STABILITY OF ECONOMIC DEVELOPMENT AND PROBLEM OF AVAILABILITY OF HIGHER EDUCATION

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The article deals with problems of higher education accessibility in respect to guaranteeing of a society socio-economic development and creation of the country intellectual potential. Fast growth of education accessibility exerts negative influence on its quality and efficacy, increasing discord between labour-market and educational services, reducing quality of national human capital and prejudicing innovation transformation of economy. This paper analyses the relationships among higher education accessibility, scientific-technical, scientific-academy potentials, and their influence on stable economic growth. It uncovers top problems and offers candidate solutions.

Problems of higher education availability from positions of maintenance of social and economic development of a society and creation of a mental potential in the country are discussed. The interrelation of availability of higher education and scientific and technical, scientifically-academic potentials, and also their influence on stable economic growth is investigated. Here the dominant problems are being discussed and possible solutions of the decision are offered.

Due to transition to market economy in Russia, experts, scientists, politicians and citizens of our country are involved with problems of transformation and development The System of Higher Education (HES). Here occur significant and inconsistent social, economic and institutional changes.

In conditions of market economy, problems of availability and quality of education are especially urgent. These problems are discussed in the countries where the policies of development of democratic principles of the organization of a society and stimulation of economic growth are carried out. All this also concerns Russia. The greatest importance is got with The discussion of the problem of availability HES owing to its most essential influence on economic and social development of a society, maintenance of competitiveness of the country, as within the limits of the given system the mental potential of the country is created, and also in connection with that in conditions of the market reception of higher education is not guaranteed by the state to all citizens, and its role becomes solving with positions of an output of the country on a trajectory of steady economic growth, development and introduction of new high technologies.

The analysis of the scientific and technical potential, a scientific base scientific and technical development of the country and a basis of scientific and technical progress, serves as an estimation of a role and a place of a science as complex of achievements of the human reason accumulated and embodied in a social production. The scientific and technical potential (STP) in the countriy is created by efforts of the national-technical organizations and global achievements in science and technology. The level and rates of scientific and technical progress depend from STP. Proceeding from it, the analysis and estimation STP allow to make conclusions about a level of economic development of the country and its branches, degrees of its scientific and technical independence, the opportunities of economic, scientific and technical cooperation.

The scientific and educational potential, a part of industrial potential concern to scientific and technical potential within the limits of introduction of production new to the enterprises or technology. The dominant role in formation STP is played with the sphere of education creating a basis for realization of research and development. It, first of all, a professional training for carrying out of scientific and research work, for production management and is direct for manufacture which are base both for development of existing modern technologies, and for introduction of the new innovations developed as a result of research and development[1].

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Russia has a number of advantages in the domain of knowledge and innovations. According to the international standards in Russia there is rather high educational level. The percent of the population with higher education is high. A share of cumulative charges on research and development in gross national product deduce leads Russia on a level with Germany or South Korea, advancing thus such countries, as Brazil, India and China[2]. However, despite of a high level of expenses, on a level of feedback from research and development Russia essentially falls abreast of the developed countries with high and an average level of incomes. As for acknowledgement this is served with rather low parameter of the added expenses per capita, and also rather a small number of patents and scientific publications per capita. The volume of scientific publications per capita in Russia approximately corresponds to a level of China, besides that charges of this country on research and development make less than half of corresponding parameter of Russia. The number of patents per capita in Spain is approximately in 10 times more, than in Russia, in South Korea - in 60 times and in Germany - in 100 times[3].

One of the reasons of such position is a not completed process of restructuring. Besides, in Russia labour expenses are much higher in comparison with the majority of other highly developed countries, economic growth and competitiveness significally depend on the sufficient offer of a highly skilled and productive labour. Russia faces with serious problems in the sphere of demography, and accessible and adequate education. Possessing skills and qualification of a labour the large Russian enterprises consider as deficiency, and this is a second problem after the taxation among the factors limiting investment climate[4]. A number of countries (the USA, South Korea, Germany, Japan, etc.) applies special programs for stimulation of research and development. The basic justification of the state intervention in these spheres are probable failures in the market.

