in this field. SJM monopoly after forty years has ended.

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[1] Hobson, P.: Macau: gambling on its future? Tourism Management, (16/3), 1995, 237-246

[2] Persson, A.: Sustainable development in a rapid developing Casino destination: The Case of Macau. Baltic Business School at the University of Kalmar, Sweden, 2008, pp. 8

Mr. Stanley Ho exclusive deal expired in 2001 and by 2002 Macau has opened its gaming sector to foreign investment. But, harking back to a law that was drafted and approved under the former Portuguese administration in 1986 (Law10/86/M), the liberalization act defined that concessions to the commercial exploitation of gambling should be limited to three holders. Macau gave three gaming rights out of a pool of 21 applicants, to Sociedade de Jogos de Macau (SJM Holdings), owned by Mr. Stanley Ho, Wynn Resorts headed by Steve Wynn and Galaxy Entertainment Group from Hong Kong. By 2002, three concessions, set to expire in 2020 may request to renew their concessions. The requests will be reviewed and subjected to approval by the Gaming Inspection and Coordination Bureau3. The original three concession holders were also given the rights to grant three other licences, termed 'sub-concessions' to other gaming companies that were not originally envisioned by the liberalization act. Through this, Sheldon Adelson's Las Vegas Sands (USA) opened an investment named Sands Macau opened in May, 2004 in Macau that was highly profitable and declared a successful return on its initial investment in the first 10 months4. Afterwards, MGM Grand Paradise and the Australian group Melco Crown (former Melco PBL) have also obtained operating licenses in this lucrative market from SJM Holdings and Wynn Resorts. Macau's economy boomed because of the liberalization of the gaming licence in 2002.

Macau began to rival Las Vegas and become the worlds' largest gambling centre in terms of global gambling capital and earnings in 2006 as its gaming revenue was about four times then Las Vegas's. Macau became the highest grossing hotel casino industry in the world. Macau's gross gaming revenue (GGR) for 2006 was US $ 7.2 billion at 22 casinos opposite to Las Vegas's gross gaming revenue (GGR) for 2006 that was US $ 6.6 billion at 40-odd casinos5. The initial idea to imitate the Vegas Strip—only bigger, had worked.

[3] McCartney, G. J.: Casinos as a tourism redevelopment strategy – the case of Macao, Journal of Macau Gaming Research Association (2), 2012, 40–54

[4] Hartje, J.: What happens in Vegas now happens in Macau! Stocks on Wall Street, 2010, Available at: http://stocksonwallstreet.net/featured/what-happens-in-vegas-now-happens-in-macau-3.php, (11.02.2019)

[5] Watts, J.: Macau beats Vegas at its own game. The Guardian, 2007, Available at: https://www.theguardian.com/world/2007/jul/20/china.gambling, (11.02.2019)

Table 1. Number of casinos in Macau in 2013-2018

Concessionaires	2013	2014	2015	2016	2017	2018			
						1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
SJM Holdings *	20	20	20	20	22	22	22	22	22
Galaxy Casino.	6	6	6	6	6	6	6	6	6
Venetian Macau	4	4	4	5	5	5	5	5	5
Wynn Resorts	1	1	1	2	2	2	2	2	2
Melco	3	3	4	4	4	4	4	4	4
MGM Grand Paradise	1	1	1	1	1	2	2	2	2
TOTAL	35	35	36	38	40	41	41	41	41

** Including 2 casinos in suspension*
Source: Macau Gaming Inspection and Coordination Bureau, Quarterly Gaming Statistics 2019

Fast-forwarding to 2019, Macau's 2018 size of the market is: 41 casinos in Macau, with 24 casinos located on the Macau Peninsula and 17 casinos on Taipa Island or the Cotai Strip. SJM Holdings has 20 casinos; the Galaxy Entertainment Group has 6 casinos; Venetian Macau (Las Vegas Sands) has 5 casinos; Melco (formerly known as Melco Crown) has 4 casinos; Wynn Resorts has two, and MGM Resorts has 1 casino.

2. ECONOMIC GROWTH AND DEVELOPMENT IN MACAU

In 2018, Macau celebrated the 20th anniversary of its return to China as a special administrative region. Macau, in the last few years have witnessed brilliant economic achievements as well as a structural shift toward a hotel casino industry that dominated the economy. Following so many years of rapid growth, it is essential to take stock of both the benefits and costs of hotel casino industry development. Accordingly, this paper analyzes the evolution of Macau's hotel casino industry between 1999 and 2018, and evaluates the industry's effects on economic growth and development.

2.1 End of the monopoly system and gaming market expanding due to liberalization (1999 – 2007)

Following Macau's handover to the People's Republic of China in 1999 as a special administrative region named the Macau Special Administrative Region (SAR), the government made plans to promote the hotel casino industry more aggressively by opening the sector to foreign investments. And with the liberalization, as of 2002, the three gaming licenses had developed into six companies: SJM (Stanley Ho), Galaxy Entertainment, Wynn Resorts, MGM Grand Paradise, Las Vegas Sands and Melco PBL.

Table 2. Direct investment flows by industry in Macau (MOP million)

Industries	2001	2002	2003	2004	2005	2006	2007
Non-financial sector*	676						
Financial sector*	434						
Industrial production	73	151	159	65	99	194	-9
Construction	-8	45	12	23	360	750	2,587
Wholesale and retail	40	324	455	508	680	796	3,332
Hotels and restaurants	70	102	-65	127	1,128	170	-1,036
Transport, storage and communications	-79	517	305	425	193	586	695
Cultural, recreational, gambling* and other s.	580	~	~	~	127	112	84
Gaming		1,477	1,617	2,228	6,029	9,315	10,029
Banks and Securities	427	366	703	429	1,099	1,621	2,569
Insurance	-38	51	122	84	246	345	268

** Available data only for 2001*
** Available data only for 2001*
** In 2001 part of Cultural, recreational, gambling and other services, from 2002 data is separated*

Source: Census and Statistics Department, the Macau SAR, Direct Investment Statistic

Macau's Census and Statistics Department does not offer data statistics previous than 2001, so the direct investments due to the liberalization, as of 2002, will be analyzed from 2001 to 2007 in Table 1. During this period, foreign investments in gaming-related infrastructure and promotion activities were encouraged by the Macau's SAR government. In 2001, gambling was part of the Cultural, recreational, gambling and other services, where together all of them recorded 580 million MOP. As of 2002, Macau's gaming market expanded rapidly following the infusion of foreign capital and seasoned casino operators and in 2007 it reached 10,029 million MOP. In 2002, direct investment flows were 1,477 MOP and in 2003 registered a growth of 8,65% to

1,617 MOP. In following years, Macau's direct investment flows has enjoyed strong growth of 27,4 for 2004, 63% for 2005, 35,2% for 2006 and 7,11% for 2007. Undoubtedly, in this given period the all-time direct investment flows were higher in 2005. The direct investment flows grew at an average annual rate of about 85,2% between 2002 and 2007 resulting the opening of new hotel casino resorts in Macau.

