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Human capital: challenges for Russia

The development human capital is now recognized as being the most important precondition of economic growth in modern times. It should be a priority in our socio-economic policy. However, recognition of this fact alone will not produce a qualitative leap in the development of education, healthcare and the pension system. We need fundamental changes in these sectors if they are to become capable of meeting the challenges of post-industrial society. This will mean individualization of the services provided, continuous delivery of these services (over the lifetime of an individual), privatization (an increase in the role of private funding), the internationalization of competition and implementation of the latest technologies in the delivery of services.

The search for national priorities

The debate over national priorities that began when the Communist period of Russian history ended has now almost run its course. A consensus has been reached in our understanding of the crucial importance for the country of those sectors of the economy that are associated with the development of the individual (the development of human capital or of human potential).

This is a great step forward in our social awareness. For one thing, we do need widespread agreement as to what the key issues are for Russia's economic development if we are to overcome the after-effects of the fundamental revolution that we experienced at the end of the twentieth century. A revolution shatters the value system of a society and it takes much longer to acquire new values than it does radically to deconstruct the old régime.

Secondly, and this deserves particular emphasis, the giving priority to human capital means that society acknowledges the post-industrial character of the challenges that it faces: in searching for a new model of development it looks not to the past but to the future. It is not so very long ago that

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discussion of national priorities focussed on the key sectors of the economy of the last century: the aircraft industry, machine construction, ship-building, electricity, agriculture were given priority by Russian politicians and economists in policy for economic development and, what is most important, in budget expenditures. It was only in the mid-2000s that the élite began to address the issue of social capital. Education and healthcare were the first to receive attention, followed by the pension system. Egor Gaidar was the first to point out the crucial importance of these sectors for the future economic development of Russia (see Gaidar, 2005). The programme of “priority national projects” introduced by V.V.Putin and D.A.Medvedev in 2005 endorsed these priorities.

Russia is not alone in facing this challenge. Creating an effective system for the development of the potential that is latent within the population is a problem that confronts all of the relatively developed countries. The challenges of the post-industrial era and demographic change have made for a “crisis of the “universal welfare state” and forced many countries to accept the need for profound transformations in the social sphere. At a time when population ageing has become endemic and the demand for social services has continued to increase the need has arisen for a fundamentally new model of social support. In other words, Russia is facing not so much a crisis of the system of social services that was created during the Soviet period but a much deeper crisis of industrial society. This means that a new policy for the social services social must be sought not in the process of “catching up” in economic development but as a response to the general problematic that Russia, in common with other developed countries, is facing. The collapse of the Soviet Union should be understood as having been a crisis of the industrial system and of the welfare state that was a part of that system.

To date, no country has succeeded in developing a system that is capable of responding to contemporary challenges in the development of human capital. This means that the search for an optimal model of development need only to a minimal degree take into account efforts that have been made elsewhere. Moreover, the country that succeeds in creating a viable system will acquire an enormous advantage in the post-industrial world.²

According to the traditional (industrial society) model, these sectors

² Strictly speaking, an effective solution to present-day social problems is an important pre-condition of the effort to “catch-up” economically. This idea is implicit in the writings of Alexander Gershenkron, who held that backwardness can itself provide an impetus to accelerated development. For Gershenkron, the less developed countries do not need to repeat the experience of the advanced countries; instead, they can adopt the technologies and the institutions that have been created by the latter. Applying this notion to present day conditions, we could say that if Russia succeeded in creating the most effective institutions for the development of human capital (against a background of general crisis in this sphere) then it would acquire significant comparative advantages in its efforts to overcome its economic backwardness relative to the more advanced countries.

belong to the social sphere of the economy. But for all the importance of the social dimension, the development of human capital in modern developed countries is known to interact with and depend also upon fiscal and investment considerations and to have political implications. Unlike the end of the nineteenth and most of the twentieth centuries, education, healthcare and pension provision now involve the entire population (as taxpayers and as consumers of these goods). The demographic crisis has added to the complexity of this state of affairs. Funding the development of these sectors has become a dilemma for national budgets and can undermine the financial stability of any developed country. What is more, the funding of these sectors has to be long-term and this has significant implications for any country's investment resources. Finally, the political and social stability of societies in which the urban population is predominant depends upon the efficient functioning of these sectors.

If human capital is to be developed, financial and structural issues have to be addressed. The extent of the financial problem can be gauged by comparing the expenditure of Russia with that of countries of similar or more advanced economic development, in particular countries of the OECD. Russia spends 1.5 to 3 times less than the OECD on education and 3-4 times less on healthcare as a percentage of GDP.

There are two sets of problems that have to be resolved: firstly, ways have to be found for allocating additional budget resources to employees in these sectors and to the population groups that they serve; and secondly, structural reforms have to be implemented. Financial measure and structural reforms should not be implemented separately: it would be politically dangerous and economically inefficient to adopt one course of action while ignoring the other. Of course, this approach entails a number of significant risks.

