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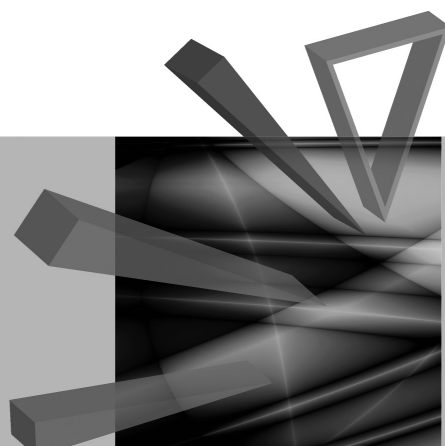
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# **Handel i inwestycje w semiglobalnym otoczeniu**

**Tom 1**



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**THEORETICAL MODELS OF FINANCING TERTIARY  
EDUCATION AND ITS APPLICATION  
ON EXAMPLE OF SLOVAKIA**

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**Summary:** The current period is marked by significantly expanding trend of transformation of the global economy to a society based on knowledge and brainwork. An important role in this process plays higher education and particular educational institutions affecting there. They produce educated human capital, contributing to economic development and improving quality of life and allowing countries to succeed in the international competitors fight. The quality and quantity of human capital is strongly determined by the status and level of financing higher education. The way of its financing presents the primary problem in realizing the educational policies. National governments are faced with the choice between the pure tax way of financing or its combination with various forms of financial participation of students applying to the cost of their education.

**Keywords:** higher education, models of financing higher education, pure tax financing, upfront charges, deferred charges, higher education institutions.

## **1. Introduction**

The current period is marked by significantly expanding trend of transformation of the global economy to a society based on knowledge and brainwork. An important role in this process is played by higher education and particular educational institutions. They produce educated human capital, contributing to economic development and improving quality of life allowing countries to succeed in the international competition. However, higher education institutions need considerable financial resources for their successful work. These can be received by number of ways. The most applied system of financing higher education in the world is the tax funding combined with some form of financial participation of students applying to the cost of their education.

## 2. Models of financing higher education in terms of theory and practice

The basic system of financing higher education, which may be encountered in the theory, is a pure tax financing and tax financing combined with charges, which may be paid upfront or deferred.

Financing of higher education *only through the taxation* is one of the classic systems, which have been applied for a long period in most European countries (and also in Canada). In this system the charges are not applied, because of equal access to higher education in accordance with the principle of justice. It is a system, in which the social, as well as individual benefits arising from higher education are covered by public resources. Nowadays it is possible to find this system of financing in its purest form in the Nordic countries (primarily in Denmark, Finland and Sweden). Using this system of financing in these countries is justified. There are countries, in which high tax burdens are applied resulting from their social orientation, combined with a strong state intervention through its redistribution function.

*Tax funding, combined with upfront charges* can be considered as a basic and the simplest option of financial participation of students applying to the cost of their education. The advantages of this system, compared with a system of deferred charges, are mainly lower administrative costs.

In this type of financing it is possible to encounter several serious problems [Barr 2003, p. 8-9]:

- Efficiency problem based on the possibility of choice. In case of efficiency, a student has an opportunity to decide whether to pay upfront charges or use a system of deferred charges.
- Equity problem. This follows from the fact that students coming from wealthy families are advantaged in comparison with the students coming from poorer families, who may not have sufficient funds to cover the charges.

The central idea of a system based on students' financial participation applying to the cost of their education through the *deferred charges* is to prevent discrimination of students coming from low-income families in access to the universities. A student does not apply the upfront charges (as before), but he does it after graduation, at a time when he gains own earned income, which amount decides about the percentage of the charges to be paid.

The essence of this system, in our opinion, is perfectly presented by R. Valenčík and R. Bedretdinov [Schultzová, Kitová 2009, p. 53-54], who pointed out that in this mechanism the recipient of educational services has to pay later and according to what he gained from education and directly to the person who provided him with educational services.