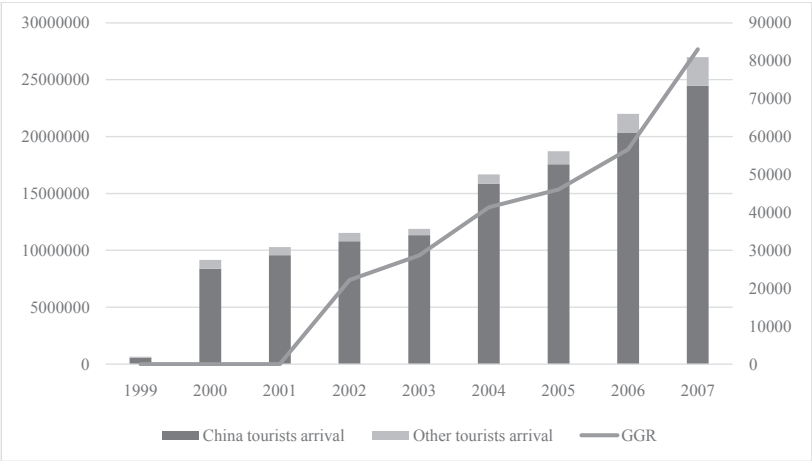
Table 3. Hotel Casino Revenues in Macau (MOP million)

Year	Casinos	Gaming Tables	Slot Machines	Total Revenues
2002	11	339	808	22,180
2003	11	424	814	28,672
2004	15	1,092	2,254	41,378
2005	17	1,388	3,421	46,047
2006	24	2,762	6,546	56,623
2007	28	4,375	13,267	83,022

Source: Macau Gaming Inspection and Coordination Bureau, Quarterly Gaming Statistics 2002 - 2007

Data statistics respectfully as given by the Macau Gaming Inspection and Coordination Bureau, as of the starting of liberalization of 2002. Prior to 2002, no data is available. Table 3 shows us Macau's gross gaming revenue (GGR) only from Games of Fortune. The gross gaming revenue grew at an average annual rate of about 73,2% between 2002 and 2007.

Graph 1. Macau's tourists' arrival, annual rate of GGR



Source: Macau Gaming Inspection and Coordination Bureau, Quarterly Gaming Statistics 2002 - 2007

Source: Census and Statistics Department, the Macau SAR, Tourist arrival 1999 - 2007

In Graph 1, the tourists' arrival in 1999 soared from 637,098 million tourists' in total to 26.992,995 in 2007, accounting for 97,3%. Chinese tourists' (Mainland China, Hong Kong and Taiwan) are among the tourists' who most frequently visit Macau. The tourists' arrival in 2002 when Macau's gross gaming revenue (GGR) started being dated, the tourist's arrival in total were 11.530,841 to 26.992,995 in 2007, accounting for 57,2%. And during the same period of time, Macau's gross gaming revenue (GGR) had tripled. In 2002, the GGR soared 22,180 million MOP to 83,022 million MOP in 2007, accounting for 73,2%. In Graph 1, Macau's hotel casinos generated only a fraction of the revenue of their counterparts in Las Vegas. However, the data shows us that Macau caught up quickly and eventually outstripped Las Vegas. By 2007, Macau had already become the world's highest grossing hotel casino city.

2.2 Becoming the world's gambling capital (2008 – 2013)

In late 2007, the world was covered with a thick layer of economic uncertainty due to the financial crisis of epic proportions. From all of the places across the United States, Las Vegas was among those to suffer the most severe downturn. Some 7,300 miles westwards, a city in Southeast China quietly turned into the world's biggest destination for casino gambling. Still due to the Global Financial Crisis, that hit the economy hard all over the world, on April 22, 2008, Ho Hau-wah, then Chief Executive of the Macau SAR government, placed a range of restrictions on gaming industry development and put a halt to new casino concessions in the foreseeable future. The Macau government did not approve any land for the building of new casinos (an exception was made for existing hotel casino projects)[6]. Macau's gaming growth began to taper off in June 2008 and since then, the overall economy has inevitably been adversely affected[7].

[6] Sheng, C and Gu, C.: Economic growth and development in Macau (1999–2016): The role of the booming gaming industry, Cities (75), 2018, 72-80

[7] Yang, Z and Kwan, F.: Macao's Gaming-led Prosperity and Prospects for Economic Diversification, China: An International Journal (7/2), 2009, 288-319

Table 4. Direct investment flows by industry in Macau (MOP million)

Industries	2008	2009	2010	2011	2012	2013
Industrial production	122	-221	209	-85	-47	254
Construction	642	837	1,301	228	112	812
Wholesale and retail	407	1,637	3,056	3,773	4,500	1,340
Hotels and restaurants	-82	138	212	393	483	341
Transport, storage and communications	4	847	142	300	1	102
Cultural, recreational and other services	28	-158	7	4,247	2,580	949
Gaming	13,640	2,567	15,613	-4,647	20,679	27,809
Banks and Securities	5,473	944	1,536	1,870	3,948	3,461
Insurance	545	212	581	-261	403	992

Source: Census and Statistics Department, the Macau SAR, Direct Investment Statistic

From 2008 to 2013, as shown in Table 4, direct investments in the hotel casino industry in Macau were trying to keep gaming growth under control, but its' obvious that Macau was impacted too by the Global Financial Crisis, and slowdown in the direct investments was registered. As of 2008, Macau's direct investment flows generated 13,640 million MOP or 26,4% annual growth from 2007. In 2009, Macau's recorded the first decline in direct investment flows for 81,1%. In the following years, Macau growth of direct investment flows was variable, showing a slowdown, but in 2013 the direct investments recorded 25,6% flows from 2012, with the all-time recording 27,809 million MOP.

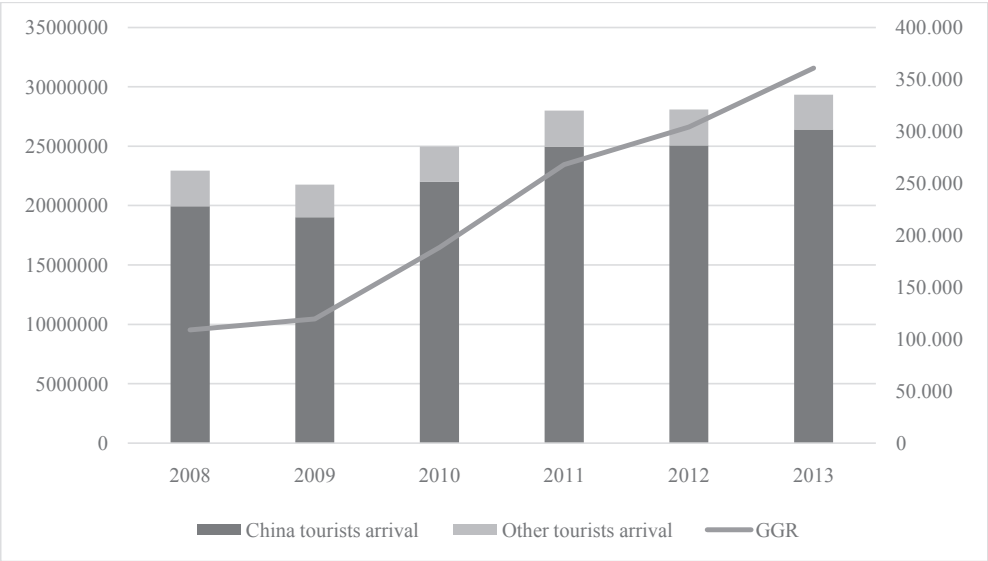
Table 5. Hotel Casino Revenues in Macau (MOP million)

Year	Casinos	Gaming Tables	Slot Machines	Total Revenues
2008	31	4,017	11,856	108,772
2009	33	4,770	14,363	119,369
2010	33	4,791	14,450	188,343
2011	34	5,302	16,056	267,867
2012	35	5,485	16,585	304,139
2013	35	5,750	13,106	360,749

Source: Macau Gaming Inspection and Coordination Bureau, Quarterly Gaming Statistics 2008 – 2013

Table 5 shows us Macau's gross gaming revenue (GGR) only from Games of Fortune. The gross gaming revenue grew at an average annual rate of about 69,8% between 2008 and 2013. The period is less for 3,4% than the given period between 2002 to 2007.

