

FINANCING OF HIGHER EDUCATION IN THE REPUBLIC OF CROATIA

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Summary

In today's world knowledge has become the basic resource of economic development. Hence the need for adequate functioning of higher education system in every modern society. Comparing Croatia with other OECD and EU countries gives additional insights into the position and role of higher education in Croatia's transitional process. In this paper we are focused on the funding system of higher education in Croatia. The paper intends to explain the ratio between budgetary funding and own-source revenues of higher education institutions. In addition to that, we are interested in the criteria for the allocation of budget funds, in the ways of raising own-source revenues, and in the characteristics of the representation of universities' expenditures. Data obtained from the analysis is compared to the desirable role of higher education funding in the implementation of the reform of higher education.

Key words: higher education, university, financing, budgetary financing, own revenues.

1. INTRODUCTION

In the world today, the intellectual capital and investment in knowledge and education are the main factors of economic and social development, and of increasing competitive advantages. In such conditions emerges the term *The New Economy*, based on new business opportunities provided by an increase in the amount of knowledge, and by intensified application of information and communication technologies. Knowledge is now more important than it has ever been before, so the expression *The Knowledge Based Economy* can be used as a synonym for modern economy. The major resources for the creation of value

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are no longer soil, physical labour, equipment, tools, and factories, but rather immaterial, intellectual assets. Such a state of affairs influences the change of the characteristics of all activities, especially of those of higher education. It also means that it is necessary to raise the level of quality of the entire system of higher education.

This work analyses the characteristics of higher education in Croatia from 1996 (when Act on Higher Education was passed) till the present day with special stress on its financing. During this period a number of new regulations have been passed, new higher education institutions have been set up, and status of some old ones has changed. We present key indicators regarding the observed period in order to draw comparison with OECD countries (structure, legal framework and financing of higher education). It is important to underline that Croatia's entire higher education system is in the process of reform in line with the Bologna Declaration that was introduced in the school year 2005/2006.

Gradual implementation of the above objectives would bring Croatia much closer to a knowledge based society. This is just the first phase of the reform which will require great effort to complete. Namely, study programmes have to be transformed into two cycles, and a credit system needs to be introduced; quality control of higher education needs to be introduced; doctoral study needs to be set up as the third educational cycle, as well as a system for recognition of diplomas and for duration of higher education. These changes are taking place in the process of transition burdened with different macro and micro imbalances, and require restructuring of economy and reform of the public sector (health, education, pension system). Against the backdrop of heavy budget deficit, demands to increase funding for higher education are treated more as an additional strain on public expenditure than as investment in future.

2. MAIN CHARACTERISTICS OF HIGHER EDUCATION IN CROATIA

Higher education in the Republic of Croatia (RC) as well as in OECD countries is increasingly becoming a rule and the younger population is expected to enter higher education. Share of higher education in the total population of RC at present stands at 7%. In terms of overall workforce the share is higher and stands around 16% (the average in OECD is 22%). In accordance with structural changes of the country's economy (more service oriented and less industrialised), that is, changes regarding the type of workforce in demand, job structure is increasingly changing (measured by educational standards of workers). It simply means that not only young but also a growing number of older people are trying to enter some sort of higher education.

Although in relative terms the number of higher education institutions and students has drastically grown, it was not followed by a simultaneous increase in the number of teachers and assistants (they number around 7-8 thousand). This shows that the nature and quality of the educational process has not significantly improved. It could be even said that the quality of education has been impaired as the pressure on the existing teaching staff has increased. The ratio teacher vs. student has increased in the observed period from 1:10 to 1:14.

In the Republic of Croatia in the period from 1996 to 2004 an average of around 48,000 people graduated from secondary education every year (around 31,000 graduated from grammar, technical or some similar school qualified to pursue further higher education). As around 45 thousand students enrolled every year at higher education institutions (47 thousand in the last two observed years) it is clear that not only secondary school students continue their education, but a number of older people as well. It is estimated that around 70 – 75 percent of high school graduates enter higher education.

Central Bureau of Statistics has conducted a survey on educational qualification of Croatian workforce. The share of employees who have either not finished primary school, or have only primary education is 20.6 %, and thus exceeds the share of employees with a degree from a school of professional higher education or a university, which stands at 19.4%. The largest portion of Croatian workforce has secondary education (60%).