An increase in the pay of doctors and teachers, investment in equipment and similar financial measures are necessary if we are to resolve the problems that have arisen, but these measures alone will be insufficient. The quality of educational and medical services depends not so much on the level of employees' pay as upon improvements in the operation of the systems involved. Reform of the social sector will not be achieved by an increase in budgetary allocations alone.

An increase in funding if not accompanied by structural reforms can even produce negative results. An increase in salaries can lead not to the renewal of personnel but to the retention of cadres, the continued employment of doctors and teachers whose qualifications have become out of date and who would not provide better care or better teaching even if one doubled their salaries. An increase in expenditure on equipment often means that it is procured at inflated prices or that equipment is purchased that is not essential for hospitals or laboratories. By analogy, an increase in the funding of the housing sector, given the current degree of monopoly in the market for

housing services, will make for an increase in prices and an enrichment of local monopoly holders.

This means that the increase in funding for the human capital sectors in the 2000s must be viewed as being only the first and by no means the most important step towards their improvement. Above all, we need institutional reforms, and funding should follow only once these reforms have been implemented. This must be the guiding principle of any policy for the formation of a model for the development of human capital in the present day.

The human capital sectors in the present day

It is not sufficient to argue that in the development of human capital institutional reform should take priority over financial policy. We need to be clear about those aspects of the functioning of the relevant institutions that are typical for present-day post-industrial society. There are no universally applicable solutions whether in the economic or the social spheres. Any measures that can be adopted will depend upon both the level of development of a particular society (its per capita GDP) and upon the global socio-economic paradigm that happens to prevail.

The institutional problems that we face in present-day Russia in the sphere of human capital are, for the most part, those that are being encountered in other developed countries, notwithstanding the fact of our lower level of per capita GDP. To a significant degree this is a legacy of the Soviet period: demographic development, reproductive development and gender behaviour during the late Soviet period were beginning to approximate to the norms of developed countries.³

There are five typical features (functional principles) of human capital that need to be borne in mind when it comes to structural modernization. These, in turn, reflect aspects of contemporary technology, namely dynamism (rapid renewal) and an ever more pronounced individualization of the use of technology.

1. *The lifelong delivery of services:* In the past, education was for the most part customized to the age of an individual. Health-care catered only for the ill. Now people study and have appointments with their doctors throughout their entire lives. Our understanding of work and of pensions is also undergoing fundamental change. A reduction in the importance of heavy industry and an increase in the importance of the service sector,

³ Эта особенность советской модели развития рассмотрена в книге Е. Т. Гайдара (1997). This characteristic of the Soviet model of development is examined in E.T.Gaidar (1997).

taken together with our abandonment of the Soviet-era criminalization of the “parasite” have made for a reappraisal of our understanding of the “pension” and of the age at which work should end (or not end).

2. *The increasingly individual nature of services:* In future, the individual will increasingly choose his or her own path in education and health-care from a multitude of available educational and medical services. It is evident that the retirement age, the age at which an individual decides to terminate his or her productive activity, is increasingly a matter of individual choice. The consequence for the pension system is that systems for supporting the older age groups have to be diversified.
3. *The increasingly global nature of services:* Educational and health-care institutions are competing not only with schools and hospitals in their own neighbourhood but with similar institutions throughout the country and throughout the world. Of course, this degree of choice is not available to everyone, but as standards of living improve and the real cost of these services and of travel falls as a result of global competition, more and more people will participate. Opportunities for building up personal savings in a global financial system will mean that pensioners will be less and less dependent upon the pension system of their own country.
4. *An increase in the importance of private expenditure in the development of human capital* (this is a logical accompaniment of the previous three trends). The first three trends point to a growth of opportunities for people to purchase the services that they need. This means that the role and the importance of individual demand will increase, eventually overtaking the volume of state expenditure in the sectors in question. Private purchase of services, or shared state-private purchase, are not only a natural development, they are the inevitable consequence of the technological modernization of these sectors and of an increase in the living standards of the population. The increase in private expenditure is associated with the fact that any further increase in state expenditure became impossible towards the end of the twentieth century: any increase in taxation was impossible, while the demand of the population for social services continued (and continues) to increase, in line with social progress.
5. *The increasing importance of new technologies.* These are radically transforming the nature of service-delivery. As information and communications technologies and transport technologies continue to develop, traditional forms of health-care and education are withering away. Innovations in systems of organization are having a similar impact.

All of these trends must be taken into account since they are making for a modernization not only of the human capital sectors, but contributing to the political and economic modernization of the entire country, including that of our technological infrastructure. Ignoring these trends creates a risk that

Russia will continue to lag behind or will lag even further behind, the socio-economic development of the developed countries.