Graph 2. Macau's tourists' arrival, annual rate of GGR



Source: Macau Gaming Inspection and Coordination Bureau, Quarterly Gaming Statistics 2008 - 2013

Source: Census and Statistics Department, the Macau SAR, Tourist arrival 2008 - 2013

In Graph 2, the tourists' arrival in 2008 soared from 22.993,185 million tourists' in total to 29.324,822 in 2013, accounting for 21,5%. Chinese tourists' (Mainland China, Hong Kong and Taiwan) were again among the tourists' who most frequently visit Macau. For 2008, the tourists' arrival in total accounted for 17,7% and the GGR accounted for 23,6% from 2007. In 2008, the GGR soared 108,772 million MOP to 360,749 million MOP in 2013, accounting for 69,8%. Macau reached an all-time gross gaming revenue (GGR) high in 2013, when its hotel casinos generated 360,749 million MOP. At that time, the city's hotel casino industry was six times larger than that of Las Vegas.

2.3 A period of decline and rise again (2014 – 2018)

While 2013 was Macau's best year, and the period between 2008 to 2013 considered to be the boom for gaming growth, Macau has long been criticized for allegedly building a gambling industry on vice, organized crime ties and corruption. Macau was repeatedly warned against making itself too dependent on VIP customers from Mainland China, because that policy could destroy or at least weaken its whole economy. Chinese President Xi Jinping declared war on corruption when he assumed office in 2013 and made that war a cornerstone of his reign. President Xi showed that he intended to keep his promise to bulldoze corruption and as a result, the city's hotel casino revenue dropped.

Table 6. Direct investment flows by industry in Macau (MOP million)

Industries	2014	2015	2016	2017
Industrial production	27	306	454	225
Construction	737	2,394	2,582	1,130
Wholesale and retail	3,577	3,893	1,511	- 768
Hotels and restaurants	348	-763	- 815	- 373
Transport, storage and communications	147	811	354	33
Cultural, recreational and other services*	3,665			
Other services		- 194	-1,392	447
Gaming	12,435	-6,023	2,818	-3,052
Banks and Securities	4,933	7,795	4,914	4,018
Insurance	445	877	3,586	1,353

**As of 2015, Cultural, recreational and other services as registered only as other services*
Source: Census and Statistics Department, the Macau SAR, Direct Investment Statistic

Macau's Census and Statistics Department does not offer data statistics for 2018, so the direct investments will be analyzed until 2017. In 2014, Macau's direct investments recorded high slowdown until 2017. The highest direct investments in this given period are in 2014 with 12,435 million MOP and the lowest direct investments are in 2015 with -6,023 million MOP. 2017 finished with -3,052 million MOP drop.

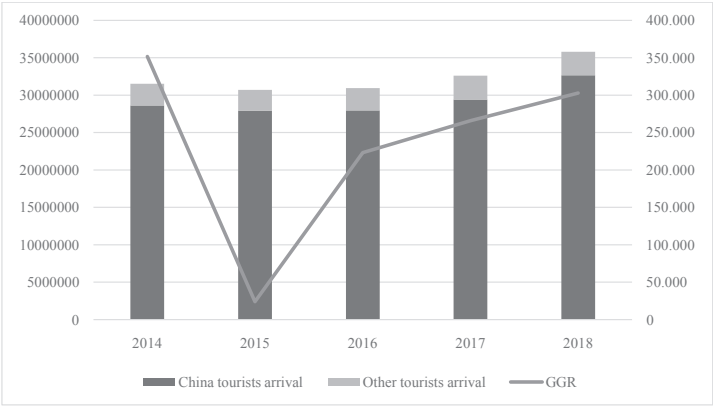
Table 7. Hotel Casino Revenues in Macau (MOP million)

Year	Casinos	Gaming Tables	Slot Machines	Total Revenues
2014	35	5,711	13,018	351,521
2015	35	5,957	14,578	23,840
2016	38	6,287	13,826	223,210
2017	40	6,419	15,622	265,743
2018	41	6,588	16,058	302,846

Source: Macau Gaming Inspection and Coordination Bureau, Quarterly Gaming Statistics 2014 – 2018

The rapid growth of hotel casino industry was suspended in 2014, when Macau's gross gaming revenue (GGR) experienced its first-ever decline since the liberalization of casino concessions, falling 93,2% from the year before. Macau saw a more dramatic drop in gaming revenue (GGR) from 2014 to 2018 by -16% drop as shown in Table 7. This decline was largely due to a sharp fall in revenues from VIP Baccarat, which has long been the most important source of revenue for Macau's casinos[8], mainly because the wealthy high rollers from Mainland China lessened their spending on gambling activities and disappeared from Macau.

Graph 3. Macau's tourists' arrival, annual rate of GGR



Source: Macau Gaming Inspection and Coordination Bureau, Quarterly Gaming Statistics 2014 - 2018

Source: Census and Statistics Department, the Macau SAR, Tourist arrival 2014 - 2018

[8] Sheng, C and Gu, C.: Economic growth and development in Macau (1999–2016): The role of the booming gaming industry, Cities (75), 2018, 72-80

In Graph 3, the tourists' arrival in 2014 soared from 31.525,632 million tourists' in total to 35.803,663 in 2018, accounting for 11,9%. For 2014, the tourists' arrival in total accounted for 6,9% and the GGR accounted for -2,6% drop from 2013. For 2015, the tourists' arrival in total accounted for -2,6% drop, which is 9,5% less than 2014, and the GGR accounted for -93,2% drop. This is due to Macau's resolution to avert their attention from the withdrawing VIP customers to recreational casino players and to non-gambling customers. For 2016, the tourists' arrival in total accounted for 0,7%, which is 6,2% less than 2014, and the GGR accounted for 89,3%. Macau's hotel casinos were quick to respond to the changing environment properly, changing focus to non-gambling entertainment and to mass-market casino players. Macau reported robust results in the gross gaming revenue (GGR) as of 2016. For 2017, the tourists' arrival in total accounted for 5%, which is 1,9% less than 2014, and the GGR accounted for 16%. For 2018, the tourists' arrival in total accounted for 8,9% and the GGR accounted for 12,2%.

For 2019 and beyond, analysts discuss that Macau will see a considerable increase in gross gaming revenue (GGR). According to a recent note by Morgan Stanley, revenue in Macau could reach 347,334 million MOP in 2019[9]. In other words, Macau has the chance to nearly reach its 2013 peak in the next few years.

Conclusion

Macau's period after the reunification with mainland China in 1999 and onward to 2018 is highly illustrative, marked by the opening-up of its gaming market and starting the booming hotel casino industry, with a subsequent phase of explosive gaming-driven growth to the first-ever revenue decline and restoring back from the slowdown to forecasting of estimation of achieving the all-time high gross gaming growth in the near future.

The hotel casino industry has brought great development in Macau. The most important contributions of the industry are in increasing government tax revenue, more employment opportunities for residents and a higher income. But the development of the hotel casino industry failed to bring along the development of other industries and to help diversify the Macau's economy.

[9] Beckett, S.: Las Vegas Casino Operators to Benefit from Continued Macau Growth, Analysts Opine, 2018, Available at: https://www.casino.org/news/las-vegas-casino-operators-to-benefit-from-macau, (11.02.2019)

Data statistics show us that Macau has to rely more on the hotel casino industry industry for its GDP and government tax revenue. However, Macau's hotel casino industry is about to face one crucial unprecedented disruption. Even though, the benefits of Macau's hotel casino industry are significant, there are risks since the concessions of the six current Macau operators expire in 2020, with a possibility to be extended for a maximum of up to five years from their original expiry dates. But Macau's gaming law states once a gaming concession contract expires, any new concession would have to be granted via a public tender. In the view of the wider market, analysts discuss that the effect of a decision on licence renewal next year may be disruptive for the prices of Macau gaming stocks while others think that licence renewal will have a disruptive impact, and the impact is likely to be controllable and still see upside potential for Macau gaming stocks in 2020-22 from current levels even if the most disruptive scenario occurs.

