

Problems of Contemporary World Futurology

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Edited by

Vladimir I. Yakunin

CAMBRIDGE
SCHOLARS

P U B L I S H I N G

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INTRODUCTION

This collective scientific monograph is significant for a number of reasons.

It is dedicated to the question that has tormented humankind from the beginning of time: what does the future hold for us?

Futurology is the modelling of human communities, natural and man-made systems, extrapolation and structuralist forecasting. It is a philosophy of time, prophecies and predictions. It is the practically significant prognosis, planning and management of the future. In the field of creative futurology there is even the artistic reflection of the future, in science fiction.

Any scientific modelling is based on the laws of natural development. Different areas of science study these laws, from the social to the naturally scientific. But futurology is an interrogative science, for there is not one sphere of development in nature, organic or inorganic, that would not interest the researcher. Scientific models of futurology occupy the problem field of philosophy, the physical evolution of global and local systems, social forms of life and its evolution, and also the biological evolution of humankind.

Not only are the future configuration of technology and the technocratic space of world development and civilised localities being discussed – but political predictions about the development of geopolitical and geo-economical issues and plans for reconfiguration of the world are being made. The precarious and abstract science of futurology is at the same time the most practically significant.

The questions raised by futurology are founded upon the deep philosophical challenge: is the future predetermined? Or, in other words, is there a subject that possesses true knowledge about the future, that is, a subject that exists outside of time? Ancient knowledge, which is reflected in religion, claims that such a being exists. Modern science, when it protects its true scientific value, is obliged, at the very least, to recognise the legitimacy of such a question. And if we set ourselves a scientific task, then everything else is just how it should be: experiments, theory, explanatory models and practically significant recommendations.

This collective monograph is also significant as it is the first time in modern history when representatives of Russian science have shared with

their English-speaking colleagues' ideas and results in the interdisciplinary field of futurology. We hope that this is just the beginning of such scientific exchange and discussion. Contributors include famous Russian scientists and representatives of a number of scientific schools in Russia.

The monograph is based on the works presented at the Russian Futurological Congress, which was held at the Russian Academy of Sciences in June 2010. Since then, the direction of fundamental evolutionary interdisciplinary research has continued to develop. And this provides the opportunity to develop scientific contacts and exchanges after the publication of this monograph as well.

On the Russian side, this book has been prepared by the Governance and Problem Analysis Center in Moscow (www.rusrand.ru; frpc@cea.ru).

The Center intends to develop scientific contacts and hopes that this book will allow collective scientific initiatives to appear. In turn, it is hoped that such work will help our world advance towards peace and goodness. This is the best contribution to the reality and future of humankind that we are able to give.

CHAPTER ONE:
THE PHILOSOPHY OF THE FUTURE

1. ON THE EXISTENCE AND KNOWABILITY OF THE FUTURE

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It is not easy to talk about the future. It is already doubtful that it exists as a kind of absolute certainty. It is even more difficult to analyse and comprehend the present, in order to make projections about future development. Today, many methods exist for forecasting the future. It seems logical to combine those methods which focus on predictions that are practically significant, that is, on the self-realisation of man, society, the state, and the future of the whole of humanity.

Thus, there exists an axis of time: the present, the past, and the future. And there are a number of facts, which indicate that reliable knowledge of the future may exist in the present. This is so-called timeless knowledge, and it is from here that the key question of futurology arises: “How can we know the future if it has not happened yet?” In practical terms, the possible existence of such knowledge implies the existence of certain worlds, a course of time that is unfamiliar to us, and in which our past and our future are equally known to us. It is impossible to understand this logically, in the same way that it is impossible to construct a reliable forecast for the future based on this idea. But there is a slightly different approach, one that is based on the assumption that the axis of time is singular and indissoluble (Fig. 1).

Today, theoretical physicists are well acquainted with the pulsating universe theory, in which the universe continually expands (from a Big Bang) and then contracts. One can assume that, in some kind of mega-scale space-time, there is an observer – the Overseer – a being able to track these cycles at every stage of their development. Some elements of this theory have been known to humankind for a very long time. We encounter this knowledge in all kinds of occult teachings and esoteric sciences. Within this paradigm of the cyclicalality of a singular point prior

to the original Big Bang, the logical-philosophical notion arises of that point's absolute determinism (Fig. 2).

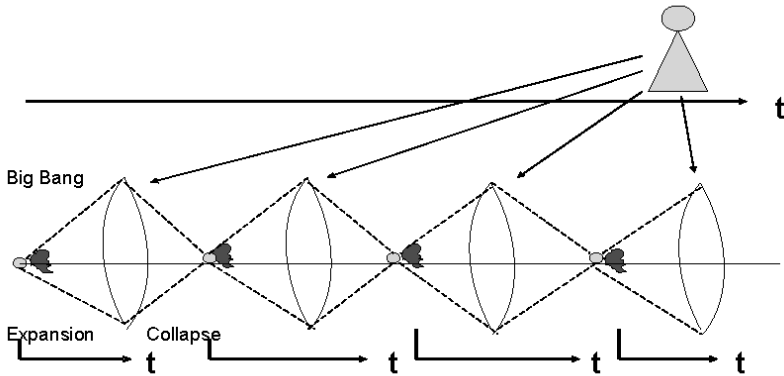


Fig. 1. The axis of time (t) and the Overseer, as the bearer of “timeless” knowledge, and the logical-philosophical basis of the model