The state poses aims for decision of already formulated and partially agreed tasks of modernization the system of higher education and academic sector of researches. The system of an estimation should include criteria and rules of carrying out of estimated actions, including rules of actions by results of an estimation. Besides, the infrastructure of an estimation should be compatible to a global practice.

There are not any conclusive criteria of an estimation an activity of academies and the academic institutes. Generally, it is possible to make a complaint to any standard parameter. For instance, in system of the Russian academy of sciences there are no formalized criteria of an estimation productivity of institutes from the point of view of conformity to universal criteria. The estimation of productivity has more recommendatory and unessential character. At the same time there is an experience of the Siberian branch Russian academies of sciences (Siberian Branch of the Russian Academy of Science) where the activity of the academic institutes is estimated. At an estimation the set of specific parameters is used, one of which — is the number of young employees and postgraduate students.

Nowadays the problem of workforce capacity (including a scientific sphere) is very sharp in Russia and a other countries considering social and economic and demographic tendencies of development. It's observed steady ageing in scientific staff. The most productive age for the majority of actively working scientists is 35-50 years. By 35 years the scientist becomes a qualified scientific specialist with the essential operational experience allowing him not only successfully to take part in independent research activity, but also to transfer experience, to teach to put tasks, to provide continuity of scientific academies. If we pay attention to the Russian scientists in the age of 35-50 years, we can see that situation looks is rather sad. There are many reasons of situation of a failure of productive age of a science and an innovative component of manufacture. The reasons are as follows: the inconsistency of reforms of Russian education system, low salary, poor material resources, ignorance of the advanced research techniques, etc. Priority programs of the development, new modernization of education and the Russian Academy of Science are promote to obtain Russia the high status in global economic community. For this purpose it is necessary to consider specificity of development of scientific potential in the long period, in particular probability of occurrence of a similar failure in the future. So, in Russia the demographic failure of 90th of XX century has led to reduc-

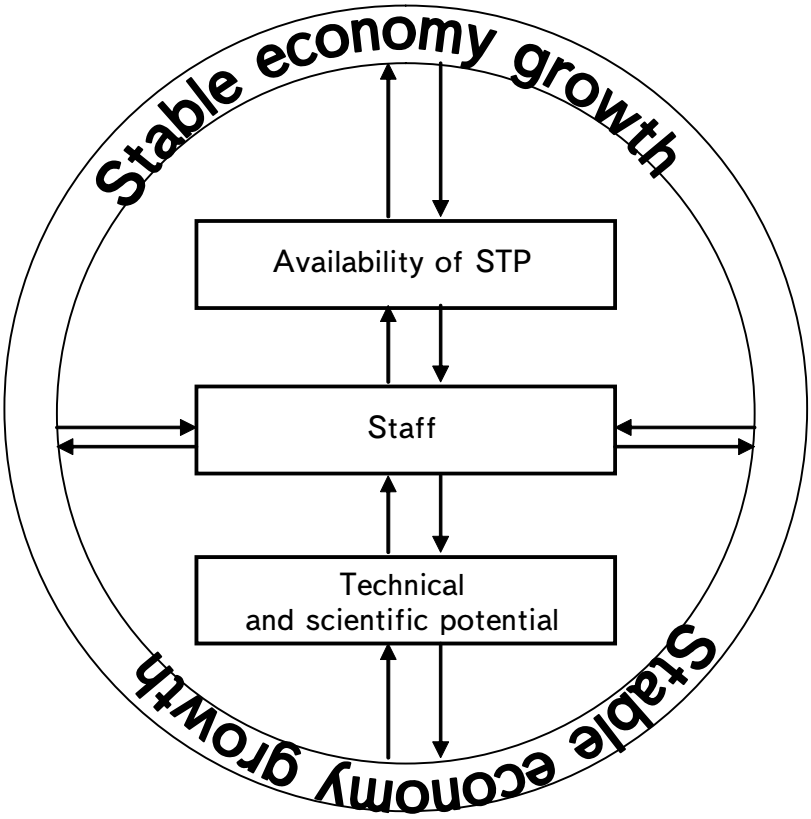

Fig. **Factors of postindustrial economy growth**

tion of the state educational structures and essential decrease in availability of education.

