

Chapter 6

Improving Funding for Higher Education Institutions in Uzbekistan



Nodir Hosiyatovich Jumaev and Dilshodzhon Alidzhonovich Rakhmonov

6.1 Introduction

Today, an urgent issue for Uzbekistan is to identify opportunities in financing higher education. In particular, a significant part of the educational services provided in the system of higher education is carried out at the expense of the state budget. Although the majority of students pay for higher education on a paid-contract basis (i.e., tuition fees), a student making this payment during the school year receives back, in the form of a state scholarship, at least 60–90% of the contract price. This, in turn, leads to a higher demand on the state budget.

The financing of the social sphere makes up to 60% of the state budget expenditures, and in Uzbekistan, the system of higher education is one of the branches of the social sphere. From this point of view, in order to increase the autonomy of higher education institutions, it is necessary for them to increase the share of extra-budgetary funds in their financial activities. Given that our country is engaged in the transition to a socially oriented market economy, our purpose was to assess the trends in the use of the state budgetary funds in higher education.

In this chapter, we explore how to improve the financing of Uzbekistan higher education. After a short introduction, we present Uzbekistan context and the experience of some European Union countries, followed by a review of selected previously published research. In the following sections, we analyze trends in Uzbekistan state budget expenditures and report on the financing of higher education, drawing conclusions regarding the state budget expenditures and the financing of tuition fees. We conclude with some recommendations.

N. H. Jumaev · D. A. Rakhmonov (✉)

Banking and Finance Academy of the Republic of Uzbekistan, Tashkent, Uzbekistan

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Switzerland AG 2020

D. Egéa (ed.), *Education in Central Asia*, Education, Equity, Economy 8, https://doi.org/10.1007/978-3-030-50127-3_6

6.2 Uzbekistan Context

During the 1990s in Uzbekistan, the majority of the employed population was engaged in agriculture; today, this figure has dropped significantly. To date, the share of the service sector in gross domestic product has increased from 49% (in 2010) to 54.5%. Most of the employed population now works in this area. Nowadays, banking, insurance, leasing, consulting, and other types of market economy services are rapidly developing, which contributes to the development of the private sector and small businesses. In the service sector, there are 80,400 small businesses, and the total proportion of enterprises operating in this sphere is more than 80% (Karimov 2016).

The preparation of a skilled workforce for these industries, which require extensive experience, is assigned to higher education. Hence, in the modern conditions of tough competition in the twenty-first century, achieving significant results depends largely on the performance of higher education. Therefore, we believe that, in order to expand the skills of people in the developing competitive environment of the labor market, education requirements are increasingly stringent. This, in turn, requires further development of higher education, significantly affecting the labor market. As Uzbekistan strives to join the ranks of developed countries, further expansion and improvement of funding opportunities for higher education are required.

The level of enrollment in higher education in Uzbekistan is still at a low level, and we can directly link this with financial instruments. In this regard, there is a need to liberalize the sources of funding and the management of higher education. In particular, according to the UNICEF (2018), the level of enrollment in Uzbekistan in basic education is 97% and 15% in higher education. In general, higher education financing in Uzbekistan is carried out at the expense of the state budget funds. Therefore, in this chapter, we try to reach some conclusions on the trends in the use of state budgetary funds and on the practice of generating extra-budgetary funds.

In Uzbekistan, the salary of faculty members teaching in higher education is established on the basis of the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 164, of August 1, 2008, “On approval of the improved system of payment of employees of higher education institutions of the Republic.” At the same time, the monthly salary of teachers is related to their number of years in the profession and also reflects the quality of their performance. In general, in the planning and implementation the budget of higher education, an important place is occupied by the resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 414, dated September 3, 1999: “On improving the financing of budgetary organizations,” which addresses the issue of extra-budgetary funds disposal. In particular, it is planned that 50% of the funds received in the event of a sale by the organization (i.e., higher educational institution) be transferred to that institution. The above legal documents are considered to be important bases in the development and use of budgets in higher education.