When comparing the system of deferred charges with the previous two (pure tax funding, tax funding combined with upfront charges), we find some differences. In the pure tax funding model everyone pays through the tax system, regardless whe-



ther they used the services of higher education or not and regardless what quality of services they received. Therefore higher education institutions in this system receive from the state financial resources which are not derived from the quality of services they provide. Within the tax funding combined with upfront charges the recipient of educational services pays to its provider a defined amount of charges, regardless what he gains from education.

N. Barr claims [Barr 2003, p. 1] that the combination of higher education funding against the tax funding system and deferred charges is the most effective way to improve the performance of each country and to support the access to higher education. This policy is, in his opinion, able to assure at the same time efficiency as well as equity.

The deferred system of funding may be applied through several forms: the income-contingent loans, human capital contracts and graduate tax. The differences among them are found mainly in the amount of charges, paid percent of income, interest rate, the terms of forgive debt and threshold level of income.

The essence of system based on *income-contingent loans* is the fact that a student begins the repayment after reaching the set threshold level of income, from which he has paid a percentage to the full repayment of the obligation. It may or may not be interest-bearing. The advantage of these loans is the fact that they have built-in a social aspect. It is applied by protecting the students coming from low-income families and also the low-income graduates. It is because the obligation to pay charges begins at the moment, when the earned income of graduates extends the predetermined threshold level of income.

A disadvantage of this system is the fact that the graduates will seek to avoid the repayment. The easiest way to prevent this is to use the state mechanism of withdrawal the payments (for example by the tax offices). It is also important to ensure that those who left the country are not exempt from the repayments.

Australia has the richest experience with the system of funding higher education by income-contingent loans. It was the first country which introduced this system in 1989 as the HECS (Higher Education Contribution Scheme). Later in 1991 Australia was followed by South Africa's introduction of NSFAS (National Student Financial Aid Scheme), in 1992 by New Zealand and in 1997 by the first European country – Great Britain. The attempts of its introduction, particularly in collaboration with the World Bank, have been also realized in several developing countries (for example Indonesia, Namibia, Malaysia and others). However these countries have encountered serious obstacles associated not only with its implementation, but also with the administration.

Another way of implementing the system of deferred charges is through the system of *human capital contracts*. These contracts are provided by private sector and operate on the principle of making contract between a student and a company providing funds for financing education. The contract commits the students that after a defined period after their graduation they pays the percentage of their income and

as a counter-value obtain necessary funds to cover charges and costs associated with the study. The revenue of company, which provided funds to finance the study, will depend on the income level of graduates. It can be higher, but also lower as the amount of borrowed funds. The decision to provide or not the financial resources to students is taken mainly into account based on the type of study, but also the opinion of the company providing funds on possible future income of the borrower.

Nowadays this system of financing higher education is used except the United States also in Chile, Colombia and Mexico, where the Lumni company operates.

The system of funding higher education based on deferred charges can also be applied through the *graduate tax*. In this system the state provides some grant for students to finance their study, which is paid off after the graduation in the form of special taxation. The condition of grant repayment is to exceed the predetermined threshold level of income. As a percentage of income this special tax levy is usually applied for lifetime or until the retirement. Thus it is a financial burden virtually during the whole graduates' lives.

A disadvantage of the system based on the graduate tax is the fact that the grant must be taken by all students, so even those who do not want or need it. This funding scheme currently does not exist anywhere in the world.

### **3. Funding higher education in Slovakia**

The funding and formation of Slovak higher education system went through many changes. The Slovak Republic, as part of the former Czechoslovakia, after the events of 1989 took the path of extensive reforms. An area of higher education was not also an exception, where the reform process culminated in the implementation of the new Higher Education Act no. 172/1990 Coll., which replaced the previously valid Act of 1980. The new law brought academic rights and freedoms for the Slovak and Czech universities, but after the fulfillment of its primary purpose it gradually became obsolete. The process of higher education transformation, which took place in connection with the implementation of the new Higher Education Act of 1990 and its consequential amendments, hit somewhat the system of financing. Several elements of the system of higher education were formed in other social conditions, so as a whole they did not suit new requests which were placed on higher education institutions.