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UDK 330.34:334.722(497.7)
Original scientific paper

REJHAN SULEJMAN*

THE EFFECT OF ENTREPRENEURSHIP ON ECONOMIC GROWTH IN REPUBLIC OF NORTH MACEDONIA

Abstract

In 1956 Solow defined that capital and labor were the main sources of economic growth. Other scientist believed that the competitive advantage of large organizations was that they could go internationally and have more advanced knowledge unlike small companies. However, in modern economics different factors that influence the economic development are being analyzed. One of the factors that have gotten attention from many economists is entrepreneurship. Entrepreneurship that is described as a risk taking is seen as an efficient tool to generate new jobs, improve innovation and bring healthy competition in the economy. Today in Republic of North Macedonia, most of the companies are private enterprises, and SMEs are the driven factor in the business entities.

The main purpose of this paper is to present the development of entrepreneurship in North Macedonia in the period between 2011 and 2015. In other words, it analyzes how entrepreneurship has helped in the labor market and economic growth. In order to do this, firstly various arguments from different academic literature reviews were used. Through analyzes the paper shows that entrepreneurship is an important factor in the economy of North Macedonia, through the value added and through creation of new jobs.

Key words: entrepreneurship; economic growth; unemployment; added value; North Macedonia; employment
JEL Classification: L26; E24; O10

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Introduction

Entrepreneur deriving from the French words 'entre', meaning 'between' and 'prendre', meaning 'to take'. This word was originally used to describe people who 'undertake' a task such as starting a new venture, or people who 'take on the risk' between buyers and sells (Barringer et al., 2009). According to Fiti et al. (2007), entrepreneurs are the owners of enterprises that innovate and thus differentiate their business from their competitors, take the risk, combine, recombine and substitute the more costly production factors with cheaper ones and direct resources to the sectors of their most productive use. Entrepreneurship is a process by which individuals pursue opportunities without regard to the resources they currently control, and entrepreneurial firms are firms that bring new products and services to the market (Barringer et al. 2009, pg. 6). According to Fiti et al. (2007, pg. 6), the idea of the Austrian economist Joseph Schumpeter is that the entrepreneur is the pillar around which all events are turning. The most important characteristic for entrepreneurs is innovation, which according to Schumpeter innovation is first realized by the bravest, most dynamic and most energetic entrepreneurs. By innovating and bringing new products and services on the market, the entrepreneurs' demise whatever existed before it, which Schumpeter defined it as 'creative destruction'.

Traditionally, entrepreneurship has been linked to several economic factors such as economic growth, inflation, unemployment and interest rates (Sipos-Gug et al. 2015, pg. 602). Chandler, (1990) cited in Amoros et al. (2016, pg. 186) that scientists believed that only large organizations had competitive advantage, because small business could not handle the expensive and advanced knowledge, and only large organizations can have success internationally.

The main objective of this paper is to analyze the effect of the entrepreneurship in North Macedonia in the period 2011-2015. In other words, to analyze how entrepreneurship has influenced the employment and economic growth.

1. RESEARCH METHODOLOGY

This research uses a quantitative research of secondary data. It provides a documentary analysis through literature review of the previous related studies for the relation of economic growth with entrepreneurship and its development through time.

The secondary data for Macedonia were accumulated from the European Commission, Agency for Promotion of Entrepreneurship in North Macedonia and National Bank of Republic of North Macedonia. Through descriptive analysis of the secondary data, we define the number of new registered companies in North Macedonia, the number of active companies in North Macedonia, their added value and the number of people that these companies employ. The data used in this study are for the period 2011-2015, except for the number of new registered companies in North Macedonia which is for the period 2006 – 2015.

2. THE CHARACTERISTICS OF AN ENTREPRENEUR

In order to have a productive entrepreneurship the entrepreneur must have a good idea, experience and skills to manager his/her small business. The entrepreneurial skills are heavily required for success, because entrepreneurial activity play an important role for the rapid changes observed on the market requiring a series of forecasts and development of long-term strategies in order for the organization to survive. Sandri (2016, pg. 430), and Balan et al. (2016, pg. 253) agree that education is essential to entrepreneurship. Having a proper entrepreneurial education can increase the human capital, thus helping the economic growth. Rotar (2014, pg. 54), also agrees with this thesis, stating that entrepreneurial education would suggest a growing interest for entrepreneurial career and consequently the greater job creation and improved competitiveness of the national economy.

Entrepreneurship is characterized by risks, failures and opportunities, even if favorable results fail to appear, success can be accomplished by concentrating on new opportunities. However, scientists agree that the personal character of the entrepreneur has an important role on their business. Entrepreneurs have several characteristics in common such as innovative, risk taking, opportunist, communicative and flexibility in control (Rotar, 2014, pg. 51). Also, Barringere al.(2009, pg. 10), states that entrepreneurs have some

common characteristics such as passion for their business, persistence despite failure and performance intelligence and focus on the product/user. However, according to Amoros et al. (2016, pg. 192), it does not necessarily mean that entrepreneurs prefer to undertake risky actions; they just look at situations from a different perspective. It means that they spot opportunities when others do not, and they do not let the threats prevent them from entrepreneurial activity. Entrepreneurial qualities are equally found in both men and women, in elderly and in the younger and they do not depend on nationality, race, religious, social or other belonging (Fiti et al. 2007, pg. 27). According to physiological and sociological studies entrepreneurs genetically do not differ from other people, which prove the statement 'entrepreneurs are born not created' to be total myth. However, studies show that people whose parents have been self-employed are more likely to become entrepreneurs (Barringer et al. 2009, pg.15). The business environment is continuously changing and offering various opportunities, so the major concern for entrepreneurs is finding the appropriate opportunities that can become a source of income for an extended period of time, and hopefully become a long-term opportunity. However according to the Global Entrepreneurship Monitor, entrepreneurial activity is not a heroic act of an individual, regardless of the environment in which the activity is performed (Cristina et al. 2016, pg. 161).

3. ENTREPRENEURSHIP AND GROWTH

Even though the entrepreneurship is very old (Cristina et al. 2016, pg. 161), in the last decades entrepreneurship has gained too much attention not only from scientists but also from the government, looking at it as a vital factor for economic growth. In many countries changes were happening in industry structure such as technological changes, knowledge economy, globalization, deregulation, changes in labor supply, market fragmentation and industry instability causing the importance of small and medium enterprises to grow (Remeikiene, 2009, pg.903). The reasons why entrepreneurship is essential for economic growth is because mainly it generates jobs (Amoros et al. 2016, pg. 187, Cristina et al. 2016, pg. 162), also it generates competitiveness and professional capacity assessment (Cristina et al. 2016, pg. 162).

The major entrepreneurial outcomes that influence the economic growth are innovation, competition and job creation. According to Amoros et al. (2016, pg. 195), because the study has considered only low and middle

income countries, the rates of entrepreneurship are not related to the GDP per capita, however opportunity-based entrepreneurship is positively related to the GDP growth rate. Even though, scientists claim that entrepreneurship had a positive effect on economic growth, Sipos-Gug et al. (2015, pg. 607) claimed that in European Union the relation of entrepreneurship with GDP is not linear, because countries with lower GDP per capita tend to have lower entrepreneurial density, and that a richer economy provides stimulating effect and encourages more individual to take on the role of entrepreneur. Countries with lower GDP per capita, provide fewer opportunities, and make the people to focus more on industry. Deakins and Freel (2005, pg. 49), go beyond these theories stating that even though there is logic to argue that entrepreneurship causes economic growth, it is also likely to argue the reverse. That is, as the economy grows and more funds flow into the system, more opportunities for entrepreneurship are created

Nowadays, companies face fierce competition, so competitiveness depends on their ability to develop, implement and commercialize innovative solutions constantly. So in order to do so, companies need to introduce new product and services constantly on the market (Stratan et al. 2018, pg. 3). However, Petkovska (2008, pg. 28), does not totally agree by stating that today it is no longer current to ensure a good product or service in an absolute sense, but to go on to be better than the competition, i.e. to achieve and preserve the acquired competitive value. Also, according to Petkovska (2008, pg. 22), innovations are a recognizable feature of SMEs. Many of today's new products come from small businesses; this is because small businesses need a shorter period of time from innovation to commercialization, because small companies are mostly targeted to a single market segment.

