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Local Economic Impact of Domestic and International Students: Case of University of Economics in Bratislava

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Abstract: The economic role of universities should be considered not only in terms of their contribution to the creation of human capital as a key factor of economic growth. By teaching of international students, universities thus impact on city's economy and contribute to increase of service exports. In their turn, international students have the economic impact on a host city.

The study examines the University of Economics in Bratislava (EUBA) as an exporter of education, and employs survey data for calculating direct economic effects of international students for Bratislava. The calculations of this impact are conducted on the basis of the survey data of international students of University of Economics in Bratislava (2015/2016 academic year). The main areas of local expenditure by international students of EUBA are defined. The direct effect of economic impact of EUBA international students is calculated. We compare this economic with the direct economic impact of domestic students of EUBA on the local economy.

Keywords: university, international students, domestic students, economic impact, Bratislava

JEL codes: I23, I25, R12.

1 Introduction

In recent decades, there is a significant increase in the number of students receiving higher education outside their own country. In 2007 the global number of mobile students has grown by 53% since 1999 (with an average annual increase of 5.5%) and by 2.5 times since 1975 with an average annual increase of 11.7% throughout period 1975-2007 (UNESCO-UIS, 2009). Some estimates predict that the demand for higher education worldwide will have expanded from 97 million international students in 2000 to over 262 million by 2025 (UNESCO, 2009). According to the UNESCO Institute of Statistics, international students are those students "who have crossed a national or territorial border for the purposes of education and are now enrolled outside their country of origin" (UNESCO-UIS, 2009).

One of the most attractive place in the world as an educational destination and as a partner to exchange is the European Union (EU). At the present time, the internationalization of higher education outside Europe has become a strategic objective of EU governments and universities, and virtually all institutions and countries provide suggestions for international students to think about the possible cooperation and collaboration with the wider global academic community.

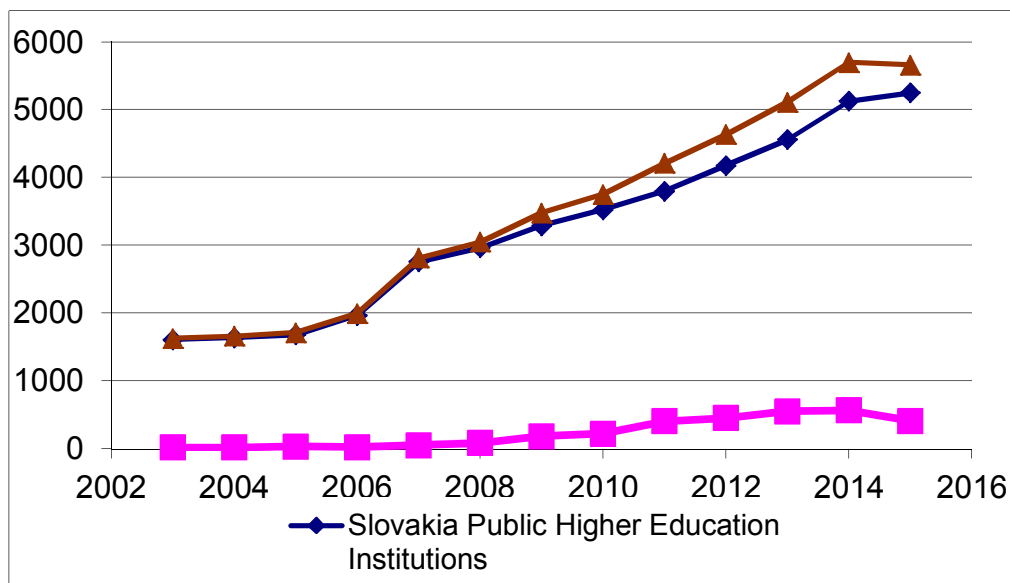
Many factors contribute to the growth of the number of international students in European Union. Among these factors are the following:

- the abolition of passport and customs controls between the countries which have signed the Schengen Agreement and the free movement of citizens of these countries within the Schengen area
- convergence and harmonization of higher education systems of most European countries and some countries outside of Europe, and the establishment of a European Higher Education Area within the Bologna process
- the education abroad is considered by students as a chance to broaden cultural and intellectual horizons (UNESCO-UIS, 2009)
- wishing of students from less developed countries and from developing countries to avoid the frustrations of under-resourced universities at home countries (UNESCO-UIS, 2009).