In Uzbekistan, in 2009, for every 10 thousand people, there were 109 students (Mirkurbonov et al. 2009). An increase in this indicator would of course require an

Table 6.1 Number of students enrolled in Uzbekistan higher education institutions 2011–2015

	2011	2012	2013	2014	2015
Total population	29,123,400	29,555,400	29,993,500	30,492,800	31,022,500
Accepted in bachelor program	5,533,446 19%	5,615,526 19%	5,692,765 19%	5,793,632 19%	5,894,275 19%
Accepted in master's program	2%	2.1%	2.1%	1.6%	1.6%

Source: Developed by authors on the basis of resolutions of the President of the Republic of Uzbekistan <http://uzsm.uz/en/documents/1686/>

increase in the contribution of extra-budgetary funds to higher education and an increase in the autonomy of higher education institutions, as well as in the level of provision. In Uzbekistan, during the period 2011–2016, there was a slight increase in the number of students admitted to higher education at the bachelor level. For example, in 2011, based on data from the State Committee of the Republic of Uzbekistan on Statistics (2011), for every 10,000 people, 19 individuals were admitted to higher education at the bachelor level.

Through the years, it still showed 19% but of a slightly increased population. So during this period, the number of students who were admitted to higher education increased, and about 10% of the graduated bachelors went on to the next level of tertiary education (see Table 6.1).

6.3 Experience of European Union Countries

In EU countries, funding for higher education and its management has its own characteristics. In particular, their activities involving financial autonomy play a significant role. Due to the fact that competition in the labor market developed at a high level in the EU countries, this made it possible to establish quotas for their higher education institutions, based on the number of students who applied to higher education. In particular, at different stages of education, the level of benefits is different. For example, public funding of basic education increases the literacy of all segments of the population. On this topic, Psacharopoulos (1994) noted that not only the high-income population but also the low-income population are interested in basic education; so, it is logical that most of the government's funds be spent on basic education. We believe that it is advisable that, when distributing the state budget funds according to the levels of education, the state mainly finance basic education.

In the early 1990s, a system of “free” higher education was developed in European countries (e.g., Denmark, France, Germany, Greece, and Luxembourg), which was associated with difficulties in the state budget. According to Stamoulas (2005), at the beginning of the twenty-first century, the concepts of privatization and cost-sharing in higher education developed in European countries. For example, in Italy, with the forceful implementation of the Parliamentary Atka (Act of Parliament, 537/93), tuition fees increased slightly. This, on the one hand, increased the share of

state-guaranteed university revenues, but, on the other hand, it prompted the government support for higher education institutions to carry out activities to create their own tuition fees (Di Pietro 2003).

We believe that the creation of tuition fees based on each field of study, to a certain extent, should increase higher education financial autonomy. In turn, this situation would reduce the need for state budget funds and would provide an opportunity to increase enrollment in higher education. It might work in Uzbekistan since the need for state budgetary funds remains high, and the level of enrollment in higher education is low.

The insignificant development of the coverage level by state funds can be explained by the following example. The fee for admission to higher education is determined by the government. This, in turn, limits the ability of some individuals who want to get a higher education. At the same time, passing scores during entrance examinations to higher education are very high, and, accordingly, the following year, an applicant who was not admitted pays special attention to additional training. That creates conditions for intensifying the competition among individuals who have expressed a desire to get some higher education, but this does not necessarily help increase the number of highly qualified specialists.

A similar situation can be observed in Greece where for families, whose children failed to be admitted to higher education, expenditure for tutors was 46% of the state budget expenditures on education (Kanellopoulos and Psacharopoulos 1997). This situation creates an incentive for talented young people to go abroad for education. In general, Kanellopoulos and Psacharopoulos (1997) explained the following: Greek families spend more on private education because state funds in that country do not provide an opportunity to deliver education in the form and to the extent that Greek families want. In Italy, 17% of students participate in higher education, through receiving financial assistance. Other forms of support available to them are work-study programs, which account for 12% of the total student aid, and 0.2% students use the practice of guaranteed student loans to finance their studies (Di Pietro 2003).