Since employment became important for economic development, one of the major challenges faced by developing countries has been to create jobs for a growing population (Hyseni, 2016, pg. 29). After the financial crises in 2008, Europe had for the first time more than 23 million unemployed, and majority of small and medium enterprises had not been able to jump back to the previous level (Rotar, 2014, pg. 45). One of the tools that Europe has been using is entrepreneurship. Entrepreneurship is considered a special from of employment and very often is credited as a key influence on the economic growth in developing countries (Hyseni, 2016, pg. 29).

4. OVERVIEW OF THE ENTREPRENEURSHIP IN REPUBLIC OF NORTH MACEDONIA

According to the Agency for promotion of entrepreneurship in Republic of North Macedonia (APPRM), the main driver of the economy in our country is the private enterprise. They are an important factor for creating new jobs, increase exports and creating innovative products and services.

After the independence of Republic of North Macedonia, during the nineties the privatization and market liberation came along, and many state companies that were not able to deal with the challenge of market liberation were closed. Many unemployed people decided to use their entrepreneurial ideas to start their own business, and in which most of them would work family member. Even though, some of those companies were closed for a short time, and some of them are still present on the market being very successful there are no information for their strategic planning and growth, organizational structure and culture, financial strategy etc. The decision to open their own business according to Markoski et al. (2012, pg. 311) usually comes from the desire to have permanent jobs, free financial resources and possession of entrepreneurial spirit. Ramadani (2013, pg. 492) supports this view, stating that people are motivated to start their own business in order to earn more money, to be independent, to use a profitable opportunity in the market, the desire to be entrepreneur, and the impossibility to find a better job with higher salary.

The economy of North Macedonia has faced many challenges since the independence in 1991, such as hyperinflation, the trade embargo from Greece, high unemployment rate etc. However, according to the data from the APPRM (2015, pg. 9), the economy in North Macedonia despite the risks and uncertainty that it has faced it has kept a solid growth. Between the periods 2011-2015, the growth of GDP has been stable, with a growth of 2.3 in 2011 and 3.9 in 2015, except in 2012, when it went in recession with -0.5 as a result of financial crises in EU (NBRNM, 2019).With the stabilization of the economy from the independence in the nineties, the Law on Trade Companies (2004) was adopted, which according to the criterions of EU classifies the small and medium enterprises according to three requirements: number of employees, annual turnover and the value of the business assets.

As was mentioned above by Sipos-Gug et al. (2015, pg. 608), the

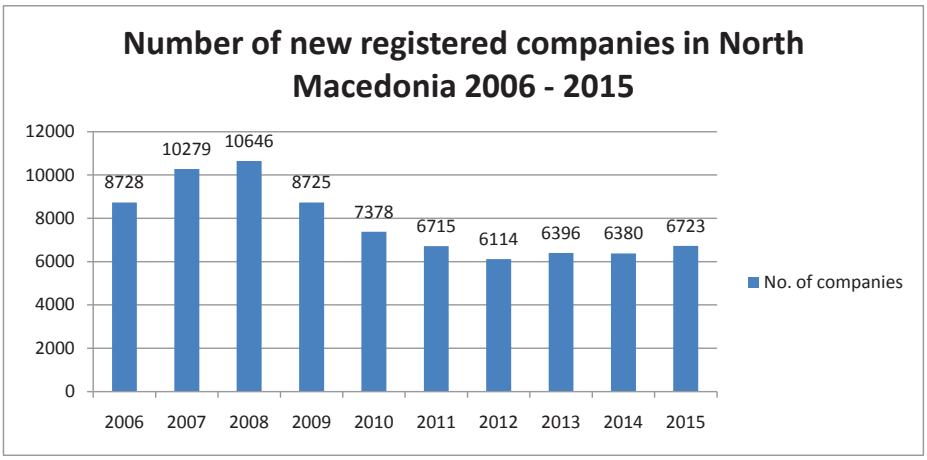
procedures for starting a new business influence the entrepreneurship. In North Macedonia since 2005, the Law for one-stop-shop registration system has been functioning. This system represents a single electronic register on the territory of the Republic of North Macedonia, and it makes an easier access to information to the public. From one counter you can get accurate information about business partners, financial reports and current condition of any legal entity. It has shown to offer many advantages to the business entities, because it is time and cost effective. Beside the one-stop registration system, another advantage for opening a new company in North Macedonia is the low cost. With the new electronic registration in the Trade Registry and the register of other legal entities, an application for registration, changing and deleting can be submitted. The cost for online registration of a new company is 0,00 denars (MKD). However, there are some small additional costs such as 2000,00 to 5000,00 denars(MKD) for preparation of documents by an authorized registration agent, 350,00 denars for preparation of an official stamp, and 300,00 denars for notary fees (APPRM, 2015, pg. 27).

The unemployment in Macedonia had huge decrease in the period 2006-2015. According to the State statistical office of Republic of Macedonia in 2007 the unemployment rate was 34,9%, in 2015 was decreased to 26.1%. The employment programs are as one of the pillars of macroeconomic policy. The Ministry of Labor and Social Policy, the Employment Agency of Republic of North Macedonia and the Agency for Promotion of Entrepreneurship Development Program of the United Nations established a self-employment program with grant offering as a tool to increase the entrepreneurship and to decrease the unemployment. The grants were offered for direct support for procurement equipment and materials and basic entrepreneurship training (APPRM, 2015, pg. 49).

4.1 The growth of SMEs in Republic of North Macedonia

Since the adaption of the new Law for registration many companies have been opened. In Table 1 it is clearly explained the number of new companies registered from 2006 which is the year after the adaptation of the Law for registration until 2015.

Table 1. Number of new registered companies in North Macedonia 2006-2015



Source: Observation for SMEs in R. of Macedonia – 2015, Agency for Promotion of Entrepreneurship in Republic of Macedonia

In Table 1.we can see that the first three years after the new Law for registration was adopted, there was an increase of new registered companies in North Macedonia for 21.97%, however from 2009 until 2012 we have seen a decrease of new companies for 29.92%. In the period 2012-2015, there was an increase of new companies in North Macedonia for 10%, but nevertheless it has not been successful as 2008, which was the year with the most new companies opened in these 10 years.

Table 2. Number of Enterprises in North Macedonia 2011-2015

Size of company	2011		2012		2013		2014		2015	
	Number	Share	Number	Share	Number	Share	Number	Share	Number	Share
Micro	71797	95.4%	48580	91.1%	48394	90.9%	47761	90.6%	48981	90.4%
Small	2850	3.8%	3937	7.4%	4041	7.6%	4112	7.8%	4306	7.9%
Medium	493	0.7%	707	1.3%	702	1.3%	693	1.3%	739	1.4%
SMEs	75140	99.9%	53224	99.8%	53137	99.8%	52566	99.7%	54026	99.7%
Large	88	0.1%	129	0.2%	123	0.2%	143	0.3%	157	0.3%
Total	**75228**	**100%**	**53353**	**100%**	**53260**	**100%**	**52709**	**100%**	**54183**	**100%**

Source: EU Commission –SBA Fact Sheet of FYROM 2013-2017. The data cover the non-financial business economy such as construction, industry, trade and services, except agriculture and other non-market service sectors such as health and education.

Although the number of new registered companies has been increasing since 2012, the overall number of enterprises in North Macedonia has been decreasing in the period 2011-2015, going from 75228 to 54183. Along with this decrease the number of SMEs has been decreasing too for 28.1%, but on the other side the number of large companies has grown in these 5 years for 78%, going from 88 to 157. But, although the number of large companies has increased in this period, still its share from the total amount of companies is very low with only 0.3% in 2015. On the other side, SMEs represent 99.7% of total companies in 2015, which proves to be the driven factor in the business entities in North Macedonia. Most of the SMEs companies are micro companies with an average of 92% of the total companies of North Macedonia. According to the State Statistical Office of North Macedonia, most of the SMEs are in the sectors of wholesale and retail trade, unlike large companies who are mostly in the sector of manufacturing.