These facts specify the presence of interrelation of availability HES, scientific and technical and scientifically-academic potentials with stable economic growth that is reflected in the scheme (see figure).

From the scheme the modern economy positioned as an innovative or economy of knowledge follows, that, substantially depends on the intellectual capital of the country. Reproduction and development of intelligence assumes the branched out and various educational system including owing to market expansion both formal, and informal forms and stand-alone changes. Solving a problem of availability, transformation of education leads to the contradiction of the purposes, putting under doubt quality of given services and reducing efficiency of education. The decision of the given contradiction is connected with differentiation of concepts "material" and "intellectual" availability of education and with the definition of priorities of development of system as a whole. From positions serviceability and availability of HES, the given division is extremely important as it allows to establish interrelations between such factors as serviceability, availability and quality of education.

The problem of distinctions in availability of higher education in Russia has become a subject of a lot of researches which results are presented in the works of native scientists J.M. Roshchinoj, B.V. Cudgel, L.D. Gudkova, A.G. Levinsona, A.S. Leonovoj, O.I. Stuchevskoj, E.L .Omelchenko, N.V. Goncharovoj, E.L. Lukjanovoj, T.L. Kljachko, etc. At the same time an available knowledge of distinctions is insufficient and fragmentary. Many authors (N.Klikunov, V. Okorkov, A. Solomatin, T. Meshkova, B. Zhelezov, etc.) consider availability of higher education only from the positions of a material estimation (it is payment of training in high school, and also arrival on a place of a passing examinations, receipt, problems of habitation, a feed and methodical maintenance of study and so forth) . In our opinion, the analysis of a problem of availability from positions of an intellectual component is important, namely: entrance examinations from intellectual positions, educational programs and the educational standards sold in higher educational institutions. The given component causes adaptation HES as a whole and the graduate of the university in particular to professional sphere, forms base of scientific and technical and scientifically-aca-

demic potentials which, in turn, are a basis of stable economic growth.

We shall understand availability of basic structural elements of STP as availability of STP , namely higher educational institutions, irrespective of their organizational-legal forms, types and kinds realizing educational programs and the state educational standards of various levels and directions for a great bulk of the population, and also availability of these programs and standards to a great bulk of the population.

At the beginning it is necessary to define, what from availability (material or intellectual) is primary, and what is secondary. Today in the Russian system of higher education two subsystems have been formed: the "elite" education, described high quality of the given services; another one is a mass higher education of low quality. The higher education of poor quality can be named with some assumptions rather accessible as in material, and the intellectual plan. Opportunities of reception of the education providing high quality of vocational training of the future experts, were reduced for a greater part of the population from both positions. Nowadays the material availability is primary without any dependence from quality of education.

The data of sociological researches of the last years show, that as motivation of refusal of reception of higher education refer to insufficient material and financial resources of family more often. Among students of the universities natives from families with a high income (53 % from families of businessmen, heads and experts) 5 dominate. But even such families, as a rule (73 %), declare, that payment of study of the student very much ощутима for the family budget as demands significant restrictions in others expenses[6].

On a background of the high importance of the material factor one more powerful regulator determining the attitude to availability of higher education is allocated. As the core and the main kind of resources level with financial opportunities the intellectual capital, the saved up knowledge acts. It testifies to the importance of intellectual availability of formation{education} alongside with material.