There are two key differences between higher education in RC and OECD countries: 1. The level of completion success is significantly higher in OECD countries and 2. The ratio of students enrolled at universities and schools of professional higher education does not correlate. In OECD countries around 70% of enrolled students complete their education, while in RC the percentage is between 35-40%. This is not unexpected if we bear in mind the second key difference. In RC 70% of students enrol at universities and 30% at schools of professional higher education (presumably easier). In OECD countries the ratio is the other way around, that is, more students enrol at polytechnics.

Over last four years an average of 15,000 students graduated (the average in the period from 1990 to 2000 was around 7,000). Out of that number, 12,000 graduated from universities and three thousand from schools of professional higher education. The average length of study in RC is 7.5 years and the estimate indicates that only 20-25% of students graduate on time, while 65% of students never graduate. Over four thousand graduates are older than 27, which is the consequence of a relatively lengthy study period, but increasingly also of the age of some of the enrolled students.

Despite relatively high rates of enrolled students at higher education institutions in RC, the share of young people with a university (or a polytechnic) degree is 20-25%, primarily because of a relatively high number of drop-outs. Only 15% of the adult population in RC has a university degree. Having in mind a relatively high number of students among Croatia's younger population, it could be said that if we increase the rate of completion success, it will be possible to improve significantly the situation in RC in a relatively short-term period.

During last ten years the structure of graduates from higher education institutions in RC has undergone significant changes. The period has seen a big increase in humanities students (from 45% to 63%), and a relatively significant decrease in students of technical (from 31% to 22%) and biotechnical (from 7% to 4%) sciences. This is primarily the consequence of change in the structure of enrolled students who strongly prefer humanities. Students' preferences have been greatly influenced by changes on the job market, that is, limited employment opportunities for those with a degree in technical fields, and relatively low earnings in the sector as well.

During the observed period activities at higher education institutions were administered by numerous regulations. Establishment and management of polytechnics and schools of professional higher education has been regulated by various provisions. Laws determine the status and funding, while statutes determine more detailed conditions of financing.

In 1996 Act on Schools of Higher Education and Act on Scientific Research Activities were passed. The two Acts set out an institutional framework for higher education, that is, how the institutions are established and how they operate, and they also made key provisions for scientific and research activities. These various regulations were finally unified into one act (Act on Scientific Research and Higher Education). The Act was passed on 23 July, 2003, and amended in July, 2004. It defines *higher education institution* as every institution of higher education authorised to establish and operate educational programmes in scientific, highly professional or artistic fields. Institutions of higher education include universities, polytechnics, and schools of professional higher education.

In the Republic of Croatia there are 85 institutions of higher education:

- in the Zagreb area there are 41 institutions of higher education: University of Zagreb with 28 faculties, three artistic academies, one teacher academy, and one university course study; Technical Polytechnic in Zagreb with seven departments; Social Studies Polytechnic in Zagreb with three departments, Polytechnic in Karlovac with two departments; Police Academy in Zagreb; Health Studies Polytechnic in Zagreb, Agricultural College in Križevci, and two teacher academies in Čakovec and Petrinja;
- in the Split area there are 16 institutions of higher education: University of Split with nine faculties, one academy, College for Maritime Studies, one teacher academy, and two university departments; Polytechnic in Dubrovnik with 3 departments, School for Tourism and Management in Šibenik;
- in the Rijeka area there are 14 institutions of higher education: University of Rijeka with 10 faculties, 3 teacher academies, Polytechnics in Rijeka with 6 departments;
- in Osijek area there are 12 institutions of higher education: University of Osijek with 9 faculties, one teacher academy, one university department and Polytechnic in Požega with 3 departments;
- University of Zadar has 15 university departments and one department for professional education;
- University of Dubrovnik and 14 accredited private schools of professional higher education.

There is no doubt that such a dispersed structure of higher education institutions requires an adequate legislative and institutional framework. The framework should enable the implementation of goals in the education sector, at the same time complying with specific characteristics of educational and scientific activities, as well as with the principles on which European higher education is based. In addition to the already mentioned acts and regulations, the institutional framework for the implementation of objectives in the education sector consists of: Ministry of Science, Education and Sports, National Council for Higher Education, National Council for Science, Agency for Science and Higher Education, and National ENIC/NARIC Office, National Foundation for Science, Higher Education and

Technological Development, and some bodies of the University (Vice-Chancellor Office, Senate, select committees etc).