The process of globalization makes for an intensification of competition and this is also true of institutional competition in the market of human capital. In the immediate post-Communist period many argued that we had inherited a high level of development of human capital, in particular in the quality of our systems of education and healthcare. It was frequently maintained that in Russia the level of development of human capital was high by comparison with our level of economic development.

The data provided in the accompanying table indicate that the picture is not so positive. In a ranking based on level of social and economic development, our systems of education and healthcare approximately correspond to our level of per capita GDP. However, the indicator for quality (outcome) of healthcare (life expectancy) in Russia is in steep decline. Reversing this trend will not be easy.

The fact of the matter is that if an advanced system of education or healthcare is to be created there has to be a demand for high quality educational and healthcare services. This is how these sectors developed until recently.

Table

Some indicators of socio-economic development (Ranking)

Indicator	Level of Economic Development and Quality of Institutions
Per Capita GDP	50
Competitiveness of the economy (World Economic Forum)	65
Competitiveness of Higher Education	50
Competitiveness of healthcare	63
Life Expectancy	150 (135-161)
Per Capita Medical Expenditure	70
Quality of Institutions	118
Corruption	154
Index of Human Development	65

However, the explosive development of communications and transportation systems has made for a steep reduction in the transaction costs of switching from a national system of delivery of these services to a global system. It is now much easier than it was 20 years ago to enrol in any university (if the applicant has passed the necessary exams) or to receive healthcare in any clinic throughout the world. This costs money, but as the economy grows the disposal income of the Russian citizen will also grow, and, as experience shows, Russians are prepared to invest in themselves – in their education and healthcare.

Of course, if those capable of paying for high-quality services turn

predominantly to foreign educational and medical institutions, then Russia will be deprived of opportunities for improving its own services, and this will become even more of a problem if Russia becomes a magnet for those seeking a higher standard of education and healthcare than exists in their home countries. The demand for high quality education and healthcare will be limited and supply will also be limited. This is the major strategic challenge for the development of human capital and the principal challenge facing the overall modernization of Russia.

This enables us to identify the second pre-requisite of the creation of a modern system for the development of human capital: the modernization of Russia requires not a reconstruction of the Soviet system of social services, not a “return to the wellspring”, but the formation of a qualitatively new model for the creation of human capital. At present, we are only beginning to perceive the outlines of this new model.

Problems of professional education

In Russia we take pride in the quality of our educational system. Indeed this system has some merit and for a country of an average level of economic development that has only recently achieved industrialization it could even be ranked as good.⁴

Invoking the experience of the twentieth century and believing in the universal applicability of the Soviet model, the advocates of this model point to two fundamental shortcomings in the present-day model of professional education: firstly, it produces an excessive number of specialists with higher education and fails to produce an adequate number of personnel with technical qualifications; secondly it is incapable of producing the kind of specialists that the economy demands, measure “demand” in terms of the number of college graduates who, following graduation find employment in the field of their qualifications. Formally, both of these criticisms are correct, but, as is often the case with apparently obvious conclusions, these arguments miss the point and stand in the way of a proper understanding of the issues and of how to resolve them.

First of all, education in the contemporary sense must be understood as being general and “lifelong” and the task of the university should be to

⁴ Idealization of the system of professional education that was formed during the period of industrialization is not peculiar to Russia. Here is what the German scholar, Horst Siebert, has to say: “The German university system which in the nineteenth century attracted students and scholars from abroad...now lags behind. I should very much like to know how many of the sons and daughters of those German politicians who are zealously defending the status quo in our system of higher education are enrolled in the élite universities of the USA or Great Britain.” (Siebert, 2003, p.191)

provide a student with the opportunity for lifelong education. The Soviet ideal of the worker – as someone who has completed a college education, obtains work in his or her special field and in whose work record only a single employer is recorded, no longer corresponds to how workers see themselves and a career path of this kind no longer meets the needs of society or the state. Nowadays, during the five or six years of a college education many professions can appear that were unknown at the time when study commenced.

The dynamics of the modern economy, in which new kinds of work and new professions are constantly appearing, create a situation in which qualifications have to be constantly updated to meet new conditions. An individual who is incapable of lifelong education will be left behind as society moves on and will never be successful. Those who favour evaluating the performance of colleges according to the number of graduates who find employment in their special field should ask themselves the question: how many individuals that we consider eminent and successful are, in fact, working in a field for which they are formally qualified? Precious few.

If the qualitatively new challenges that confront our current system of professional education are to be met, educational institutions will have to be modernized.

Facilities for lifelong learning: The provision of two levels of education – one leading to the baccalaureate and the other to the master's degree will meet the needs of the time and it will be possible for a special field to be chosen while at college. However, this arrangement should be extended into post-college education by the provision of various programmes recognised by the state.