The accession to the Bologna Process (1999), the entry into the European Union (2005), and joining the Schengen Area (2007) contributed to a more active participation of Slovakia into the global process of mobility of international students.

Reducing barriers in crossing borders in 2007 led to an increase in the number of international students at public higher education institutions in Slovakia by more than 40%, at private higher education institutions – by 33% (Figure 1). In 2003/2004 – 2015/2016 there was a steady increase in the number of international students in Slovak public higher education institutions. The number of international students enrolled in the Bachelor's, Master's and Doctoral programs, increased by 3.4 times, while the number of Slovak students increased by less than 10% over that period.

Figure 1 The number of international students in higher education institutions in Slovakia (2003/2004 – 2015/2016)



Source: Own adjustment based on UIPŠ data

For 12 years (since 2003/2004) there have been significant changes in the number of students of private higher education institutions. The number of domestic students has increased by 9 times over this period. In the 2015/2016 academic year compared with the 2003/2004 year the number of international students has increased by 19.5 times. However, this significant increase is due to, first of all, the low base. In the early 2000s less than 50 international students has learned in all private higher education institutions of Slovakia. The rapid increase in the number of international students in Slovakia occurred after the country's accession to the Schengen area and its active involvement in

the international exchange of students within the framework Erasmus and Erasmus+ programs.

The impact of universities on a host city is very wide. We can distinguish the effects on employment growth, salary growth, tax base, increasing the local production of goods and services through the development of business environment for social benefits in the form of human capital development and community development.

Students, including the international ones, have a positive impact on the local economy. Various studies carried out in some European countries, in the United States, Australia, Canada, New Zealand confirm this thesis (for example, BECK et al., 1995; BUTCHER, 2002; MUNRO et al., 2009; KUNIN, 2012; KOTOSZ, 2013; REHÁK et al., 2014; DŽUPKA, 2014; HUDEC et al., 2015).

The university acts as a subject of international activities by providing educational services to international students. The economic benefits of international students should be considered at different levels: how the university, which trains foreigners in a city, region and country. The larger geographic area will be taken into account, the more economic impact will be.

The main purpose of this paper is to consider direct economic impact of EUBA international student on the local economy – economy city of Bratislava. Also we compare the direct economic impact of international and domestic students on Bratislava's economy (on the example of economic impact of EUBA students).

2 Methodology and Data

The largest student's city in Slovakia is Bratislava. In Bratislava there are 5 of 20 public higher education institutions (Academy of Fine Arts and Design in Bratislava, Academy of Performing Arts in Bratislava, Comenius University in Bratislava, Slovak University of Technology in Bratislava, and University of Economics in Bratislava). 2 of 3 state higher education institutions are situated on the territory of Slovak capital (Academy of the Police Force in Bratislava, Slovak Medical University in Bratislava). The every second Slovak private higher education institutions acts in Bratislava (Bratislava International School of Liberal Arts in Bratislava, Media Academy, School of Media and Marketing Communication in Bratislava, Pan-European University in Bratislava, School Goethe Uni Bratislava, School of Economics and Management in Public Administration in Bratislava, School of Management/City University in Trenčín/Bratislava, St. Elizabeth University of Health Care and Social Work in Bratislava). Also the University College of International and Public Relations Prague in Bratislava provides its activity in the territory of Bratislava as one of foreign higher education institutions.

University of Economics in Bratislava (EUBA) is characterized by the lowest share of international students among the public higher education institutions located in Bratislava. In 2015/2016 academic year only 1.37% of the total numbers of students were international students. The increase of this share from 0.96% (2003/2004 academic year) to 1.37% (2015/2016 academic year) was mainly due to the reduction in the base comparison: in EUBA the total number of students reduced from 8629 to 7099 for 12 years.

However, the total number of international students at the universities of Bratislava (both public and private) has increased over the study period more than 3.3 times. This indicates a growing the economic impact of international students on the host city – Bratislava.