In the United Kingdom, the Association of Students' Financial Services of England provides support for students' repayment of tuition fees. The interest rate applied to a student loan is related to the Retail Price Index (RPI). At the same time, the loan payment is established not in relation to time but in relation to the graduates' income. If after graduating from higher education, the student's annual income exceeds £15,000 (23,000 US dollars according to the purchasing power parity (PPP) estimate, 2006), and then he or she should start paying the loan. He or she must make an interest payment of 9% per annum of his or her income in excess of £15,000. The positive aspect of this is that the student, after graduation, is exempt from repaying the loan until he or she becomes financially stable. In the United Kingdom, the proportion of students aged 18–20 in higher education increased from 6% in 1960 to 34% in 2006. The introduction in 1998 of a state education loan, when students pay this loan and establish a procedure for repaying it based on future earnings, led to major changes in higher education (Pemberton et al. 2013). In addition, if we pay attention to the current situation in Sweden, the time limit for debt

repayment is 25 years (or before the individual is 60 years old), and it is also established that a graduate student then must pay 5% of his or her income, increasing by 2% every year.

As mentioned above, the EU higher education institutions have their own special features when supporting students' tuition fees. Notwithstanding, based on the EU experience, the advice would be to introduce some convenient services in the provision of student loans in Uzbekistan. For example, in Uzbekistan, the student loan must be paid over a short period of time (5 years), starting 3 months after graduation. If we compare with the current situation in Sweden, a student taking a student loan pays only 5% of his or her annual income, and the reimbursement term is 25 years. Considering the experience of the United Kingdom, we can see another forward-thinking experience. There, the student who received a student loan reimburses it after he or she becomes financially stable. Those two situations suggest the necessity for a review of the conditions for granting student loans in Uzbekistan.

6.4 Review of Previous Research

According to studies conducted by Barr (2005), Chapman (1997), and Johnstone (2004), states do not seek to finance higher education at the expense of the state budget, which indicates that taxpayers' funds are used for free education or partial funding. In Uzbekistan, if we take into account that education financing is included in the structure of the budget expenditures of the country directed to the social sphere, we must keep in mind that the share of funds dedicated to the entire social sphere from the state budget is approximately 60%. Further, strengthening of personal responsibility in the education system and the expansion of financial resources in the promotion of human development are important. Yuldoshev (2012) noted the role played by entrepreneurs' funds with an increase in extra-budgetary sources. In addition, he indicated three distinct aspects of the quality of training: (1) the openness of high-quality training of highly qualified personnel, (2) the quality of education, and (3) resources efficiency. Yuldoshev (2012) focused on the role of extra budgetary funds in higher education in order to implement those proposed three aspects.

Nazarova (2012) studied the requirements for the quality of education and their characteristics when financing higher education. In particular, she noted the need to take into account the requirements of the International Organization for Standardization (ISO). It provides for the implementation of the principles of financing, based on the standards that are imposed on the quality of education by this organization. In particular, in their research, Yang and McCall (2014) revealed that the requirements for workers to receive education are increasing, requiring them to gain more extensive experience and deeper knowledge in the context of the development of the national and world economies.

Furthermore, at different stages of education, the level of return is also different. For example, the public funding of basic education increases the education of all

segments of the population. In turn, Kanellopoulos & Psacharopoulos (1997) argued that the low-income population is more interested in basic education being funded by the state budget than is the high-income population. According to studies conducted by Mingat and Tan (1996), expenditures on education correspond to the level of a country's development. For example, low-income countries pay more attention to basic education, and middle-income countries are more focused on financing secondary education. On the other hand, high-income countries are paying some serious attention to higher education. According to Oliveria and Pereira (2009), an individual with great potential might create higher costs in the future because he or she might study many more years.

It is our understanding that, as a result of research conducted consistently in the field of education, innovative development occurs. However, there is a need to improve research, including in higher education. Consider how important it is to examine the financial and institutional aspects of improving structural units in the development of the education system. In their article, Li and Zang (2015) analyzed the optimal funding options for the education system. In particular, they assessed the practice of using public finances in the development of human capital among students. Regarding financing education, Li and Zang (2015) stressed two factors. First, it is important not to increase the volume of education financing, but rather increase the number of sources who produce it. It led them to investigate the issues of financing education through current taxes, or payments by parents, or through future taxes. They argued that:

efficient education subsidization involves two aspects concerning not only how high the optimal rate of subsidizing education should be, but also who should pay for it inter-generationally. Intuitively, the stronger the parental altruism towards children's welfare or education achievement, the higher the optimal rate of education subsidies. This result holds in various models with different forms of altruism, and different taxes. However, who should pay taxes to subsidize children's education is not straightforward across generations. (p. 47)

6.5 Analysis of Trends in State Budget Expenditures

The purpose of our study was to determine and assess the level of funds allocated from the state budget to Uzbekistan higher education and their use. We analyzed trends in budget spending by performing a regression analysis considering three independent variables, which may affect education expenditures: number of bachelor students (X1), tuition fees (X2), and scholarships (X3) (Table 6.2).