The grouping and interlinking of programmes of various levels does not mean that differences in ability and age will be disregarded. In the design of programmes and selection of students it is important to distinguish between those who lack work or experience (the “pre-experienced”) and those who possess such experience (“mature” or “post-experienced” students). In some instances the level of experience needed will be self-evident – for example the baccalaureate does not presuppose prior experience, but for admission to programmes in business studies or upgrading of qualifications of civil servants, prior experience could be considered essential. By contrast, for a range of programmes at the level of the master's degree prior experience is not always essential even if this is assumed in the content of the programme. What mature students or students with work experience require, above all, in an educational programme is contact not only with instructors but also with other students in their group. The quality of education in programmes of an advanced level depends to a significant degree upon a correct selection of students.

Universal higher education: Another feature of post-industrial society is

a universal demand for higher education. Of course, education cannot simply be provided on demand without an impact on the number of courses or on quality. A rapid expansion of college education will result in a decline in quality. In the Russian case, it would not be true to say that during the last 20 years the standard of higher education has declined overall. We have approximately the same number of good educational institutions, including universities, as before: some have maintained their standard, others have fallen behind, but there are also new “leaders”. We are able to provide approximately 30-40% of school leavers with a very high standard of education, as we did during the Soviet period. But admissions to our colleges at present exceed 100% of the number of school leavers and this, understandably, means that average standards of education have declined.

Does this mean that we should reduce the number of colleges? If people wish to obtain a higher education diploma then they should have the opportunity of doing so. However, the educational community and the labour market stand in need of an adequate instrument for assessing the quality of a specialist. This does not mean that assessment is impossible – employers know perfectly well which colleges produce able graduates and which do not. But in a number of subjects there is a need for a professional examination that is administered by an authority external to the college.

Reducing the pressure of mass demand on university education should be accompanied by the creation of an applied baccalaureate. This would entail the integration of middle professional education with university education. This measure need not be introduced universally, but given the universal demand for higher education we should not exclude the possibility of awarding a number of technical colleges the status of universities. The applied baccalaureate should provide a professional vocational education (close to that provided by a professional training college). It would not offer exhaustive professional training but would be taught in a university and form part of a college programme that could serve as a qualification if, at some future date, a student embarked upon further education.

Research has recently pointed to the socio-political risks of providing universal higher education. These arise mainly out of the increased career and professional expectations of those graduates whose abilities do not match the qualifications they have obtained. At present it is difficult to assess the degree to which this phenomenon will be destabilizing, but the introduction of an applied baccalaureate might well reduce possible social tension.

The internationalization of education: The best Russian universities exist in a competitive environment that is not national but global. Colleges are competing for students and for teachers. This is a fundamentally new state of affairs for Russian university education and we have not yet become accustomed to it. A good Soviet college was always in a position of being able to select students and lecturers. Students were attracted by the “brand”, lecturers by the brand and the salary. Now circumstances have completely

changed.

Three factors, demographic trends, open frontiers and a noticeable improvement in standards of living have student applications to Russian colleges. Potential full-time and part-time students are able to choose and are choosing in the global market place. In universities, this is affecting, in particular, undergraduate and a number of post-graduate programmes: the largest Russian companies are increasingly encouraging their employees to take courses in foreign (Western) business schools. There is a similar competition for professors who are capable of teaching and researching to international standards.

The initial reaction of Russian colleges to this trend was to import education – to introduce programmes provided by foreign partners and in some cases to award their degrees and diplomas. This was a natural first step, and similar in its logic to the early development of Russian businesses.

However, once political and economic stabilization had been achieved, Russian universities were confronted with a more important and complex task – were they themselves capable of exporting education, of attracting foreign students, of providing attractive research conditions for foreign scholars?⁵ The proportion of Russian colleges in the international market, at 2-3%, is not large, and Chinese universities are already overtaking Russia in this respect.

If our position in this market is to be strengthened, we must in the first instance promote acquisition of the English language which has *de facto* become the global *lingua franca* of science and is acquiring this status in education. In the Soviet period, foreign students had to take a preparatory course in the Russian language. At present, if the global reputation of Russian education is to be enhanced there will have to be a steady and substantial increase in the number of courses taught in English.

Of course, such courses must not be introduced crudely or artificially. It would be odd if the tutor and all of the students in a group were Russian-speaking but teaching was delivered in English. Rather, we should strive to attain a critical mass of enrolled students who do not speak Russian. These enrolments can be attracted by offering the option of taking the course in English. A congenial, international, atmosphere can be created in colleges by the use of, for example, bi-lingual information boards, signposts, etc.

A special effort should be made to attract foreign scholars. This will be facilitated if the Russian government provides grants. But this will not be enough: universities must find within their own resources the means for

⁵ The topic of exporting education has recently been addressed by Galichin et al. (2009), Agranovich et al.(2010) and Belyakov et al. (2011).

creating faculties and laboratories for scholars of international repute. Of course, the obstacles are not merely, and not so much, financial – there have to be sound intellectual reasons for deciding to carry out research in Russia. Providing such incentives will be no easy task for Russian universities.

