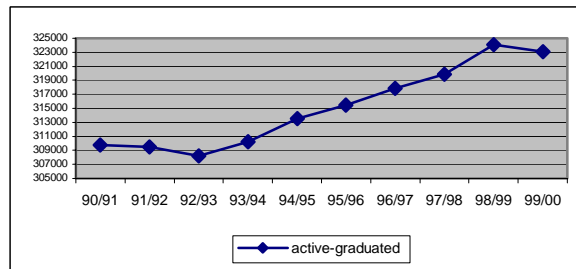


IS THE WORKFORCE IN MACEDONIA MOVING TOWARDS HUMAN CAPITAL PRODUCTION?

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Recently we had the opportunity to find out that a large number of students from Macedonia that are abroad has increased and that currently, there are approximately 600 students from Macedonia only in the United States of America. Aside from having aspiration to study abroad, the willingness of the Macedonian students to study is manifested via their participation within the domestic educational institutions; we need only mention the entry exams and the conditions subsequent to the exams in front of the universities and the high schools. In addition, we are witnessing the increasing rate of service from other educational institutions in the country. The question now is whether the Macedonians are moving towards a higher level of participation within the education sector, in other words whether the human capital production has a lower opportunity cost than the sector for the production of goods and services. The graph below shows an increasing participation by candidates within the educational institutions in the Republic of Macedonia.



The graph displays the difference between the total number of candidates in elementary, secondary, high school and higher education and the total number of candidates that have completed their education on the levels previously mentioned during the applicable school year. The source of the data is the State bureau of statistics. We can see the difference between students that are actively involved in education and the graduates, and high school graduates and the students in elementary school in Macedonia is increasing, beginning with the school year 1992/93; the latter is possibly due to the higher level of entry by new students or the ever increasing delay in presence within the educational institutions where the candidates, due to various reasons exceed the standard time schedules, defined by the curriculum.

In what manner exactly do such inter-sector rearrangements influence the situation in Macedonia and more specifically, in what manner they influence the work force market? Primarily, here is a short review of the grounds that could lead to the participants in the work force market anticipating higher potential yield providing they contribute in creating human capital.

The Republic of Macedonia has passed through the first phase of the process of transition in which we have seen the lowest level of GDP and the highest level of unemployment as well as stabilizing the high rate of inflation. Today, all the macroeconomic indicators are stabilized, however the economy is experiencing a stable condition of low growth and low capital accumulation, which could lead Macedonia into a poverty trap. On the one hand, currently, Macedonia has all the pre-conditions for entry into the second phase of the transition and via development of the institutions, the fight against corruption and criminal

activities; on the other hand via the possible entry into the poverty trap, by efficiently using and allocating high amounts of donations received from abroad and the high level of savings and deposits intended for increasing the economic growth.

The situation subsequent to the first phase of transition was followed by institutional obstacles that created a situation where it was difficult for enterprises that were subject to restructuring to exit. Moreover, the qualified and creative workers were still employees within enterprises that were not functioning any longer, in other words the so-called loss-makers. A large number of the workforce was released from the employment posts, and once they became just a part of the large number of unemployed persons, their know-how and specific skills have lost value. In other words, their skills and knowledge depreciated and they became less competitive on the labour market; the latter led to the discouragement of the work force (around 60% of unemployed persons) because a large number of those workers searched for employment for over 4 years. The organization of the pre-qualification and re-training of the latter in order to obtain more flexible work force which was scheduled to occur at the time during which the economy shifted towards market economy, unfortunately did not occur, or it was too weak, inefficient or there wasn't any feedback. The government did not succeed to take over the central role in order to ensure adequate systematic development of the new sectors as well as taking all the necessary steps and measures to ensure a sustainable environment for the SME which should have eased the level of unemployment during the transitional period as well as create an environment that would have provided a more flexible work force.

The unemployment became an ardent problem for the Republic of Macedonia. However, the structure of unemployment itself is specific. As we can conclude from the table below (the level of unemployment according to the age group), the highest portion of the workers that have been discouraged by the circumstances in the economy falls with the age group between 25-39 years, thus representing 58.1% of the total number of discouraged workers (column 3). Column 4 represents the relationship between the discouraged unemployed persons within their own age group; thus we can conclude that the larger the number of unemployed persons within the productive age group (30-39), the more likely it is they shall fall into the category of discouraged unemployed persons. Providing the unemployed persons are within the age group younger than 24, then it is less likely they are discouraged.

Data taken from LFS for the year 2000			
	More than 4 years	As a % of total number of discouraged workers	As a % of unemployment within own age group
(1)	(2)	(3)	(4)
15-24	20464	13.0%	28.1%
25-29	37637	23.8%	69.4%
30-39	54121	34.3%	77.4%
40-49	30922	19.6%	72.0%
50-59	13143	8.3%	68.1%
60-64	1308	0.8%	67.2%
65-80	386	0.2%	66.2%
Total	157981	100.0%	-

From the following table, we can conclude that a large number of the discouraged workers have elementary education (36%), and 48.7% are high school (finished 3 or 4 years) graduates. By looking at the last column, we can conclude that in the Republic of Macedonia, the higher the level of education, i.e. the higher the number of educated people, the less likely it is that they'll be discouraged (with the exception of persons who have PhD).

