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Distribution of Costs of Tertiary Education Between Direct Beneficiaries and Society

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Development of modern knowledge economics enhances importance of education policy. Nowadays, tertiary education systems of developed countries become more and more massed. Such development of tertiary education is necessary and desirable. However, most of countries, including those with very high economies, face the problems of financing for tertiary education, possibilities to guarantee additional financing, cost distribution between direct beneficiaries of tertiary education and society.

In Lithuania, during the last ten years, number of students increased more than three times, however the means, assigned for tertiary education, increased much slower. Therefore, financing per student is 2.4 times lower than in 25 EU member states according to the standards of purchasing power.

The governments of all countries subsidize tertiary education. Traditional argument for public financing of tertiary education is positive external benefit and stimulation of economic growth. The subsidies to tertiary education stimulate investment into human capital; otherwise they would be ineffectively low due to positive external benefit. Other arguments for national financing of tertiary education are related with imperfect markets of loans for studies, risks of investment into tertiary education, absence of possibilities to insure risks of studies.

Tertiary education provides not only public, but also private benefit, demonstrated by much higher wages of graduates in comparison with the ones of employees, who have graduated from secondary schools. Calculations made by the author of the present article demonstrate that private rate of return to tertiary education in Lithuania is sufficiently high, it is higher than rates of return from other assets and it reaches 12.87%. Other private benefit is related with lower risks of unemployment, longer participation in labour market.

As much as tertiary education provides not only public but also private benefit, proper distribution of education costs between the beneficiaries is necessary. It is socially fair and effective if students pay for private benefit and tax payers contribute to it by providing subsidies, coinciding with the external benefit. Mass system of tertiary education requires rather considerable supplement of private resources to public financing. Besides, the government becomes incapable to finance development of tertiary education upon increase of competition for public resources. It is necessary to enhance extend of private financing in Lithuania, whereas financing using taxes is regressive. An average taxpayer finances a service, which provides benefit only to part of residents. Having enhanced financing of Lithuanian tertiary education using private resources, i.e. increasing fees for studies, the regress of financing of tertiary education would decrease. It would be socially fair and economically effective, if the graduates cover the most part of costs of studies. The government should give loans in order to finance increasing fees for studies and costs of living. Currently used in the country, loans of mortgage type should be changed to income-contingent loans, which are to be returned by a fixed part of the graduate's future income. Development of tertiary education based on graduates' contribution depending on future income is a highroad striving to increase availability and quality of tertiary education.

Keywords: *private and public benefits of tertiary education, financing of tertiary education, private and public costs of tertiary education, distribution of costs of tertiary education between beneficiaries, loans for studies.*

Introduction

Information and communicative technologies, globalisation of economic activities, turn towards higher level of personal autonomy and responsibilities have changed the demand for education of individuals and nations. Education is more and more treated as investment not only into general future of society and nations, but also to future success of individuals. The sector of tertiary education has great impact on economic welfare. Nowadays, the system of tertiary education of developed countries becomes increasingly mass. Such development of tertiary education is necessary and desirable. However, mass system of tertiary education cannot be financed practically only from the funds of state budget. All countries, including those, which are very strong economically, more or less face financial problems. Therefore, discussions about financial improvement of tertiary education, distribution of costs between direct beneficiaries of tertiary education and society are held widely (Mishan, 2002; Guille, 2002; Greenaway, Haynes, 2000; 2003; Universities UK, 2001; Chapman, Greenaway, 2004; Barr, 2005). Recently, some countries review the role of their government in the system of tertiary education. It was induced by tightening of fiscal expenditures by lots of governments in Western Europe. In Lithuania, the issue of distribution of education costs between those who are interested in the results of tertiary education – students, employers and the state – is also important (Laužackas et. al., 2006; Šileika,

Tamašauskienė, 2005).

Mass system of tertiary education requires that public financing would be noticeably supplemented by private resources. It is necessary to develop a mechanism, attracting private resources in such a way, that quality of studies and availability would be safeguarded. Practically it means a system of income-contingent loans: i.e. loans, where instalments are a certain percent of future income of a graduate, until the loan is returned. Another possible method of attraction is encouragement of partnership between business and institutions of tertiary education.

The aim of the research is to assess financing of tertiary education and distribution of costs between beneficiaries, revealing the reasons of financing of tertiary education by society and the reasons of necessity of private financing. The authors of the article substantiates her proposition why it is necessary to increase financing of higher education by wider using of private resources, i.e. increasing fees for studies. Such increased fees would decrease regress of the system of financing of tertiary education. It would be fair and economically effective, if private beneficiaries cover larger part of costs of tertiary education. On another hand, it is necessary to create conditions to all students to get loans, covering not only instalments for studies, but also the costs of living.

The object – costs of tertiary education, their distribution between beneficiaries.

The methods of the research: analysis of sources of literature, data classification and comparison, systemic methods.

Financing of Lithuanian tertiary education

Lithuania assigns to tertiary education approximately the same part of GDP as EU (1.15%) and OECD member states (1.2%). Private and public expenditures on tertiary education of different countries as well as their percentages of GDP are demonstrated in Figure 1.

