

## DIVERSIFICATION OF HIGHER EDUCATION FUNDING: RESOURCES, FUNDING FORMS AND METHODS

**Irena MAČERINSKIENĖ**

Mykolas Romeris university  
Ateities g. 20, LT-08303, Vilnius, Lietuva  
E-mail: irena.macerinskiene@mruni.eu

**Nadežda KUČAIDZE**

Mykolas Romeris university  
Ateities g. 20, LT-08303, Vilnius, Lietuva  
E-mail: n.kucaidze@mruni.eu

**Abstract.** According to the trends of globalization in higher education, primarily, the trend of massification, diversification of higher education funding resources becomes a particularly relevant issue. The diversification of higher education funding resources (income resources) is the most common response to the mass higher education and relevant challenges higher education faced with. The article deals with diversification of higher education funding resources. Consequently, the main groups of diversification of higher education funding resources (e.g. state funding, external funding and internal funding) are investigated. The main forms and methods of each group of higher education funding resources diversification are analysed.

**Keywords:** higher education funding, funding forms, funding methods, higher education funding resources, diversification of funding resources

### **JEL Classification:**

I22 – Educational Finance; Financial Aid  
I23 – Higher Education; Research Institutions;  
H52 – Government Expenditures and Education.

### **Introduction**

Nowadays, higher education faces the challenges of globalization inevitably. In the context of globalization, the massification occurs in higher education and poses certain problems in higher education funding. With respect to the growing accessibility to higher education in the European Union, the state funding is unable to compensate costly higher education services. It is therefore necessary to search for alternative resources of higher education funding – internal as well as external resources of funding. Different aspects of diversification of higher education funding were revealed in scientific works of Daujotis V., Janulatis A., Radžvilas V., Petras R. (2012), Sorokina T.V., Karpickaja M.E., Kuznecova N.A., Spirina S.V. (2010), Bulajeva T., Duoblienė L. (2009), Kärkkäinen K. (2006), Woodhall M. (2004), Hearn J.C. (2003), Johnstone, D.B. (2002, 2009), Weidman J. C. (1995), Scott P. (1995), etc. The methods and forms of higher education funding are analysed by Boer H., Jongbloed B. Benneworth P., Cremonini L., Kolster R., Kottmann A., Lemmens-Krug K., Vossensteyn H. (2015), Reiff M.R. (2014), Crosier D., Puh A (2013), Fazekas, M. (2012), Stasiulionienė D., Juozaitis A.M. (2014), Pūraitė A. (2011), Orr D. (2005), Caldwell B.J., Levacic R., Ross K. N. (1999) ir kt.

**The object of research** – diversification of higher education funding resources. **The purpose of research** – to analyse the diversity of higher education funding resources, their forms, methods.

**The tasks of research:** (1) to reveal the main definitions and tendencies of diversification of

higher education funding resources; (2) to analyse higher education state funding forms and methods; (3) to analyse possible external and internal resources of higher education funding.

**Methods of the research:** systemic analysis, review and generalization of the newest scientific literature and legal regulation, comparative analysis, abstraction, alternative, analogy, generalization, deduction and induction methods.

### **Diversification of higher education funding resources: definitions and trends**

Funding of higher education is a large and complex topic (Johnstone, 2009). Johnstone D.B. (2009) notes, that it is complex in part because of its multiple sources of revenue and its multiple outputs, or products, which are only loosely connected to these different revenue sources. The institutions which provide higher education services (universities, colleges) can achieve funding from different sources. In particular, diversification of higher education funding resources is revealed through a variety of funding sources (in scientific literature also called *income diversification*). The definition *diversification* comes from Latin conception *diversificatio*, which means *diversity, diverse development, splitting*. Diversification of higher education funding sources (income diversification) means that resources of higher education funding are spreaded out. Income diversification means generation of additional income (through new or existing funding sources) that contributes to balancing the income structure of the institution as well (Estermann, Bennetot Pruvot, Laeys-Kulik, 2013). It should be noted, that in economic terms diversification of higher education funding resources means not only a higher risk but higher profits too.