The integration of research and education: It is time that we abolished the distinction that was common during the Soviet period between teaching colleges and Scientific Research Institutes. With the increasingly rapid renewal of knowledge and technology, such a distinction has become not only artificial but counter-productive. The university should be an institution that engages in research and only for that reason engages in teaching. A university without research is essentially a technical or community college.

Individual education: In recent times we have witnessed the introduction of individual or customized educational programmes. The individual approach consists not so much in the choice of educational institution as in the customization of programmes. Citizens and corporations are making known their needs and expect higher educational institutions to cater for these.

The individual approach does not mean that programmes should be designed to cater for every single individual, however possible this might be. A customized programme of education should be understood as being a combination of a number of modules that the educational institution offers. It is this opportunity to choose amongst available modules that enables a student to construct a programme that meets his or her needs.

The modular approach enables a student to construct a programme that will extend not only over time but also in space. For one thing, the period of study can be extended and interspersed with periods of practical work; the choice of modules can be calibrated according to the kind of productive work being done. Secondly, individual modules can be taken in other universities, including foreign universities. This is one of the objectives of the Bologna Process in education and it means that, while offering individual pathways in education, universities must try to coordinate their programmes with institutions abroad so that courses taken in one university can count towards the award of a degree in another. An international system of accreditation together with mutual (bilateral and multilateral) approval of university courses is becoming a precondition of the future development of professional education.

6. *The financial model:* There will be an increase in the importance of private investment by both corporations and individuals. A system of lifelong learning, individualized and global education will make for an increase in the role of private funding as a source of the revenues of the educational sector. Accordingly, private (personal) expenditure will assume increasing importance in the adoption of individual educational strategies. Frequently, the introduction of fee-paying in education is associated with the period of

transition away from the Communist system, one aspect of which was a severe budgetary crisis. In reality, two kinds of crisis converged – a crisis of the budget and a crisis of the system. It is not by chance that since the budgetary crisis was overcome during the 2000s there has been no diminution in the role of private funding in education. On the contrary, the flow of funds from citizens and corporations into education has increased; and, of course, funds are being directed not only towards the traditional sectors of middle and higher education but also into new forms of post-college, vocational education.

7. New technologies: Modern education will increasingly abandon traditional forms of transmission of knowledge in the form of passive attendance at lectures and the sitting of examinations. Thanks to dramatic developments in information and communications technology the following kinds of innovation will become possible:

Firstly, there will be increasing use of active methods in education. These will facilitate a more effective assimilation of knowledge and the practical application of what has been learned.

Secondly, there will be increasing application of independent study online. Of late, the leading universities have begun to provide free access to their programmes on the Internet, inviting anyone who is interested to study them in the capacity of future potential students. Of course, this does not mean that will become possible to earn (in effect, purchase) degrees over the Internet; rather this is a method for stimulating interest in new programmes and attracting new students to a college where these courses can be taken.

8. Finally, in the specifically Russian context, if the quality of professional education is to be improved, obligatory military service must be abolished. Military service training is seriously distorting conditions in the market for education by stimulating demand for higher education, often at a low standard. Obligatory military service is preventing Russia from dealing with the challenges of the post-industrial economy and of post-industrial demographic change. It has a distorting impact upon both the motives for seeking a profession and upon the labour market. This topic requires separate analysis. Suffice it to say that if Bill Gates, in order to avoid military service, had had to persist with his university education and then enrol part-time in order to produce a pointless post-graduate dissertation, then the world would have acquired one more competent engineer or professor but would probably have been deprived of Microsoft.

Health care in the present day

Russians are accustomed to placing their trust in a state university but entrusting their health to a private doctor. That is why, when the Russian citizen is asked to pay for medical services, he or she responds more

tolerantly than when asked to pay for education.⁶ The inclination not to economise on one's health increases as standards of living and the general cultural level of a society improve.

If we are to understand the way in which modern health care functions and should be reformed we need to take into account two problematical developments: one is the rapidly growing interest of educated individuals in the state of their health and the second is an asymmetry of information. These factors interact. As standards of living improve and educational attainments advance, human life is increasingly valued and individuals begin to attend to their health at all times and not only when they fall ill. This makes for a significant growth in demand for medical (including prophylactic) services. At the same time, educated individuals in the present day no longer look upon their doctor as the custodian of esoteric knowledge. Rather, they want to understand the prescriptions that they are being given. They are prepared to monitor the performance of the doctor and in so doing they assume partial responsibility for the results of their treatment.

From a practical point of view, these developments should lead to greater transparency in the health service and to a growth in competition between medical practitioners and medical institutions. This, in turn, will weaken the link between the patient and any particular healthcare centre and create opportunities for choosing between doctors within a healthcare centre or between different centres. Obviously, in extreme cases, it will be possible to envisage seeking treatment abroad and choosing between the medical experts (and institutions) of a number of countries.