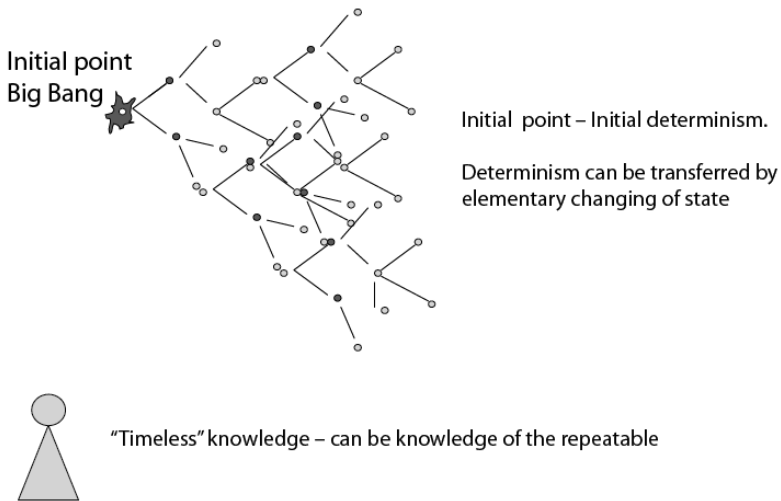


Fig. 2. The problem of deterministic repeatability

Thus, the Big Bang, as expansion, augmentation, as the transition from singularity to multiplicity, may be accompanied by the transfer of determinism in each of these infinitesimal moments of transition. In other words, the hypothesis is based on the idea that timeless knowledge of the future, which sometimes makes itself available to the individual, may be knowledge of the deterministic repeatability of the cycle of human development. The future is known to the observer, because humanity has already gone through the very same moments in the course of its history, perhaps several times.

If we are to accept this logical construction as true, then an entirely different question arises. What do these singular, fleeting moments of timeless knowledge “transfer” depend on? On the will of the Overseer? On the quality of the person who is receiving the knowledge? And can the quality depend on the number of “receivers” that are simultaneously, and inter-connectedly, seeking the same knowledge? Is it possible to gain knowledge about the future by creating a kind of collective intelligence, an intellect network? The Governance and Problem Analysis Center has implemented such a project: an “intellect network” is one of the most important scientific instruments available.

When it comes to the scientific instruments used for forecasting, the question of the connection of time inevitably arises. Is there some kind of clearly defined future state of an object from which the past and present of that object can be known? Is it possible to find this connection? (Fig. 3)

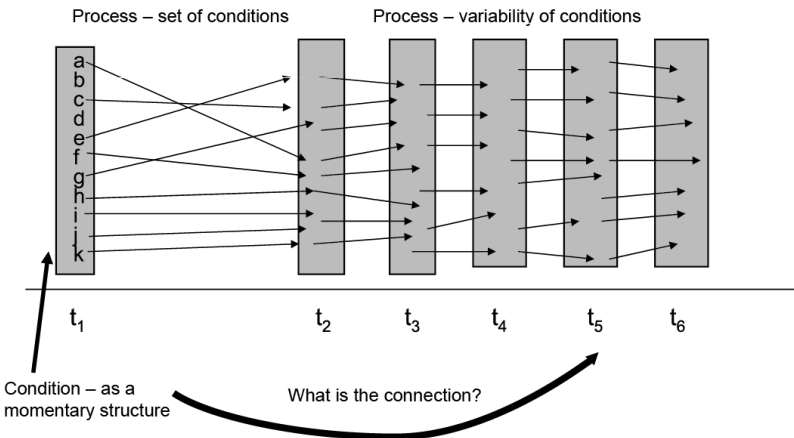


Fig. 3. Model of time connections

Frequently, this connection is formulated in a mathematical model. Of course, it does not give the aforementioned timeless knowledge, but it allows one to make predictions. These kinds of prediction are possible if the original set of conditions is known, and if the possibility to establish a connection with future realisations exists. These regularities are necessary for public administration and management planning.

There are a number of different approaches that allow us to establish patterns between initial events and their possible developments. The simplest of these is the **dynamic method** (Fig. 4).

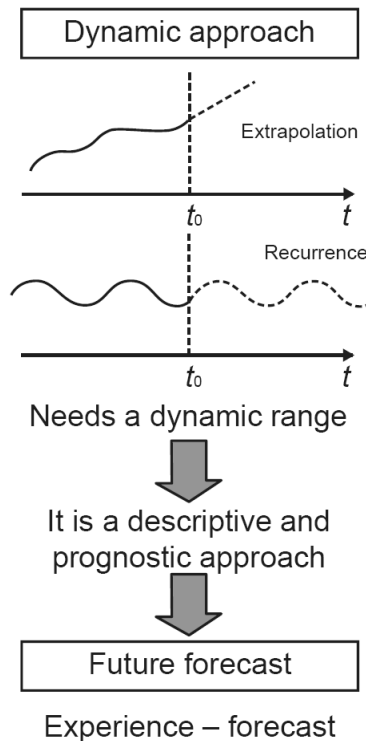


Fig. 4. The dynamic approach to forecasting

This method assumes knowledge of time series and temporal dynamics. It allows one to forecast the future by making predictions based on cycles and similar developments in the past.

This method can be used to provide development scenarios for virtually any social, political or economic phenomenon. By way of

example, we can look at the dynamics of the U.S. dollar against the major world currencies (Fig. 5). From the table it is clear to see that the price of the dollar falls consistently. That is, there is a decline in the profitability of the global currency pyramid, which is the basis for the existence of the American economy. The wavelets on the curve represent the measures for restoration of the dollar's value – a specific administrative practice that the US government has resorted to more and more often in recent times. One can clearly see the reduction in the “turnaround” period (Fig. 5).