The process of diversification of higher education (HE) funding resources started in the beginning of 80-ties both in developed and developing countries (Sorokina et al., 2010). This process furthest advanced in the United States of America (USA), where marketing is one of the main concerns of all high education institutions (HEIs). The diversification process of HE funding resources in Europe was stimulated by globalization trends in HE. Zelvy R. (2005) noted, that in HE system the following trends of globalization occur: massification (HE becoming a mass), diversification (increasing HE diversity), internationalization (HE becoming international), marketization (market elements emerge in HE) and standardization (uniform standards in HE). The need of diversification of HE funding resources is determined by massification, internationalization and marketization. Due to increasing access to HE and increasing number of tertiary education users (students), European Union (EU) countries' budgets are no longer able to cover all HE service-related costs. This fact promotes the need for HEIs to look for alternative sources of income, i.e. to diversify the sources of HE funding. Marketization contributes to the process of income diversification as well. HE liberalized increasingly and free market mechanisms have been integrated to HE funding models recently. Undoubtedly, all this influences the diversity of HE funding sources – the list of HEIs income sources expand, increase the diversity of private funding sources as well as modifications of their forms.

Researchers determine different sources of HE funding in scientific literature. For instance, Tilea D.M., Vasile B. (2014) present the following list of HE funding sources: *state budget (central and local), sources granted by population, enterprises involved in educational activities (transport, school supplies, uniforms), donations, sponsorships, own incomes of educational institutions*

(*research asset, rents, fees etc.*) as well as other external sources (grants, external loans offered by external financial institutions). Sorokina T.V., Karpickaja M.E., Kuznecova N.A., Spirina S.V. (2010) determine these sources of education funding: *state budget, non-budgetary income sources: providing paid educational services; HEIs incomes from land, buildings, structures, equipment rental; providing paid expert services, consulting, etc.; conducting operation with securities; through sponsor contributions, deposit and participating in the commercial projects together with other organizations.* De Villiers P., Nieuwoudt L. (2010) note that the finances for HE originate from only four sources: with direct subsidies to HEIs it is the taxpayers that finance HE; with cost-sharing the other parties involved must contribute as well (i.e. students that have to pay higher tuition fees or the parents of students that financially support their children); HEIs also receive philanthropic funding (the so called third income stream). If government contributions to HE decrease, the shortfall must be financed by one of the latter three sources (De Villiers, Nieuwoudt, 2010).

It should be noted, that the diversity of HE funding resources is consolidated in legal acts as well. For instance, there are two classifications of education funding resources in Lithuania. The first one – Classification of education and studies funding resources, which expresses the sources of funding in view of HE service users (students): the national budgets funded place; the municipality budgets funded place; the national budgets study place partly funded of the European Union Structural Funds; targeted funding of studies; self-paying; the funding acquired from the organizations and the private sponsors; the funding acquired from international funds; Confessional communities funding; other finances. The second is classification of funding resources, which expresses the sources of funding in view of higher education service delivers (HEIs) and their programmes: National budget (i.e. the institutions and their programs funding from the state budget allocations); Municipality budget; Funding acquired from international and foreign funds and organizations; Confessional communities funding; Shareholders contributions; Studying fee; Other legally acquired finances (i.e. Incomes from other HEIs activities, according to the legal regulations, which regulating HEIs activity); State financial funds (i.e. State Social Insurance Fund, Compulsory Health Insurance Fund, Privatisation Fund, Employment Fund and other state funds); Support. It should be noted, that majority of European Union (EU) countries apply HE funding models oriented toward students' studies funding (individual funding) rather than HEIs funding (institutional funding) recently. The latter increases the competition between HEIs providing educational services.

Considering the types of education (public and private) resources of HE funding are typically divided into two major education funding categories: private and public (Tilea Vasile, 2014; Sorokina et al. 2010). Public sources come from central, regional and local authorities, while private sources come from students, non-governmental organizations and households (Tilea, Vasile, 2014). Other authors note that these two types of funding depend on two methods of higher education funding – firstly, on covering the costs related to individual studies of students (as well as accommodation costs), and secondly – on institutional funding (Sorokina et al. 2010). In this research three main groups of resources of HE funding are presented: state, internal and external funding of HE. State funding is presented as a distinct group according to the highest proportion of HE funding, compared with other groups of HE funding (internal and external).

State funding of HE has the widest diversity of funding methods. Internal and external funding of HE can be public and private, according to the origin of funding resource.

### State funding of HE: resources, forms and methods of funding

State funding of HE can be provided by these resources of funding: *budgets of central, regional and (or) local authorities*. This group of HE funding depends on budgetary system of each country. It is important to note, that HE can be funded from budgets using two forms of funding – direct and indirect (Sorokina et al., 2010). Direct form of funding of HE presuppose the funding of HE subjects (HEIs or students) from the appropriate level of the budget directly. Indirect form implies that HE subjects are funded not directly but through the tax system (under certain physical and (or) legal entities' tax incentives) or providing state credit guarantees to students for studies.