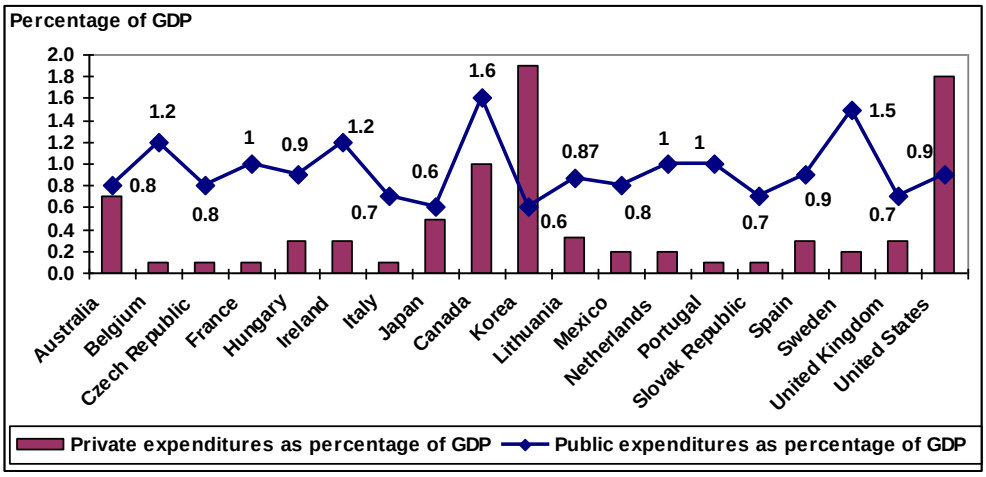

Figure 1. Expenditures on institutions of tertiary education as percentage of GDP.

Source: calculated by the author on the grounds of data available at Lithuanian Department of Statistics of 2006 and adapted agreeably to OECD, Education at Glance, Table B2. 1b data, p. 206, 2006.

General expenditures on tertiary education and their percentage of GDP are higher in the countries using not only public but also private resources. During the last years, number of students in schools of tertiary education increased significantly. At the same time, private and public expenditures on tertiary education were also increasing (refer to Figure 2).

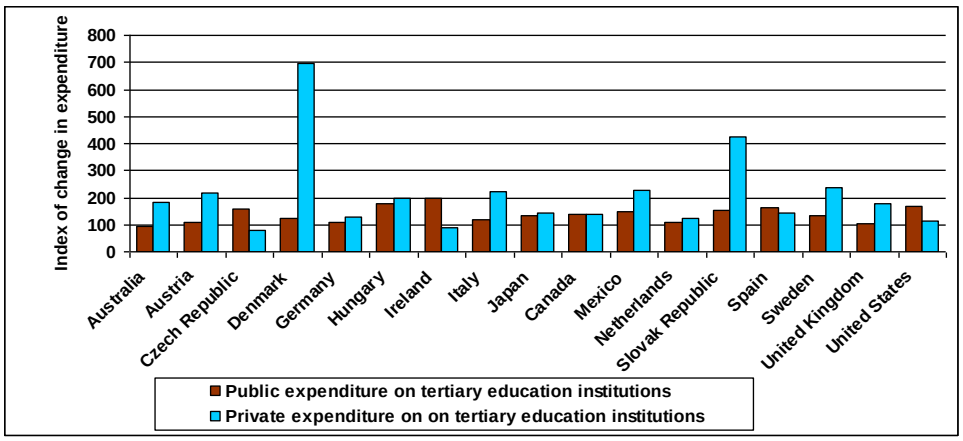

Figure 2. Index of change in expenditures on tertiary education institutions from public and private (GDP deflator (1995 = 100), fixed prices)

Source: Education at a Glance, OECD, Table B2.2 data, 2006, p. 208.

Analysing the expenditures, we can notice considerable differences between the countries: the higher expenditures per student are in the USA (EUR 20 478), and the lowest are in Latvia (EUR 2 839.6). Average expenditures of 25 EU members states per student in 2003 were EUR 8 049.5, however in Lithuania they amounted only EUR 3 375,5. The calculations were performed with reference to the standards on purchasing power, but not currency exchange rates, which are determined by lots of factors (different rates of interest of different countries, trade policies, expectations of economic growth and etc.), which are inconsiderably related with current relative purchasing power.

Analyzing data of different countries, it is obvious that resources, spent on one student of tertiary education, usually increase when the level of welfare increases in the country. The countries, where GDP per one resident is lower than average one in EU, spend less money on one student of tertiary school.