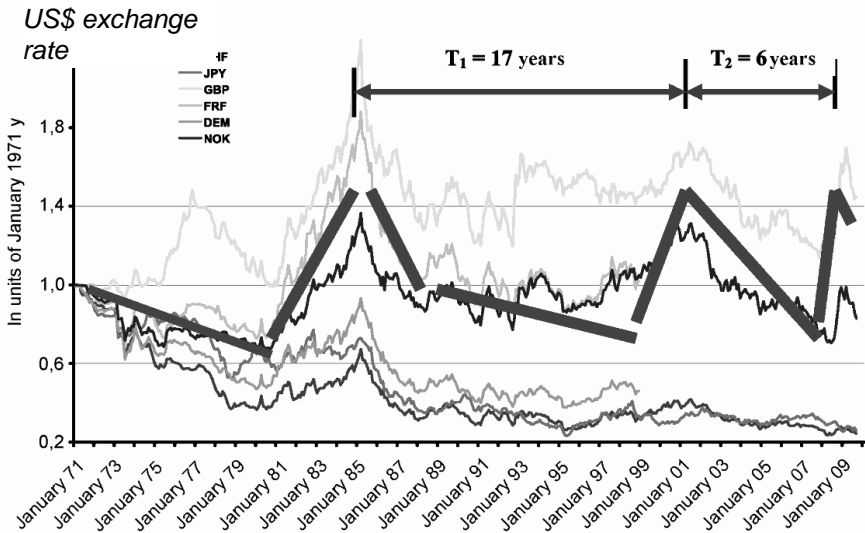


Fig. 5. Periods of artificial restoration of the dollar (in prices of 1971)

Analysis of the duration of these recovery cycles can help us to predict growth of the US dollar, as well as falls in oil prices. The current crisis was entirely predictable. In fact, it is nothing more than yet another restoration of the parasitic world dollar pyramid.

Analysis of the dollar's cycles of appreciation and depreciation, compared with the exchange rates of major world currencies, allows us to fix a time at which the dollar will be in need of continual reconstruction. This, accordingly, will take the shape of a permanent crisis. When the crisis “repair work” ceases to have an effect, the system will no longer be able to exist. The American dollar will collapse.

The next set of approaches to forecasting is the forming of so-called **phenomenological models**, based on dynamic experiential series and the

use of correlation and regression relationships. Not only does this method allow us to see the causal relationship between controlled parameters and control objectives, it also allows us to determine the direction of causal links – to understand that there is a reason and there is a consequence.

Here is an example of a multivariate regression model for the management of a country's economic development (Fig. 6).

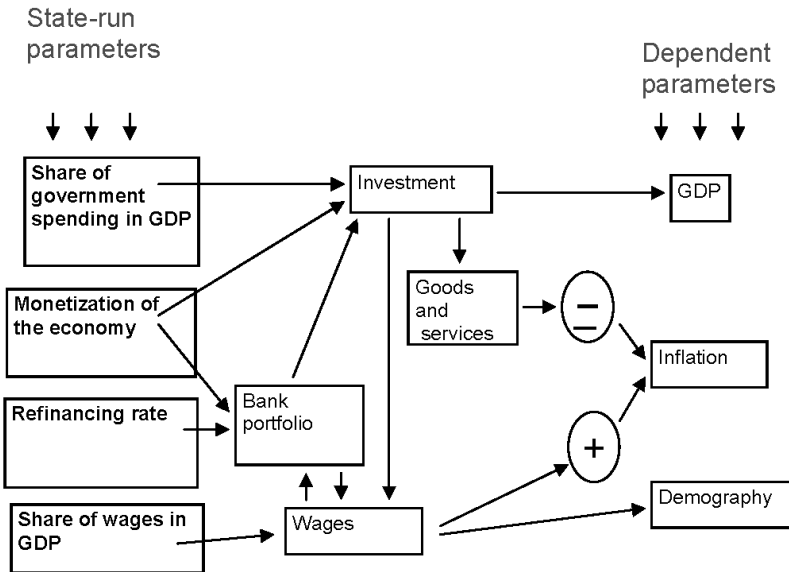


Fig. 6. Model of economic governance

The state is interested in a high GDP, low inflation, and a favorable demographic situation. The state has some definite means for these parameters to come into effect – a share of government expenditure in GDP, share of wages, etc. Regression analysis clearly shows that the GDP rate is dependent on the refinancing rate and the monetisation of the economy (Fig. 7).

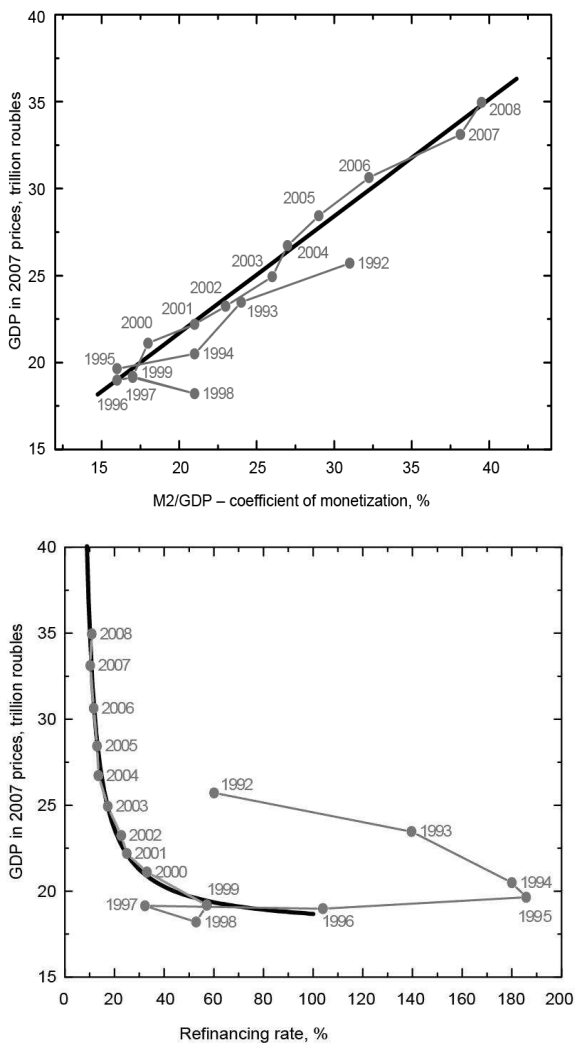


Fig. 7. Regression analysis. The dependence of the GDP on the refinancing rate and the coefficient of monetisation

