Some Critical Issues about the Insertion of the Tertiary Graduates on the Labour Market. The Case of Romania

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Abstract

The expansion of tertiary education in most of the world countries in the last 3-4 decades is recognized as one of the most striking features of the education sector. This rapid expansion has raised a range of questions generating new perspectives, debates and studies on the higher education subject and also new attitudes at the government, institutional and individual levels. Some of the most debated issues are:

1) Has this expansion affected the transition process from tertiary education to work?
2) Are tertiary education systems able to meet the needs of labour markets?
3) Has the increase in tertiary graduates resulted in an oversupply of workers with tertiary education?

The objective of this article is to make some considerations on these three subjects by presenting some critical issues for Romania.

Keywords: labour market; tertiary education; education policies; unemployment

JEL Classification: E24; F66; I23; I25; J62; O15

Introduction

Nowadays, governments regard education as an important factor to national and economic development and for this reason, the education standards are raising globally. The expansion of tertiary education in most of the world countries in the last 3-4 decades is recognized as one of the most striking features of the education sector.

According to the latest data “the number of higher education students globally rose from 163 million in 2008 to 199 million in 2013, with more female than male students” and “the reason for this is a strong growth in the number of primary and secondary education pupils and focus by emerging market governments on making education compulsory by law, as well as implementing literacy campaigns, which is translating into growth in tertiary education student numbers in most regions”1. In fact, Global Education Digest Report 20092 shows that “the

number of students pursuing tertiary education has skyrocketed over the past decades, growing from 28.6 million in 1970 to 152.5 million in 2007 (an average annual increase of 4.6%, with the number of students doubling every 15 years)”. The data reveal that expansion has been particularly intense since 2000. The forecasts of the total global tertiary enrolments show a growth “by 21 million between 2011 and 2020, or 1.4 per cent per year on average”, which indicates a significant slowing down in growth rates of tertiary enrolments to 2020 comparing to the period 2002-2009 (the growth of global tertiary enrolment was almost six per cent) or with the previous two decades when the growth was five per cent per year.

From a regional perspective, after 2000 East Asia and Pacific became the global leader in terms of student number, surpassing North America and Western Europe. This is primarily due to China, where the number of college students has grown on average by almost 19% each year since 2000.

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- Are tertiary education systems able to meet the needs of labour markets?
- Has the increase in tertiary graduates resulted in an oversupply of workers with tertiary education?

It is well known that the transition from education to work is a complex process that depends not only on the length and quality of the training received but also on a country’s general labour market and economic conditions and also on demographic trends.

All countries are experiencing today rapid economic and social changes that make the transition from education (especially tertiary education) to work more uncertain for young individuals. Bad economic conditions and high general unemployment rate during the crisis period make the transition more difficult. Moreover, as already mentioned, all over the world an increasing number of the population is getting a higher education degree.

According to Trow’s classification there are 3 types of higher education: elite education (only few students have access to this education), mass education (enrolment in higher education exceeds 15% of the age group) and universal access to higher education (over 50% of the group is enrolled).

In 2010, the Bologna median value for the 25-34 age group was 33.2%, for the 35-44 group 26.5% and for the 45-64 group 21.5%, showing that Europe higher education is a mass

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education (countries like Lithuania, Poland or Slovenia almost touch the 50% limit). For Romania the figures were substantially lower: 20.6%, 13.4% and 9.7% despite the steady increase in the number of tertiary graduates after 1990.

“While mainstream economists and sociologists say that increasing the number of students in tertiary education bring health to nations and happiness to individuals, policy makers have to deal with side effects”.7

Impact of Tertiary Education at Individual Level

1. Statistics show that those with tertiary education have a much higher probability of being in employment

The unemployment ratios8 of people by educational attainment level provide valuable information on the subject of tertiary education degrees. According to the Bologna Report9 in the EHEA countries the median value of unemployment ratio (20-34 age) registered in the 2006-2010 period was 19% for people with low education, 10.6% for the medium educated and 6.4% for the young people with a tertiary qualification. The figures for Romania were: 12.1%, 9.4% and 6.4%, with quite little differences between the ratios.

The biggest gap between the unemployment ratios of people with low and high educational attainment was registered in Slovakia (61.7% versus 6.9%), in the Czech Republic (31.1% versus 3.8%) and in Germany (27.6% versus 4.2%), suggesting that obtaining tertiary education in these countries has a significant impact on the employability prospects of young people. This is in contrast with countries where there is practically no difference between the two unemployment ratios (Portugal, Cyprus) or with countries where the unemployment ratio for highly educated people is even higher than that of low educated (Greece, Turkey, Georgia).