Table 3. Value Added in Millions of Euros

Size of company	2011		2012		2013		2014		2015	
	Number	Share	Number	Share	Number	Share	Number	Share	Number	Share
Micro	602	26.8%	790	24.8%	/	23.8%	783	23.1%	818	21.88%
Small	578	25.7%	690	21.7%	/	23.0%	770	22.7%	836	22.36%
Medium	350	15.6%	610	19.2%	/	19.7%	660	19.4%	758	20.27%
SMEs	1530	68.1%	2090	65.7%	/	66.6%	2213	65.2%	2412	64.51%
Large	716	31.9%	1090	34.3%	/	33.4%	1181	34.8%	1327	35.49%
Total	**2246**	**100%**	**3180**	**100%**	**/**	**100%**	**3394**	**100%**	**3739**	**100%**

Source: EU Commission –SBA Fact Sheet of FYROM 2013-2017. The data cover the non-financial business economy such as construction, industry, trade and services, except agriculture and other non-market service sectors such as health and education.

Beside the decrease of total companies, the total added value has increased. However, the added value of SMEs has been decreasing in the period 2011-2015, going from 68.1% to 64.51%. Even though we have a decrease of total companies, SMEs have a higher percentage of added value than large companies, which proves that they are an important factor for the economic growth. Table 3 shows that in 2011 from SMEs, micro companies had the highest added value, but in 2015 this situation changed with small companies having the highest added value. On the other hand, even though the number of large companies is very low, less than 1%, the added value of large companies in 2015 was 35.49%.

Table 4. Number of people employed

Size of company	2011		2012		2013		2014		2015	
	Number	Share	Number	Share	Number	Share	Number	Share	Number	Share
Micro	121988	44.8%	111288	33.4%	113536	33.3%	114079	32.4%	119026	32.33%
Small	55059	20.2%	73252	22.0%	75758	22.2%	77789	22.1%	82079	22.29%
Medium	44266	16.3%	70623	21.2%	72234	21.2%	68450	19.4%	72706	19.75%
SMEs	221313	81.2%	255163	76.6%	261528	76.6%	260318	73.9%	273811	74.37%
Large	51092	18.8%	77782	23.4%	79838	23.4%	91767	26.1%	94348	25.63%
Total	**272405**	**100%**	**332945**	**100%**	**341366**	**100%**	**352085**	**100%**	**368159**	**100%**

Source: EU Commission –SBA Fact Sheet of FYROM 2013-2017. The data cover the non-financial business economy such as construction, industry, trade and services, except agriculture and other non-market service sectors such as health and education.

As mentioned before, many economists see the entrepreneurship as a tool to generate new jobs. Even though we have a decrease of companies in North Macedonia, the number of people employed has increased. Table 4 shows that SMEs are the main employers in the business entities in North Macedonia. However, the number of people employed in SMEs has been decreasing starting in 2011 until 2015, from 81.2% to 74.3% respectively. On the other hand the number of people employed in large companies has increased from 18.8% to 25.63%, this shows us that there is a movement of employees from SMEs to large organizations. In North Macedonia, micro companies are the ones that mostly create jobs, although this number has been decreasing too.

Conclusion

Entrepreneurship that is described as a risk taking is seen as an efficient tool to generate new jobs, improve innovation and bring healthy competition in the economy. In order to have a productive entrepreneurship the entrepreneur must have a good idea, experience and skills to manager his/her small business. The entrepreneurial skills are heavily required for success, because entrepreneurial activity play an important role for the rapid changes observed on the market requiring a series of forecasts and development of long-term strategies in order for the organization to survive. According to the Agency for promotion of entrepreneurship in Republic of North Macedonia (APPRM), the main driver of the economy in our country is the private enterprise. They are an important factor for creating new jobs, increase exports and creating

innovative products and services. The economy of North Macedonia has faced many challenges since the independence in 1991, such as hyperinflation, the trade embargo from Greece, high unemployment rate etc. In the last 15 years, the government of Macedonia has been trying to help in self-employment and small companies through different policies and by giving grants.

From the analyzes of this paper we can conclude that, SMEs represent 99.8% of the companies in Macedonia, although the number of new registered companies has been increasing since 2012, the overall number of enterprises in North Macedonia has been decreasing in the period 2011-2015. The paper also shows us that the highest share in the value added have the SMEs, although their share has been decreasing more. Also, we can conclude that the highest share of mostly generated jobs in North Macedonia have the SMEs, with 74.37%, however even in this field we see a decrease of the share of SMEs.

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Professional paper

MIKI RUNTEV*

NEW INSTRUMENTS AND INNOVATIONS IN THE FINANCIAL MARKETS IN THE EUROPEAN UNION – TENDENCIES AND CHARACTERISTICS

Abstract

The motive for writing the paper is to answer the question of whether and how many new financial instruments will have a positive impact on the overall socio-economic and financial relations in the markets across the European Union. This paper links questions from defining relevant new financial instruments to support companies and financial markets in the EU as well as from their further innovative technological development.

The main research question is what are the latest global trends and features of new innovative instruments in the European Union after major market turbulence and crises. For this purpose, this paper generally, is divided into quantitative and qualitative methodological studies. In this context, new features and peculiarities of the markets and innovative technologies in Europe that cover a wide range of financial instruments are revealed.

The aim of this paper is to present new instruments and their variants, as well as the existence of derivatives that comprise the spectrum of instruments with which the financial markets operate. In this direction, this paper to describe various specific types of financial instruments, but also how they can be used to support innovation in markets across the European Union.

The research expects the following results: that the progress of the research innovation system is more actively required for a more comfortable economic environment for the development of small and medium-sized companies, technological improvements and innovations, with the aim of better progress in the European market economy.

Keywords: Innovations; New financial instruments; European Union; financial markets; Companies.
JEL Classification: G23, G24.

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Introduction

In the last few years, the European Union has drawn attention to the introduction and support of significant new instruments and innovations, which would be a set of measures aimed at forming simple and acceptable funding instruments. In the world practice, in the initial stages, involvement of professional players in the sector – investing investors. The goal was to find better alternative sources of funding. Further, the development of "public funding" also allowed the collection of funds for projects from those who believe in new products and are ready to invest in the future.

Therefore, this paper explores several types of instruments called new "innovative funds", "instruments", defined as grants or subsidies, a method for a smarter "financing mix." Namely, these instruments are in the form on loans, capital, speculative and guarantees, which are considered to be particularly effective way to increase the impact of EU funding.

The subject of paper, is to present the main features of the new financial instruments in the field of public policy that require an efficient monitoring and evaluation system pre-established in order to successfully meet the objectives.

Therefore, this paper is aimed at exploring several important goals: a) Defining relevant new financial instruments; b) Assess their potential to support the growth of innovation in the EU by providing finance, and in order to make more market breakthroughs; v) Develop recommendations and policies, focusing on the most important approaches and trends to be taken into account, the challenges and further steps for consideration.

Namely, the focus is on: co-investment along with investment; mixed financing instruments; copyright-based funding (a thorough fee) as well as the determination of the additional features and clauses of the financial instruments; (identified as a means and a mechanism for repayment of grants), as well as business angelic investments.

As a problem, it can be said that the potential of these instruments is not currently fully utilized for innovation by companies in the EU and Southeast Europe. But also from the inability to determine the segments suitable for better and successful implementation of the new financial instruments.

The research expects the following results: that the numerous technological changes, the internationalization of businesses and the growing global competition dictate more dynamic working and development conditions.

Therefore, through the new instruments and the support of a dynamic and flexible sector, financial markets in the EU can be much easier to adapt and respond to changes and consumer needs.

The ultimate goal is to gain knowledge to overcome the current shortcomings, problems and risks of the instruments, their products, processes and services. As well as new greater opportunities for progress and sustainability of the economy, markets and economies in the EU.