The current Russian state policy for the management and development of the economy *contradicts* the very idea of Russia's development. But, if the controlled parameters – the refinancing rate, monetisation, and share of government spending in GDP – are adjusted in accordance with the needs of the country (Fig. 8), then the optimal level of success can be achieved.

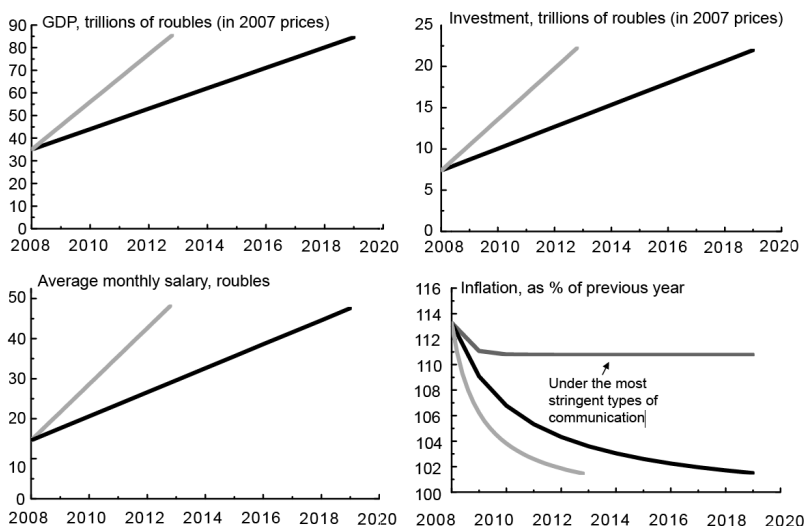


Fig. 8. Projected development for adjusted economic parameters

As a result of intelligent modernisation – modernisation that is not illusory, and follows the aims of development – GDP may grow more than twofold, and investment and wages threefold. Besides the **dynamic method**, the **structural method** can be used to predict a series of complex models of social systems. This method is based on the idea that instantaneous (non-dynamic, structural) distribution of parameters is responsible for future development in the broadest sense (Fig. 9).

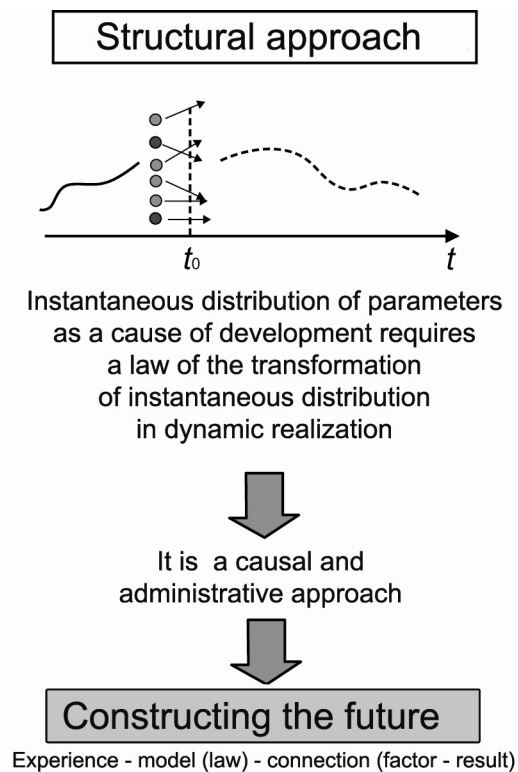


Fig. 9. The structural approach to forecasting

This method came to the humanities from the exact sciences. In physics, it is well-known that the instantaneous frequency spectrum (of television or radio frequencies, for example) defines the subsequent temporal development of the process (Fig. 10).

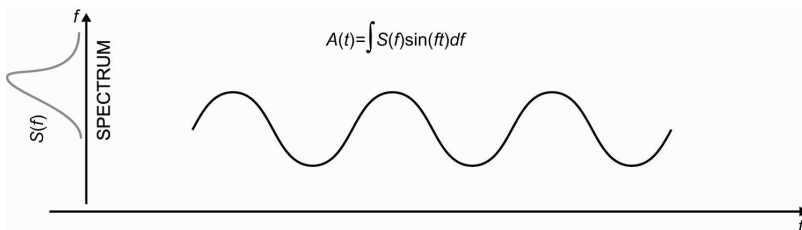


Fig. 10. Instantaneous frequency spectrum and temporal development of the process

It is not always possible to see such ideal harmonious processes in complex social systems. This is primarily because the nature of social development involves a number of factors. The harmonic nature of social processes is expressed very weakly, camouflaged by the complexity of the process (Fig. 11).