All methods of State funding of HE can be divided according to these forms mentioned above taking into account the receivers of State funds – HE subjects, i.e. providers of HE services and consumers of HE services (students) (see Table 1).

**Table 1. State funding of HE: forms and methods of funding**

Funding of HEIs		Funding of Students studies	
Direct	Indirect	Direct	Indirect
Estimate-based funding	Tax incentives	Education voucher	Tax incentives
Performance-based funding		Grant	Credit guarantees
Formula-based funding		Study loan	
Contracting funding		Tertiary Education Levy	
Block-grant funding			

**Source:** prepared by authors according to Boer H., Jongbloed B., Benneworth P., Cremonini L., Kolster R., Kottmann A., Lemmens-Krug K., Vossensteyn H. (2015), Fazekas M. (2012), Ecker B., Leitner K.-H., Steindl C. (2011), Harnisch T.L. (2011), Bauer K.B., Grave B.S. (2011), Pūraitė A. (2011), Stokes A, Wright S. (2010), Sorokina T.V., Karpickaja M.E., Kuznecova N.A., Spirina S.V. (2010), Pranevičienė B., Pūraitė, A. (2010), Peterson P.E. (2008), Levačić R. (2008b).

We can see the methods of State funding of HE which can be used in order to fund HE subjects (HEIs and/or Students) in the Table 1. HEIs as legal bodies which provide HE services can be funded directly by using *line-item budget funding, performance-based, formula-based, block-grant funding or contracting funding*. The other party – students, can be funded using *education vouchers system, grants, study loan or tertiary education levy system*. All subjects of HE can be funded indirectly as well. For instance, reducing the study costs through tax system. Each method of State funding of HE is discussed below.

**Estimate-based funding** (lithuanian *sqmatinis finansavimas*). In scientific literature is also known as *line-item budget funding*. When government chooses this form of HE funding, HEIs are funded from the state budget in accordance to economic classification of expenditure (Sorokina et al., 2010). This method of HE funding is realized through the central, regional and (or) local budgets' funds allocation for legitimate users of these funds and is implemented by budgetary institutions and other entities entitled to receive budget allocations on the basis of expenditures and incomes estimates for the financial year. Pranaviciene & Puraite (2010) note, that universities are funded by budget resources which are previously assigned to cover certain expenses of finance certain activities, and universities do not have a right to distribute the resources freely. This method provides a fairly rigid restriction on how HEIs can spend the money they receive from the government or other public funds (Ahmad et al., 2015).

**Performance-based funding** (lithuanian *programinis finansavimas*) this method is related to the *New Public Management* principles. It is linked with the results HEIs achieve and the quality of services they provide, rather than with the planned cost estimates for the budget year. Kaullychurn S. (2011) notes, that it provides a transparent way of reporting on performance outcomes to the public at large, and rewarding HEIs that demonstrate success and continued improvement in key areas. Finally, performance-based funding aims to reinforce initiatives that serve to promote excellence in teaching, learning and research (Kaullychurn, 2011). It should be noted, that wide range of indicators can be applied in performance-based funding method. For instance, Denmark's funding model for teaching is an entirely output-driven system which is called *the taximeter*, linking funding directly to the number of students who pass their exams (Cheung, 2003). Sweden's funding system for teaching is based on an educational task contract negotiated between the Ministry and each university or University College (Kaullychurn, 2011). In these contracts the three-year objectives of the institutions are stated: the minimum number of degrees, the minimum total number of FTE students, the fields of study in which the number of students is to increase or decrease and the follow-up of an annual report (Maassen, 2000). Boer H. et al. (2015) determine these frequently used performance indicators in the funding models: *Number of Bachelor and Masters graduates/degrees (Austria, Finland, Netherlands, North Rhine Westphalia, Thuringia, Tennessee); Number of exams passed or credits earned by students (Austria, Denmark, Finland, Tennessee, Louisiana, South Carolina); Number of students from underrepresented groups (Australia, Ireland, Thuringia, Tennessee); Study duration (Austria, Denmark, the Netherlands, Tennessee); Number of PhD graduates (Australia, Denmark, Finland, Thuringia, Netherlands); Research productivity (Australia, Denmark, Finland, United Kingdom (England, Scotland); Research performance in terms of winning (research council) contracts (Australia, Finland, Hong Kong, Ireland, Scotland, Tennessee); Third party income (Australia, Denmark, Finland, North-Rhine Westphalia, Thuringia, Hong Kong); Revenues from knowledge transfers (Australia, Austria, Scotland).*