The same situation is visible in the Eastern and South Eastern Asian economies which had a rapid increase in the number of students in the last years. In China, India, South-Korea (with the highest university participation rates in the world), Singapore etc. graduate unemployment is higher than average unemployment10. Craig Jeffrey, professor at Oxford University recently declared: “In India graduates spend a lot of time accumulating different degrees and ultimately realise that these degrees aren’t going to provide a passport into lucrative private sector jobs”11.

The above mentioned Bologna Report shows that the unemployment ratio of recent graduates is considerable higher than that of more experienced young people. The report states that “in half of the EHEA countries the unemployment ratio of recent graduates is higher than 10%, which is more than 3 times the median ratio of young people three or more years after graduation”.

Countries with the largest gaps between recent graduates and those more experienced are Romania (13.8% and 2.6%), Cyprus (13.2% and 3.1%) and Slovenia (12.4% and 3%), reflecting that the recent economic crisis made the transition from education to work more difficult.

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8 The *unemployment ratio* is the number of people unemployed as a percentage of the total population, while the *unemployment rate* is the number of people unemployed as a percentage of the labour force.


10 Sharma, Y., *Rising unemployment-are there too many graduates?*, available at www.universityworldnews.com/article [accessed on August 2015].

11 Ibidem.
When the labour markets are poor, young individuals tend to increase enrolment in education and to remain longer in education.

Referring to this trend and to the high unemployment rate of European young people, Eric Schweitzer (president of the Trade and Industry Chambers of Germany) declared (2014) that a great number of high education graduates is not a guarantee for the prosperity of a nation or for the low level of unemployment. He considers that the German economy will have serious problems if “studying by all means and for a long period” will not be attenuated.

2. Higher educational attainment does not only improve the chances of employability but also implies shorter employment search periods than in the group of people with only secondary education.

A relevant way of evaluating this aspect is to examine the average length of transition from education to work. As indicated in the Bologna Report, in all the EHEA countries persons with high educational attainment found their first job position faster than the group of people with only secondary education (2010).

For Romania, the average length of transition was 7.3 months for tertiary graduates, 12 months for upper secondary level graduates and 12.3 months for low secondary level graduates.

Differences in the average lengths of transition between persons with high and respectively low educational attainment were the biggest in Slovakia (4 vs 24 months), Bulgaria (4 vs 22 months) and Poland (4 vs 17 months).

3. Higher educational attainment is generally compensated by better paid jobs after graduation.

The Bologna Report 2012 states that in 2010, in the EHEA countries the median income of employees with tertiary education was double of that of those who only completed low education and 60% higher than that of those completing upper secondary education (for Romania the figures were higher than the average in both situations – 150% and 80%). However, the disparities between Romania and the developed countries as regards the income of employees is one of the most important reasons of the migration of the highly skilled people to other countries.

Theory states that the movement of highly qualified workers is inevitable when people possess professional skills that can be sold on a global market. This mobility leads to equilibrium between supply and demand on the global labour market with positive effects on employment at global level. On the other hand, this type of migration may have significant negative effects when the countries of origin are less developed economies.

Critical Issues of the Transition from Tertiary Education to Work in Romania.

1) One of the most debated issues regarding the transition from tertiary education to work is the mismatch between the educational attainment and the knowledge and skill requirements of an occupation.

According to the Mc Kinsey Report “Education to Employment-Getting Europe’s Youth to Work”¹², a third of the European companies included in the research (from 8 European countries) are unable to find employees with the right skills. The similar picture is revealed by the 2013 “Talent Shortage Survey by Manpower Group”, which states that”61% of employers surveyed in...

India and 85% in Japan said that shortages prevented them from hiring people with needed skills\(^\text{13}\). The conclusion comes in the context of a widespread unemployment across the European Union with a figure of 24% for those under the age of 24 (in Spain and Greece, countries that were the most affected by the Eurozone financial and economic crisis, the young people unemployment rate is over 50%).

The mismatch may occur for different reasons, one of the most cited being that education providers have not been able to provide graduates the suitable skills to find an adequate job.

In Romania, high education systems are blamed to have an excessive theoretical dimension missing to provide the graduates with specific skills that are currently needed by employers. A study released in 2010 under a Project financed by the European Social Fund\(^\text{14}\) showed that in Romania most of high education graduates (over 80%) declared that they had “learned” their profession at work and not during the faculty studies (the situation is different for the graduates in specific domains like arts, architecture, the health sector etc.).