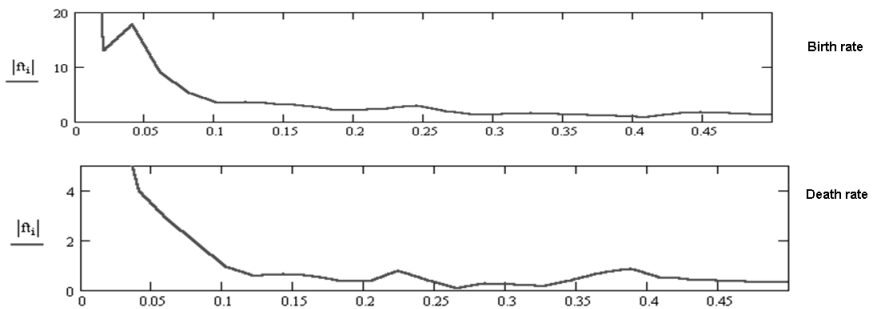


Fig. 11. Fourier spectrum of the processes of variability in Russia's birth and death rates

Often, researchers' attempts to demonstrate a particular cycle are false or misleading. They resemble numerology more than they do attempts to identify the nature of the cycle. But when there are only two interacting social energies (a struggle of opposites), such a harmonious cycle is observable very clearly (Fig. 12).

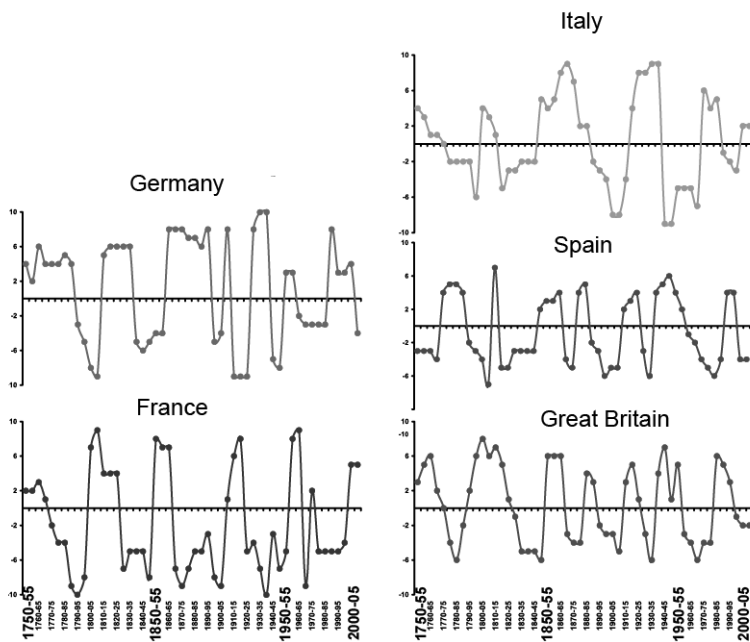


Fig. 12. Dynamics of public administration focus pro- and contra-civilisation identity for European countries (x – years, y – relative units)

In studies of pro- and contra-civilisation identity in the history of Russia and European countries, the Fourier spectrum shows stable peaks which allow us to interpret the nature of these processes.

An analogue of the Fourier spectra is the introduction of the political sphere into the scientific field as the quantitative proliferation of political preferences in society, which may also be responsible for temporary development.

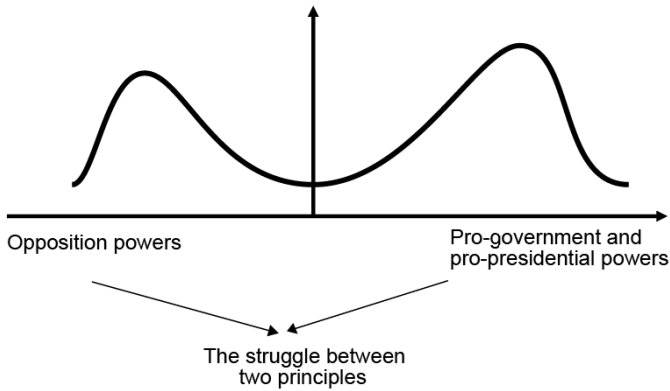


Fig. 13. Model political spectrum

Research of this parameter for the State Duma shows complex dynamics (Fig. 14).

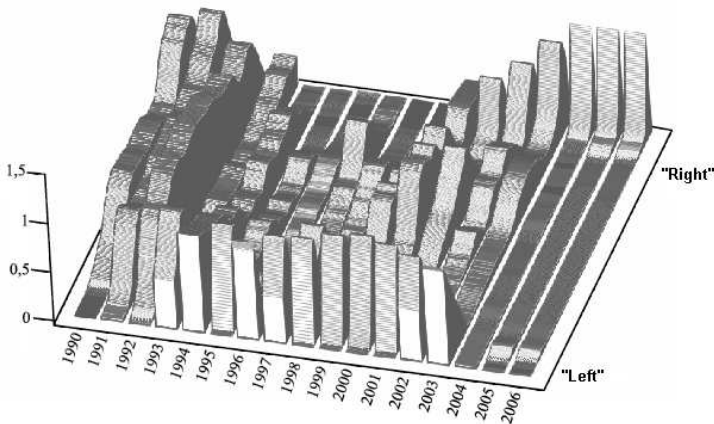


Fig. 14. The evolution of the Russian political spectrum (sociology of the State Duma) (Z – political position, Y – relative units)

We may introduce another significant parameter into this methodology – the so-called power of incentive of a country. That is, the willingness of a society to respond to political, social and economic events and

phenomena. At such moments, social activity is put on hold intentionally, and goes beyond the limits of the optimal political spectrum (Fig. 15).