**Formula-based funding** (lithuanian *formule grįstas finansavimas*). This State funding method of HE is also known as institutional funding or *discretionary budget funding* (Pūraitė, 2011). Formula funding for schools is a mathematical formula which “contains a number of variables (items such as number of pupils in each grade, area of school, poverty [...]), each of which has attached to it a cash amount” (Levacic, 2008b). Cadwell et al. (1999) note, that formula funding

is “an agreed set of criteria for allocating resources to schools which are impartially applied to each school”. Such state funding method is also called the “discretionary budget” by taking into account the discretion of the state in deciding a certain amount of financing for a certain institution of higher education (Orr, 2005). Fazekas M. (2012) notes that, by and large, decentralised school management goes together with formula funding and the combination of centralised school management and formula funding is rare. This method of HE funding is characterized by the fact that HEIs are financed according to the number of studies and researches (Pūraitė, 2011).

**Contracting funding** (Lithuanian *sutartinis finansavimas*). For the purposes of this HE funding method the State determines the number of students under the various specialties which it can fund and tuition fees for each of the specialist training. HEIs can participate in the State HE contest for the price proposed by the State or less. Any interested HEIs-participants of contest can submit their proposals for specialist training, educational programmes and other training conditions (Sorokina et al. 2010). With HEIs-contest winners awarded contracts under which the training of number of specialists, educational programs, etc. are financed according to the discussed prices. For instance, this method of HE funding is applied in Lithuania and is called “*targeted funding of studies*”. In order to fund the training of specialists for the State important areas, the number of students are admitted to the targeted places. The Ministry of Education and Science confirms the number of targeted state-funded study places.

**Block-grant funding** (Lithuanian *subsidijos (bendrosios dotacijos)*). In this case the lump sum is allocated from the State budget for HEIs in order to cover the targeted costs. The aim of this HE funding method is to cover some of the costs of HEIs (for instance, university research grants, grants for HEIs purchase of technologies, software and etc.). In this case, the estimates are usually confirmed and the list of articles of economic costs classification is indicated (Sorokina et al. 2010). However, HEIs can be responsible for granted funds allocation according to the need for in-house (Pūraitė, 2011). Pūraitė A. (2011) notes, that using this method of financing, the funds, granted for universities usually cover certain categories of expenditure (for example, study costs, costs of daily activities and etc.). This method of funding gives institutions more flexibility and autonomy compared to line-items to determine how public funds are spent (Ahmad et al., 2015).

**Education voucher** (Lithuanian *švietimo vaučeriai*). This method of funding provides a special document (educational voucher) which is granted to a student and is considered the State's financial commitment to pay for the student's HE services costs. This method is widely used in Europe and the United States of America (USA) in funding of general education schools, rarely – in funding of HE. Vouchers are cash coupons equivalent to a percentage of the taxes paid by a taxpayer (Tilea, Vasile, 2014). Education vouchers consistently implement the principle “*money follow the student*”. This funding method means, that the funds are distributed according to the number of students. The more students, the more funding there is. If the student decides to change HEI money “follows” the student into another HEI. The principle: the providers of HE services compete, government pays, the users of HE services choose. This method of funding promotes competition among HEIs and develops the diversity of HE services, which meets different interests of consumers. This method of HE funding is applied in Lithuania. In the USA vouchers

are given to people with low income who cannot pay the fees to ensure a high level of training (Tilea, Vasile, 2014).

**Grant** (Lithuanian *sunsidijos*). This method of HE funding is implemented through allocation of funds to users of HE services. Grants are allocated in order to cover the cost of students related to studies (Sorokina et al. 2010). This method is used in different countries for HEIs and professional training schools funding. Grants are allocated on gratuitous and non-refundable basis. Grants may be awarded to students to cover education costs, living costs (e.g., *Student apartment*), meals, etc. One of the examples of grants – scholarships. Grants are funded in the form of student aid. Falch T. and Oosterbeek H. (2011) note that grants and scholarships are usually awarded to students with difficult socio-economic situation. It should be noted, that this method of HE funding has the opposite effect than the tuition fees.