This is what is already taking place. People who possess the necessary means are seeking health care worldwide and choosing the specialists who are most suited to their needs. Health care will rate highly in the value system of the citizen of post-industrial society and demand for high-quality medical services will continue to increase throughout the world.

As we develop the rules and organizational principles for a future system of health care we must take these trends into account. The creation a system of health care for the future will include the following measures:

1. Above all we must create conditions for the *growth of competition* between doctors and institutions of healthcare. This will be a fundamental innovation for our society, in so far as the Soviet approach consisted in attaching the patient to a particular polyclinic where access to information regarding the state of one's health was restricted (the older generation will recall that there was a prohibition against handing medical records over to

⁶ The first Soviet Commissar for Health Care, N.A.Semashko was of the opinion that doctors should not be highly paid since "a good doctor will be fed by the people and bad doctors we can do without". See Shishkin et al., (2004), p.7.

patients). “Detaching” the customer from the healthcare institution, enabling access to other specialists and providing full access to one’s medical record would be a significant contribution towards overcoming the asymmetry of access to information. Any attempt to limit competition in the domestic market for healthcare services would divert demand abroad.

A critic might draw attention to the dangers of patients resorting to “do it yourself” health care. But our argument here is concerned with creating opportunities for patients actively and consciously to participate in monitoring the state of their own health and to assume responsibility for doing so.

2. An important means of overcoming the asymmetry of information will be the creation of a *universal electronic medical record*. An individual should have the opportunity to approach a number of doctors without the need for repeat examinations or, at least, for unnecessary examinations. Technically, this will not be easy to accomplish: various kinds of medical equipment would have to be standardized and the compatibility of software programmes would have to be guaranteed. This will be a complex and capital intensive project but it is one that merits investment. In future, this project would acquire a global dimension if the electronic medical record is to be accessible in foreign healthcare centres. Possession of an electronic medical record would not be a legal requirement but a right. This being the case, it would be charging the individual for the setting up and maintenance of this service would be justifiable.

3. Another means of creating competition would be the gradual expansion of medical insurance. By this we mean a comprehensive system of health insurance whereby insurance companies compete for customers, as distinct from the system whereby citizens make health insurance contributions to the state budget. For the further development of this market in Russia it might be necessary to admit foreign health insurance companies. With the advent of a system of privately insured health care the debate over whether individuals should be expected to supplement the cost to the state of their health care would become redundant.⁷

4. *The relationship between state and private funding of healthcare* merits special attention. We have been accustomed to thinking (though this was never made explicit) that the state should pay for general health care whereas complex (and expensive) treatment should be funded by special arrangements, usually involving a contribution from the citizen. However, we should not rule out an alternative scenario, whereby general health care for common illnesses is paid for by the individual or the family (or by private medical insurance) and complex treatments are funded out of the state budget. These are the principles upon which the healthcare system of

⁷ “In advanced industrial society in which there is a strong demand for healthcare services private purchase of these services will become widespread.” (Gaidar. 2005. p.578),

Singapore is based.

5. The state must encourage the creation of *healthcare centres and medical schools that are capable of competing in the world market*. The success of medical clinics should be measured not by their use of the latest technology but by the number of foreign patients who seek treatment in these clinics and are willing to pay for their services. We must set up institutions of this kind and encourage a demand for their services on the part of Russian citizens who have the means to pay. This approach could be described as élitist and as running counter to principles of social justice. But in practice these élite institutions could serve as the “engines” that would stimulate an improvement in the general level of health care throughout the country. The creation of élite centres of this kind should become part of the development strategy of the city of Moscow and of other leading cities, especially those with universities. The emergence of institutions of this kind would strengthen the role of innovation in the development of the regions.

6. Finally, special attention should be given to the development of technologies for the provision of *individualized health care*. Developments in the medical sciences and in technology suggest that in the foreseeable future we shall have access to individualized medicines that will make for a fundamental transformation of the entire system of organization of healthcare.

The future of the pension system

The future of the pension system is one of the key issues of political and economic debate in Russia and in the majority of developed countries. Indeed the social, political and economic stability of Russia may be said to depend upon the viability of the pension system. Pensioners are a stable component in the electorate and as a rule they do not fail to participate in elections. Pension funds are an important source of investments. Expenditure on pensions is a significant item in the state budget and an important factor in strategy for balancing the budget. In any developed country, management of the pension system has fiscal, investment, social and political implications.

As in the cases of education and healthcare, the pension system in post-industrial society will differ qualitatively from the traditional model, in respect of its functions and in what the population expects of it. The pension system of the future must provide answers to a number of complex questions.