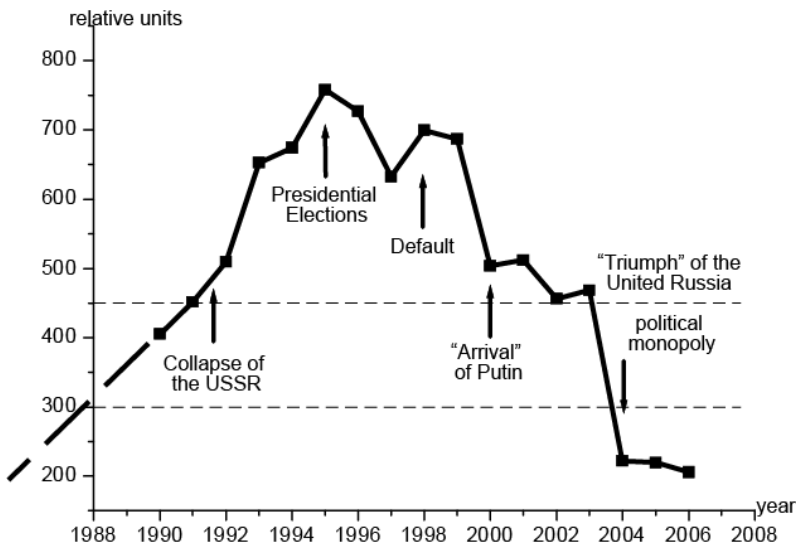


Fig. 15. Social activity and the optimal width of the political spectrum (horizontal corridor, within the dotted lines) (Y – relative units)

This is very dangerous, because optimal results can be achieved only by not exceeding the limits of the optimal width of the spectrum (Fig. 16).

The graph shows that economic growth is achieved at a specific point of the spectrum that is optimal for successful development. The forecast is, thus, clear – if the long-awaited public-private management of these processes is not considered. If the current extreme-liberal model continues to be implemented, then the freezing of society, the contemporary crisis of “not thinking” about the year 2020 will reach its peak and turn on its head, leading to an opposite kind of crisis – the crisis of “madness”.

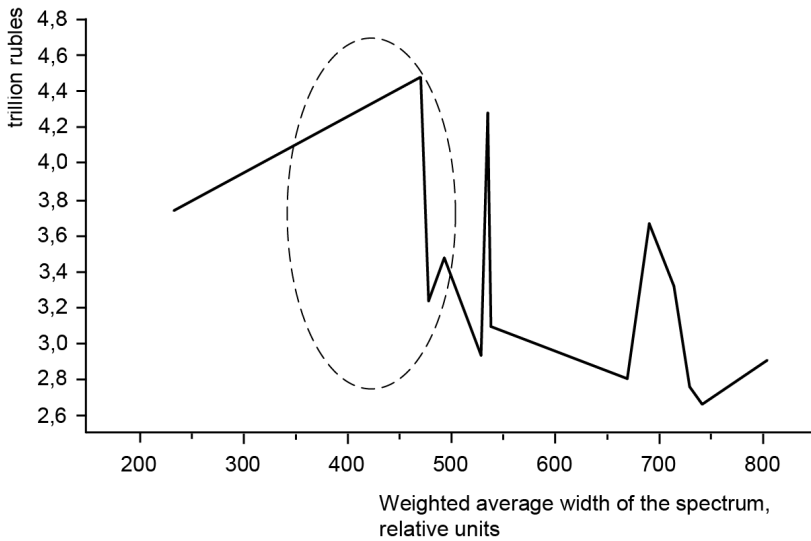


Fig. 16. The connection between the width of the political spectrum and the parameters of development. GDP

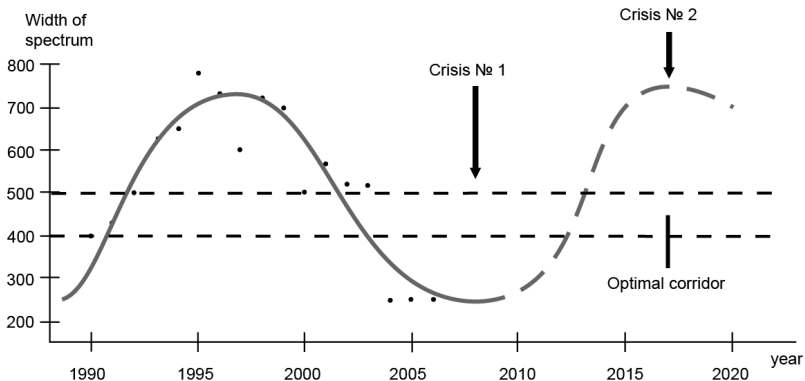


Fig. 17. The predicted effects of the modern folding of the political spectrum

The structural approach allows us to build complex deterministic computer models. These constructions prove that it is more than possible to achieve capitalised economic growth, that is, without inflated oil prices.

It is also possible to increase wages twofold, and to reduce the funds rate (the level of social stratification) threefold (Fig. 18).

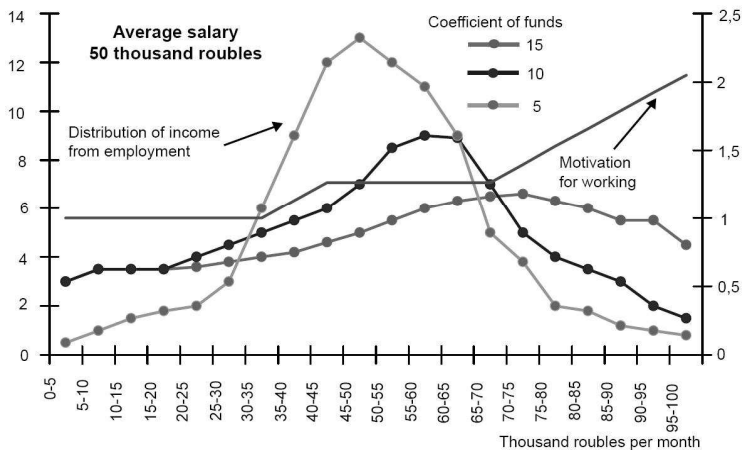


Fig. 18. Predicted impact of increased wages and lowered level of social stratification

If these measures are adopted, then GDP will grow and the level of inflation will fall.