The present system is featured by over-regulation and a high level of bureaucracy. Far too many laws and regulations exist. Different consents and permissions are constantly required, thus hindering smooth functioning of the whole system. Too much paperwork points to the state's aspiration (Ministry of Science, Education and Sports) to manage directly affairs in science and higher education field. National Council for Science, and National Council for Higher Education are also instrumentalised as professional service and are subordinated to the related ministry. Thus, autonomy of the university, based on the points below, is under threat:

- internal organisation
- establishment of educational, scientific, artistic, and professional programmes
- decisions on project approvals and international co-operation
- establishment of regulations concerning studying and enrolment
- election of officials and teaching staff
- management of resources available to higher education institutions
- financial autonomy according to the Law. ("Advance 2001". Development strategy for the University of Zagreb, February 2002, p. 4).

One of the competent authors, G. Flego (a former minister of science) says the following about the autonomy of the university: "In terms of Croatia's legislation, the autonomy of universities does not exist, that is, academic autonomy is nonexistent. Namely, legal and/or executive authorities play a decisive role in 1. election of officials at universities' institutions (administrative councils, rectors, deans); they also play a role in 2. creation of educational programmes; 3. selection of teaching staff; 4. enrolment quotas" (Upbringing and Education, *White paper on Croatian education*, Zagreb, September 2002, p. 81).

Successful functioning of educational system requires an adequate quality management system. It includes: the quality of the management of higher education institutions; the quality of scientific and research work and projects; the quality of curriculum and syllabus; the quality of the mechanisms of measuring, analysing, and improving; the quality of developing teachers' expertise, and the quality of internal infrastructure.

One of the first studies was done at the end of 2005 by the Quality Managing Committee of the University of Zagreb (Report, 2006: p. 1-17). A half of public institutions of higher education in Croatia are situated within the University of Zagreb, which is allocated 70% of the budget funds earmarked for all Croatian universities, and which employs 70% of the total number of employees at Croatian universities. Heads of 23 constituent parts of the University of Zagreb took part in the survey. The survey was dominated by questions about quality management system, its formalization, documents related to quality, and the ways of evaluating a quality management system. The research results showed that the present level of implementation of the quality system is not satisfactory. Leading people at faculties are not well informed about the terminology related to quality. The survey also revealed a sense of vagueness regarding definition and documentation of business processes at higher education institutions, and activities aimed at quality improvement as well.

The results concerning evaluation (internal and external) of the quality management system are very interesting for the topic of this paper. In the last three years there was no external evaluation at 43% of the faculties. On the other hand, almost 40% of the constituent parts are not concerned with to which extent the society needs the profile of students they are educating.

3. FINANCING OF HIGHER EDUCATION

An adequate system of financing is a vital prerequisite for implementation of the reform programme harmonized with EU's system. Croatia is currently in accession talks with the EU, and one of the opened chapters is related to education. Therefore, it is necessary to present common features of the financing of public universities in the EU („Advance 2001“, pp 35 – 37). Direct state financing is the most important source of funds at public universities (48-100%). Universities receive state funds in the form of a lump sum, and they enjoy a high degree of autonomy in directing their expenses. The amount of funds is subject to change, as it depends on the number of enrolled students, both graduate and postgraduate ones, and on the number of employees. It is important to note that state financing is conditioned by the level of research and teaching quality. The evaluation of the quality combines constant self-assessment and external supervision. The amount of allocated funds differs according to the type of studies or study groups. Developmental funds (crucial investment in facilities, equipment, and investment maintenance) are increasingly being integrated into the total funds allocated to universities, whereby their responsibility and degree of autonomy are increased.

Business autonomy implies the following:

- state funds sufficient for implementation of established goals, in terms of both quantity and quality,
- liberalization of the management of allocated state funds within the framework of an independently planned university budget,
- responsibility for the management of allocated state funds in accordance with laws and other regulations, but also with universities' own strategies.

Around 70% of students in the EU pay their tuition fee, while only the best students and the most underprivileged ones are exempt from paying the fee. Tuition fees are not an important source of revenues at state universities in the EU (as a rule 2-7%). By means of state subsidies students are directed to the studies for which there is demand on the market. Due to a decrease in state funding, universities are redirecting themselves to cooperation with economy and non-profit organizations through projects, consulting, and expertise. However, such market revenues are still not an important source of income at universities in the EU countries (3-4% of total revenues).