The nearest decades the Russian government expects to transfer STP on training with the full indemnification of expenses. It means, that in high schools budgetary places will not be planned, and support will be mainly carried out due to special grants. There will be only small percent of the students trained for the state account. To carry out similar transition, corresponding institutes, and first of all institute of educational crediting are necessary.

Development of institute of educational crediting as демпферного a way of transition from budgetary formation{education} to paid will cause increase of material availability STP. It, in turn, can cause ambiguous and inconsistent consequences.

1. The high schools put in severe constraints of competitive struggle for entrants, with other things being equal will be forced to accept all interested persons whom it will appear much enough as the financial problem which is being for today by the basic deterrent in reception of higher education, will be solved by means of the credit. Deformation of requirements for services of higher education to high schools in formation of programs of training, professional structure of release and in development of paid training at reduction of state financing of system of higher education stimulates development of system of mass higher education of poor quality in a combination to granting significant freedom. Opportunities of preservation of a low level of costs and accordingly the prices for granting of such educational services, and also demographic tendencies of the near future (reduction of a population at age, массово consuming services of higher education) will promote the further growth of availability of higher education of poor quality.

2. Probably and other development of a situation. Introduction of full payment for training in high school for all acting can cause essential reduction wishing to receive higher education as for the majority the financial problem will not be solved by means of the educational credit because of its{his} dearness and unwillingness of Russians by virtue of socio-cultural and psychological features to take any credits. In this situation it is possible to receive qualitative STP, accessible in the material and intellectual plan to only limited amount of citizens; or, if the quantity of high schools remains former, in the country will exist STP the poor quality, accessible financially and intellectually.

Thus, in both cases if to not reduce quantity of high schools in the country from a posi-

tion intellectual making education will become more accessible. As a result the society will receive STP poor quality, with a poor-quality and noncompetitive product on an output. If to reduce quantity of high schools it, besides problems of employment of teachers and other workers of high schools, will constrain development of a manpower of a society and human potential that will undermine even more scientific and technical and scientifically-academic potentials, will interfere with stable economic growth.

At the analysis of availability of higher education of special attention the opportunity of satisfaction of requirements of the population in knowledge and the skills really providing professional and social mobility of the person, promoting development of a society as a whole demand. For today obviously the worst opportunities in reception of such higher education the separate social groups making minority of the population, and its significant part possess not.

Availability of qualitative higher education should be defined by a level of abilities, a measure of talent, high personal investments into the human capital - work, time spent for training to the detriment of other occupations, and so forth, instead of the size of the family financial capital which can be spent for payment of training, and not a level of the social capital of family. Intellectual availability should be primary. Only so it is possible to provide selection of the people most prepared for higher educational level. Without such selection it will be inevitable to decrease productivity of performance by an education system of its functions in a society.

In this connection it is obvious, that is necessary to achieve qualitative reorganization of model of the organization of a scientifically-educational complex with the purpose of optimization of results in three leading directions:

1) manufacture of knowledge;

2) reproduction of knowledge (structure of the knowledge perceived by the majority of a modern society) and preparation of the highly skilled staff;

3) scientific leadership - achievement of a world{global} level in researches in the chosen priority directions.

All listed will promote formation and development personnel and, as consequence, the scientific and technical and scientifically-academic potentials of the country acting a basis of its stable economic growth.

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[1] *Goremukina L.E.* Scientific and technical politics of EUROPEAN ECONOMIC COMMUNITY. 1982. 250 p.

[2] *Konakov A.E., Abrosimov A.G.* Monitoring of educational process and quality of education // Bulletin of SSEU, 2007.7 (33). P. 74-76.

[3] Report of the World bank on economy of Russia, December 2006 [the Electronic resource]. http:// www.opec.ru.

[4] The same.

[5] Expenses on education and social mobility // Inform. bulletin, 2006. 56 p.

[6] The same.