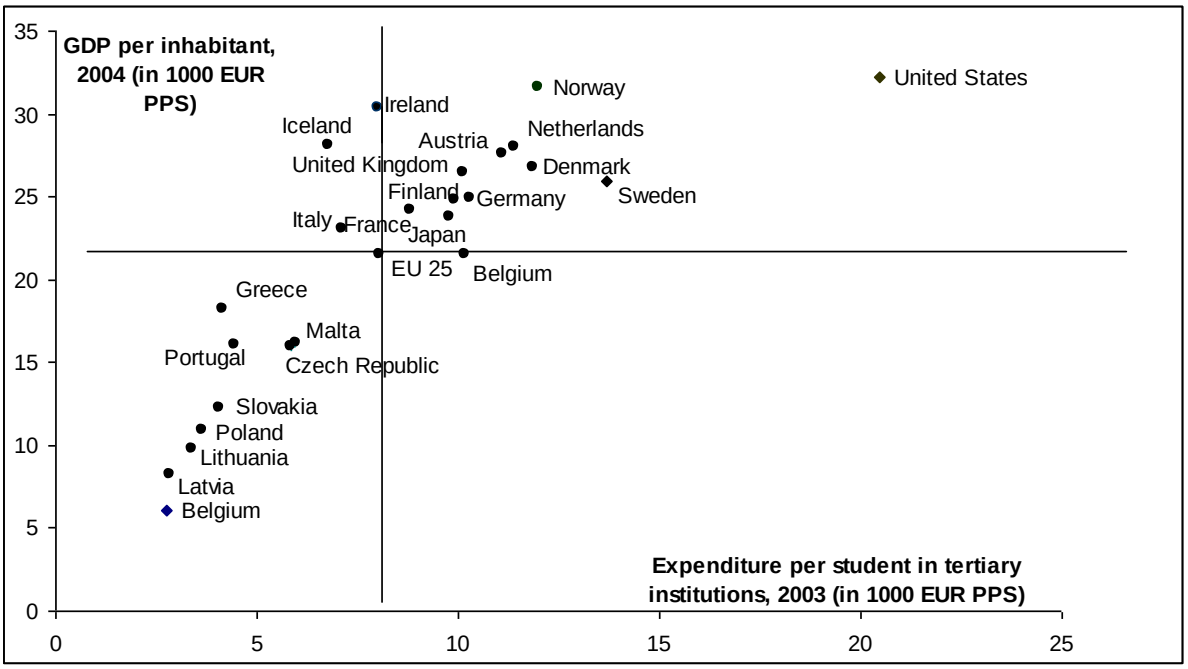

Figure 3. Expenditure per student at tertiary level of education in comparison to GDP per capita

Source: Eurostat Education Statistics, National Accounts.

Expenditure per student at tertiary level of education usually increases with the level of welfare of the state (Figure 3). The countries, where GDP per one resident is lower than average one in EU, spend less money on one student of tertiary school. All EU new member-states spend less than an average per student at tertiary level of education in EU-25. Most countries with GDP per capita higher than 21 503 EUR PPS spend more than an average per student at tertiary level of education.

Why should public subsidize higher education?

It is widely acknowledged that the government must pay for public goods, which cannot be purchased or sold in the market, because they give public benefit. Is education a public good? It is partially public good, giving benefit both to the individuals with tertiary education and to the whole society.

All of modern societies cover the most of direct costs of tertiary education. In Europe, 82.8% of resources for tertiary education institutions is from public sources, 12.1% – from households and 5.1% – from non-profit-making organisations and enterprises (Schmidt, 2005). Governments finance tertiary education by supporting students and financing tertiary education institutions. While studying in schools of tertiary education, individuals obtain skills and competencies, i.e. human capital, which is very important to growth of economics (Dabla-Norris, Matovu, 2002; Greenaway, Haynes, 2003; Krueger, Lindhal, 2001; Bassianini, Scarpenta, 2001; Hanusek, Kimko, 2000).

In political debates, public financing of tertiary education is justified by arguments of fairness. From economical point of view, subsidies on tertiary education are justified with reference to shortages of market. In economic literature, positive external effects of tertiary education, limitations (imperfect markets of loans for education), risks of investments on tertiary education and absence of possibilities, imperfect information and lack of transparency are identified as possible sources of low private initiative obtaining tertiary education (Carneiro, Heckman, 2002; Fender, Wang, 2003; Garcia-Peñalosa, Wälde, 2000; Barham et al., 1995; Wigger ir von Weizsäcker, 2001; Fender, Wang, 2003).

One of the most important political arguments regarding state intervention into provision of educational services is an aspiration for fairness. In case if education is expensive, only the rich ones can get it. The poor ones stay poor, because tertiary education is not available to them conversely to the rich ones (Dutta, et al., 1999).

In opinion of some economists (Teulings, 2000; Goldin, Margo, 1992), subsidies to tertiary education can

determine more fair distribution of income, because they increase a supply of employees of high qualification. And increase of such supply determines decrease of wages of employees, graduates of tertiary education.

However, researches performed by other scientists (Blanden, Machin, 2004; Vawda, 2003) show that public financing of tertiary education is usually more favourable to those, who are from richer families rather than to those who are from poorer families. Considerable subsidies do not mean equal opportunities and in some cases they can determine undesirable redistribution of incomes from poor to rich ones. It is so, because the subsidies to tertiary education are financed from general taxes, whereas the beneficiaries (individuals, studying in tertiary education schools) have better perspectives that those, who do not study in schools of tertiary education. The subsidies are given in order to increase availability to all social layers, irrespective of family's assets. Consequently, there is an essential difference between subsidies to tertiary education and expenditures to secondary schools: only the ones who continue studies in tertiary schools feel lower costs of tertiary education. In case if the lifelong incomes of an average taxpayer (described as discounted difference between lifelong incomes and income tax minus private costs of education) are lower than the ones of a graduate of university, the subsidies, given to tertiary education using money of taxpayers mean reverse redistribution of lifelong incomes, i.e. redistribution from the poor to the wealthy (Garcia-Peñalosa, Wälde, 2000). Some scientists think that the fairer model of financing of tertiary education is harmonisation of fees for studies and loans to students (Psacharopoulos, Woodhall, 1985).