**Study loans** (Lithuanian *Studiju paskolos*). Study loans may be provided by the State HEIs, private organizations. There are two alternative study loans market – private and public. Falch T. and Oosterbeek H. (2011) note that the private market for study loans is small and almost non-existent. It is less effective than the public. Public study loan arrangements take different forms (Oosterbeek, Patrinos, 2008). They can be of the *mortgage-type*, which in principle is equal to traditional loans and is used in the Nordic countries and the Netherlands, or they can be *income contingent*, such as in England (Falch, Oosterbeek, 2011). Falch T. and Oosterbeek H. (2011) note that mortgage-type loans are required to be repaid in the form of fixed instalment after graduation; repayment of income contingent loans depends on achieved income and students repay a percentage of their earnings after graduation. HE study loans can be provided for different periods. In some cases, the State subsidizes education credit rates or provide the possibility to write off or postpone the repayment period if the borrower receives a low income. Study loans is the main form of financing HE in China, Japan, USA, Canada, Great Britain (Sorokina et al., 2010). It should be emphasized, that this method of funding of students HE services has a number of advantages in comparison with other methods. Other methods of funding of HE services (for instance, voucher system or grants) provide funding of HE services for students from taxpayers' funds and these taxpayers do not necessarily have HE diplomas. Due to this fact, the study loans implement justice, since the person becomes accountable for his studies in the future when he/she obtains personal income. It should be noted that methods of HE funding are constantly changing and evolving and income-contingent repayment study loans are especially recommended. This type of study loans should be regarded as a mixed (public and private) financing form of HE (Stasiulionienė, Juozaitis, 2014).

**Tertiary Education Levy** (Lithuanian *studiju apmokestinimas*). An alternative model that overcomes many of the limitations of the student loans funding model in the USA and the income contingent scheme model in Australia is the Tertiary Education Levy (TEL) (Stokes, Wright, 2010). This method of HE funding is based on the premise that HE students should make a financial contribution to their studies that is based on both the cost of the course and the future income the university graduate will earn. Stokes A., Wright S. (2010), note that this method considers the benefits that both the individual (PRR) and society (SRR) gain from HE. It should be noted that, compared with study loans system, in this case students are not considered debtors

(they have no debts, no financial liabilities to credit institutions), and for the study of the costs incurred to return the funds only when they have income. This method of funding is applied in the USA, Australia.

**Tax incentives** (Lithuanian *mokestinės lengvatos*). The State uses not only the direct methods of student studies' funding, but also indirect. The example of indirect public funding methods can be tax incentives for students and/or HEIs. Tax incentive is special taxation conditions that are more favorable compared to normal conditions which are established and applied for a particular taxpayer or a group of taxpayers (Law of Tax Administration of the Republic of Lithuania, 2016). Students are relevant with respect to the income tax preferential treatment. This method of HE funding has drawbacks compared to grants. In particular, this method of financing does not help low-income earners, since they already pay a small personal income tax or, in certain cases, are exempted from paying income tax. This group of student could not pay for their studies, even if the tax benefits offset some of the study costs. On the other hand, the State provides certain tax benefits for non-profit organizations engaged in educational activities. Thus, HEIs are exempted from certain taxes. For instance, HEIs-budget institutions (Lithuanian *biudžetinės įstaigos*) are exempted from property taxes in Lithuania. HEIs-public institutions (Lithuanian *viešosios įstaigos*) are exempted from property taxes partly, if HEIs satisfied tax law conditions for the profits reinvestment in further educational activity and etc.

**Credit guarantees** (Lithuanian *kreditų garantijos*). This method of indirect funding is applied for studies. The States with study loans systems (for instance Lithuania), can apply study loan back guarantees. The purpose of this indirect HE funding method is to fund the study loans when the student does not find a job and have not income after graduation. In this case the borrower is not a student, but the State. It should be noted, that such outstanding student loans are attributable to indirect State debt.

After review of State funding methods of HE, it should be emphasized, that EU member states select the methods of HE funding independently. However, it should be noted that several State funding methods of HE can be applied at the same time in the same State. For instance, in Lithuania HE is funded through performance-based, contracting funding, education voucher, grants, student loans, as well as through indirect methods of HE funding – tax incentives for HEIs and working students, and State-guaranteed student loans (credit guarantees). HE funding methods, forms, which are applied in particular State as a whole create the States' HE funding model.

### **External funding of HE: resources and the diversity of funding methods**

Although HE is still mostly funded from the State budget, it should be emphasized, that it is not the only source of HE funding. The external as well as internal HE funding comes to the rescue. It should be noted, that funding sources should be involved into HE funding system with respect to the HE benefit receivers – firstly, students (direct beneficiaries), society as a whole and the



State (indirect beneficiaries) as well. Therefore, the burden of HE funding should be divided between State and other stakeholders: employers, banks, foundations, students. Further the alternative HE funding sources and methods of external HE funding are discussed (see Table 2).