1. DEFINING RELEVANT NEW INNOVATIVE FINANCIAL INSTRUMENTS IN THE MARKETS

The development of finance is of great importance for innovation, because it allows markets or companies to conduct research, adopt the necessary technologies for innovation, how to commercialize and develop innovation. Therefore, financial markets can use different instruments provided through different types of financial intermediaries, investors or other types of organizations to finance their innovation activities.

Access to external sources of finance can often challenge the early stages of business development. This is so because at the initial stage, markets can face high barriers to accessing finance. To this end, the available European programs have begun to stimulate innovative processes through alternative sources of funding, including formal and informal risk capital, such as business angels, venture capital funds, co-investing, mixed instruments, funding based on copyright, revolving fund and so on.

1.1. Co-investment

The co-investment fund is usually defined as commercially oriented assets supported by the public finances. Because they are most often devoted to procuring finances for capital of companies in partnership with investors from the private sector. For the co-investment fund the most important thing is that it has a positive influence on the underdeveloped financial markets and for the small and middle range companies in EU as well.

The goal of co-investment is to consider the condition when the government is entering an asymmetric relation with a partner organization of qualified investors. The public subjects can use private money and finances in innovative companies with certain areas or sectors with the co-financing.

Nevertheless, the focus of this study is connecting the co-investment with the funds of VC-funds, which, when there aren`t any financial resources and are interconnected with the governments which are not well positioned to evaluate the possibilities and to build businesses, and do not have a specific network for the industry. In the addition of this, the co-investments together with the funds of VC-funds can in many cases overlap in the government programs of investment through the business angels. There is a significant experience of the public investment funds which are connected with the business angels and their functioning.

Examples for this are the cases where the programs are opened for VC funds and for business angels. These programs primarily targeted venture capital but they can shift their focus to include the business angels.

Of a particular importance is that there is no universally accepted definition of what exactly distinguishes business angel funds from VC funds. For this paper the structural differences between these two models are relevant. This is what determines their applicability to a particular market situation. These differences relate to the sources of funding and the way they can be invested, as both affect the size of the transactions. Business angels and venture capital appear to be alternative financing modes that do not mix well. The stepping stone model where business angel financing is followed on by VC financing rarely applies in reality. Nevertheless, Co-investment is not an identical process to fund investing and is a sophisticated investment strategy that is actually difficult to execute.

Generally, business angels fill this gap between personal savings and institutional capital funds and contribute their expertise, knowledge and contacts to the business they invest in. Once the firm has undergone an early stage further injection of capital is needed to finance the growth of production and distribution capacity.

According to this, it can be noted that co-investment with business angels can work in any market in Europe. Business angels are more active than venture capitalis in the very early stages, thus, in many regions the dealflow is insufficient to support specialised VC funds of a meaningful size for institutional investors, what is more, the insuring funds in this part is much harder. On the other side, while co-funding through business angels it is possible to collect money project-by-project and to build portfolios on couple

of say quality investments that are spread over the industry sectors and the phases of investment. Some co-investment funds like for example the Scottish Co-Investment Fund and the New Zealand Seed Co-investment Fund are viewed as the 'gold standard' for successful support of the business angels.[1]

With a small developed market of business angels the fund managers have to 'drag' the private sector in. For instance, the North Ireland Co-Investment Fund is operating in a less developed business angel market and is taking an active role in sourcing deals, conducting due diligence and making investment decisions. In contrast, the Scottish market is more developed and the Scottish Co-Investment Fund taking a more passive role alongside the private sector with the high level of delegation of decision making. An existing body of evidence reveals that BA investment schemes are attaining their key objectives. Scotland can be separated as an example; it has a high number of skilled and active business angels, whereas countries like Romania and Bulgaria are completely different. Even in the UK, there are different models of co-investment funds for Wales, London

In the survey performed on co-investment amongst 80 GPs worldwide by Preqin in 2014, 75% of fund managers saw the construction of a stronger relationship with limited partners as an important benefit of co-investment, and 45% of responders mentioned the improvement in chances of successful fundraising as an important benefit. Moreover, it is widely believed that co-investment returns are higher than fund returns for less risk.[2]

Therefore, it can be determined that co-investment funds partnering with business angels are likely to have a positive impact in the seed and early stage phase as well as in underdeveloped markets, while co-investment with venture capitalists requires an already established VC market. In the seed and early stage financing area where business angels take a strong role, a Pan-European approach is less important, whereas for later stage investments an international orientation becomes highly important. Because of this reason, VC co-investments are likely to end up continuing to concentrate funding on existing "hot spots"of innovation and venture funding in Europe.

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[1] New financial instruments for innovation as a way to bridge the gaps of EU innovation Support Final Report April 2017 p.23

[2] These results are in line with the feedback received from European industry practitioners (Duong, 2014)

1.2 Blending or blended instrument

Part of a smarter "mix of funding", determined by the European commission which has drawn the attention to "innovative funding instruments", defined as instruments which are complementary with grants or subsidies, loans or equity.[3]

However, that uses a broader definition of blending as "the strategic use of development finance and philanthropic funds to mobilise private capital flows to emerging and frontier markets".

These mixed instruments can be used to attract additional funding for important investment in innovation, by reducing risk exposure. They can increase capital gains and the sustainability of funding methods. However, these mechanisms for interfering with innovation are not very common at the level of the European Union. They are most developed in Spain, the Netherlands, Austria and Norway for the development in the ecological spheres. This is important because it provides financial protection and provides protection against losses.

Some institutions view mixed financing as an additional source of funding and as a reliable signal for sustainability of the project. In general, blending instruments address sub-optimal investment situations. They can be are used for projects that have a positive economic rate of return, butt hat are not attractive to financiers without a grant element. The important thing about this instrument is that need to be managed internally by the innovation agency, and never by an intermediary.

The main benefits of blending for public entity can be: a greater flexibility of the instrument; a higher sustainability of the instrument (due to the revolving effect); a lower moral hazard and leveraging of other public and private funding opportunities. Blending instruments allow for an increase in flexibility of the instrument, as the amount of money supplied can be tailored to the real needs of the project. As a result, the implementation of the project can be accelerated.

Not only that, but also by combining grants with loans, the public entity increases the overall amount of funding available, and therefore can support a bigger number of companies.

[3] https://ec.europa.eu/europeaid/sites/devco/files/evaluation-blending-volume1_en.pdf

Thus, it can be noted that blending instruments do well with scalability and transferability; there is no particular reason why the schemes should not be adopted by other countries and/or at European level. However, to the institution managing the scheme, it is very important to keep the instrument flexible and to adapt to all the deviations from the project plan that the company goes through. Also the monitoring is very important due to the fact that the team working on the scheme has limited resources and is quite small.

While the banking sector has a more sophisticated scheme, in order to increase the focus on the monitoring system. Therefore, companies are keener on receiving grants rather than loans. This is an important factor that does not have sectoral limitations. All of the relevant actors should know the institutions providing the scheme so they can refer to them when they cannot fund start-ups for whatever reason.

1.3. Royalty-based financing

The concept of royalty-based financing is correlated with various terms of which definitions are not always clear and transparent. The term is often used in exchange with the term revenue-based financing and performance-based financing, or classified together with the latter under the umbrella of quasi-equity. Regardless of the term, for the purpose the concept of royalty-based financing refers to the financial instruments that are correlated with the future cash-flow of the company. Royalty-based financing is defined as an investment vehicle, where money is lent from an investors in order to finance future capital projects. The royalty-based financing is classified as a form of quasi-equity financing where the investments are usually base on the company's future cash flow growth. Quasi-equity, including royalty-based financing, differs from a loan in the sense that it is dependent on how the company performs in the years after the investment. This implies that the availability of data is extremely important in order to minimise the risk that is possible when investing in a company.