Data taken from LFS for the year 2000				
	More than 4 years	As a total %	Unemployment according to education	As a % on unemployment in education
Without education	3086	2.0%	4272	72.2%
Incomplete education	10070	6.4%	14051	71.7%
Elementary education	56820	36.0%	90891	62.5%
3 or 4 years completed high school education	76922	48.7%	131983	58.3%
Higher education	10851	6.9%	20221	53.7%
MA's	72	0.0%	132	54.5%
PhD's	161	0.1%	161	100.0%
Total	157982	100.0%	261711	60.4%

According to the following table, the risk of being unemployed is much higher if one belongs to some of the younger age groups (column 1). It is more than likely that a person that falls within the most productive age group 30-39 shown in column 2 will take the most active participation in the work force market. The level of visible under-employment tends to increase if one were a young person (column 3), however, the risk of a possible lower level of effort at work and asymmetrical information is much higher during the period of the most productive working years (the age group 30-39, shown in column 4); the latter implies that the employees wish to be give more serious responsibilities, in accordance with their knowledge and skills. For example, let's say 34.8% (from the table) of the total numbers of persons in the age group 30-39, that are visible under-employed, seek other employment posts because again, they wish to have more serious responsibilities, in terms of their knowledge and skills. The employer responsible for the employment of these persons encounters the risk of lower level of effort by these persons as well as asymmetrical information. The latter is a sign of inefficient flexibility of the work force in the Republic of Macedonia, and even more so due to the fact that persons that fall in the age group of 30-39 are regarded to belong to the group with highest level of productivity.

Data taken from LFS for the year 2000				
	(1)	(2)	(3)	(4)
	Rate of unemployment in the age group structure (number of unemployed persons divided by workforce)	Rate of participation in within the age group	Efficiency according to the willingness for more responsibilities (under-employed divided by employed minus 1)	Inefficiency with lower level of asymmetrical information (wants more responsibilities over under-employed)
15-24	59.9%	37.6%	95.8%	23.0%
25-29	49.7%	72.9%	96.6%	20.4%
30-39	30.7%	78.1%	98.7%	34.8%
40-49	19.8%	77.1%	99.1%	28.4%
50-59	17.4%	52.9%	99.3%	11.4%
60-64	11.3%	19.0%	99.6%	
65-80	7.8%	4.0%		

The conclusion is that in the Republic of Macedonia, there is a higher level of long – term unemployment (approximately 80% of total number of unemployed persons) and a large number of them count as discouraged workers. The concentration of the discouraged persons in the workforce falls within the age groups of 25-39, with focus on pre-elementary education, elementary education and high school education with the duration of 3 or 4 years. The risk of being unemployed is even higher if one falls within the younger age groups. The employed persons have greater chance to be under-employed and fall within the most productive age group of 30-39 and the persons within this group are willing and ready to receive a great deal of opportunities, in terms of their knowledge and capacity. This could lead us to inefficient flexibility of the work force and possibly explain the likely transfer of young people towards investing in knowledge and capacity, in other words toward human capital production. The decrease in industrial production has decreased the possibility for young insufficiently educated people to start working, segregating labour and increasing the willingness towards continuing in investing in higher education, in other words, the work force market has moved out of the sectors with low value added and lower wages and more towards the educational sector. The latter is mainly a result of the restructuring of the economy and changing the sectors' portfolio because they need more sophisticated types of knowledge as well as investing in human capital production. The people in Macedonia probably anticipated the latter. And thus the poor results from the first phase of the transition as well as the poor economic growth decreased the opportunity cost for further higher education and it is possible to have an influence on the low rate of participation on the work force market.

What are the problems, which can arise from inert-sector movements? Primarily, the long-term unemployment can represent a particular problem due to depreciation of the human capital and the “know-how”. Then, if there is a positive shock within the economy, which will result in a higher growth, the supply of more qualified and adequate to the requests of modern economy work force will shrink and cannot meet the requirements of a specific work force demand because large number of the potential work force will be in “calibration” in the educational sector.

On the other hand, that is good investment for the future and can solve the potentially bottleneck that can arise if the supply of the work force decreases while the economy experience a higher level of growth. At the same time, the problem of lower real wages can be solved because a large number of workers that are within sectors where specific qualifications are requested and are not compatible with the workers' qualifications will prompt a situation where the workers will have to pay the employer a premium in order to undergo training by accepting smaller salaries. The conclusion is, taking into consideration the situation of the labour market and inter-sector rearrangements as a result of restructuring, currently in Macedonia people are compelled to move towards the educational institutions in the country and abroad simply because the opportunity cost is much lower, taking into consideration the risk of being unemployed, employed but receiving low salary and under-employed with a very low level of personal satisfaction.