**Table 2. External HE funding: resources and methods of funding**

External HE funding resources and methods		
Individual funds	Legal entities funds	International organizations funds
Student tuition fees	HEI credit	EU investment funds support (structural support)
Household contributions for the student's studies	Resource Capital (Endowment)	International organizations support
Donation	Employer's contributions for employee's studies	
Inheritance	Investment funds	
Support, charity	Religious communities funds	

Source: prepared by authors

According to the data presented in Table 2, we can see that HEIs can receive funding from other external sources, with respect to different HE financier groups (i.e. individuals, legal entities and international organizations). Further the external funding methods are analyzed.

**Individual funds** (Lithuanian *fizinių asmenų lėšos*) – this external HE funding resource is the most attractive alternative and auxiliary mean of State funding. Students are the participants of HE service market and they receive direct benefit from HE. Due to this fact, students can contribute to the funding of HE studies at their own expense as well. This funding resource is an alternative to State funding and is applied in EU member states, USA and other states widely. For instance, mix funding model of state funding methods and individual funds is applied in Lithuania. It should be noted, that earlier there were no tuition fees and all HE services were free for students in Lithuania. Second example is *household funds* (Lithuanian *namų ūkių lėšos*) whereby student's parents, relatives or other individuals who are interested in that person's studies, can contribute to HE funding and to pay tuition fees for a student. Individuals can also contribute to HE funding through *donation, inheritance, support or charity*. For instance, employed individuals can give 2 percent of their annual income tax to HEIs in Lithuania. This method of funding is particularly regulated by the Law.

**Legal entities funds** (Lithuanian *juridinių asmenų lėšos*) is the second category of external HE funding sources. *HEI credit* is one of examples. HEIs can borrow from other legal entities (e.g.,

Banks, credit unions and other financial institutions and (or) legal entities) and use received funds for HEIs purposes. *Endowment* also known as *resource capital* is the next example. Endowment – is a foundation which resources can not be used for operating funding, but invested for the future stable incomes (Vahtin, 2006). HEIs endowments are extremely get popularity in the USA and Canada. This method of HE funding is used in UK for Cambridge and Oxford universities' funding. Leslie L.L. and Ramey G. (1988) note, that endowment is the main independent income resource of HEIs. The funds HEIs gain from endowment can be used for research and development, for further investment and etc. (Leslie, Ramey, 1988). HEIs receives endowed funds which are reinvested indefinitely, while the return on the investment i.e. profits, dividends and capital gains derived from these investments are used to fund HEIs operating and other expenditures (Masterson, 2009). *Employer's contributions for employee's studies*. Decreased state funding was one of the main reasons which lead to the development of cooperation with business (Dan, 2012). Employers are beneficiaries of HE – they get qualified staff, therefore they may contribute to the HE funding too. HEIs which has financial autonomy, can participate in the stock market to buy/sell shares, bonds and other securities, e.g. use *investment funds* (transactions in securities) in order to make additional income. *Religious communities funds* – a religious community may contribute to the financing of HE (for instance, to pay tuition fee for persons that belong to a particular religious community studies, also donation, charity, etc.).

The third category of external sources of HE funding is **international organizations funds**. EU investment funds support (structural support) and other support of international organizations (for instance *Norwegian Financial Mechanism*, etc.) belong to this category of HE funding. EU is implementing a number of additional initiatives (i.e. Erasmus+), the EU funds are invested in education of Member States, cooperation at various levels. It should be noted, that students studies in certain cases may be partly financed by the EU's investment funds. Students and teachers of HEIs as well as non-teaching staff can participate in the projects, which are jointly funded by EU investment funds and State budget funds. Such projects attract additional funding to HE.

### **Internal sources of HE funding**

HEIs as the main providers of HE services can generate revenue from their own internal resources. HEIs can carry out economic-commercial activities which are not prohibited by certain Law regulations. Due to the fact that HEIs dispose financial and physical assets, as well as provide HE services and carry out other activities, the following internal sources of HE funding can be distinguished (see Table 3).