The main argument for governmental intervention to private markets is based on market shortages. One of such shortages is positive external effects of tertiary education (Creedy, Francois, 1990; Wigger, 2001)**.** Economic substantiation demonstrates that private individuals invest insufficiently on activities, generating positive external effects. People do not appropriate the whole benefit of investment on tertiary education: some part of such benefit falls to others.

Social benefit include increases productivity and income of workers other than those who receive education, whether through the diffusion of skills or the reorganization of work procedures. Education promotes technical change in various ways, ranging from the undertaking of research and development to the spread of knowledge through literacy; education increases allocative efficiency, brings about many other gains of a social as well as economic character, including increased social cohesion, stability and democratic values (Junankar, 2003).

Public subsidies to tertiary education can be explained by imperfection of capital markets, related with investment on human capital. In order to finance studies some students have to borrow funds. However the providers of loans (private banks) do not tend to give private loans for payments of studies due to two main reasons:

- The asset market of a human capital does not exist in any country of the world, for a human capital cannot be a security.
- Banks experience difficulties to control (check) individual characteristics and individual behaviour, determining profitability of investments on human capital. Return of loan depends on future endeavours of students to earn big income and on their behaviour. The situation, where banks do not desire to give loans even for commercial interest rate, can occur.

From the students perspective, there is a risk associated with investment in tertiary education. The probability of succeeding in education depends both on individual choices, such as how much effort to exert, and on aspects over which the individual has no control, such as ability or the requirements of courses undertaken (Garcia-Peñalosa, Wälde, 2000).

We may specify the risk of two types. Such risk is related with investments of individual on tertiary education:

- Students may be not sure regarding the influence of tertiary education on human capital (due to distrust of their abilities and due to insufficient quality of provided educational). Notwithstanding that the average rate of income of private investment on human capital is rather high, its considerable variation around the average is noticeable.
- Students may be not sure about more considerable influence of human capital on future incomes and opportunities of employment (due to uncertainty of future demand for work).

Dispersal (minimizing) of risk and its transference would encourage individuals, who have been not susceptible to take risks, to increase their investments. However, markets cannot provide such insurance. Therefore poor families facing great risk do not tend to borrow means from private banks for financing of studies. Risks and uncertainties of lenders and borrowers may be decreased by providing income-contingent loans for studies, whereas return of loan is a function of future income and constitutes a certain percentage of future income of a graduate.

Why should private beneficiaries of higher education cover part of tertiary education costs?

All developed countries subsidize tertiary education more or less, however private investment plays increasingly important role, because tertiary education gives not only public but also private benefit to the individuals, who have acquired it. Investments on tertiary education give not only private consumer-oriented benefit, related with higher satisfaction on work, longer and variously enriched life, but also investment benefit. This investment benefit is the most important source of motivation of providers of tertiary education as well as of their buyers. Education plays important role on material welfare of individuals, on their abilities to earn more in labour market, therefore it is fair and efficient that the direct beneficiaries contribute to financing of tertiary education.

Private benefit of labour market is related with:

- Higher average wages after taxes;
- Better opportunities of employment, whereas the level of unemployment depends on the level of education.

At the level of individual, the income from investments on education, as the main element of human capital, emerge due to movement of curve of marginal revenue product to the right, what enhances the value of labour to a firm and an individual, who has acquired education. The simplest measure of private benefit from tertiary education is higher wages of graduates in comparison with the ones of people without diplomas of tertiary education. Premium to wages for employees with tertiary education in the group of 25–64 years old employees is high in all countries, and especially in Lithuania and the USA. Average wages of the employees with tertiary education grows faster together with work experience than of the employees with secondary education.

Private benefit of tertiary education to an individual and efficiency of investments in human capital may be assessed calculating private rate of return to education. The private rate of return to investment in a given level of education can be estimated by finding the rate of discount (r) that equalizes the stream of discounted benefits to the stream of costs at a given point of time. In the case of university education lasting four years, the formula is

$$\sum_{t=1}^{42} \frac{(W_U - W_S)_t}{(1+r)^t} = \sum_{t=1}^{4} (W_S + C_U)_t (1+r)^t,$$

where $(W_U - W_S)$ is post-tax earnings differential between a university graduate (subscript u) and a secondary school graduate (subscript s). C_U represents the direct costs of university education (tuition fees, books) and W_S denotes the student's foregone earnings or indirect costs. There is quite a lot of empirical evidence on the rates of return to education for many countries (Harmon et al., 2001; Psacharopoulos and Patrinos, 2004; Vecernik, 2001; Chase, 1998; Filer et al., 1999). However, little is known about the rates of return to investment in human capital in Lithuania. Private internal rate of return to higher education, calculated by the author, is sufficiently high (12.87%) and it shows that there are huge stimuli to an average schoolchild, who has successfully completed secondary education, to study in a tertiary school (refer to Šileika, Tamašauskienė, 2003).