Moreover, the employers are more interested in transversal competences and the previous work experience of the tertiary graduates than in their specialization or in the prestige of the university they graduated (with the exceptions above mentioned).

At present, the preferred graduates are those who had a job during the university studies, even if this experience was in a job not requesting tertiary education. 74% of the employers declare they have workers pursuing undergraduate studies (showing that economic conditions in Romania encourage many students to have a job during their schooling years).

The same study reveals that for over 70% of the employers it is not important if the graduate has only an undergraduate diploma or also a master diploma (such results give clear indications regarding the quality of tertiary education as perceived by employers).

Another question that arises on this subject is the balance between the employer’s provided training and that provided by institutes of tertiary education. It is clear that the former is likely to have an important role in addressing this issue. But employers are often cautious about investing in training. They often have following reactions: it is not our responsibility, it costs too much, we train young people and then they leave for the competition etc. The above mentioned study\(^\text{15}\) shows that only 25% of the interviewed employers considered that they have the main responsibility in preparing the graduates for the labour market (75% consider that the responsibility must be equally shared with the higher education institutions).

It is largely accepted today that a good communication between education providers and employers is of high importance. Without this dialogue education providers underestimate what businesses want and emphasise other issues. They also appear to misjudge the type of learning that young people find most effective (young people overwhelmingly prefer on-the-job training).

The extent to which the employers and education providers engage with one another varies. In some countries the employers are involved in some degree in setting curricula and also in ensuring that trainers have up to date industry experience. In other countries education providers interact regularly with employers; there are also countries where this connection is weak.

As regards the tertiary education institutions, in the last years the concern about the employability of graduates is a central theme of their preoccupations. Among the initiatives to enhance graduates employability (some of them are visible in Romania too) are: to integrate a professional dimension in all programmes (bachelor, master, PhD), to increase internship

\(^{13}\) Sharma, Y., *Rising unemployment-are there too many graduates?*, available at www.universityworldnews.com/article [accessed on August 2015].


\(^{15}\) Ibidem.
practices, to establish at universities services for career counselling, to develop a regulatory framework for universities to engage with companies, to focus more on what happens with students after they leave school (specifically they should track graduate’s employment and their job satisfaction).

The subject raises also a debate regarding a trade-off between an emphasis on highly specialised education (as in the EU) and more general education programs (as in the US). “The former ensures the availability of highly skilled labour trained for specific tasks, at a cost of limited adaptability in face of major structural changes. The latter implies less specificity but a greater ability to react to changing economic conditions”\(^\text{16}\).

2) The transition from tertiary education to work is often difficult due to a limited offer of jobs compared to the amount of tertiary graduates.

The lack of availability of jobs is not exclusively linked to the economic crisis. In many countries old people are working for longer as result of the policies that raise the age of retirement and women with children are joining or remaining in the workforce, increasing the competition on the labour market. This particularly affects young people that are disadvantaged by lack of experience.

The limited offer of jobs may also reflect that the education system is not aligned to the labour market needs. Some European countries where this connection is systematically monitored are UK, France, Denmark, Sweden, Finland etc. France has a very elaborated system to monitor the transition of graduates to work. The “Centre d’études et de recherches sur les qualifications” is the central organization to provide the state and regional departments with labour market information of all levels and these reports are an important source for higher education policy on national or regional level\(^\text{17}\). It is worth mentioning that the recent report “De l’université à l’emploi” underlines the concern about the employability of graduates of all educational levels in the higher education system. The large failure rates in certain subject areas and the large number of students in fields with very little employment opportunities are considered a waste of human potential.

In Sweden annual reports have been published by the National Agency for Higher Education since 2003, indicating the proportion of university graduates that have been successful on the labour market\(^\text{18}\). In case of surplus or shortage of graduates, the number of places offered in different programmes is adapted (universities decide whether or not to start a study programme on the basis of labour market analysis). In Finland, from time to time the Ministry of Education has pressed to extend higher education field in order to meet the growing demand from the labour market. For example, in the late 1990, when the IT sector expanded, the number of students in the IT sector financed by the Ministry increased massively\(^\text{19}\).

In Romania there is a recent attempt for such an exercise at national level: in 2011 the National Council of Financing Higher Education launched the national project “Graduates and the Labour Market”, with the objective of developing instruments to monitor the professional route and destination of tertiary graduates.

