The Future of Russian Economy through the Eyes of "Fathers" and "Sons". The Fifth Look[1]

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> "What is the use of such narrative for the motherland? None, either at first or even at fifth glance. But they say: fool's errand is easy. Experience… does not confirm this dictum… Looking closer, one discovers a method with its conventions and vicissitudes and a rather articulated worldview, not to say a philosophy of life. To appreciate this and that is quite an exciting challenge".
>
> *Mark Amusin* [Amusin, 2015]

This paper continues a series of publications with short reports on results of forecasting Russian economy development with expert-statistical Bayesian method. A special feature of this method is its application under circumstances of strong uncertainty. The fifth step of research model focused on social problems. As a result, the picture of most probable future scenario was formulated in accordance with experts' estimates and interpretations. Numerical modeling shows strong connection between this picture and 'Resource nation', 'Facing the East' and 'In the sticks" scenarios of our model.

Key words: Scenario forecast; economy modeling; expert-statistical Bayesian method; monitoring-forecast; uncertainty; Russian economy; resource nation; social problems; social policy

As our forecast research moves forward it is getting ever more difficult to find proper words for introducing another paper in the cycle of "the future of Russian economy through the eyes of 'fathers' and 'sons'". The current paper is the fifth one and once again it is a brief account of results obtained at the latest stage of work, i.e. in 2018. Ever present is our feeling of gratitude to ECO for sincere support this journal granted us and what started out as the authors'

[1] The authors express profound gratitude to leading experts of the Institute of economics and industrial engineering, the Institute of natural resources, ecology and cryology, the Tuva Institute of complex reclaiming natural resources of Siberian branch of RAS, Novosibirsk state university, Novosibirsk state technical university and Siberian federal university who gave their consent to act as experts and thus rendered invaluable help in the research.

initiative, which eventually turned into a systematic scientific research project entitled "Forecast scenarios of the Russian economy".

Introduction as review (second look at previously done)

To build economic forecast scenarios one may use expert-statistical Bayesian approach that was originally developed by specialists of the INDEM foundation for the purposes of projecting the political situation in Russia [Blagoveschensky et al, 2016]. The peculiarity of this technique that employs an informal information source in the form of expert opinions consists in allowing forecast constructions along the following lines: ***"If we can't forecast the future, at least we may endeavor connecting possible futures with the present"*** [Blagoveschensky et al., 2016. P. 75].

The forecast model structure consists of three parts:

1) a set of given basic scenarios of economic development for the future (with an approximate forecast horizon up to 2030), with chances of realization determined through numerical modeling;

2) a set of problem situations (challenges) that describe the current status quo in the economy and have to be somehow resolved in future;

3) ways of resolving problem situations (as combinations for each problem) that represent alternative scenarios the economic development will follow.

A set of five ***base scenarios*** ("On to OECD (Organization for Economic Co-operation and Development", "Resource nation", "Facing the East", "Own way", "In the sticks") has been established starting from the second stage of research. And so far we do not wish to introduce any changes to this component of the forecast model[2]. Scenario specifications reflect possible future states of Russian economy, the modeled movement towards which results from combinations of various consequences when problem situations are resolved. When building forecasts in connection to certain macro problems, the second and third component of the model – sets of problem situations and ways of resolving them – are structured intentionally for each stage if research. This process involves experts that participate in a round table that allows collective discussion

[2] Detailed scenario description is in our previous papers [Kareva, Shmat, 2015; Mikhailovskaya et al., 2017].

of current results and foundations for building renewable model constructions. The two latest meetings of this kind took place in March, 2017 and April, 2018[3].

At the report stage of our research we turned to social problems (macro problem "Social development") so as to finalize evaluation of scenarios of future Russian economic development viewed through the lens of separate major issues (following the major issues of anti-crisis management of economy and that of regional development). We believe this to be logical as the study of development trends in any social-economic system may not avoid problems of strictly social character. A country that sets the goal of improving well-being of its citizens is measured by its capacity to overcome poverty, reduce unemployment and income differentiation, as its most important indicators of success in the economic policy it pursues.

Social problems as the basis for building forecast scenarios

When building forecast scenarios, first of all, it is necessary to structure the micro-problem, then delineate its most significant parts and represent them as a sequence of problem situations reflecting dynamics of demographic processes, living standards, income differentiation, the state of the social sphere and position of separate (socially vulnerable) population groups.

It is quite obvious that ***demographics*** and economy are inexorably interlinked. That is why implementation of this or that variant (scenario) of demographic forecast may be considered an indicator of future dynamics and qualitative parameters of economic development. In their turn, the future demographic trends mostly depend on the current state of economy.

Having considered the demographic prospects of Russia for model building, we selected as its basis the forecast up to 2050 that was produced in the center for study of population problems at the Economic Faculty of MSU named after M. V. Lomonosov. According to this forecast, any possible variation of main variables will cause a problem of higher demographic load on able-bodied population of

[3] Round table of 'EKO' "Scenario forecast of Russian economy": discussing research results and future plans, 2017. – 17.03.2017. URL: http://www.kz.ieie.nsc.ru/video/video1703–2017.html (date of reference: 02.12.2018); discussing research results and future plans, 2018 – 26.04.2018. URL: http://www.kz.ieie.nsc.ru/video/video2604–2018-eco.html (date of reference: 02.12.2018).

the country. Whereas in 2016 the share of all able-bodied citizens in Russia's population was 57%, which may fall to 52–54% by 2039 (46–50% by 2050). This will be accompanied by gradual aging of the population [Arkhangelsky et al., 2017]. In other words, no matter what demographic policy is pursued there is a clear threat of growing social vulnerability of population as even today the pension system is facing financial deficit and there is no telling where future payments are coming from [Soloviev, 2016].