Fundamental characteristics of an activity significantly influence how that activity is going to be financed and institutionally set up. It is important to underline that education is a public good that as an activity has spill over effects and hence cannot be organised exclusively

on market basis. In many social areas market is either inadequate or insufficient regulator. Since inception of free market we have had market failures (competition failures, production of public goods, external factors, insufficient markets and inadequate information). In case of production of public goods competition is unsustainable (monopolistic structure is formed) and there is a problem of congruity between maximum profits of private companies and meeting wider public (social) requirements. As there are market failures there are also failures of the state and its activities (limited information, limited control over bureaucracy, political limitations and limited control over reactions of private sector). This is the reason why so many public sector inefficiencies emerge and are reflected in insufficient organisational incentives, limitations related to human resources, limitations in procurement, budget restraints, bureaucracy and lack of propensity to take risks (Stiglitz, 2000, p 200-204). Hence, the organisation and financing of higher education faces the problem of how to select the right combination of market forces and state administration.

So far financing of higher education in Croatia has been characterised by strong centralisation. Higher education institutions (universities, faculties and institutes) are directly funded through the Ministry of science, education and sport. Faculties and other constituent parts enjoy considerable autonomy in their relation to the universities but are still insufficiently autonomous as regards the state, that is, respective ministry. Six existing universities are formally autonomous but financially they depend on the state budget. They are all formally autonomous and are universities due to high number of scientific, teaching, artistic and other units that are characterised by their legal entity. Due to that situation there are many organisational and financial irrationalities in the activities of universities and they are unable to undertake responsibility for development of their higher educational institutions. There is a need for more integrated university where decision-making would be more joined-up thus allowing all parts of the university to act with more harmony and co-operation so as to adequately respond to all challenges put before scientific and higher education activities. How well relationship issues between faculties and universities are resolved will significantly impact reform of higher education and model of its financing. There are several proposals how to solve this problem and all of them focus on the legal entity features of the faculty.

One of the proposals is to abolish legal entity status for faculty and to base the model of university organisation on the following three levels:

1) activities on the level of integrated university, 2) activities that would be performed within regional institutions (according to scientific fields), and 3) activities that would be performed within individual constituent parts of the university (faculties, institutes, departments etc). The authors of this proposal claim ("Advance" 2001, p 13) that this new organisational structure wouldn't significantly reduce financial and administrative autonomy of present day constituent parts of the university and their pro-activity and creativity would be maintained. Funds from university allocation would be disbursed gradually to regional educational institutions and its parts (faculties, etc) after tuition for studies and other relevant factors would be determined. Constituent parts of universities would be able to independently manage their own earned revenues. There would be an agreement for a small portion of direct revenues to go towards activities of the integrated university. So far we have had two levels of university organisation: university and its

constituent parts. Faculties are legal entities and are greatly independent of the university but insufficiently so in relation to the Ministry. There is necessity to change that rapport so that some authorities of faculties are transposed to the universities that would than reinforce their autonomy *vis a vis* Ministry.

Other proposals suggest that there should not be equation mark between integration of universities and legal entity status of the faculty and that we should not be slaves to rigid solutions. Namely, it is considered that there are specialised universities in the world that in terms of size and quality correspond to the existing universities in Croatia. Also there are independent higher education institutions with the same ranking as universities. This proposal also underlines that the autonomy of university should contain the right for university to organise itself with or without legal entities. Therefore the university would be the founder of faculties, which would be legal entities, but that autonomy would be limited in so far as it would be necessary for comprehensive functioning of the university. Some legal acts should clearly define authorities of university and faculties (and at the same time determine minimum of their autonomy) and after that establish financial responsibilities of the university and its constituent parts. This discussion is taking place at the time of expected transition to a new system of university financing that should come into effect as at 1 January 2006. From that date Croatian universities will be financed from the state budget allocation that would go to the universities and not faculties. The allocated lump sum would be divided between constituent parts depending on the agreed financial policy of respective university. There is fear that such financing will lead to overall reduction of state funding for higher education and to fierce competition between universities trying to win their slice of state funding. It will also lead to market competition of high education services as financial standing of respective component will depend on the amount of money the state allocated to its university and on the ability of the component to earn as much own revenue on the market as possible.

Apart from solving relationship university vs. faculties the financing models in the near future will be affected by the following factors ("Advance 2001", p. 35):

- country's precisely determined social and economic development strategy,
- transparent and understandable vertical education development strategy,
- dynamics of economic growth – quality education must be financed by economic growth,
- absence or presence of dilemma whether education is an investment or consumption,
- acceptable level of sharing education costs between the state and individual citizen.

There are two aspects to the analysis of higher education financing in Croatia. One relates to share of education expenditure in GDP and state budget. The other aspect is how finances are spent, that is, what is the model for financing education.

For higher education and science (in period from 1996 to 2005) from 1.13% to 1.36% of GDP was used.