In the last years, the expansion of the number of tertiary graduates disregarding the specific needs of the labour market has put a pressure on the employability of these graduates, with 2 imbalances for the labour market:


\(^{18}\) Ibidem

\(^{19}\) Ibidem
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a) tertiary graduates are unable to find jobs corresponding to their education level and
b) tertiary graduates limit the employment opportunities of the less educated, by occupying jobs unmatched to their education level (the recent crisis has shown a higher disposability of tertiary graduates to accept such jobs)\(^\text{20}\).

The mismatch between the number of offered jobs and the number of tertiary graduates may also appear because the choice of specialization made by individuals does not correspond to the needs of the labour market. As an example, in Spain there has been a 170% increase in students’ graduates in architecture since 2005 even the construction sector has lost 60% of turnover since then and in other European countries there are similar stories\(^\text{21}\).

In France the unemployment rates for holders in humanities are 5 times as high as for graduates in engineering and health care\(^\text{22}\).

In Romania many employees with tertiary education\(^\text{23}\) consider that they would have chosen other fields of study if they had been advised during the secondary studies. This indicates not only a personal disappointment but also the fact that graduates of secondary studies don’t have the necessary information they need to make the right choices. Romania (like many countries today) claims a shortage of graduates in science, technology and engineering despite the existing high wage differential compared with other fields of study. The shortage of such personnel in these areas is considered to have important costs in terms of innovation and productivity growth. This shortage is balanced by a surplus of graduates in fields like economics, law, journalism, etc. making employability more difficult in these areas. The distribution of student number on the field of study during 2011 in EU 27 shows that the highest percentage belongs to social sciences, business and law with 33.7% (Romania with 49% had the highest percentage in the EU 27)\(^\text{24}\). In the academic year 2010/2011 the number of high education graduates in Romania was about 190,000 with the following distribution on study fields: 62,685 in economics, 26,404 in law, 12,730 in political sciences and only 7,136 in engineering and 1,234 in agriculture\(^\text{25}\).

The problem of a small share of graduates in science, technology, engineering and mathematics (STEM) is also visible in many developed countries and considered a great challenge for these countries in the coming years. In the US only 14% of college graduates earned degrees in STEM specialities in 2010, which is significantly lower than the ratios in China (42%), South Korea (35%) and Germany (28%)\(^\text{26}\). In the past immigration has helped to narrow the demand-supply of STEM graduates in many advanced countries, including the US. But today, online learning give access to the best teachers and teaching systems for ambitious workers from developing countries so they can complete their training at home and find job opportunities too.

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22 Ibidem
In Romania (as also in other countries) the gap between the number of offered jobs and the number of tertiary graduates may also result from the fact that many young people are unwilling to enrol for vocational training programs with job guarantees for at least 2 reasons: they disregard certain type of jobs and they are not ready to accept the low level of salaries offered. Most young people and their parents have a clear preference for university studies without taking into account that the time when university degrees were rare and a sure key to higher earnings has passed.

3) “The transformation of the labour market as result of globalization has produced new opportunities and challenges for the countries, affecting the relevance of national policy options. More specifically, the scale of migration and the rise of off-shore offerings hamper the capacity of some countries (especially small countries) to control the relation between supply of graduates and the labour markets”

According to a recent Report of McKinsey Global Institute the global labour market is estimated to have a shortage of up to 38-40 million skilled workers by 2020 and a surplus up to 95 million low skilled workers. The report states that “as the 21st century unfolds, the supply of highly skilled workers is not keeping up with the growing demand, while too many workers are left with inadequate or obsolete skills”. One good example is Canada, where the latest Global Work Monitor describes Canada’s growing shortage of skilled labour as critical and predicts shortages in the manufacturing, automation engineering and utility industries.

According to the European Commission document “An Agenda for New Skills and Jobs: a European Contribution towards full Employment” released in 2010 Europe lacks skilled workers and the shortages are acute in the information, communication and health technology sector. Filling the jobs of tomorrow is considered one of the greatest challenges facing Europe today.

To address their labour market shortages, developed countries have increasingly used selective migration policies to attract foreign workers, in particular skilled and highly skilled. Many countries have drawn up lists of occupations for which immigration skilled labour is encouraged. Most of them have introduced measures for allowing international students to stay on after they complete their studies, provided they can find work of an appropriate level in their field of study.