It is significant in this context that the ***system of social protection*** in Russia, which strives to secure a decent standard of living and lower risks for socially vulnerable strata of population, is mostly represented by measures of monetary nature. At the same time in the last few years, the living standard of old age pensioners has been going down (vis a vis the ratio of pension payments vs the minimum subsistence level). The planned long-term parameters for exiting the budget crisis (prior to 2035) augment the risks of deeper and wider-spread poverty for all types of pensioners despite the fact that unlike other categories of citizens pensioners may not fall below the normative level of poverty (due to legally guaranteed additional payments up to the level of subsistence) [Soloviev, 2017].

The other side of the evident and projected process of aging population may become aggravated problems of ***poverty*** and ***income differentiation***. From the point of view of forecasting, most important are the negative trends that formed in the last few years, which are commonly attributed to the aggravated economic situation. By 2017, the level of absolute poverty (the share of population with incomes below the minimum subsistence level) grew to 13,2% versus 10,7% in 2012. On the whole the share of population with comparatively low income has grown: in 2013 the size of stratum having less than two minimum wages was 36,4% and in 2017 it reached 42%[4]. Naturally, the question is how firm is this trend and what should the economic dynamics be in the country so as to curb the growing poverty?

It is significant that too low a level of minimum wage may lead to poverty of people that work full time. This aspect of poverty in Russia that makes it different from developed countries is due to the fact that in those countries the level of minimum wage exceeds the

[4] Inequality and poverty // Federal service of public statistics (Rosstat). URL: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/poverty/ (date of reference: 04.12.2018).

Russian one 10–15 times whereas the level of real income in Russia is just 2–3 times lower [Aganbegyan, 2017]. Analyzing the risks of emerging poverty backlights youth problems and issues of Russian so called 'hinterland' or 'the sticks' – i.e. small towns and rural areas. Reports of random research into household budgets conducted by Rosstat [Social situation, 2017] lead to a conclusion that the threat of poverty with all its resulting consequences concerns first of all the younger generation and people that live in small towns and rural areas.

As for ***the standard of living of the population*** in conditions when the average figures are quite high (as they are in Russia, which the World Bank classifies as the country with incomes above the average[5]), the first thing to pay attention to is the problem of ***income differentiation*** and its ***fair distribution*** in the society. Unfortunately, in Russia today, the population has an extremely high income differentiation because, as a result of radical economic reforms and transition from 'plan to market', the practice-tested optimal parameters of such differentiation were violated [Zhukovskaya, Krasnova, 2018]. The latest Russian statistical data related to income inequality of society (e.g. Ginny coefficient = 0, 41 and R/P 10% ratio = 15, 6) are at the level of developing countries and not at that of the developed economies [Kalabekov, 2018]. The trends of changing income inequality of population as well as in the case of poverty problem show no signs of improvement in the last few years.

The analysis of poverty and its risks for various population groups naturally leads us to the issue of ***employment*** as it is precisely the unemployed and part-time employed citizens that fall into the category of the poor. According to statistics, the level of unemployment in late 2017 in Russia was 5,2%, i.e. close to the natural level[6]. But this is without accounting for the hidden unemployment. Thus, according to experts in 2014 the hidden unemployment reached 12% surpassing the official level 2.7 times [Rudnev, Shpilina, 2015]. At the same

[5] In 2017 per capita GDP in Russia when measured by parity of buying power equaled to $25 500 (55-th place among 186 indexed countries), when in general, n the group of upper middle income averaged $17 700. For comparison: the world average is $16 900; the average of countries with high income is $47 300; for OECD – $43 400 – World Bank Open Data // GDP per capita, PPP (current international $). URL: https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD (date of reference: 05.12.2018).

[6] Labor resources // Federal service of public statistics (Rosstat). URL: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/wages/labour_force/ (date of reference: 04.12.2018).

time, all parameters – absolute and relative – demonstrate growth in the informal (shadow) sector of the economy. It is not coincidental that in rural areas (once again to the question of the Russian 'sticks') the level of informal employment is 1,7 times higher than in the cities [Social situation, 2013; Social situation, 2017]. The results of the said trend are not just higher income differentiation, weaker social guarantees for the population, acute financial shortage of pension and other social funds but also criminalization of labor relations and negative social-psychological consequences.

The prospects of development (accumulation) of human capital are tied to the problem of ***social sphere*** with its crucial subsystems of health care, education and culture. Each of these branches that service the public has specific features but they also have trends and development problems common for the social sphere. Among such problems are inefficient use of resources and excessive bureaucracy (formality) at the expense of qualitative characteristics of operation that is clearly seen in non-commercial segments of healthcare and education [Chernyshev et al., 2016; Donova, 2016].

We consider ***the problem of 'the Russian sticks'***, i.e. the life of people in small towns and in the country to be one of the most crucial social problems. What sort of problem is it? We have already mentioned higher risks of poverty. Obviously it also includes unemployment, relatively poor living conditions, limited accessibility of transportation, lack of quality social services and numerous other difficulties that village and small town dwellers come across.

Thus, degradation of manufacturing that took place in the 1990-s in the agriculture led to a number of negative social consequences including unprecedented unemployment growth and a peak of poverty – over half of the rural population fell below the poverty level. The paradox of today is that with massive loss of jobs every year we face the acute problem of lacking qualified specialists and workers. We have more socially differentiated territories and towns resulting from concentrated production in smaller enterprises and growing inequality of producers as to their economic and technical-technological parameters [Fadeyeva, 2018]. On the whole, we can probably state that in Russia there is no integral approach towards resolving the problems of rural areas while state support resources are wasted.