Private rates of return assess a demand for education and are useful describing stimuli to study in tertiary schools or assessing fairness of student grants and instalments. In case if private rate of return is higher than market interest rate (making an assumption that individuals can borrow funds according to this rate), it is worth to an individual to invest more on tertiary education.

Another very important driving motive to acquire tertiary education is lower risk of unemployment. Nowadays, there is a clear tendency of decrease of the level of unemployment, whereas the level of education increases, practically in all European countries. The latest researches show that in 2005, the level of unemployment between people with primary and secondary education was 15.4%, with secondary education – 9.7%, and with tertiary education – only 3.8%. This tendency is noticeable in all age-groups, both between men and women. Correlation between education and level of unemployment is noticeable in all EU member states without any exceptions. At the same time in the old EU member states (EU-15) the level of unemployment of people with tertiary education was 2 times lower than the level of unemployment of people without tertiary education, and in the member states who entered into ES in 2004 this difference reached 3–5 and even more times.

Besides, people with tertiary education have benefit due to wider possibilities to participate in labour market, their active working life usually is longer than of people with lower education. Blanchflower and Oswald (2000) proved, that people with tertiary education feel higher satisfaction with their work and leisure time treating as constant other factors, including their incomes. The benefit of education is considered in more details in the articles of Carr-Hill (2001) and OECD (2001).

Whereas tertiary education gives private benefit, its beneficiaries have to contribute to financing of tertiary education. It is unrealistic to expect more resources of public financing. Moreover, Greenaway and Haynes (2003) argue that even if it could happen, it should not happen because, on average, public funding redistributes resources from low income taxpayers to (future) high income taxpayers and therefore is regressive. The social and private benefits of higher education support the case for a continued mix of private and public funding but with a shift to the latter.

Increase of fees for studies by giving income-contingent loans

In Lithuania, the main source of financing of tertiary education is national budget. The extend of national financing is basically determined by political decisions, which are limited by possibilities of the budget. Due to limited economic possibilities and sometimes irrational usage of resources, tertiary education is continuously in shortage of money and the government, even with the best intention, cannot afford to cover all expenditures of all studies of all students. Since 2002, in Lithuania has been established fixed fee of LTL 1 000, and the remaining part of costs of studies has been covered from national funds. The fees of students for full time studies do not depend on speciality, quantity and quality of services provided. Fees for studies, amounting LTL 1 000 Lt are paid by 50% of full time university students and 20% of students of colleges. Other students are fully financed only by the state funds. Incomes from fees for studies constitute less than 10% of budget expenditures, assigned to full time studies of students. Commercial fees are paid only by students of part time studies and postgraduates.

The system of support of students of tertiary education consists of student grants and loans for students. Besides, the residents of the country may use an exception on income tax of individuals to students and/or their parents and return a certain part of paid fee for studies from paid income taxes.

In Lithuania, students may get loans of mortgage type. In 2005, the state assigned for that purpose LTL 20 million (in 2002 – LTL 9.5 million). At such budget, loans may be used only by a small part of students studying in a full-time study form. Loans for students are given considering their study results and family status: students from poor families get loan if they pay fees for studies and their family's an-

nual income is lower than a certain established minimum. A standard loan is LTL 4 500 per year for living costs and LTL 1 000 to cover fees for studies. Students, who study in foreign countries may additionally borrow LTL 4 500 per year. Annual interest rate is 5%. The interest and the loan is started to be returned two years after graduation and shall be returned within 15 years. Postponement of return of loan is possible if the borrower is unemployed, in maternity leave, ill and etc.

In the country, financing of one student of tertiary school is 2.5 times lower in the average than the average of EU member states. It downgrades the quality of studies. The government is not ready to finance additional resources for tertiary education from additional taxes or funds, obtained by reducing of provision of other services. The traditional tax-subsidy system generates reverse redistribution; increasing the subsidy equates the lifetime income of all workers, but implies an excessively high stock of human capital and thereby efficiency losses; a further increase in the subsidy ensures equality of chances but exacerbates the efficiency losses (Garcia-Peñalosa, Wälde, 2000). In order to enhance financing of tertiary education, it is necessary to increase fees for studies at the same time ensuring that they are not an impairment to study in tertiary schools to talented youth from poor families. Tertiary education must be equally available to all residents, irrespective of their social origin and level of income. The guiding principe is for tuition to rise as little as possible, but enough to maintain quality. It would be fair and economically efficient if graduates cover the most of costs of studies from their future income.

Striving for free of charge education, it is necessary to create possibilities to all students of state tertiary schools to get loans, sufficient to pay fees for studies and to cover living costs during the years of studies. Currently used loans for studies of mortgage type should be replaced by income-contingent loans. Applying loans of mortgage type, each individual returns the same amount of money, which was borrowed and the interest. Applying the system of income-contingent loans, repayment of loan starts when the income of a graduate exceeds a certain established level. Repayment shall be calculated as a certain percentage of monthly and weekly income, exceeding a certain established minimal value. This system is more equitable, since repayment is a function is a function of income and could reduce debt aversion of some students and their family when adequate safe mechanisms are introduced in addition to adequate grants and scholarship systems

Sometimes, it is argued that financing of tertiary education applying individual loans but not taxes paid by taxpayers may deter students from poor families. It is unfair, that successful students would pay lesser part of their income than the less successful students. Making out such arguments, the ability to enter to tertiary school determined by cognitive development in early childhood and fundaments laid down in primary school is not considered (Carneiro, Heckman, 2003).