**Table 3. Internal sources of HEI funding**

<b>HEIs internal sources of funding</b>
<b>Shareholders' contributions</b>

<b>Interest of funds held in the accounts in financial institutions</b>
<b>Incomes from activities</b>
<b>Incomes from property</b>

**Shareholders' contributions** (Lithuanian *Dalininkų, pajininkų įnašai*) – is HEIs internal source. HEIs (university, college) may operate in various forms, for instance like a limited liability company, public institution, budgetary institution. In case of Lithuanian HE, public HEIs can operate only like a public institution (Lithuanian *viešoji įstaiga*) since 2009. State HEIs operated only like budgetary institutions previously, although private HEIs can operate like public institutions or Limited Liability Company by their own choice. Institutional forms of activity and legal regulation of such forms depends on the shareholders' contributions status. This source of funding belongs exclusively to HEIs. **Interest of funds held in the accounts in financial institutions** – is the next example of internal source of HE funding. HEIs can select a bank or other financial institution to store the cash. In view of the need for funds and the internal authority forecasts, they may carry out certain financial operations with deposits and receive interest incomes. The third example of HEIs internal income source is **incomes from activities** – whether related to study as well as unrelated (e.g., paid training of professional development and other services that can provide a HEIs in accordance with their Statute, articles of association and so on). It is noteworthy source of funding, since HEIs may receive additional income through their inner potential. **Incomes from property** – both movable (e.g., Science equipment rental, etc.) and real estate (e.g., Conference halls, sports halls, land rent, etc.).

## Conclusion

The diversity of sources of HE funding, their forms and methods were analysed and some insights can be done. In view of the global trends in HE, the diversification of HE funding sources (incomes diversification) becomes more and more important. HEIs are facing massification, marketization, liberalization, which have a direct impact on HE funding models – expanding the sources of HE funding, there are more private funding sources as well as modifications of their forms. HE should not depend from a single source of funding, because it could negatively affect HEIs financial stability and limit their financial autonomy. Funding sources of HE should be diversified, hereby allocating the responsibilities and risks in this area.

HEIs as the main providers of HE services can receive funding from the public and other (non-public) external and internal funding sources. Various forms and methods of HE funding, which are acceptable to the particular Member States are applied in EU. However, it is important to note that not all alternative methods of funding are applied in EU member states practice. For instance, endowment (capital resources) based funded is not widespread among EU member states, although HEIs in USA, Canada, and the United Kingdom (Oxford and Cambridge universities), are funded using this method. EU member states could adopt the best practices and involve endowment to HE funding system, providing all necessary conditions for the implementation of this funding method.

## References

- Boer H., Jongbloed B., Benneworth P., Cremonini L., Kolster R., Kottmann A., Lemmens-Krug K., Vossensteyn H. (2015) Performance-based funding and performance agreements in fourteen higher education systems Report for the Ministry of Education, Culture and Science. Center for Higher Education Policy Studies.
- Caldwell, B. J., R. Levacic, and K. N. Ross, (1999), "The Role of Formula Funding of Schools in Different Education Policy Contexts", in Ross, K.N., R. Levacic (eds.), *Needs-based Resource Allocation in Education. Via formula Funding to Schools*, International Institute for Educational Planning, UNESCO, Paris.
- Cheung, B. (2003) Higher Education Financing Policy: Mechanisms and Effects. *Essays in Education* 5.
- Crosier D., Puh A (2013) Fees for free? The many guises of higher education tuition fees in Europe. Prieiga per internetą: [https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Publications:Focus\\_on:\\_Fees\\_for\\_free%3F\\_The\\_many\\_guises\\_of\\_higher\\_education\\_tuition\\_fees\\_in\\_Europe](https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Publications:Focus_on:_Fees_for_free%3F_The_many_guises_of_higher_education_tuition_fees_in_Europe)
- Dan, M. C. (2012). The third mission of Universities in the Development Strategy of Vienna City *Informatica Economica*, Vol. 16, Issue 4, p. 49–56.
- Ecker B., Leitner K.-H., Steindl C. (2011). Funding formulas for teaching in public universities: International experiences and lessons drawn from a science policy view. AIT Austrian Institute of Technology GmbH.
- Estermann T., Bennetot Pruvot E., Laeys-Kulik A-L. C. (2013) Designing strategies for efficient funding of higher education in Europe. European University Association (EUA). Prieiga per internetą: [www.eua.be](http://www.eua.be)
- Falch T., Oosterbeek H. (2011) Financing lifelong learning: Funding mechanisms in education and training. EENEE Analytical Report No. 10 Prepared for the European Commission
- Fazekas, M. (2012) School Funding Formulas: Review of Main Characteristics and Impacts. *OECD Education Working Papers*, No. 74, OECD Publishing. <http://dx.doi.org/10.1787/5k993xw27cd3-en>
- Finansavimo šaltinių klasifikatorius, patvirtintas Lietuvos Respublikos švietimo ir mokslo ministro 2007 m. gruodžio 13 d. Nr. ISAK-2422.
- Johnstone D.B. (2009) Financing Higher Education: Who Pays and Other Issues. The American University in the 21st Century: Social, Political, and Economic Challenges. Baltimore: The Johns Hopkins University Press, 2001; revised for the 2nd edition in 2004 and for a 3rd edition in 2009. Prieiga: [http://gse.buffalo.edu/org/IntHigherEdFinance/files/Publications/foundation\\_papers/\(2009\)\\_Financing\\_Higher\\_Education.pdf](http://gse.buffalo.edu/org/IntHigherEdFinance/files/Publications/foundation_papers/(2009)_Financing_Higher_Education.pdf)
- Kaullychurn S. (2011) Performance-Based Funding Models for Tertiary Education: A New Policy Instrument for Small Island Developing States. Ass. Charles Gide Justice & Economics Toulouse, June 16 & 17.