The migration of tertiary education graduates may reduce the over-supply of highly skilled in certain regions and study fields but with a range of costs for the country of origin. Taking the example of Romania, the year of its EU membership (2007) is considered by some specialists the start of a new stage of emigration from the country, characterized by an important out-flow of highly skilled graduates, mainly physicians to the EU countries.

The new category of migrants has some distinct features:

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a) Skilled migrants represent an economic loss due to funds invested by the state in providing education and training;
b) They appear to send little money to the home country as they tend to bring their family with them;
c) They have a greater capacity to integrate in the host country so their departure is most often permanent;
d) They are “attracted” in developed countries mainly in Europe by specific policies in the context of Europe facing a severe shortage of skilled workers (such recruitment policies are frequently criticized and considered unethical measures, especially in the health sector).

Especially the migration of health professionals has become a growing concern in Romania after 2007, having in view the weaknesses of the health system on the one side and the high financial costs to educate a doctor on the other side.

4) The expansion of the higher education system in Romania after 1990 and especially the construction and evolution of the private one had negative consequences as regards the quality of the education process.

In the post-communist period the number of students raised from 192,810 in 1990/1991 to 1029,855 in 2007/2008 and then had a sharp decrease to only 540,560 in 2013/201433 (the post 2008 evolution in the number of students is a mix result of the economic crisis, the decline of student population and last but not least the cut of education programmes and faculties, mainly private ones due to their low quality standards). It is worth to mention that the increase of student number in the transition period was not accompanied by a corresponding increase in the number of professors, so during the transition period the number of students per professor increased, with negative consequences as regards the quality of education.

The number of higher education institutions almost doubled from 56 in 1990 to 104 in 2012/2013 (out of which 56 are private)34. In contrast with developed economies where the private education system has a long tradition and higher performances than the public one, in Romania the private higher education institutions provide low quality services obtaining low rankings in the domestic classifications. Many graduates of secondary studies are attracted by the private education system having in view the accessible system of admission (most of private universities have no admission exams), the low standards of evaluation during the studies and last but not least the low level of fees paid. On the other hand the easy way to obtain an undergraduate or postgraduate licence represents a serious barrier for theses graduates to enter and to perform on the labour market.

5) It is also worth to mention that many young people have unrealistic career aspirations disregarding their capacities. The difficulties in getting a job according to their education attainment level have in this case nothing to do with the education systems or with the labour market shortages.

Conclusions

1) Tertiary education massification is a reality of our global economy with more or less similar consequences in most countries. While some analysts sustain that increasing the number of students in tertiary education brings health to nations and happiness to individuals, education officials in many countries express concern about the fact that graduates of tertiary education find employment even harder than those with lower degrees. Some governments are beginning to ask
if it is not time to slow the massive supply of university graduates, trying to preserve the economic and social value of a university degree.

2) During the last decade, education and training systems in many countries have become more relevant and responsive to the needs of society, but labour market mismatches still exist and create the wasteful situation of both skill shortages and unemployment.

3) There are various ways to ensure that the skills supplied by the education and training systems are matching the labour market needs and some of them have become good practice in many European countries (Hungary, Slovenia, Austria, Sweden etc. have put in function efficient systems of tracking the careers of school leavers). In Romania such exercises are in their debut period.

4) In the last years many countries have introduced new initiatives to establish or improve their systems of skill forecasting. On the basis of forecasts public authorities may take various measures to regulate the supply of education. Here again, Romania has a large number of European practices to inspire from.

5) The probability of finding a job for tertiary graduates varies significantly depending on the discipline (students in the health and welfare field are not exposed to unemployment in contrast with those studying humanities), the institution, the length of studies and, last but not least, the personal ambitions’ and capabilities. The carriers in science and technical fields are not attractive for young people and shortages of graduates in such fields are important issues even for developed countries. Finally, irrespective of the field of study, in the present landscape of mass education obtaining a tertiary diploma is no more a guarantee for getting a job or for performing on the job.

6) Romania is confronted with at least two additional problems:
   a) the expanding of the tertiary education in the post-communist period was followed by a serious lowering of the quality of education (mainly in the private institutions). The struggle against low standards has become a recent preoccupation for policy makers with the result of cutting study programmes and faculties both in the private and in the public sector;
   b) as a result of a mix of factors, Romania is confronted with an important outflow of highly skilled graduates, mainly physicians to developed countries. Apart from the important costs for Romania, such a migration scale hampers the ability of government to control the relation between supply of graduates and the labour market.

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