We cannot help addressing the ***youth problem*** that we have already touched some aspects of[7]. The youth that 10–20–30 years from now will have in their hands the future of our country, represents about one third of the Russian population. The principal goal of the state and society is to channel the energy of the younger generation in the right direction, focusing the attention on resolving vital problems [Merkulov, Orlova, 2015]. However, those visible 'fruits' that come forth through the current public youth policy mostly bear the signs of ideological and political nature. The problems lie in the more 'material' area linked to creating favorable conditions for today and opportunities for fulfilling creative and labor potential in future.

Finishing our brief analysis we would like to point out that resolving any social problem may hardly discount the public input – both direct and indirect. Direct input is revealed in the national social policy conducted by the government, its direction (goals and objectives), methods and tools of implementation, in how much its real substance corresponds, on the one hand, to declared priorities and, on the other, to objective and subjective needs of the country's population. The active role of the social policy consists in being a stabilizing force targeting social and political stability in the society and also in providing stimulus for channeling necessary motivational energy of the human factor to the society and economy that is especially important in transition of the country towards an innovative path of development [Lyublinsky, 2008].

Taking into account the current state of the Russian economy and community as well as trends of the last years, one may definitely point out the dire necessity to correct economic and social policies. There is a wide variability of possible scenarios of future social policy with qualitative and quantitative differences. From a scientific and forecasting point of view the variability of future social policy lays down the foundation for our and similar kinds of research. The close connection between social and economic policies as well as social and economic processes implies that social forecasting may help shape broader perceptions on possible ways of further development of the Russian economy.

[7] The problem attracts our special interest as the indicative expert group ("children") in the project comprises graduate and post-graduate students of the Economic faculty of the NSU, i.e. representatives of the younger generation that study to be professional economists (and some – research scientists).

On preparation of data base for modeling forecast

Following the structural analysis of the macro problem of social development we have included into the model of scenario forecasting ***nine problems (problem situations)***.

1. Social policy (general direction, approaches towards putting together and implementation): scope, targets, actual purport.
2. Demographic situation.
3. Poverty.
4. Unemployment.
5. Problem of fair distribution of income and standard of living.
6. Social protection of population.
7. Social sphere.
8. Position of "the Russian sticks"– villages and small towns.
9. Youth problem.

Each of the problems above was matched with five resolution options. So, this part of the model consists of ***45 resolution events*** with probability of happening (a percentage totaling 100 for each problem) that is estimated by experts.

Let us remind the readers that our research project involves two groups of experts– "fathers" and "sons".

The principal group of experts ("fathers") consists of respectable scientists – economists and sociologists that work in scientific and research-educational organizations of Novosibirsk, Krasnoyarsk, Chita and Kyzyl. On the fifth stage of research, the lineup of the expert group "fathers" having the same number (17 experts, see table 1) has changed little.

Indicative expert group "children" consisted of 27 experts and included undergraduate students, master degree students and postgraduate students of the economic faculty of NSU.

The survey results in ***two sets of expert opinions***:

1) ***estimate of unconditional chances of events***, i.e. experts' opinions about feasibility of certain events that provide numerical pattern of expected economic development;

2) ***estimate of conditional chances of events*** on assumption of implementation of each of the base scenarios[8] that form 'digitalized'

[8] The principle of evaluating conditional chances of events is explained in the paper [Blagoveschensky et al., 2012. P. 79].

notions of scenarios and permit references to numerical features of the forecast revealing their relevance.

Ranging the individual expert opinions [Pavlov, Sokolov, 2015] produces ***generalized (aggregated) estimate***, thus calculating resulting values of unconditional and conditional chances of events relative to the problems included into the forecast model that form ***the full data base for quantitative modeling*** (see the Appendix).

Table 1. **Description of the main expert group**

Total number of experts	17
- from Novosibirsk	14
- from other cities in Siberia	3
Scope of scientific interest (by number of experts)	
- Regional economy	9
- Institutional economics	6
- Economics of industries and enterprises	4
- Sociology	2
- Economic-mathematical modeling	2
- other fields (Economic theory, Macroeconomics, Management, Finance)	4
Number of experts that indicated one field as object of their principal scientific interest	10
Number of experts that indicated two or more fields related to their principal scientific interests	2

Note: experts were suggested to indicate principal areas for their scientific interest from the list we prepared which embraces main fields of economic science. It was not required to select only one field.

Obtaining correct results in our research requires high degree of competence from experts in the declared field. One of the distinctive features of the Siberian economic school that unites the participating experts of the senior group is its social orientation. This implies commitment to research not just economic but socio-economic problems with analysis of economic effects for the society in their various aspects. In other words, we have no doubt as to the competence of expert "fathers" in the social sphere.

The general agreement of expert opinions is controlled by concordance dispersion coefficients[9] that are calculated (after an adequate ranging of individual estimated provided by experts) for each problem relative to unconditional and conditional chances of events. The survey showed that concordance coefficients (45 in total) resulted in the range from 0,301 to 0,788, which on the whole testifies

[9] May take values from 0 (complete discord in estimates) to 1 (full accord) [Pavlov, Sokolov, 2015].

to satisfactory general agreement about chances of events and on some problems there is high agreement or close to this.