Income-contingent loans would decrease risks and uncertainties of lenders and borrowers, subsequently; they would increase efficiency and fairness, as well as availability of loans to persons from poor families. If given loans could cover fees for studies and costs of living, education would be free of charges during the period of studies and repayment of loan, related with future income, would be of little difference from payment of taxes. So, income-contingent loans are effective and fair, because they are harmonised with the principles of benefit, ability to pay and social insurance.

Having increased fees for studies, resourses of universities would increase and it could improve the quality of studies. Competition would increase efficiency of usage of these resources. Fees for studies should be variable, because costs of different qualification degrees in different institutions are very different, students should not pay the same fees in little regional university as in the university appreciable in the whole world. In presence of elite system of tertiary education, we could assume that all universities were equally good; therefore they could be equally financed. In presence of mass system, this myth cannot be supported any more. Striving to ensure the quality of competitive institutions internationally, universities must be financed differently, considering their mission, costs and demand for places. Fees for studies should be established by tertiary education institutions on their own discretion, they should not be regulated by the state. Variable fees are fairer, because they decrease regress of the system, based on financing using budget means. Lange (1998) demonstrates that application of fees for studies in market conditions and independent pricing would improve the product "tertiary education" and would replace institutions of low quality, which could survive and have profit due to long subsiding from the government.

Conclusions

In Lithuania, as in the other countries of Western Europe, tertiary education becomes mass, however funds, assigned to one student of tertiary school, are between the lowest ones in Western Europe. In 2004, they were 3 375.5 euros according to the standard of purchasing power. Low expenditures on tertiary education determined decline of the quality of studies.

Society has to cover a certain part of costs of tertiary education, because it gives public benefit, evidenced by positive external effects. Private individuals invest insufficiently on activities, generating positive external effects. State financing of tertiary education is determined by limitations of capital markets, risks of investment on tertiary education and absence of private possibilities to insure risks of studies. In political debates, subsidies to tertiary education are based on arguments of fairness.

The theory of economics demonstrates that financing of tertiary education is regressive, because all taxpayers finance a service, which gives benefit only to a certain part of residents. In order to enhance availability of tertiary education and quality of studies it is necessary to increase fees for studies. Fees for studies should be variable, they should depend on costs and demand.

Before increasing of fees, we should give a possibility to all students to get loans to pay fees for studies and to cover costs of living. Currently used loans of mortgage type should be replaced by income-contingent loans, whereas repayment of loan is a function of income, and

the exogenous variable is a time period, within which the loan for studies would be repaid. In the author's opinion, increase of fees for studies and income-contingent loans would be effective and fair, because education must be free of charges during the period of studies, and fees for studies would increase the students' motivation and stimulate tertiary education institutions to use the resources more efficiently.

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Aukštojo mokslo kaštų pasidalijimas tarp tiesioginių naudos gavėjų ir visuomenės

Santrauka

Aukštojo mokslo sektorius turi didelę įtaką ekonominei gerovei. Šiandien išsivysčiusių šalių aukštojo mokslo sistema tampa vis masiškesnė. Tokia aukštojo mokslo plėtra būtina ir pageidaujama. Tačiau masinė aukštojo mokslo sistema negali būti finansuojama praktiškai vien iš valstybės biudžeto lėšų. Visos šalys, įskaitant ir ekonominiu požiūriu stiprias šalis, susiduria su finansavimo problemomis, todėl vyksta diskusijos dėl aukštojo mokslo finansavimo tobulinimo, dėl kaštų pasidalijimo tarp aukštojo mokslo tiesioginių naudos gavėjų ir visuomenės (Mishan, 2002; Guille, 2002; Greenaway, Haynes, 2000, 2003; Universities UK, 2001; Chapman, Greenaway, 2004; Barr, 2005). Pastaruoju metu kai kurios šalys peržiūri vyriausybės vaidmenį aukštojo mokslo sistemoje. Tai paskatino daugelio Vakarų

Europos šalių vyriausybių išlaidų fiskalinių apribojimų sugriežtinimas. Lietuvoje taip pat aktualūs švietimo kaštų pasidalijimo tarp suinteresuotų aukštojo mokslo rezultatais – studentų, darbdavių ir valstybės (mokesčių mokėtojų) – klausimai.

Straipsnio tikslas – įvertinti aukštojo mokslo finansavimą ir kaštų pasidalijimą tarp naudos gavėjų, atskleidžiant, kodėl visuomenė turi finansuoti aukštąjį mokslą ir kodėl būtinas privatus finansavimas. Straipsnio autorės pagrindžia teiginį, kodėl Lietuvoje būtina padidinti aukštojo mokslo finansavimą plačiau naudojant privačias lėšas, t. y. didinant studijų įmokas. Kita vertus, būtina sudaryti sąlygas visiems studentams gauti paskolas, padengiančias ne tik studijų įmokas, bet ir gyvenimo kaštus.