Universities were, by the Higher Education Act of 1990, from economic and legal viewpoint, non-profit organizations. This form of management, however, showed the new conditions as not flexible and limiting the activities of universities. Several exceptions from the rules of managing non-profit organizations, which universities had gained over time, posed also a problem. To solve them numbers of legislative measures were adopted in 1999 (the exemption of enterprise revenues from the income tax, the implementation of a separate financing account, etc.). These activities were the basic idea of the transition to multi-source financing.

Its legislative provision made a new Higher Education Act no. 131/2002 Coll., which meant an official beginning of the reform of higher education in Slovakia. According to this act higher education institutions began to operate in new economic conditions. The most significant change that occurred in the management of the new type of organization called “public university” refers to the fact that guarantees of covering all expenses necessary for universities operating from the state budget were stopped. The universities acquired the obligation to obtain some funds to operate by their own activities. The multi-source funding for full-time and external students expected to implement financial participation of students applying to the cost of their education. Till now it has been implemented only in case of external form of study and in specific cases also for full-time students (the over-fulfillment of the standard duration of study, respectively parallel study in the same degree of studies). Higher Education Act of 2002 is still in force and it has been 28 times amended till now.

The higher education sector in Slovakia is currently made up of public, state, private and the foreign higher educational institutions. In the total number of 39 universities 20 of them are public higher education institutions, 3 are state universities, 12 are private and 4 foreign with residence in the Czech Republic. The public as well as the state universities are mostly financed by the state budget. For the public universities the funds are provided by the Ministry of Education, Science, Research and Sport of the Slovak republic, and financial resources for the state universities depend on their type. For the military universities the funds are allocated by the Ministry of Defense of the Slovak republic, for the police universities through the Ministry of Interior of the Slovak republic and for the health universities through the budget of the Ministry of Health of the Slovak republic. Private universities obtain funding for their activities by themselves.

As the key and most pressing issue in higher education in Slovakia, alarming calling for a reform, we clearly consider the insufficient permanent financing of public and state universities. The critical situation of funding of higher education in Slovakia is particularly significant in terms of its comparison with other countries (the Slovak higher education is on a long-term basis significantly under-funded in comparison with the most developed countries in the world). This long-lasting and conceptually unsolved status is mainly negatively reflected in quantitative and qualitative growth of financing. It is therefore more than necessary to accede to a fundamental reform leading to a change of the universities’ funding. One of the ways seems to be the possibility of implementing some form of financial participation of students to a certain extent bearing the cost of their education.

#### **4. Conclusion**

The quality and quantity of human capital is strongly determined by the status and level of financing of higher education. The way of its financing is the primary problem in realizing the educational policies. National governments can choose between

en the pure tax way of financing and its combination with various forms of financial participation of students applying to the cost of their education. In the most advanced countries in the world there are some of the systems of financial participation of students. That is a significant private resource of funding higher education institutions.

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## TEORETYCZNE MODELE FINANSOWANIA SZKOLNICTWA WYŻSZEGO I ICH ZASTOSOWANIE NA PRZYKŁADZIE SŁOWACJI

**Streszczenie:** Obecny okres jest naznaczony znacznie pogłębiającym się trendem transformacyjnym w gospodarce światowej w kierunku społeczeństwa opartego na wiedzy i pracy umysłowej. Znaczącą rolę w tym procesie odgrywa wyższe szkolnictwo i poszczególne jego instytucje. Wytwarzają one wykształcony kapitał ludzki, mając swój wkład w rozwój ekonomiczny, polepszanie jakości życia i wzrost konkurencyjności poszczególnych gospodarek krajowych. Jakość i rozmiary kapitału ludzkiego są silnie zdeterminowane stanem i poziomem finansowania szkolnictwa wyższego. Sposób jego finansowania stanowi podstawowy problem w realizacji polityki edukacyjnej. Rządy poszczególnych krajów stawiają czoła wyborowi pomiędzy finansowaniem wyłącznie przez podatki a rozwiązaniami pośrednimi, przy wykorzystaniu różnych form udziału finansowego studentów.

**Słowa kluczowe:** szkolnictwo wyższe, modele finansowania szkolnictwa wyższego, finansowanie przez podatki, opłaty wstępne, opłaty pochodne, instytucje szkolnictwa wyższego.