We considered the effect of those three independent variables on the changes in educational expenses through a correlation analysis of the effect of the above variables on general educational expenses. The results are summarized in Tables 6.3, 6.4, and 6.5.

Judging by the value of R-square (0.994203), the model we have implemented is reliable, with a Fisher index equal to 0.00868.

Table 6.2 State budget financing of Uzbekistan higher education 2010–2015

Indicators	2010	2011	2012	2013	2014	2015
Expenditure on education, in million UZS	4,464,100	5,582,900	7130.400	8,803,200	10,763,000	12,162,200
Number of BA students (X1)	–	56,607	56,607	56,607	57,907	57,907
Tuition fee (pedagogical specialty) in UZS (X2)	–	3350	4000	4600	5050	5800
Scholarship amount ^a in UZS (X3)	159,187.7	175,107	201,373.7	260,733.3	299,844	329,662.3

^aTo determine the total amount of scholarships, based on the number of students in higher education institutions; when planning budget funds, the average size of scholarships is multiplied by the number of students

Table 6.3 Regression results

The regression statistics	
<i>R</i>	0.997097256
<i>R</i> -squared	0.994202939
Normalized <i>R</i> -squared	0.985507347
Standard error <i>r</i>	339,0602658
Observations	6

Table 6.4 Variance analysis 1

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	39,432,193.53	13,144,064.51	114.3341285	0.008682978
Balance	2	229,923.73	114,961.86		
Total	5	39,662,117.26			

We confirm the influence of those three factors: number of bachelor students, tuition fees, and scholarships. Of course, we can observe that the budget expenditures change with the same trend over the years. Based on this, we obtain the following formula:

$$F(x) = -15990.99 + 0.2714x_1 + 0.3824x_2 + 0.0296x_3$$

However, if we pay attention to the P-value in Table 6.5 (this indicator should usually be $p < 0.05$ in order to have a degree of influence), we see that X-variables can only slightly affect the change in function (i.e., state budget expenditures).

In conclusion, we can say that with the state budget financing higher education, there is the same development trend of indicators, such as the number of students, the tuition fees, and the scholarships. However, their influence on the change in state budget funds allocated to higher education is weak. In this regard, if state budget funds tend to be sustainable, the question arises: How can the students' tuition fees affect that, if supported by extra-budgetary funds?

Table 6.5 Variance analysis 2

	Coefficients	Standard error	t-statistics	P-value	Less than 95%	More than 95%
Y-intersection	-15990.99006	11832.81948	-1.351409956	0.309128779	-66903.50311	34921.52299
Variable X 1	0.271428861	0.230455136	1.1777948	0.360045386	-0.72013956	1.262997283
Variable X 2	0.382374123	0.958914301	0.398757347	0.72861763	-3.743501111	4.508249357
Variable X 3	0.029609218	0.013227476	2.238463274	0.154587374	-0.027304016	0.086522453

In addition, we may consider to use the example of advanced foreign experience to increase the amount of extra-budgetary funds in Uzbekistan higher education and increase the financial autonomy of higher education institutions. Data show (OECD 2015) that the level of financial autonomy in EU countries is slightly higher. In particular, in the Netherlands, this figure is 4.6%; in Germany, 3.6%; in the United Kingdom, 3.9%; in France, 3.4%; and in the Czech Republic, 4.1%. In those countries, the volume of funds allocated from the state budget is greater than the funds received from the private sector. For example, you can compare the ratio of public to private sources for financial resources in higher education. This ratio is 70.5:29.5 in the Netherlands, 56.9:43.1 in the UK, 79.8:20.2 in France, 79.3:20.7 in the Czech Republic, and 85.9:14.1 in Germany (OECD 2015).