Lietuva aukštajam mokslui skiria maždaug tokią pat BVP dalį kaip ir ES (1,15%) bei EBPO šalys (1,2%). Bendros išlaidos aukštajam mokslui ir jų dalis BVP didesnė šalyse, kurios naudoja ne tik visuomenines, bet ir privačias lėšas.

Politiniuose debatuose teisingumo argumentais grindžiamas visuomeninis aukštojo mokslo finansavimas. Vienas svarbiausių politinių argumentų dėl valstybės intervencijos teikiant švietimo paslaugas yra teisingumo siekis. Jei mokslas brangiai kainuoja, tai tik turtingi gali jį įgyti. Neturtingi lieka neturtingi, nes jiems aukštasis mokslas neprieinamas kaip turtingiems (Dutta, Sefton, Weale, 1999).

Ekonominiu požiūriu subsidijos aukštajam mokslui pateisinamos remiantis rinkos trūkumais. Ekonominėje literatūroje teigiami išoriniai aukštojo mokslo poveikiai, kapitalo rinkų apribojimai (netobulos švietimo paskolų rinkos), investicijų į aukštąjį mokslą rizika ir privačių galimybių drausti mokymosi riziką nebuvimas, identifikuojami kaip galimi neefektyviai mažos privačios iniciatyvos įgyjant aukštąjį mokslą šaltiniai (Carneiro, Heckman, 2002; Fender, Wang, 2003; Garcia-Peñalosa, Wälde, 2000; Barham et al., 1995; Wigger ir von Weizsäcker, 2001; Fender, Wang, 2003). Pagrindinis vyriausybės kišimosi į privačias rinkas ekonominis argumentas yra rinkos trūkumai, kurių vienas – teigiami išoriniai aukštojo mokslo poveikiai. Ekonominis pagrindimas rodo, kad privatūs individai nepakankamai investuoja į veiklas, generuojančias teigiamus išorinius poveikius, todėl būtinas visuomeninis finansavimas.

Subsidijos aukštajam mokslui pateisinamos dėl kapitalo rinkų netobulumo. Norėdami finansuoti studijas, kai kurie studentai turi skolintis lėšų. Tačiau *paskolų tiekėjai* (privatūs bankai) nėra linkę teikti privačias paskolas studijoms apmokėti, nes, pirma, nė vienoje pasaulio šalyje nėra žmogiškojo kapitalo aktyvų rinkos; antra, bankams sunku kontroliuoti (tikrinti) individualias charakteristikas ir individualią elgseną, lemiančią investicijų į žmogiškąjį kapitalą pajamingumą.

Kitas aukštojo mokslo visuomeninio finansavimo pateisinimas susijęs su tuo, kad gebėjimų įgijimas yra rizikingas, ir *privatūs individai* gali nepakankamai investuoti dėl negebėjimo diversifikuoti riziką.

Dalį aukštojo mokslo kaštų turi padengti ir privatūs subjektai, nes aukštasis mokslas teikia ne tik visuomeninę, bet ir privačią naudą. Paprasčiausias aukštojo mokslo privačios naudos matas yra didesni absolventų gaunami atlyginimai, palyginti su neturinčiais aukštojo mokslo diplomų. Aukštąjį mokslą baigusių darbuotojų atlyginimo priedas yra didelis visose šalyse, o ypač Lietuvoje ir JAV. Darbuotojų, įgijusių aukštąjį išsilavinimą, vidutinis darbo užmokestis didėjant darbo patyrimui auga sparčiau nei įgijusių vidurinį išsilavinimą.

Kitas svarbus aukštojo mokslo įsigijimo motyvas yra mažesnė nedarbo rizika. Dabartiniu metu praktiškai visose Europos šalyse yra ryški nedarbo lygio mažėjimo tendencija didėjant išsilavinimo lygiui. Paskutiniai Eurostato tyrimai rodo, kad 2005 m. Lietuvoje nedarbo lygis tarp žmonių, įgijusių pradinį ir vidurinį išsilavinimą, buvo 15,4%, vidurinį išsilavinimą – 9,7%, o įgijusių aukštąjį išsilavinimą – tik 3,8%. Ši tendencija pastebima visose amžiaus grupėse tiek tarp vyrų, tiek tarp moterų.

Be to, aukštąjį išsilavinimą įgiję žmonės patira naudą dėl didesnės galimybės dalyvauti darbo rinkoje, jų aktyvus darbinis gyvenimas dažnai yra ilgesnis negu įgijusių žemesnį išsilavinimą. Blanchflower and Oswald (2000) įrodė, kad įgijusieji aukštąjį išsilavinimą patiria didesnį pasitenkinimą darbu ir laisvalaikiu kitus veiksnius, tarp jų ir pajamas, laikant pastovius. Švietimo nauda plačiau aptariama Carr-Hill (2001) ir OECD (2001) straipsniuose.