The degree of deviance of expert estimates from the generalized in determined by calculating statistical coefficients of experts' competence (calculated for estimates of unconditional and conditional chances of events for each problem with further averaging for each expert). With 17 experts the normative value of competence coefficient equals approximately 0,59; coefficient values of separate experts for estimates of unconditional chances of events lie in the range from –12,0 to +17,6%; for estimates of conditional chances – in the range from –22,0 to +16,8%. In most cases divergence of individual coefficients of competence from the normative value does not exceed the size of standard deviations that are in the range 0,004–0,005 or 6,2–9,2% (for six types of estimates)[10].

Results of forecast modeling

Numerical modeling using Bayesian probability mechanism calculates ***chances (probabilities) of base scenarios' occurrence***. Convergence of recurrent calculations is ensured by a great number of iterations (10 thousand).

The modeling results (in the form of chances of base scenarios' occurrence) obtained at the fifth stage are somewhat different from the results of the previous one but, on the whole, fit the general outline of estimates that came about in 2016–2017 when constructing forecasts linked to separate macro problems (Fig. 1).

According to the estimates of the principal expert group the most probable (although with a narrow margin) is the resource scenario (25,5%), while the least probable – pro-West (11,5%). As for the formal numerical aspect, the forecast of 2018 appears more optimistic compared to the previous one, which reduces chances of the obviously negative marginal scenario (from 26,1 down to 22,0%) and raises chances of the scenario "On to OECD" (from 9,2 to 11,5%). Fair chances of taking place also have scenarios "Resource nation", "Facing the East" and "In the sticks" in the range from 22 to 25,5%, which is not so different from the results of the fourth stage of research.

[10] In our research the admissible limit deviation of the competence ratio from the norm is ±0,5. If deviation surpasses the limit, the expert's individual estimates radically differ from the averaged.

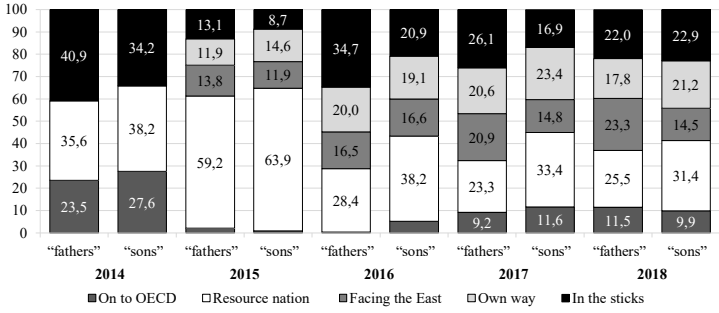


Fig. 1. Chances of scenario occurrence calculated based on estimates of "fathers" and "sons" expert groups,%

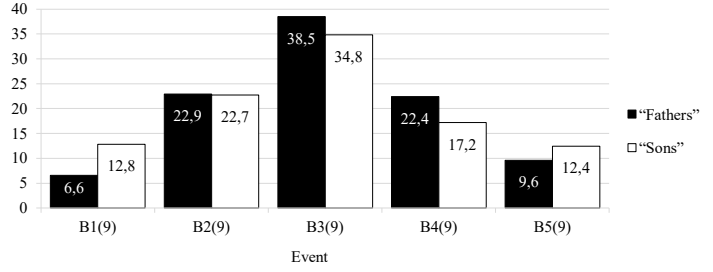
We believe that results of the fifth stage of research and their difference from the previous ones are mostly due to peculiarities of social problems that became the core of the forecast building. Thus, monetization of social policy in the image and likeness of developed countries with market economies facilitates opinions on comparative similarity of development paths of Russia and the West, which explains augmenting the chances of "On to OECD" scenario. Dire social problems are not unique for Russia. Poverty, unemployment, income differentiation or youth problems exist all over the world, including developed countries. In this aspect we just appear to be 'brothers in misfortune'. Higher chances of pro-West scenario instead of demonstrating optimistic forecast just reveal problems and difficulties that Russia and western countries have in common.

No less logical is a vision of the country's future social order with some remaining elements of paternalism that may be characteristic for resource, eastern and periphery scenarios. Much lower chances of the periphery scenario probably tell us that experts are inclined to disbelieve that the state will allow the country's social situation to deteriorate seriously as this may be the shortest path to revolution. With all this, the scenario "Own way" got a little lost. We believe there are two reasons for this – on one hand, it may seem a hard to achieve goal with optimal mix of public guarantees and personal responsibilities of citizens, public funding and commercialized institutes of social support and, on the other, its outlines blend into

features of the resource, eastern and periphery scenarios so that experts are prompted to prefer one of the latter ones.

The forecast of expert-“children” differs most from the forecast of “fathers” in weighing chances of the resource (31,4 vs 25,5%) and eastern (14,5 vs 23,3%) scenarios. If we are to compare estimates of the latest three stages nothing has changed: young experts still consider the “Resource nation” the most likely forecast scenario for the Russian economy and are quite skeptical about development based on the experience of our eastern neighbors. The novelty in the fifth stage results is that the chances of “On to OECD” scenario in “children’s” estimates (9,9%), are somewhat lower than that of the “fathers” (11,5%).

Formally speaking, in this case the “children” are looking at the future a bit more pessimistically that the “fathers”. An explanation may be found in peculiar social problems that were put in as the basis of forecast. If we compare chances of events by problems included into the model construction we shall discover that both “fathers” and “children” chose the same problem as the most likely event in all cases. However, “children’s” estimates concerning each problem tend to be more radical, which may be observed in the case of the youth problem: “children” give higher chances to comparatively best as to comparatively worst events, whereas the “fathers” tend to stick to the middle (Fig. 2).