Royalty-based funding has been often, and mostly, applied in the private sector, in particular in the pharmaceutical, oil and gas industries. Some of the examples include: Royalty Pharma in US, LifeCycle Pharma[4] in Denmark and Aeterna Zentaris[5] in Canada and Germany, for the pharmaceutical sector, or

[4] http://www.royaltypharma.com
[5] http://www.aezsinc.com

the American BP Prudhoe Bay Royalty Trust[6] for the oil industry. For research institutions, royalty-based financing represents a common financial mechanism that enables them to acquire funding necessary to develop and commercialize a new, disruptive technology.

In its concept, this instrument is considered as a wiser way of supporting innovative projects, as it focuses on their success and does not hamper their development in the initial phase. Regarding companies, the royalty-based financing system is particularly appealing for start-ups in the technology and service sectors that are likely to achieve high profit margins in the future, but need a high level of investment at the beginning of the project.

According to the previously stated, this instrument gives the following benefits for companies: no personal liability; variable, flexible payments; limited payback amounts (capped); no conflict over valuation of the company; the instrument cannot be overly complicated; it should be quick and commercially minded.

It can be noted that the instrument should be run in close collaboration with the market to gain advice and knowledge. This sort of instrument requires close monitoring and evaluation of projects with a substantial team in place. Nevertheless, the focus is placed on monitoring, which increases the administrative burden for the companies, because of what both aspects should be leveraged.

On the other hand, royalty financing presents some challenges. As the example, an investor (or a lender) benefits when a company is doing well, but also bears certain risks when a company doesn´t generate positive cash flow. For that goal, the risk can be only partially mitigated by warrants and guarantees. However, the paybacks are usually slow since they are not provided until a certain revenue threshold is reached. Namely, since a market for royalty-based financing does not exist, once the investment is made, investors have very limited options for liquidity.

Regarding the beneficiaries, they can suffer from the fact that royalty-based investors-lenders are usually not committed to future company growth and they do not provide follow-on funds to investees.

[6] http://www.reuters.com/finance/stocks/companyProfile?symbol=BPT

1.4. Revolving nature of funds

This financial instrument can play a significant role on the markets. Thus, other than grants, whether equity, or debt-based, or a mix of both, can be revolving in nature, meaning the revenues come back to the instrument and, as a result, an instrument is more sustainable than grant. The instrument does not imply that all the capital is recovered from project. However, once the capital is recovered, even if partially so, it is reinvested for new operations. Also, the revolving character of the instrument increases the efficiency and sustainability of public funds in the long term. The requirement to repay stimulates better performance, improves the quality of the projects. It promotes better planning and their greater financial discipline. But it increases the efficiency of the instrument with respect to grants that are typically threatened by hazard.

Namely, this instrument requires appropriate trained resources and an organisational structure it requires the appropriate monitoring system to be established upfront in order for it to be effective. But, financial instrument supporting innovation can only be partially revolving.

The revolving fund, also, allows the funding of a continuous cycle of operations exploiting the revenues generated. However, once the capital is recovered, even if partially it can be reinvested for new operations. Revolving funds are able to support projects characterised by long-term repayments and higher risks, as they receive an inflow of repayments from a differentiated portfolio of projects. It is considered that the funds that are revolving in nature are particularly suitable for long-term payback projects often associated with the innovative framework. Thus, innovative projects in their early stages may require a considerable amount of time to be implemented and as a result, they need more time to start repayments. Today they have been widely applied of environmental projects. For example, the JEREMIE initiative (Joint European Resources for Micro to Medium Enterprises) offers EU Member States, the opportunity to use part of their EU Structural Funds to finance SMEs by means of equity, loans or guarantees, through a revolving Holding Fund acting as an umbrella fund that receives repayments from the financial intermediaries for further investments in the SME sector.[7]

[7] New financial instruments for innovation as a way to bridge the gaps of EU innovation Support Final Report April 2017 p.45

Perhaps the most prominent example in Europe of the revolving nature of instruments for innovation is a blended instrument Innovation. The partially revolving feature of the instrument is the result of the friction between the innovative nature of the targeted projects and the sustainability of the instrument. The innovation credit finances projects with a high level of risk, though some projects fail to repay the money.

In addition, in order to obtain a valuable revolving effect, sufficient financial instrument resources need to reach the final recipients in due time. This means that both the management of the fund and the cycle of repayments should allow the fund to be able to provide projects with the adequate financial support in due time for their future development.

Thus, the European guarantee and loan funds, applied in the rural development area in the period 2000-2013, shows that there was no leverage and revolving effect in the case of many regional funds. That is mainly due to: the delays in the implementation of the revolving fund; the lack of adequate provision to encourage the achievement of the expected benefits in the legal framework and the lack of appropriate monitoring systems to track whether the instruments had achieved their objectives effectively.[8]

According to these, instruments in the European Union it can be pointed out that today numerous technological changes, the internationalization of businesses and the growing global competition dictate more dynamic working and development conditions. It is precisely through the new instruments and the support of innovation that one more dynamic and flexible sector in the EU can be expected. For example, such as small and medium-sized enterprises and technology development, EU companies and banks will be more easily adaptable and responsive to market changes and consumer needs. In the next period, companies should be more prepared from more accessible and modern market services. Therefore, an effective innovation policy requires a combination of three key dimensions*: that Europe needs to reform, invest and transform innovation.* This means that there should be a capacity to transform the structure of economies towards more intense and innovative industries and services.

[8] https://ec.europa.eu/regional_policy/sources/thefunds/instruments/doc/jessica/jessica_fg_final_report_en.pdf

Conclusion

This paper seeks to give directions so that companies and managers in the developed EU countries, better position and support in order to take advantage of the opportunities offered by new instruments and technologies. With greater competition in financial markets in the EU, financial services in the future should provide a favorable environment for innovation by introducing various new instruments.

In this regard, the EU should seize the opportunities and advantages offered by other worldwide financial instruments, which are not sufficiently developed or not practiced in the Union. However, for this purpose, additional comparative analyzes and surveys should be made.

So far, in this paper, it identifies the need for writing what is expected of new innovative financial instruments in the future in order to fill the gap between the personal funds and the institutional capital funds which will contribute to better development for the business and the economy in the EU.

In conclusion, it can be determined that the various measures for improving the situation are feasible and realistic and should be directed towards the innovative instruments themselves, towards companies, financial intermediaries, and to public policy as a whole in the EU. However, these types of instruments require their management by professionals and making great efforts in the ongoing monitoring for better evaluation of projects.

According to what has been said so far in this paper, it can be pointed out that the new financial instruments contain important advantages, such as: ability to attract funds from a wide range of people, low transaction costs, high settlement rates, and simplified legal form for attracting investment resources, technical-technological progress and so on.

The based on the analysis of the instruments collected during this paper, one can conclude that: co-investment is always associated with capital financing and is a relatively commonly used financial instrument in Europe. But, co-investing with business angels is simpler for financing in the early stages of underdeveloped markets.

While the use of the mixing instrument for innovation (a mix of grants with other types of instruments) is still rare and predominantly contains a form of loans that can be converted into grants in case of failure, favorable loans or partially refunded loans. They can, also attract additional funds from other sources.

With the use of the royalty-based financing instrument, it is concluded that here the financing is mostly by public entities, and the aim is to support innovation. In addition, this instrument is very flexible since it releases companies from the burden of repayment before reaching a certain level of revenue.

Regarding royal funding, a sense of a quasi-indicative instrument is widely understood, it combines debt with some capital features, which is usually without proprietary and rights investors have very limited options for liquidity.

The revolving nature of the instrument is treated as one of the most important features of the new financial instruments in the Europe.

In addition, these instruments analyzed are relatively young - most of the instruments such as co-investment were funded after 2005, while most of the instruments, such as mixed, were funded after 2008.

The analysis of these various types of financial instruments within labor reveals that, although some instruments are more stable than others with their own specific characteristics and different functions, they can ultimately achieve their key objectives.

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