Table 1: Share of science and higher education in GDP and state budget

Description (%)	1996.	1997.	1998.	1999.	2000.	2004.	2005.
Share of science and higher education in GDP	1,13	1,09	1,19	1,29	1,29	1,35	1,36
Share of science and higher education in state budget	3,88	3,87	3,88	3,76	4,01	3,40	3,32

Source: Ministry of science and technology of the Republic of Croatia, 2001, *Official Gazette*, 31/2004 and 171/2004; "Economic trends", Zagreb, 4/2005 and 2006; Central Bureau of Statistics, 2006.

Out of 1.35% of GDP allocated to higher education and science, the former accounts for 0.95%, while the latter for 0.40%. This is among the lowest budget allocations for education in Europe, particularly in comparison with OECD countries.

The share of expenses for all forms of education is 4.4% of GDP. This figure includes allocations by the Ministry of Science, Education and Sports, allocations from budgets of local communities, budget funds of other ministries, private sector and universities' own-source revenues.

State financing is the most important source of funding for public universities, although the share of own-source revenues is on the increase. State budget secures funding for higher education that is disbursed via the Ministry of Science, Education and Sports. The level of funding depends on the number of students and estimated real costs per student. Ministry allocates funds for activities in particular educational programmes. These funds provide for the following: 1. employees' salaries and contributions, 2. running costs, 3. a minimum level of scientific, artistic and professional activity at a higher education institution, 4. operation of services that guarantee comprehensive and necessary standards of higher education (e.g. student dormitories), 5. scholarships and loans for students, 6. working and living standard of employees and students, 7. financial aid for scholarships, development, and investment.

Research shows (Bajo, 2003, p. 4, 74, 140) that the functioning of higher education institutions is heavily centralised. On the other hand there are no developed benchmarks which the Ministry uses when giving budget beneficiary status to a higher education or scientific institution. Ministry's budget lacks transparency. This is clear in financial reports as they do not provide information on financial status of individual beneficiaries. It is not possible to determine the structure of expenditure or numerous transfers for science and higher education as well as individual allocations. The Ministry does not have clear control over its budget, as there is no co-ordinated plan of its distribution. However, the biggest problem is that the Ministry allocates funds to finance activities of higher education institutions rather than their concrete educational programmes. Therefore, state financing should depend on specific programmes and their quality, that is, on the quality of a higher education institution that should be assessed by the institution itself and an independent quality control body.

Due to a lack of funding by the Ministry of Education, there arose a need to increase overall allocations for higher education, and provide sources of funding which would be much less dependent on the public service.

For that reason, National Foundation for Science, Higher Education and Technological Development of the Republic of Croatia was founded, envisaged as the main source of funding for scientific, developmental, educational, and technological projects. The Foundation will finance the projects on the basis of the Strategic Plan out of which its programme has been developed. It is possible to draw the foundation's financial support only through its own programmes. The programmes of the foundation are intended to finance projects, to award scholarships, and to fund conferences which fit into the priorities of each programme and meet high criteria of excellence. Therefore, the foundation has set up a procedure of the evaluation of proposed projects (Strategic Plan of National Foundation for Science, Higher Education and Technological Development 2004 – 2008, Zagreb, 2004).

Croatia devotes much attention to the planning of the development of its education sector. *The Education Sector Development Plan 2005 – 2010* is a strategic development document adopted by the Croatian Government on June 9, 2005. The plan is based on a comprehensive systemic educational framework and was discussed by numerous social experts, scientists and other partners over the past few years. The strong point of the document lies in its transparency regarding the needed improvements during the period of its implementation.

The aim of the Development Plan is to direct educational policies towards the improvement of the educational system which would include legal aspects, human resources, financial matters, scientific aspects and expertise. The educational system should provide education that would bring benefit to all who are participating in it, as well as to society as a whole. This collective effort should increase the quality of education that will cater to the needs of local culture, economy and the society based on knowledge and democratic principles, and ensure the right to education for all. The starting point is to define the content and activities which would contribute to the development of a higher degree of quality, of a more accessible, flexible and effective educational system that would make intellectual and working human capital the key asset of the Republic of Croatia.

The Ministry of Science, Education and Sports provides the largest financial support to the education sector. In addition to MOSES, other ministries and local government also allocate funds for education. Thus, when estimating the share of public education expenditures in GDP terms, it is important to indicate all sources of financing in order to have a full picture. For example, the total budget of the Ministry of Science, Education and Sports accounted for 4.1 percent of the GDP in 2004. If we add the expenditures of the Ministry of Science, Education and Sports to expenditures made by other central ministries and at local levels, public education expenditures amounted to 4.3 percent of the GDP in 2004.