Also, note that in EU countries extra-budgetary sources play an important role in higher education. As a result, due to these ratios and more autonomy granted to the universities, the enrollment rate in EU countries' higher education has increased. However, in Germany, the state social expenditures carry a budget deficit. If in 2005 in 7 out of 16 states, tuition fees were introduced, then in 2007 this type of payment was canceled (Bruckmeier and Wigger 2014). Analyses of macroeconomic indicators show that in recent years an increase in public debt has been observed in many countries. Consequently, there are some difficulties in ensuring government contributions to higher education (Chevaillier and Eicher 2008).

In Uzbekistan, since 2005, there has been a budget surplus. In addition, the increase in the number of students through an increase in the state budget educational expenses depends on taxes within the state budget and their impact on the economy. This means that, in many respects, it is possible to increase enrollment by increasing not so much the state budget as the extra-budgetary funds. Meanwhile, Uzbekistan still has a low enrolment rate in higher education. In particular, in 1991, 17% students were enrolled in higher education, followed by a decrease in enrollment. Of course, this decrease not only depends on the limited budgetary funds, but it is also a consequence of the financial autonomy or lack thereof of universities. In high-income OECD countries, this figure remains at 75% students enrolled in higher education.

According to Yang and McCall's (2014) research, if the increased level of enrollment in higher education is inversely proportional to the share of state budget funds for higher education per student, then the cost of higher education will be in direct proportion to their share of GDP. In 2000, Patrinos noted that, relative to GDP, the government should provide for large investments in higher education as an important means of social and economic development of higher education. In Uzbekistan, state budget funds are also at a high level. However, as mentioned above, the level of enrollment in higher education is still low. The reason for this is that in Uzbekistan, limited state budget funds are allocated to higher education.¹ However, in 2011–2015, every tenth bachelor, willing to continue his or her studies at the master's level,

¹ Uzbekistan's spending on higher education—at 5% of the education budget—is one of the lowest in the world (World Bank 2018).

achieved his or her goal. This situation can be explained by the fact that, in accordance with the Decree of the President of the Republic of Uzbekistan dated July 4, 2011 No. PP-1564, “On admission to higher education institutions of the Republic of Uzbekistan in the academic year 2011/2012,” in higher education, the number of bachelor specialties decreased from 228 to 165, and the number of master’s specialties, from 1200 to 447.

6.6 Financing Higher Education in Uzbekistan

6.6.1 State Budget

According to Brett and Weymark (2003), reimbursement of expenses for higher education at the expense of the state budget is a common thing. With the conditions for the entire population receiving education, the demand for education among members of the society increases. In turn, for those who seek education, the possibility of creating additional value is highly relative. Brett and Weymark argued that “In particular, those who have a special aptitude for education and those for whom formal education makes a large contribution to market earnings are the most likely to acquire a higher than the average level of education” (pp. 2566–2567).

State budget funds increased over the years, but the proportion of students in relation to the total population remained the same (see Table 6.1). Note that the level of enrollment in higher education accompanies the population growth. For example, Yang and McCall’s (2014) research revealed that student loans and tuition payments were introduced in Asian countries in the face of difficulties that had arisen in public finances. In Uzbekistan, according to the joint agreement between the Ministry of Finance and the Ministry of Higher and Specialized Secondary Education of the Republic of Uzbekistan, dated August 18, 2015, the cost of the annual training of a teacher in higher education and of the annual training in the field of teacher education was 5800,000 UZSoms (about 600 USD).²

We can compare the proportion of faculty members with a scientific degree, working in Tashkent and regional institutions, which prepare bachelors in that area. We can observe that in the capital’s higher education institutions there are more teachers with a scientific degree. However, bachelors who make the same educational payments and who prepare for the same education program are taught by different categories of teachers. Yet, highly rated higher education institutions and those which do not have such a high potential charge the same tuition fees. We believe that the relationship between tuition fees paid to higher education institutions and the monthly salary of teachers will be material incentives for further development. It also points to the crucial role of the state budget.