Firstly, what will be the sources of revenue to the Pension Fund? How can we ensure that it remains in balance? On the revenue side the issue is pension contributions; on the expenditure side the issue is the age of qualification for a pension.

Secondly, what should we consider the appropriate pensionable age to be, not merely from a financial point of view but from the standpoint of social justice? At what age should an individual cease working and what should be the duration of a working life that earns entitlement to a pension? Those who favour increasing the pensionable age point to, over and above financial considerations, the later average age at which people are entering the labour force (owing to lengthening periods of education). Critics point to lower life expectancy in Russia in comparison with more developed countries and to the importance of preserving the social gains of the Soviet period.

Thirdly, what should we understand by a “worthwhile pension”. How can we ensure that becoming a pensioner does not result a steep descent down the social and income ladder, especially if “final salary” is the reference point? In other words how can we reconcile the need for a pension to provide subsistence with the retention of social status?

Fourthly, there is the special need to cater for the older pensionable age groups. This is a problem that cannot be dealt with in terms of pension contributions alone.

Fifthly, and finally, we need to decide what the future pension system should look like – we need to construct a strategic model, a model for the long term.

All of the above issues are interconnected, but the answers to each are specific and so the issues need to be addressed separately

Discussions at present are almost entirely focussed on increasing the age of entitlement to a pension. The topic is interesting and of social importance, of course, but it is neither the most sensitive issue nor the most urgent. It is not the most sensitive since there is no proposal to increase the pensionable age of those who are approaching the threshold; any discussion has to do with much younger age groups. The issue is not the most urgent since increasing the pensionable age would not solve the problem of how to balance the Pension Fund but only somewhat attenuate the deficit.

Balancing the Pension Fund is important from the standpoint of general macro-economic stability but the Pension Fund is only part of that problem. In its current form the Pension Fund is technically separated from the Federal budget. It would make sense to consider it as part of the budget since then expenditure from the Fund would be or could be covered not only by pension contributions but by other tax revenues. Apart from anything else, this would be an equitable arrangement, in so far as the idea of solidarity between generations is the principle underlying our pension system – the idea that those in employment pay for those who are not in employment.

Balancing the Pension Fund by increasing the pensionable age would be feasible but inefficient. Increasing the pensionable age by a politically acceptable margin (up to 5 years) would not resolve but merely reduce the deficit of the Fund and would do so only in the short term. In this instance we are discussing balancing the Fund at the present, very low levels of pension and not at all increasing pensions to levels where retirement would avoid a radical decline in an individual's standard of living.

Another possible measure would be a significant increase in the period of work that earns entitlement for a full state pension, as distinct from the minimal social pension. It has been suggested that the period in employment should be increased from 5 to 20 years. Arguably, this would be a just measure but even such an increase would make no significant contribution towards balancing the Pension Fund.⁸

Discussion of questions of financial stability and of social justice distract attention from other strategic aspects of the pension system of the future. These discussions are essentially focussing on the themes and realities of the past 100 years, notwithstanding the fact that during the last quarter of a century there have been fundamental changes in the economic and social

⁸ Pensionable age and qualifying periods are at present being discussed in all developed countries. The French experience during the last five years is of relevance to Russia. The Sarkozy administration increased the minimum retirement age from 60 to 63 for both men and women. This gave rise to social protest and the socialist Francois Hollande, elected President in 2012, has reinstated the minimum retirement age of 60 but only for those in physically demanding forms of work and who have worked for 41 years.

structures of the developed countries. These changes require a fundamentally new approach to dealing with the pension system.

Traditional pension systems were formed during the period of transformation of agrarian societies into industrial societies and were intended to support industrial wage-earners who had come to the end of their working lives and who, having severed their links to the countryside, had no means of support other than their wages.

The present-day pension system, based on the principle that “those in work pay for those who are not in work”, first appeared in Germany in 1889 when Chancellor Otto van Bismark, faced with an increase in support for the socialists, proposed introducing a minimum pension age of 60, notwithstanding the fact that average life expectancy at that time was 45 years. When Lloyd George introduced pension provision in Great Britain in 1908 the respective ages were 55 and 45. The pension age that was introduced in the USSR during the 1930s (55 for women and 60 for men) was based on the same “rules of the game”. Average life expectancy at that time did not exceed 45 years.

In reality, this was a benefit of very limited value and available only to the handful of people who lived until pensionable age. Furthermore, the pension was not made available to people in the countryside, who made up the majority of the population. The assumption was that the peasantry lived off the land and in large families in which the able-bodied generation supported the elderly. In other words, this pension system was not a heavy charge on the budget.

During the second half of the twentieth century circumstances changed significantly. Life expectancy increased and the pensionable age was reduced to the point where the two thresholds eventually coincided. The urban population, that is to say those who were entitled to a pension, increased in size. Then pensions were extended to the rural population (in the USSR during the 1960s). Next, the dynamics of the population pyramid began to change and the number of older people in the population gradually began to exceed the number of younger people – the size of the working population fell and the number of pensioners increased. In general, demographic, social and economic processes gave rise to a crisis of the pension system that had become established during the twentieth century.