Another approach to forecasting is the as yet little-studied method of network intelligence. This method has already proven to be extremely productive in digitising weakly-formed parameters. This method in particular has provided an historical evaluation of a population's social activity (Fig. 19).

The precision of this method is entirely measurable, and its authenticity can be verified. Figure 19 shows the level of political activity in Russia over the last 250 years and the forecast for the next century. The peaks of social explosions are found in 1905, 1917 and 1991. A similar peak is predicted for 2021. If the current model of governance in Russia persists, then the country can expect a tough, comprehensive crisis of modernisation. The chart also shows the so-called viability coefficient of

Russia. The indicator tends towards zero in 1917 and 1991, when our country was disintegrating, like a dying organism. In this inverse relationship of social activity and viability it is clear that wild bursts of destructive social powers could lead to yet another collapse of Russia. But these social explosions may also bring modernisation to the country: within a deeper historical context it is clear that society, as a harmonious social system, strives towards the best possible state. And it often happens that this state is achieved precisely through certain crises (Fig. 20).

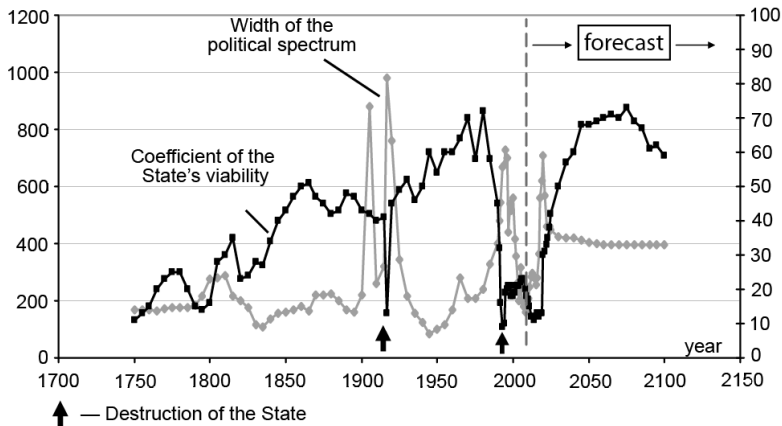


Fig. 19. The dynamics of the coefficient of a country's viability and the social activity of the population (Y – relative units)

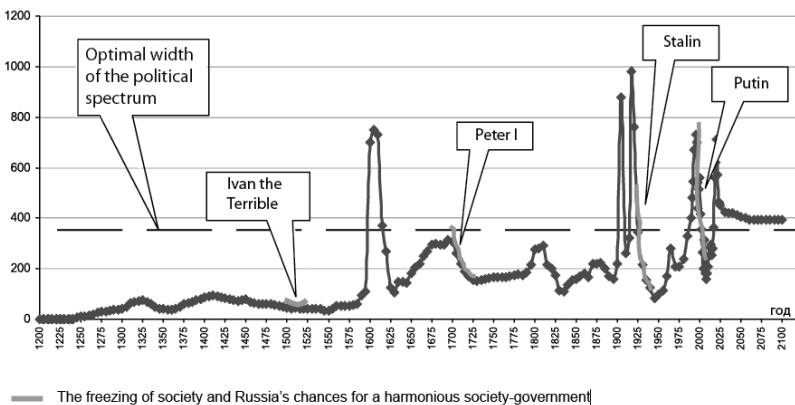


Fig. 20. The dynamics of political activity in Russia and the ideal value of the political spectrum (Y – relative units)

The Governance and Problem Analysis Center has developed forecasts based on this methodology for socio-political and economic developments in Russia and abroad.

Liberalism, the basis for US politics, will end badly for the country, whereas Russia, if it builds on the foundations of community, spirituality and hard work, has a much greater historical chance of surviving (Fig. 21).

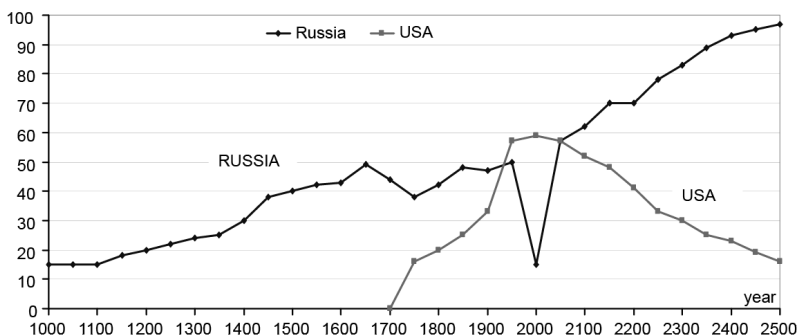


Fig. 21. Viability coefficient of Russia and the USA (Y – relative units)

It is obvious in predictions for other countries, that some of those which are currently thriving face real threats in the future. But the prospects for Russia are quite optimistic (Fig. 22).

In the coming millennium we will see the convergence of civilisations. At the current stage, we are passing through the so-called civilisational melting pot (Fig. 23).