To evaluate the economic impact of the university students on city's economy are taken into account only those costs which would not have happened if the university does not exist. We asked the international students of Bachelor, Master's and Doctoral degree studies at the University of Economics in Bratislava to answer the questions about their income and expenditures in Bratislava. We use a standard methodology called impact

studies to quantify the additional revenue into the local economy, which bring international students.

The diversity of our sample makes estimating an average amount very difficult. It is difficult, for example, to combine the answers of both the students who have completed their programs, and therefore have records of their expenses, and those who are still in Bratislava and whose budgets are in flux.

The questionnaire contained 15 questions. It consisted of three parts. Questions of the first part were devoted to identifying the local profile of international students. Questions in the second part were focused on definition of incomes and expenditures profile of international students. Answers questions in the third part allowed to form the demographic profile of international students.

For comparison the economic impact of international and domestic students were used the results of the study of REHÁK, SEKELSKÝ, 2014.

3 Results and Discussion

In April 2016 the questionnaires have been sent to EUBA international students via e-mail. We received the replies from 33% of the total number of international students.

12.5% of the responses were not taken into account in determining the economic impact of international students on Bratislava, because if the University of Economics in Bratislava did not exist, these students have studied in another university in Bratislava. It means, that for this part of international students place of education is more important, then the University of Economics in Bratislava itself.

Expenditures of EUBA domestic students in 2012/2013 academic year (REHÁK, SEKELSKÝ, 2014) we have adjusted to the inflation rate in Slovakia in 2013-2015.

Table 1 Structure of local expenditures of the EUBA full-time students per month during the academic year

#	Expenditure	Domestic students		International students (2015/2016)
		Before taking* inflation into account	Taking inflation into account	
1.	Food and non-alcoholic beverages	48.88	49.37	109,29
2.	Alcoholic beverages and tobacco	13.64	13.78	42,14
3.	Coffee houses, bars, restaurants a hotels	21.88	22.10	42,86
4.	Clothing and shoes	16.91	17.08	26,14
5.	Recreation, free time and culture 10,96	10.96	11.09	38,86
6.	Other goods and services	10.00	10.10	12,68
7.	Housing (rents)	42.82	43.24	157,18
8.	Housing costs	1.24	1.25	19,43
9.	Furniture and maintenance	0.99	1.00	0,36
10.	Health	3.44	3.47	3,04
11.	Transportation	23.38	23.61	15,71
12.	Postal and telecommunication services	7.54	7.61	7,29
13.	Education	4.39	4.43	2,32
14.	Other expenditures	2.48	2.50	8,06
15.	Other not specified	0.52	0.53	17,32
16.	The average tuition fee	-	-	90.89
17.	Total expenditures	208.16	210.22	593.57

Source: Own calculation based on questionnaires of EUBA international students and REHÁK, SEKELSKÝ, 2014.

Average, the direct economic impact of international student is 2.8 times more than direct economic impact of domestic student. But the total direct economic impact of students on to economy of Bratislava depends on number of students. On the condition that structure of the students living in Bratislava and abroad, in 2015 is the same as in the conduct of the survey (REHÁK, SEKELSKÝ, 2014), we get the following results. Direct economic impact of EUBA domestic students is 677101 euros per month or 6.77 million euros per academic year (in average 10 months).

Due to international students' responses the average period of stay for university study consists 6.4 months. It means that annual total expenditures of EUBA international students are 322427.22 euros. Of course, this amount is much more less, than the direct economic impact of EUBA domestic students (6.77 million euros).

4 Conclusions

Recently there has been rapid growth in the number of students who study abroad. In the 2015/2016 academic year in Slovakia the number of international students increased by 2.9 times as compared to 2003/2004. The leading place in the training of students belongs to universities of Bratislava: more than half of the international students who came to Slovakia from other countries in 2003/2004 and in 2015/2016 academic years studied in Bratislava. Conducted study on the example of the University of Economics in Bratislava showed that the economic impact of an international student on the Bratislava's economy more than domestic student's none (593.57 euros and 210.22 euros, respectively).

However, the total direct impact of EUBA international students on the economy of Bratislava is insignificantly. More vigorous activity of the University of Economics in Bratislava on the international market of higher education, the increase in the number of international students at the EUBA will enhance the its level of impact on the economy of Bratislava.

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