Note. Events B1(9)...B5(9) are lined from best to worst – from “The society and government create conditions for the new generation like in a soviet song ‘the young may have their way’” to ”Problems of social adaptation of the young become critical... On one side grows infantilism, on the other – radical protest inclination...” For full wording of events see the Appendix.

Fig. 2. Chances of events for the problem No.9 (Youth) in aggregate estimates of “fathers” and “sons”,%

The general results of forecast modeling are effectively confirmed by data of ***correlation analysis of aggregate estimated of unconditional and conditional chances of events***, i.e. six vectors with 45 elements each (5 values for all nine problems). The vector of unconditional chances provides quantitative characteristics of the forecast, vectors of conditional chances comprise quantitative descriptions of corresponding basic scenarios. The "fathers'" estimates mostly correlate forecast events with scenarios "Resource nation" (0,97), "Facing the East" (0,96) and "Own way" (0,91) as opposed to the periphery and even less the pro-West scenarios. A higher ratio correlating unconditional chances of events with conditional in the scenario "In the sticks" (0,63) still testifies to a great threat of its actualization. Estimates of "children" give a clear advantage to the scenario "Resource nation" and a lesser one to the "Own way" scenario (Table 2).

Table 2. **Results of coupled correlational analysis of aggregate unconditional estimates and conditional estimates corresponding to the basic scenarios**

Expert estimates	Basic scenario				
	On to OECD	Resource nation	Facing the East	Own way	In the sticks
"Fathers"	0,451	0,968	0,956	0,914	0,634
"Children"	0,215	0,950	0,514	0,793	0,527

Resulting evaluation of actualization chances of basic scenarios correspond well to the forecast 2018 point shifting in the phase economic space towards the scenario "On to OECD" with lower degree of bureaucracy and intact level of pragmatism (Fig. 3)[11].

The current result of forecast monitoring must have the same reasons as the general modeling result that mostly arises from the specific macro-problem "Social development" (see above).

[11] The principles of building phase space, selecting phase coordinates and "drawing" the phase picture that allow forecast monitoring in the framework of multi-stage research are described in our previous paper [Mikhailovskaya, Shmat, 2018].

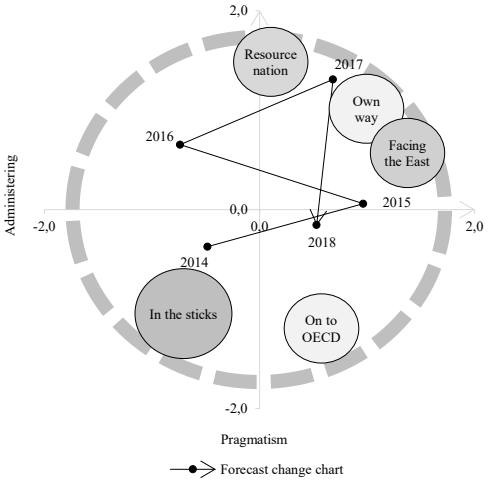


Fig. 3. Actualization chances of scenarios calculated through evaluation of expert opinions of "fathers" and "children" groups,%

The image of most likely future

In addition to the formal quantitative forecast results presented earlier we shall try to paint a picture of the future with events that our experts rated higher. Our task is less difficult as both groups of experts gave higher chances to the same events (table 3).

So, what future awaits us?..

As table 3 shows, the score of most likely events embraces the whole range of problems included in the model construction ("the sticks" problem is represented by two events), which is somehow expected. Most of the rated events (8) have number "3", i.e. they are rated in the middle between best to worst for each. There are two events with "4" (close to worst out of possible outcomes). Let us point out that none of the most likely events has chances that exceed 50% (43,2% at most) that testifies to high degree of supposition of the obtained result.

Our country is gradually depopulating due to a relatively low birthrate and high mortality; the share of young people is going down while there are more people above the able-bodied age. The share of population of working age is almost unchanged mostly due to positive immigration from abroad. Also stable is the level of

poverty. Working poverty is largely disappearing but the problem of dependent population that is on welfare is still acute. Active parts of population and businesses follow the path of limited liability and do not care much about people of socially vulnerable categories. The overall standard of living is growing slowly. The state mostly carries out redistribution functions in the attempt to resolve the problems of less well-off and socially unprotected layers of population. Salaries that are mostly regulated via the minimum monthly wage help ensure that working citizens achieve average living standards.

Table 3. **The score of events with highest chances according to the aggregate estimates of "father" experts,%**

Event		Problem		Chance estimate
Code	Contents	No.	Name	
B3(4)	Situation with unemployment and jobs is unchanged...	4	Unemployment and jobs	43,2
B3(7)	Rather slow development of social sphere mostly in state-like format...	7	Social sphere	40,4
B3(6)	The level of social protection is growing slowly...	6	Social protection of people	39,5
B3(9)	The youth comes across various and serious (that could be overcome) difficulties in adapting to life ...	9	Youth problem	38,5
B3(8)	The problem is largely invisible by the federal center and remains within the regional scope...	8	Situation "in the sticks"	37,0
B3(5)	Slow growth of living standard. The state us mostly focused on income redistribution ...	5	Standard of living and income distribution	36,6
B3(2)	The moderate (medium) demographic forecast takes place (population is declining)...	2	Demographic situation	35,8
B3(3)	The average level of poverty stays the same. Working poverty is mostly overcome...	3	Overcoming poverty	34,5
B4(8)	Comparatively favorable situation in affluent regions. In the others "the sticks" is deteriorating fast ...	8	Position of "in the sticks"	33,6
B4(1)	Mostly populist social policy. Only minimal social guarantees are available ...	1	Social policy	31,9

Note. For full wording see the Attachment.