Lietuvoje finansavimas vienam aukštosios mokyklos studentui vidutiniškai 2,5 kartus mažesnis nei ES vidurkis. Dėl to prastėja studijų kokybė. Vyriausybė nėra pasirengusi finansuoti papildomų išteklių aukštajam mokslui iš papildomų mokesčių arba lėšų, gautų sumažinus kitų paslaugų teikimą. Norint padidinti aukštojo mokslo finansavimą, būtina geriau pasidalyti aukštojo mokslo kaštus didinant studijų įmokas ir kartu užtikrinant, kad jos nebūtų kliūtis studijuoti aukštosiose mokyklose talentingiems, tačiau iš neturtingų šeimų kilusiems jaunuoliams. Aukštasis mokslas turi būti vienodai prieinamas visiems gyventojams neatsižvelgiant į socialinę jų kilmę ir pajamų lygį.

Siekiant, kad mokslas būtų nemokamas studijų metais, būtina sudaryti galimybes visiems valstybinių aukštųjų mokyklų studentams gauti paskolas, pakankamas studijų įmokoms apmokėti ir gyvenimo kaštams padengti. Dabar teikiamas užstato tipo studijų paskolas reikėtų pakeisti pajamų-sąlyginėmis paskolomis. Pasirinkus pajamų-sąlyginę paskolų sistemą, paskolos grąžinimas yra pajamų funkcija ir skaičiuojamas kaip tam tikras procentas nuo mėnesinių ar savaitės pajamų, viršijančių tam tikrą nustatytą minimalų dydį.

Pajamų-sąlyginės paskolos sumažintų skolintojų ir skolininkų riziką ir neapibrėžtumą, taigi padidintų efektyvumą ir teisingumą, paskolų prieinamumą asmenims iš skurdžių šeimų. Jei teikiamos paskolos padengtų studijų įmokas ir gyvenimo išlaidas, mokslas būtų nemokamas studijų laikotarpiu, o paskolos grąžinimas, kuris susietas su būsimosiomis pajamomis, mažai kuo skirtųsi nuo mokesčių mokėjimo.

Studijų įmokos turėtų būti kintamos, nes skirtingų kvalifikacinių laipsnių suteikimo kaštai skirtingose institucijose labai skirtingi: studentai neturėtų mokėti tų pačių įmokų mažame regioniniame universitete kaip ir pasauliniu mastu pripažintame. Elitinės aukštojo mokslo sistemos sąlygomis buvo galima daryti prielaidą, kad visi universitetai vienodai geri, todėl gali būti vienodai finansuojami. Masinės sistemos sąlygomis šis mitas nebėra palaikomas. Siekiant užtikrinti tarptautiniu mastu konkurencingų institucijų kokybę, universitetai turi būti finansuojami skirtingai, atsižvelgiant į institucijos misiją, kaštus ir vietų paklausą. Studijų įmokas turėtų nustatyti pačios aukštojo mokslo institucijos, jos neturėtų būti reguliuojamos valstybės. Kintamos įmokos yra teisingesnės, nes sumažina sistemos, grindžiamos finansavimu naudojant biudžeto lėšas, regresyvumą.

Apibendrinant galima teigti, kad:

1. Lietuvoje, kaip ir kitose Vakarų Europos šalyse, aukštasis mokslas tampa masinis. Lietuvoje lėšos, skiriamos vienam aukštosios mokyklos studentui, yra vienos mažiausių tarp Vakarų Europos šalių. Mažos išlaidos aukštajam mokslui lėmė studijų kokybės prastėjimą.
2. Visuomenė turi padengti dalį aukštojo mokslo kaštų, nes jis teikia visuomeninę naudą, pasireiškiančią teigiamais išoriniais poveikiais. Valstybinį aukštojo mokslo finansavimą lemia ir kapitalo rinkų apribojimai, investicijų į aukštąjį mokslą rizika, ir privačių galimybių drausti mokymosi riziką nebuvimas. Politiniuose debatuose subsidijos aukštajam mokslui grindžiamos teisingumo argumentais.
3. Aukštasis mokslas teikia ne tik visuomeninės, bet ir privačios naudos, todėl jos gavėjai turi prisidėti prie aukštojo mokslo finansavimo. Privati investicinė nauda pasireiškia didesniu aukštąjį mokslą baigusių darbuotojų darbo užmokesčiu, geresnėmis užimtumo galimybėmis, stipresniu prisirišimu prie darbo rinkos.
4. Ekonomikos teorija rodo, kad aukštojo mokslo finansavimas yra regresinis, nes visi mokesčių mokėtojai finansuoja paslaugą, iš kurios tiesioginę naudą turi tik dalis gyventojų. Siekiant padidinti aukštojo mokslo prieinamumą ir studijų kokybę, būtina didinti studijų įmokas. Studijų įmokos turėtų būti kintamos, priklausyti nuo kaštų ir paklausos.
5. Prieš didinant įmokas, reikėtų sudaryti galimybę visiems studentams gauti paskolas studijų įmokoms apmokėti ir gyvenimo kaštams padengti. Dabar teikiamas užstato tipo paskolas reikėtų pakeisti pajamų-sąlyginėmis paskolomis, kai paskolos grąžinimas yra pajamų funkcija, o egzogeninis kintamasis yra laikas, per kurį bus grąžinta studijų paskola.

Raktažodžiai: *aukštojo mokslo privati ir visuomeninė nauda, aukštojo mokslo finansavimas, privatūs ir visuomeniniai aukštojo mokslo kaštai, aukštojo mokslo kaštų pasidalijimas tarp naudos gavėjų, studijų paskolos.*

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