²Data provided by <https://www.xe.com/currencyconverter/> (February 27, 2020,): 1 USD = 9525.82 UZS

Of course, the aforementioned provisions affect the change in state budget funds. In general, the following conclusions can be drawn on these state budget expenditures:

- First, it is necessary to develop the capabilities and achievements of higher education institutions, taking into account the amounts of tuition fees set by the government.
- Second, it is advisable to accelerate the implementation of these fees in accordance with the university's rating.
- Third, the strict establishment of the amount for the tuition fees will serve to create a competitive environment among higher education institutions.
- Fourth, as the number of students studying on the basis of state grants decreases, the state budget expenditures for higher education should also decrease.
- Fifth, students' getting high ratings will increase competition among them, and this in turn will promote financial incentives for students.
- Sixth, in 2011–2016, the number of students who received scholarships at the expense of public funds was reduced from five to one individual. This, in turn, will require a further increase in extra-budgetary expenditures.

6.6.2 Tuition Fees

To the extent that the government sets the number of students who can be admitted to higher education, tuition fees are also set by the government. Note that in the 2011–2012 academic year, the proportion of students admitted to Uzbekistan higher education on a paid-contract basis (i.e., tuition fees paid to the university) was 65%; in the 2015–2016 academic year, this figure increased to 67% (see Table 6.6).

Based on this, we can conclude that, the number of individuals who receive higher education at their own expenses increased dramatically. This, in turn, creates the need for an increase in extra-budgetary funds, but a significant portion of the tuition fees paid by the students are returned to them in the form of scholarships. In summary, students who pay for tuition are reimbursed most of their fees, as 75–80% of their tuition fees are covered by scholarships. This has a significant impact on the financial autonomy of higher education institutions.

Table 6.6 Number of students admitted to higher education institutions in Uzbekistan

	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Bachelors	56,607	56,607	56,607	57,907	57,907
State grant	19,560	19,340	19,120	19,120	19,120
Contract/tuition fee	65% 37,047	37,267	37,487	38,787	67% 38,787
Master's	5880	6300	6300	5000	5000
State grant	1566	1566	1548	1548	1548
Contract	4314	4734	4752	3452	3452

Source: Developed by authors on the basis of resolutions of the President of the Republic of Uzbekistan <http://uzsm.uz/en/documents/1686/>

We can conclude that for students who study on the basis of tuition fees, the costs are returned to them as scholarships; hence, if a student reaches high rankings, he or she will receive a financial return. This, in turn, will not only increase the student's motivation to obtain a high ranking among students in higher education, but it will also ensure high competitiveness in education. On the other hand, tuition fees for higher education are determined by the government. For example, in the 2015–2016 academic year, in the areas of economics and business, the total amount of tuition fees was set at 7,650,000 UZSoms (about 800 USD). Note that in Uzbekistan, despite the fact that in higher education the technical basis is different among institutions and faculty members have different scientific potentials, the same fees are assigned to the same field in different institutions.

Researchers Glocker and Storck (2014) analyzed the risks in 75 areas of education and their level of return. According to the results of their research, financial activities are developed separately, not only in various areas of education but also even within the same area. In addition, they noted that the financial attractiveness of education may also vary according to gender. Hence, the degree of usefulness or value of a field of education affects the amount of tuition fees.

In the higher education system of European countries, the tuition fees are set according to the field. In this case, the following fields deserve attention: social studies, business and law, and especially the field of medicine are considered attractive. In other disciplines, the degree of investment return is lower (Walker and Zhu 2011). In Uzbekistan, the fields of economy and business are available in many higher education institutions, but students enrolled in these fields are trained on the basis of the same state education standards.

Moreover, when students make payments for higher education, they may benefit from the financial assistance of parents (if the amount of the tuition fees is paid from the parents' wages, then according to paragraph 1 of part 31 of the 179 Article of the Tax Code, this amount is not taxable). Second, students (or their parents) can get a loan to pay tuition fees from private funds or commercial banks. Third, an institution that intends to hire a student after graduation may pay his or her loan; then, it is assumed that this student will work in that institution in the future. One of the positive aspects of this is that the student's job security is guaranteed after graduation. We believe that the implementation of the educational agreement at the expense of the existing three sources (state budget/scholarship, bank loan, parents) does not affect the increase in extra-budgetary funds in the system of higher education. As mentioned above, the reason for this is that a significant part of the educational payments is returned to students in the form of scholarships. Despite this, extra-budgetary funds are considered an important source of funding for higher education.