The jobs and unemployment statistics demonstrates that there is little change. Meanwhile, the hidden unemployment is growing; there are some gender problems of unemployment (women) and age-related ones (among young people and older citizens of older age). There is a significant regional differentiation in employment and unemployment levels – the latter is centered in depressive regions while economically advanced regions manage to resolve the problem.

The social protection of population is making very little and slow progress. The systems of social insurance and pension are under great stress being threatened with shortage of financial resources that come exclusively from obligatory insurance. Equally slow development of social sphere takes place in a statised format being financed from insurance funds and budget sources. The population is guaranteed a minimum of services while complex hi-tech services are often limited. Private investment in the social sphere is highly risky because of the limited paying demand from the population.

The youth is encountering various serious difficulties that still may be overcome while adapting to life. The acuteness of the problem largely depends on territorial and class factors – young citizens living in rural areas and small towns, born in low income families find it most difficult. Against the background of incoherent economic needs and personal interests there are structural disproportions in professional training. Sentiments and behavior of some youth groups appear infantile, which may be caused by discontent with living conditions and lack of hope to resolve problems.

The social-economic situation in “the sticks” almost disappears from sight of the federal center and the problem firmly rests as the responsibility of regions. A comparatively stable position or even a noticeable rise of “the sticks” is evident in some regions – the most affluent and trying to sustain development of small towns and rural settlements. In most parts of the country the position of “the sticks” does not change for the better, the situation is best described as sluggish degradation.

The complicated social situation in the country stems from unfavorable economic dynamics, on one hand, and failed public social policy on the other. The latter is best described as populist that ensures minimum guarantees to the population with periodic ‘bursts’ of activity for maintaining social stability and electoral loyalty (before elections). In the general background, the demographic policy seems rather successful although it is not very effective and raises skepticism in the public opinion but it manages to keep up the level of working-age population due to stream of immigrants. This is explained by difficulties in the countries of close neighbors where living conditions remain less favorable than in Russia.

* * *

How optimistic (or conversely, pessimistic) and most importantly – realistic – the emerged picture looks is for the esteemed reader to judge.

Finishing the description of the fifth stage of research into building a scenario forecast of the Russian economy we would like to point out the following. On the one hand, social problems that was put as the basis of forecasting poses some challenge for us because we do not specialize in studying social problems. On the other hand, social problems are something that every one of us daily observes and bears on one's shoulders. The difference between the researcher and a layman lies in the former reflecting on what one sees and experiences, trying to reveal trends and formulate generalizations (by way of synthesis, making general conclusions from particulars). In our research we rely not on personal judgements but on opinions of a representative group of experts that no doubt adhere to a research model of apprehending reality and foreseeing the future.

This gives us hope that the work we have done is not gratuitous and the obtained results merit some interest and bring benefits. We believe that Russian authorities need to have a clearly defined long-term plan or program of the country's development to make weighted strategic decisions looking into the future and not to the past. This in its turn raises the necessity of shaping adequate ideas about the future and sets the task for the scientific community of elaborating reliable and realistic long-term forecasts that might form a foundation for public plans of socio-economic development of Russia. To the best of our modest capabilities we shall endeavor to make our contribution to the sum of knowledge about the future and intend to continue research into scenario forecasting of the Russian economy so as to submit new results a year from now.

Appendix

Problem 1. **Social policy: goals, tasks, real scope**[12]

Event	P	A1	A2	A3	A4	A5
1.1. Complex balanced social policy that organically fits the system of public socio-economic policies. Aimed at creating broadest possible conditions for developing human potential and providing a well-being of citizens	5,5	23,3	8,9	8,6	15,1	2,6
1.2. Strong social policy closely tied to policy of economic growth and aimed first of all at creating favorable conditions for economically active people. To achieve such targets the main load is placed on corporations (employers). This has a compensatory character for socially vulnerable layers of population.	12,2	24,8	14,4	21,0	18,2	8,5
1.3. Social policy that stays within the general scope of public financial policy, aiming mainly to protect socially vulnerable population strata through material support and provision of social services paid by the treasury	29,1	28,7	31,6	31,1	27,9	23,0
1.4. Mainly populist social policy. Provision of minimal social guarantees and marked by sporadic 'flares' of activity to maintain social stability and loyalty of population	31,9	17,1	30,2	25,7	22,8	35,8
1.5. Weak social policy financed and implemented residually. Implementing this policy allows at best to resolve most critical current issues eliminating bottlenecks	21,3	6,1	14,9	13,5	16,0	30,2

Problem 2. **Demographic situation**

Event	P	A1	A2	A3	A4	A5
2.1. Optimistic demographic scenario fulfils itself (population size is moderately growing due to relatively high birth rate, mortality decline, longer life span, and positive migration; population base of young people below working age is falling slowly, elderly people share is growing, share of working population is decreasing). This is a result of consolidated efforts of society and the government aimed at resolving the demographic problem	5,6	18,7	10,5	14,0	15,0	7,1
2.2. A relatively high demographic scenario fulfils itself (the forecast parameters are quite similar to the optimistic variant but it has a lower rate of population growth). Public measures of resolving the demographic problem do not always bring expected results and are not always find positive response of the population	17,6	22,4	14,6	17,7	20,8	12,4
2.3. A moderate (medium) demographic scenario fulfils itself (the population size is gradually going down due to relatively low birth rate, share of younger people is going down, share of people above able-bodied age is slowly growing). Public demographic policy is not quite effective, public opinion is growing more skeptical in its respect	35,8	32,9	34,4	33,2	27,8	24,9

[12] The tables characterizing problem situations show in column P generalized values of unconditional chances of events (%), and in columns A1, A2, A3, A4, A5 – generalized values of conditional chances of events by scenarios (%) over the group of experts – "fathers".