- Law of Tax Administration of the Republic of Lithuania (2016).
- Leslie, L. L., Ramey, G. (1988). Donor Behavior and Voluntary Support for Higher Education Institutions. *The Journal of Higher Education*, 59(2), 115-132.
- Levacic R. (2008b) Funding Schools by Formula. In Nils C. Soguel and Pierre Jaccard (eds.) *Governance and performance of Education Systems*, Springer, Netherlands, pp. 205-234.
- Maassen, P. (2000) Models of Financing Higher Education in Europe. 85: Center for Higher Education Policy Studies (CHEPS), University of Twente.
- Masterson, K. (2009). Recession tempers the usual optimism in college fund-raising offices. *The Chronicle of Higher Education*, 55(18), A16–A17.
- Mokymosi ir studijų finansavimo šaltinių klasifikatorius, patvirtintas Lietuvos Respublikos švietimo ir mokslo ministro 2009 m. rugpjūčio 18 d. įsakymu Nr. ISAK-1723.
- Mokymosi ir studijų finansavimo šaltinių klasifikatorius, patvirtintas Lietuvos Respublikos švietimo ir mokslo ministro 2009 m. rugpjūčio 18 d. įsakymu Nr. ISAK-1723.
- Oosterbeek H., Patrinos H.A. (2008) Financing lifelong learning. *Policy research Working Paper 4569*, The World Bank.
- Orr D. (2005). Can Performance-Based Funding and Quality Assurance Solve the State vs Market Conundrum? *Higher Education Policy*, vol. 18, p. 31–50.
- Pranevičienė, B., Pūraitė, A. (2010) The Financing Methods of Higher Education System. *Jurisprudencija*. 4(122): p. 335-356.
- Pūraitė A. (2011) Aukštojo universitetinio mokslo valstybinis reguliavimas. Disertacija. Mykolo Romerio universitetas.
- Reiff M.R. (2014) How to pay for public education. *Theory and Research in Education*, Vol.12(1) 4–52 p. 1-49.
- Stasiulionienė D., Juozaitis A. M. (2014) Nacionalinės švietimo lyderių studijų finansavimo tvarkos aprašas. Projektas „Lyderių laikas 2“ 3.1.2. veikla „Nacionalinės švietimo lyderių studijų finansavimo tvarkos aprašo parengimas“. Prieiga per internetą:  
<http://www.lyderiulaikas.smm.lt/Atsisi%20B3sti%20dokumentus:/article/3628/Nacionalin%C4%97s%20%C5%A1vietimo%20lyderi%C5%B3%20studij%C5%B3%20finansavimo%20tvarkos%20apra%C5%A1as.pdf>
- Stokes A, Wright S. (2010). What Are The Alternatives To Student Loans In Higher Education Funding? *Contemporary Issues In Education Research – Volume 3, Number 1*, p.19-30.
- Tilea D.M., Vasile B. (2014) Modern Trends in Higher Education Funding. The 5th World Conference on Educational Sciences - WCES 2013. *Procedia - Social and Behavioral Sciences* 116(2014) p. 2226 – 2230.
- Vahtin N. B. (2006) Endowment: new step and new opportunities for Russian education Management of economic and financial activity. P. 73-76.
- Želvyš R. (2005) Vilniaus pedagoginis universitetas XXI a. švietimo iššūkių kontekste. Vilniaus pedagoginis universitetas.
- Сорокина,Т.В., Карпицкая М.Е. , Кузнецова Н.А. , Спирина С.В. (2010) Финансирование образования в Республике Беларусь : монография / Гродно : ГрГУ. – 203 с. [Sorokina T.V., Karpickaja M.E., Kuznecova N.A., Spirina S.V. (2010), Education funding in the Republic of Belarussian)
- Pranevičienė B., Pūraitė, A. (2010), Peterson P.E. (2008), Levačić R. (2006).