In Uzbekistan, after admission to higher education, students can also pay tuition by obtaining student loans from commercial banks. To that effect, the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated July 26, 2001 No. 318 "On the provision of student loans for studying in higher education institutions on a fee-contract basis" was adopted. According to this decree, students attending higher education institutions are granted loans at the refinancing rate of the Central Bank. Students enrolled in a bachelor degree program may be granted a student loan for a period of 10 years, and if enrolled in a master's degree program, for 5 years. Students

must begin to reimburse the loan 3 months after graduation. Given that student loans are provided by commercial banks, they have high interest rates; for instance, the financing interest rate of the Central Bank for 2016 was 9%. There may be a situation wherein a student, after graduation and employment, is not able to reimburse the loan. Three months is a very short time. Then, students may consider the possibility of extending these 3 months to a longer period.

The following conclusions can be drawn on the financing of higher education in Uzbekistan:

- First, the main portion of educational expenses is paid directly by the students or their parents.
- Second, the tuition fees paid by students are also to cover expenses related to food and housing during their studies.
- Third, the payment made with a loan provided by a commercial bank creates conditions for increasing the cost of education. It is established that a student, 3 months after graduation, must reimburse his or her loan with a 9% premium (in 2016). If the student extends this period, he or she can see a sharp increase in the cost of his or her education.
- Fourth, the availability of student loans provides a good opportunity and incentive for students who have limited financial resources to pay tuition fees.
- Fifth, the implementation of payment out of the parents' wages to support the education of their children creates certain financial benefits for them.
- Sixth, Uzbekistan has created ample opportunities for paying tuition fees for students with disabilities.

6.7 Conclusion

The role of the state budget in financing higher education in Uzbekistan is of great importance. In particular, the volume of these expenditures in relation to the GDP is very high. This, of course, indicates the development of a socially oriented market economy in our country. Despite this, the proportion of students who study for free at the expense of the state budget is 35% to 40% of the total number of students. Parents who pay for higher education for their children at the expense of their salary are exempt from income tax on that amount, which is also considered as part of the state social support.

Our study revealed that during the planning of the state budget expenditures in higher education, the influence of tuition fees or of the size of scholarships is insignificant. Due to the narrow scope of the state financial activities, the scale of coverage of higher education still remains low. This, in turn, leads to the need to provide higher education institutions with opportunities to develop their own financial activities.

Furthermore, due to the fact that tuition fees are centrally established, there is no competition among higher education institutions. When paying tuition fees, students can use loans from commercial banks. However, in Uzbekistan, a student who receives a student loan must start reimbursing this loan 3 months after graduation.

Acknowledgments This chapter is written and prepared in the framework of the second phase of the Erasmus Mundus TIMUR project. The role played by this project toward ensuring the scientific support of the authors in the implementation of this research was great. In this regard, we express our gratitude to the TIMUR project for its support in conducting this research. A short report was first published by Disholdjon Rakhmonov in the *Global Journal of Management and Business Research: C Finance* 16(4), Version 1.0. Year 2016.