Another feature of present day society is the unambiguous attitude of citizens themselves to the prospect of retirement. Whereas in the past the majority of people looked forward to retirement, now an increasing number do not wish to retire and for an increasing number the state pension is not a significant factor in their retirement plans. In the first category we find civil servants, members of the judiciary, professors and academics who continually lobby for the right to work beyond state pension age (in response to this lobbying the Russian government from time to time introduces

amendments to legislation).⁹ In the second category we find growing numbers of members of the free professions who work for as long as they are able and who have no intention, on retirement, of subsisting on the state pension and who have made their own pension arrangements.

In the light of all of these changes, the current debate over retirement age seems artificial. If one adhered to the logic of the “founding fathers” of present-day pension systems then the pensionable age in the developed countries should be 90-95 years and in some countries even higher. It would be politically impossible, of course, to introduce such a change, even though, financially, there would be advantages.

In other words, present-day societies have outgrown the pension model that was devised for industrial society at the time of its formation. In searching for a new model, we should not be bound by considerations of age.¹⁰ A model for state pensions should be based on the principles that we have outlined at the beginning of this article.

In modern times, every citizen must work out his or her life-strategy, which should include arrangements for old age. There should be savings – whether under the bed or in a pension fund; or investment in a spouse or in children who will provide care in old age. Since the anti-parasite laws in Russia were repealed, every individual has had the right to work or not work at any point in their life cycle.

Pension strategies of the future will be individualized and will offer four options for organizing one’s life after retirement. Firstly, there will be the state pension (social and cumulative); secondly there will be private pension savings, including the pension system of business entities; thirdly, there will be investments in property that will provide income on which one can live during retirement (this is the typical pension strategy of Muscovites of average means); fourthly, there will be investments in the family so that the family can provide support in old age.

Economic experience and common sense suggest that none of these alternatives on its own can be relied upon to provide an adequate degree of support. The apparently secure state pension systems of the socialist countries collapsed. The financial crisis resulted in huge losses for private

⁹ The most recent amendment was that made in May 2012 to the obligatory retirement age for the Chair of the RF Supreme Court. Similar amendments had already been made for the positions of Chair of the Constitutional Court, the heads of the State Academies of Science and of Academic institutions.

¹⁰ Without wishing to stretch the analogy, one could say that the debate over pensionable age resembles the debate over the treatment of serfs (the need to treat them humanely, the need to limit the right of serf-holders to sell their serfs) at a time when the abolition of serfdom was imminent.

pension funds and the savings tied up in them. Revenues from property are also susceptible to fluctuations, especially during times of economic crisis. Finally, even the family sometimes fails to fulfil the obligations placed upon it.

This means that a rational pension strategy must be based on the principles of diversification, individualization and privatization. The individual will carry out a risk assessment, design a personal pension strategy based on an appropriate combination of the four available options. In this assessment, available private means (savings) will be of crucial importance since three out of the four options we have described are affected by this variable.

This does not mean that the state will withdraw from pension provision. The state must provide conditions for the maximum prolongation of the life of the citizen, in other words, develop the system of health care and of preventative health care and actively propagate a health life style. Moreover, the state must provide insurance against invalidity and outright poverty, helping those who cannot cope without such support. In the final analysis the state must assume responsibility for the destitute and the infirm. However, this is a separate problem from that of the pensionable age.

A separate issue is that of support for elderly people who require support in the organization of their lives when the family is unable to provide such support. Here the solution is not to be found in money alone. It should be the special responsibility of the state to provide the appropriate care services.

There are many arguments that can be adduced against what has been proposed, beginning with the inhumanity of these measures through to the inability of individuals to construct life strategies for the long term. All of this can be a subject for public debate. Certainly, this is a much more serious topic than that of the age at which one should be entitled to receive one's meagre state pension.

Let us therefore admit that the current debate over the pension system in general, and in particular over the pensionable age, has reached an impasse. We shall not be able to move forward and find solutions until we admit this and approach the problem of providing pensions from a radically new perspective, taking stock of the real needs of the citizen and of society in the present day.

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This review has led the author to a fairly straightforward conclusion: the development of human potential is now a national priority. However, Russia's human potential will not be realized by increasing the funding of education, health care and of the pension system but by implementing the kind of structural reforms in these sectors that will meet the needs and challenges of the twenty-first century.

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Human Capital: Challenges for Russia

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Education, healthcare and pension system are the key sources of modern economic growth. They stand in need of a profound transformation if they are to meet post-industrial challenges. The new principles of transformation of these sectors include individualization of services, their privatization (an increased role for private spending), life-long demand for these services, globalization (international competition) and the development of radically new technologies.

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