End of table 2

Event	P	A1	A2	A3	A4	A5
2.4. A relatively low demographic scenario fulfils itself (depopulation is accelerating with quite low birth rate growth, epy the same level of mortality, duration of life is almost the same, consequently there is a comparatively high share of working age population, migration rate is decreasing). Public measures of demographic control are not effective as they are not systemic, inadequate and do not find credence of population	27,4	18,7	27,1	22,6	22,1	28,0
2.5. A pessimistic demographic scenario fulfils itself (highest depopulation rate – the birth rate is falling, life duration is not rising, low rate of migration; negative trends in age structure, expected for low forecast). Irregularity in the territory settlement is getting close to the dangerous limit. Measures of public policy are not effective, there is no understanding between the state and the society concerning the demographic problem	13,6	7,4	13,3	12,4	14,3	27,7

Problem 3. **Problem of overcoming poverty**

Event	P	A1	A2	A3	A4	A5
3.1. The level of poverty (absolute and relative) is steadily decreasing and getting closer to that of developed countries. Poverty is overcome based on broad consensus towards this problem. There is a harmonic combination of elements of personal protection of citizens against poverty, social responsibility of business and public support of the poor	8,7	24,4	12,8	13,2	16,9	5,1
3.2. The level of poverty is going down but mostly in terms of absolute poverty without affecting the remaining considerable income differentiation. The main burden of resolving the poverty problem lies on the state with less participation of population or business	25,0	32,0	24,5	23,9	24,5	15,8
3.3. The level of poverty on average does not change. Working poverty is mostly overcome but the problem of not able-bodied people remains as they stay 'under supervision' of the state. The active part of population and business maintain the attitude of limited responsibility	34,5	26,0	30,6	29,1	26,6	26,1
3.4. Poverty is growing in the population strata traditionally considered needy; non-monetary poverty increases. The society is full of welfare mentality; business distances itself from the problem; the state takes on the poverty alone but its efforts and capacity are not sufficient	19,2	12,8	19,5	22,5	18,4	28,6
3.5. Poverty (in its various forms) is growing and embraces wider strata of population despite all visible efforts to combat it. The country has no clear policy of overcoming poverty; all public measures are not only insufficient but often are declarative or sham	12,7	4,8	12,6	11,3	13,6	24,3

Problem 4. **Problem of jobs and reduction of unemployment**

Event	P	A1	A2	A3	A4	A5
4.1. Steady jobs growth based on the flexible policy of job creation due to boosting economic growth, support of business activity, small business development, creating favorable conditions for self-employment	7,9	22,3	10,6	12,2	16,1	4,3
4.2. Jobs growth. Of highest importance is the problem of structural unemployment. The state is trying to resolve the problem together with business (target programs of staff training, resettlement, job creation in the public sector, etc.)	19,5	29,4	21,0	20,6	21,2	12,8
4.3. The situation with jobs and unemployment does not visibly change (by average statistics). Hidden unemployment is growing, there is a higher problem of gender and age unemployment. There is significant interregional differentiation in the level of jobs and unemployment	43,2	29,2	35,5	35,0	32,4	28,9
4.4. Unemployment is high. The jobs problem is one of the most acute. Depressed regions are close to a critical situation. The state is reconciled to this and deals only with consequences trying to support the unemployed with social payments and benefits	18,8	13,6	19,2	21,5	16,7	30,0
4.5. The problem of jobs becomes very acute, unemployment in all its forms is growing. The state does not manage to support the unemployed. The result is growing tension in the society and negative attitude to job migrants	10,6	5,4	13,8	10,8	13,6	24,0

Problem 5. **Problem of living standards and fair income distribution**

Event	P	A1	A2	A3	A4	A5
5.1. There are stable perceptions about fair pay for work and support of non-working population based on the consensus between the society (with active participation of trade unions), the state and business. This creates safe foundation for constant growth of living standards and approaching standards of developed countries	5,5	22,8	10,4	10,0	14,1	3,7
5.2. Moderate growth of people's living standards – mostly due to faster growth in most successful sectors of economy. Pensions, insurance payments, public benefits and non-fiscal support ensure more or less decent standard of living for socially vulnerable layers of population	17,0	26,3	18,9	18,9	20,4	11,7
5.3. Slow growth of people's living standards. The state mostly focuses on redistribution functions trying to resolve material problems of the disadvantaged and socially vulnerable parts of population. Regulation of salaries through minimal wage rates to ensure that working people achieve average standards of well-being	36,6	32,1	35,8	29,9	30,8	21,2
5.4. The standard of living does not grow. Weak public policy in regulating incomes and salaries leads to business being the actual regulator favoring its interests, a large part of 'gray' salary restricts the capacity of filling pension and social funds and, respectively, the size of payouts to not able-bodied population	27,1	13,7	23,8	26,9	19,9	36,1

Event	P	A1	A2	A3	A4	A5
5.5. The standard of living is falling. Slow growth of salaries even in most favored sectors of economy. Failure of public regulatory policy that did not ensure minimal living wage for most working people.	13,7	5,1	11,1	14,4	14,7	27,2