In the course of the next planning period, it is necessary to establish a new system of the financing of higher education. This system will replace the existing, inherited system of direct state administration of financial support for a part of the university system. Financial support by the direct allocation of funds to faculties will be replaced by the allocation of

lump sums to universities' management starting on January 1, 2007. This change will give universities the chance to carry out their development strategies in accordance with national priorities and strategies, and the principle of polycentric development. Efforts will be made to increase total state budget provisions for higher education, based on affordability. A major effort will be made to increase financing from other sources, particularly the private sector. This particularly applies to programmes that can ostensibly meet the needs of staff while receiving funding from sources other than the state budget. Croatia's higher education institutions will be encouraged to compete for financial support intended for scientific research projects and study programmes provided by national and international (European) bodies. During the 2005 to 2010 period, a student scholarship model appropriate to the needs of students and society needs to be developed. This scholarship program will target specific occupations and human resources throughout the Republic of Croatia. Development objectives: a) beginning in 2006, a unified model for financing universities will be introduced, b) by 2010, the budget expenditures on higher education and science will be increased (*Education Sector Development Plan 2005 – 2010*, Ministry of Science Education and Sports, Zagreb, September 2005, pp 37 -38).

Adult education is an especially important area without which the future social development would be impossible: competition, increasing employment opportunities, social cohesion, active citizenship, development of democracy and civil society, as well as the consistent development of all regions. At the end of 2004, the government of the Republic of Croatia defined the development of adult education in the following documents: "A Strategy for Adult Learning" and "Action Plan for Implementing the Strategy for Adult Learning". In the meantime, Draft Act on Adult Education has been introduced. It is of central importance to recognise adult education as an integral part of the education system. This is based on the concept of lifelong learning and the principles of openness and equal access, creativity and flexibility of forms, methods and content.

Here we present only the most important provisions of the above-mentioned documents. Links between policy, theory and practice in adult education will be created by establishing partnerships through the participation of adults in the process of defining, monitoring and developing lifelong learning. The Ministry of Science, Education and Sports will have the leading role in coordinating and implementing the above tasks: increase investment from the business sector and the state budget in adult education at all levels; develop participation and responsibility of social partners; define activities and measures for asserting the right to education for all citizens during their lifetime, especially for target groups (the unemployed, war veterans, the illiterate, young people with inadequate education, etc.); conduct continuous professional training of teachers who participate in adult education and training programmes. The use of information and communication technologies in education and learning will be encouraged. The improvement of citizens' education will be achieved by: decreasing the cost of education and training, while introducing sources and mechanisms for stable financing; reforming the traditional educational system and introducing flexible educational programmes; harmonizing educational opportunities with labor market demands, and increasing the availability of information regarding the existing educational offer; recognizing the knowledge and skills acquired in different forms of informal education; adapting the education system to meet

the needs and capabilities of adults as pupils; strengthening adult education institutions by encouraging the development of adult education science; establishing and developing a system of quality control in adult education.

The state, local authorities, social partners, educational institutions and civil society institutions will contribute to the improvement of citizens' motivation to learn, and to Croatia's development into a society based on knowledge. Such motivation will be created in a partnership environment by encouraging a learning culture and sensitizing the public to educational organizations and communities. Development objectives: by 2010, education expenditures will be raised to 4.9% of GDP; by 2010, regular expenditures for quality education, salaries excluded, will increase as a proportion of public expenditure for pre-tertiary education from the current rate of 9.6% to 13% of total public spending for education.

Higher education institutions also earn their own revenues. The University of Zagreb and Faculty of Economy in Zagreb will serve to illustrate the ratio between budget and own-source revenues. The University of Zagreb receives 70% of the Ministry's budget earmarked for all its universities, and it employs 70% of all workforce at universities throughout Croatia. Own-source revenues account for 27.5% and state funding for 72.5% of the total budget of the University of Zagreb. The distribution differs between individual faculties/constituent parts of the University. According to some research (Bajo, p. 120-123) the largest allocation was given to the Faculty of Medicine (10%), Faculty of Natural Sciences and Mathematics (slightly less than 10%), Faculty of Philosophy (8%), Faculty of Mechanical Engineering and Naval Architecture (6%), Faculty of Agronomy (5%) and Veterinary Faculty.

For example, during a period of time 50% of all budgetary funds were allocated only to 6 faculties.