References

- Barr, N. (2005). Higher education funding. In F. Iacobucci & C. J. Tuohy (Eds.), *Taking public universities seriously* (pp. 441–476). Toronto: University of Toronto Press.
- Brett, C., & Weymark, J. A. (2003). Financing education using optimal redistributive taxation. *Journal of Public Economics*, 87, 2549–2569.
- Bruckmeier, K., & Wigger, B. U. (2014). The effects of tuition fees on transition from high school to university in Germany. *Economics of Education Review*, 41, 14–23.
- Cabinet of Ministers of the Republic of Uzbekistan. (2008, August 1). Республика Олий Таълим Муассасалари Ходимлари Меҳнатига Ҳақ Тўлашнинг Тақомиллаштирилган Тизимини Тасдиқлаш Тўғрисида. Қарори no. 164. [On approval of the improved system of payment of employees of higher education institutions of the republic]. Resolution No. 164. <https://lex.uz/docs/1379834>. Accessed 30 Mar 2020.
- Chapman, B. (1997). Conceptual issues and the Australian experience with contingent charging for higher education. *The Economic Journal*, 107(42), 178–1193.
- Chevallier, T., & Eicher, J. (2008). Higher education funding: A decade of changes. *Higher Education in Europe*, 27(1–2), 89–99.
- Di Pietro, G. (2003). Equality of opportunity in Italian university education: Is there any role for social welfare spending? *International Journal of Educational Development*, 23, 5–15.
- Glocker, D., & Storck, J. (2014). Risks and returns to educational fields—A financial asset approach to vocational and academic education. *Economics of Education Review*, 42, 109–112.
- Johnstone, D. B. (2004). The comparative perspectives. *Economics of Education Review*, 23, 403–410.
- Kanellopoulos, C., & Psacharopoulos, G. (1997). Private country budget. *International Journal of Educational Development*, 17(1), 73–81.
- Karimov, I. (2016). Bosch maqsadimiz – Mavjuda qiyinchiliklarga qaramasdan, Olib boraotgan islohotlarni, iqtisodiotimizda Tarkib yzgarishlarni izchil Dove ettirish, hususy mulkchilik, kichik business va tadbirkorlikka yanada Keng yil ochib Berisha xisobidan Olding yurishdir. [Our Bosch goal is to move forward with the ongoing reforms, despite the current challenges, to consistently change the structure of our economy, to open the way for private ownership, small business and entrepreneurship]. Tashkent.
- Li, B., & Zhang, J. (2015). Efficient education subsidization and the pay-as-you-use principle. *Journal of Public Economics*, 129(C), 41–50.
- Mingat, A., & Tan, J.-P. (1996). Estimates based on countries' economic growth performance. In *Human capital development working paper 73*. Washington D.C.: World Bank.
- Mirkurbonov, N. M., Anoshkin, V., & Danilova-Kross, Y. (2009). Higher education in Uzbekistan. Analytical recommendation, UNDP. *Tashkent*, 1(12), 3.
- Nazarova, F. (2012). Oliy talim tizimini rivozhlantirish omillari. *Business Expert Magazines*, 7–8, 55–56.
- OECD (Organization for Economic Co-operation and Development). (2015). *Education at a glance 2015: OECD indicators*. OECD Publishing House. https://www.oecd-ilibrary.org/education/education-at-a-glance-2015_eag-2015-en. Accessed 12 Jan 2020.

- Oliveria, T., & Pereira, P. (2009). Who pays the bill? : Study cost and students' income in Portuguese higher education. *European Journal of Education, 24*(1), 111–121.
- Patrinos, H. (2000). Market forces in education. *European Journal of Education, 35*(1), 61–80.
- Pemberton, J., Jewelly, S., Faggianz, A., & King, Z. (2013). Higher education as a portfolio of investment students. *Oxford Economic Paper, 65*, 268–292.
- Psacharopoulos, G. (1994). Returns to investment in education: A global update. *World Development, 22*(9), 1325–1343.
- Stamoulas, A. (2005). Implementation of the Bologna process goals: On Greek state funding. *Higher Education in Europe, 30*(1), 41–51.
- The State Committee of the Republic of Uzbekistan on Statistics. (2011). *Main indicators of social and economic development of Uzbekistan for 2011*. <https://www.stat.uz/en/>. Accessed 30 Mar 2020.
- UNICEF (United Nations International Children's Emergency Fund). (2018). *Education in Uzbekistan*. <http://www.unicef.org/ceecis/Uzbekistan.pdf>. Accessed 30 Mar 2020.
- Walker, I., & Zhu, Y. (2011). Differences by degree: Undergraduate study for England and Wales. *Economics of Education Review, 30*(6), 1177–1186.
- World Bank. (2018). *Uzbekistan Education Sector Analysis*. Final Report. Report No: AUS0000586. p. 24. <http://documents.worldbank.org/curated/en/379211551844192053/pdf/Uzbekistan-Education-Sector-Analysis.pdf>. Accessed 12 Jan 2020.
- Yang, L., & McCall, B. (2014). World education report for 2014. *International Journal of Educational Development, 35*, 25–36.
- Yuldoshev, Z. T. (2012). Kadrlar tayllash tizimini moliyalashtirish zharayonida tadbirkorlik mablaflarining rni. [It is an innovative technology magazine or electronic magazine]. *Electron Manba*, Number 3.