Problem 6. **Problem of social protection of population**

Event	P	A1	A2	A3	A4	A5
6.1. There is a multilink complex system of social protection in the making that organically combines elements of responsibility on behalf of the state, business and population. Insurance investments become one of the most attractive opportunities for saving people's oncomes. Russia becomes a place where nobody feels disadvantaged	4,1	23,6	11,1	10,8	15,3	3,7
6.2. Social protection remains mainly the prerogative of the state and business (employers) with relatively weak participation and interest of the people. The population mostly acts as a consumer of social protection benefits. Nonetheless, social protection has on the whole a rather high level.	18,7	28,3	22,3	20,4	23,4	12,4
6.3. The level of social protection of population is growing very slowly. The systems of social insurance and pension have severe problems due to the deficit of financing that comes exclusively from obligatory insurance payments	39,5	26,9	33,8	32,9	29,4	24,6
6.4. The system of social protection fails to cope with many of its tasks and does not fulfil expectations of people. Bureaucracy is rampant; people encounter numerous obstacles when they try to obtain rightful social protection	26,3	16,8	22,2	23,4	18,6	31,8
6.5. The level of social protection of population is very low, it does not even compensate minimal risks that constitute grounds for receiving social support. The institutional system of social protection displays bureaucracy and corruption, which gives rise to mass discontent of population	11,4	4,4	10,6	12,5	13,2	27,4

Problem 7. **Problem of social sphere development**

Event	P	A1	A2	A3	A4	A5
7.1. The scale and tempo of social sphere development are sufficient to meet the population's reasonable needs. The public and private initiatives are rationally matched. The state provides necessary control over quality of services in all segments of social sphere	6,3	22,6	12,5	12,0	15,9	4,6
7.2. Quite fast social sphere development mostly on the basis of commercial services beyond the generally available minimum provided publicly. Nonetheless, minimum standards are growing. Growth of commercial segment of social sphere rests on rising income of population	16,7	25,0	19,4	17,8	19,8	11,1

End of table 7

Event	P	A1	A2	A3	A4	A5
7.3. Comparatively slow development of social sphere mostly in the public format financed out of insurance funds and budget sources. Minimum services are practically guaranteed to population, whilst complex high tech services are limited in most cases. Private investment into social sphere bear high risks due to limited payable demand for corresponding services	40,4	28,9	37,2	35,5	29,9	27,1
7.4. Disproportions and deficits are growing in the social sphere both geographically and for some types of services. This sometimes causes limited access of population even to basic services creates conditions for rising corruption. The standards of minimal guaranteed services (obligatory insurance) are not improving	24,8	18,0	21,5	22,8	19,5	32,2
7.5. Stagnant social sphere with signs of degradation. Growing disproportions and deficits of generally available services (especially – high quality services, high tech services). Most people may expect only minimal services of low standards as part of obligatory public insurance. High quality paid services are available only to most well-off people	11,9	5,6	9,5	11,9	14,9	25,0

Problem 8. **Problems of Russian "sticks" – villages and small towns**

Event	P	A1	A2	A3	A4	A5
8.1. All over the country, villages and small towns are turning into attractive places for living. The state is playing an active part in this project by stimulating economic growth in "the sticks" (i.e. by supporting small and medium business) as well as via weighted effective financial inflows	4,3	19,5	9,6	10,6	13,6	2,9
8.2. "The sticks" is on the rise in most regions of the country except the most poor and depressed. The center is interacting with the regions but the load is on the regions. The center is helping (financially) weakest and most backward territories	14,1	23,9	16,9	16,7	18,8	9,6
8.3. The problem escapes the attention of the Federal center and falls on the shoulders of regions. A noticeable rise of "the sticks" in some regions that are the most affluent and are trying to resolve the problem in a systematic way. In most parts of the country the state of "the sticks" remains the same – no growth but no degradation either	37,0	27,6	31,7	32,7	29,7	26,4
8.4. Relatively favorable situation in rich regions. In others, "the sticks" is going to the dogs. The situation may be described as "fading away", which is accompanied with evident decline of socio-economic growth in "the sticks"	33,6	22,4	28,5	27,2	22,7	35,1
8.5. Total degradation of villages and small towns following economic stagnation, lack of development prospects, and drain of economically active population. The result of general economic trends and policies towards acceleration of agglomeration processes	11,1	6,7	13,2	12,8	15,2	26,1

Problem 9. **Youth problem**

Event	P	A1	A2	A3	A4	A5
9.1. The efforts of society and the state create conditions for the younger generation like in the song "the young are free to choose anything". There are opportunities for developing social, economic and psychological independence of young people with a high degree of informed responsibility on their part concerning their life choices relative to their personal and national interests	6,6	18,6	10,2	12,3	15,2	5,3
9.2. The principal aspect of the youth problem concerns professional orientation, training and start of work life, career development and economic independence. The leading role belongs to the state with less participation of business and social structures. Young people living in "the sticks" and far from urban areas have fewer opportunities	22,9	28,7	23,3	20,3	21,8	13,4
9.3. Young people encounter various and serious (but mostly superable) difficulties in adapting to life. Structural disproportions in professional training combine with mismatched public (economic needs) and personal interests. The sentiments and behavior of some youth groups bear traces of infantilism. The severity of youth problems largely depends on territorial and class factors	38,5	27,9	33,3	32,4	27,7	25,8
9.4. Many youth problems become hard to solve. High youth unemployment, low level of living (due to low pay and little social benefits), few opportunities for good education. This leads to growing infantilism among broader youth groups and combines with protest attitudes towards the state that does not pay due attention to youth problems	22,4	17,7	20,7	22,4	20,1	29,2
9.5. The problems of social adaptation of young people become critical. Strong differentiation among the young by class and territory. Growing migration of the youth abroad (mostly highly educated) against the background of marginalization of many remaining young people. There is growing infantilism on one side and radical protest sentiments on the other	9,6	7,1	12,5	12,5	15,3	26,3

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