As far as own-source revenues are concerned, some faculties earn 50% or more of their total budget through their own revenues - Faculty of Economy (60%), Faculty of Traffic Engineering (57%), Faculty of Law (50%) and Faculty of Kinesiology (47%). Some faculties earn as little as 1% of their own revenues. Most of own-source revenues come from scientific and educational activities, publishing and professional activities (47%), undergraduate tuitions (32.6%), postgraduate studies fees (9.9%), hiring of facilities and equipment (2.7%), donations (1.4%). The most important expenditures are related to the performance of the above activities.

Higher education institutions must use their own revenues according to legal regulations. They are, in the first place, regulations on basic financing of higher education at public higher education institutions and regulations on criteria and ways of using own-source revenues at higher education institutions and public research institutes. Depending on the activity which is the source of own revenues (tuition fees, scientific and professional projects, hiring of facilities, donations) a percentage of revenues from 10%-60% must be earmarked for the improvement of the educational activities. This also relates to the acquisition of equipment and literature as well as investments. However, irregularities have been spotted as regards own-source revenues and expenditures (Bajo, p. 123-125). In terms of revenue, there are problems related to fees for professional and postgraduate studies. Faculties do not observe regulations regarding the distribution of own-source revenues, and

there are irregularities with the hiring of facilities and bank deposits of unspent budgetary allocations. In terms of expenditure, there are problems with payroll and its level, violation of regulations regarding public procurement, capital investments etc.

Table 2: Total revenues of the Faculty of Economics, Zagreb, (structure in %)

Description	2000	2001	2002	2003	2004	2005
1. Budget allocation	43,7	40,0	38,8	31,9	31,7	30,5
2. Own revenues	56,3	60,0	61,2	68,1	68,3	69,5
3. Total revenues	100,0	100,0	100,0	100,0	100,0	100,0

Source: *Library of records*, Faculty of Economy, June 2006

Here we present the structure of revenues and expenses according to the main points.

III. – BASIC SOURCES (RESOURCES) AND CASH FLOWS IN PERIOD FROM 2000 TILL 2004

A. REVENUES

I. BUDGET OF REPUBLIC CROATIA

1. Resources for gross salaries with contributions and remunerations
2. Expenses for ordinary activities
3. Expenses for capital investments

II. OWN INCOME RESOURCES

1. Income from ordinary activities
2. Donations / liquid and capital investments
3. Transfers with other faculties/schools
4. Incomes from sold apartments
5. Incomes from credits for activity developments

B. EXPENSES

I. ORDINARY/LIQUID EXPENSES

1. Expenses for gross salaries
2. Ordinary and extraordinary business expenses
3. Students insurances

II. CAPITAL EXPENSES

1. Licence and usage rights
2. Equipment by the structure allotment
3. Literature for library and Postgraduate studies
4. Informatics programs
5. Extra investments in buildings

Table 3: Faculty of Economics expenditures and structure of their financing (%) in 2004

Description	Total expenditure (%)	Finances in 2004	
		Budget allocation	Own resources
1. Salaries and contributions	70,4	41,3	58,7
2. Running costs	15,6	13,6	86,4
3. Student standard	0,5	17,7	82,3
4. Investments	13,5	2,4	97,6
5. Total expenditure (1+2+3+4)	100,0	31,7	68,3

Source: *Library of Records*, Faculty of Economy Zagreb

Table 4: Faculty of Economics expenditure and structure of their financing (%) in 2005

Description	Total expenditure (%)	Finances in 2005	
		Budget allocation	Own resources
1. Salaries and contributions	68,96	39,87	60,23
2. Running costs	17,56	14,10	85,90
3. Student standard	0,74	14,60	85,40
4. Investments	12,98	3,60	96,40
5. Total expenditure (1+2+3+4)	100,0	30,50	69,50

Source: *Library of Records*, Faculty of Economy Zagreb

Tables indicate ever-present orientation of the Faculty of Economics to earn its own revenues. This approach was initiated in mid 90s not only because of the state reduction (in relative terms) of budget allocations for higher education but also because the Faculty decided to open itself towards the market. The ratio between own revenues and budget allocation of 68% vs. 32% in 2004 and 69,5:30,5 (in 2005) is the best illustration of the shift towards the market. The fact that the Faculty covers 59% of salary costs, 86% of running costs and 98% of investments speaks in itself about financial independence of the Faculty. However there are problems in calculating the real price of education per student and calculating real cost per student respecting the necessary standards to perform educational programme. This is best illustrated in Table 5.

Table 5: Students enrolled in academic years 2004/2005 (all years)

Undergraduates (all but degree)					Total				
Financial support from the Ministry	Regular students	International students	Extramural students	Total	Financial support from the Ministry	Regular student	International student	Extramural student	Total
334	405	0	632	1371	1766	3256	7	3001	8030
65	10	0	13	88	281	30	0	45	356
28	42	0	136	206	65	119	0	419	603
0	0	0	16	16	0	0	0	91	91
0	0	0	0	0	155	402	1	1837	2383
0	0	0	141	141	0	0	0	141	141
				0					0
				0					0
				0					0
427	457	0	938	1822	2267	3807	8	5534	11616

Source: *Library of Records*, Faculty of Economics in Zagreb

Out of the total of 11,616 students only 2,267 are exempt from the tuition fee ("supported by the Ministry") while the remaining 9,649 pay tuition fees. There are 3,815 of regular students, and they pay the tuition fee of 685 euros, while 5,534 are extramural students and pay the tuition fee of 411 euros. It should be noted that the Ministry sets tuition fees and faculties have no say over it. It is clear that tuition fees lag behind services that students receive during the school year, as far as the regular students who are exempt from the tuition fee are concerned. If we divide the total funds allocated to the Faculty (around 5.4 million euros in 2004) by the number of those students (2,267) the cost of studying per regular student turns out to be 2.362 euros a year. That is a far more realistic cost of education per student, but it needs to be reiterated that Faculty's budget allocation must cover salaries and contributions, running costs, student standard and investment. Faculties are in different economic situations as some of them earn only 1% and some 60% of own-source revenues. Under these circumstances there will be different attitudes towards the implementation of reforms, organisational criteria and financing in accordance with the Bologna Declaration. Different faculties will fight for lump sums. Many faculties have a high level of financial independence, and with uncertainty anticipate their future financial standing and their role in general. Namely, the question that emerges is how to compensate faculties' acquired rights when the right to be a legal entity gets abolished.

In any case, our analysis of higher education financing shows that all institutional shortcomings of the educational sector (analysed in chapter 2) will become even greater

under the existing system of financing. Harmonisation with EU's educational system has finally lead to proper evaluation and determination of real financial standing of institutions and programmes of higher education.

4. CONCLUSION

Croatia is a transitional country whose economic and social problems put pressure on budget demands that are usually higher than what can realistically be provided. A current economic policy is more orientated towards import and trade than to export and production. There is no requirement for a highly educated workforce; hence, the expenditure for higher education is treated as a budgetary burden. Other shortcomings come into the picture as well: the absence of a clear economic and social development strategy; growth rates are still too low to provide funds for quality higher education; the absence of an adequate development strategy for all educational levels (primary, secondary, tertiary). The present model of financing is characterized by a high level of centralisation, and the Ministry of Science, Education and Sports finances respective institutions rather than their educational programmes. There is no quality assurance system resulting from universities' self-assessment and external supervision of the quality. Hence, the financing of higher education institutions is not dependent on the real costs per student and the quality of educational programmes. As the result, the funds that are themselves scarce are used irresponsibly. We may as well add that the use of own resources is marked by irregularities and side-stepping of legal regulations. Hence the financing of higher education institutions is the crucial problem of the whole education sector. Our analysis of higher education financing shows that all institutional shortcomings of the educational sector will become even greater under the existing system of financing.

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FINANCIRANJE VISOKOG OBRAZOVANJA U REPUBLICI HRVATSKOJ

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Sažetak

U današnjem svijetu znanje je postalo osnovni izvor gospodarskog razvoja. Ta činjenica utječe na potrebu učinkovitog djelovanja sustava visokog obrazovanja u svakom modernom društvu. Usporedba Hrvatske s ostalim OECD i EU zemljama daje nam dodatni uvid u položaj i ulogu visokog obrazovanja u hrvatskom tranzicijskom procesu. Ovaj rad u središte stavlja sustav financiranja visokog obrazovanja u Hrvatskoj, te objašnjava odnos između financiranja iz proračuna te vlastitih prihoda visokoškolskih institucija. Osim toga, zanimaju nas kriteriji za dodjelu sredstava iz proračuna, pribavljanje vlastitih prihoda, te karakteristike prikazivanja rashoda sveučilišta. Podaci dobiveni iz analize smo usporedili s poželjnom ulogom financiranja visokoškolskih institucija u provedbi reforme visokog obrazovanja.

Gljučne riječi: visoko obrazovanje, sveučilište, financiranje, financiranje iz proračuna, vlastiti prihodi.

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