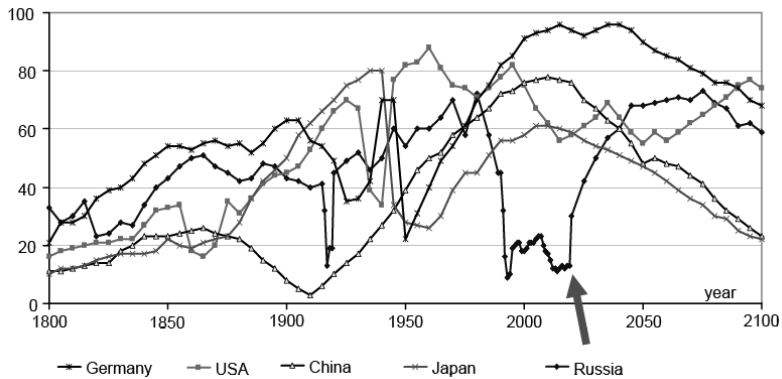


Fig. 22. Viability coefficient of Russia and other countries (Y – relative units)

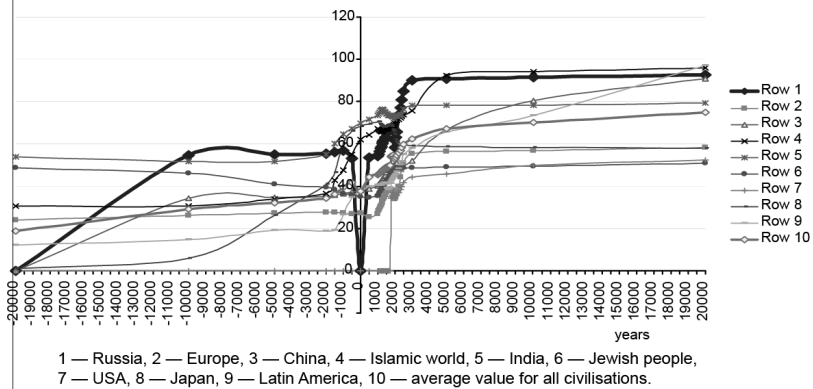


Fig. 23. Dynamics of the development of the civilisational value package (set of values peculiar to a particular civilisation) of developed countries (vertical value represents the expression of an average package of behavioural values)

Right now, viability and civilisational identity in Russia are tending downwards, but all forecasts point towards the existence of a certain point and certain features, the overcoming of which will see Russia on the road to recovery (Fig. 24).

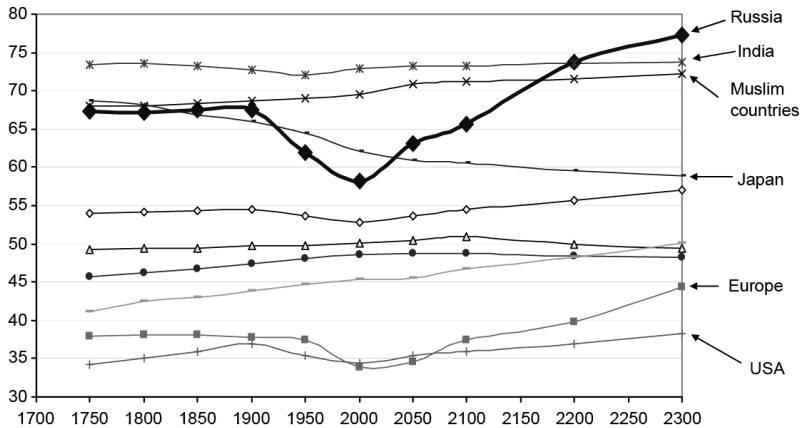


Fig. 24. Forecast of the civilisational value package of countries in the developed world

So, according to the results of our forecast, Russia will continue to exist as a non-sovereign, unsustainable model of a country for another ten years or so. But there is hope that, around the year 2021, as a result of a large-scale socio-economic crisis, the country will change into a more successful one. This prediction, obtained using specific scientific methods, is not timeless knowledge based on the cyclical nature of all things. But it nevertheless provides hope for a speedy recovery of the Russian state and allows us to believe in the restoration of reasonable mechanisms of public administration.

2. THE ONTOLOGY OF THE FUTURE

A. G. DUGIN

DOCTOR OF POLITICAL SCIENCE

Is there a future? The question is a legitimate one, because it provokes thought about the ontology of time. What is or is now, precisely because of being now, is considered as being, according to a multitude of direct empirical perceptions. Or it was, and the fact of past existence is certified by reliable documents. But forgery is possible in both cases. The being of that which is only to be, is highly questionable.

Martin Heidegger spoke about the three ecstasies of time: the past, the present, and the future.

Apparently there are three ontological arguments relative to these three ecstasies of time: immediate (there is/there is not), related to the present; documented (there was/there was not), related to the past; and probabilistic (there will be/there will not be), related to the future. It seems that we can create a hierarchy based on the evidence: there is, there was, there will be. “There is” is most evident. “There will be” is most doubtful. “There was” is in the middle. The future is the most uncertain among the three ecstasies of time. It is on a lesser scale compared with “there is” or “there was”. Concerning the future, one never knows. It could happen but probably will not. The future lacks the sense of being that can be attached to the other ecstasies of time.

From this point we can proceed in different directions. For example, we could put into question the solidity of ontological arguments concerning the most evident moment – the present. Recalling Kant and his doubts about the inner being of the object, we note that the perception of an object is not enough for the declaration of that object’s being (the Ding-an-sich problem). It is not pure reason, but only practical reason, that gives being to an object – based on the moral imperative. The object should have being. It is good when it has it. It has to have it.

If the status of the present as the most evident of all moments of time can be challenged thus, we arrive at an interesting point: all three moments of time are ontologically improvable and unverifiable, and they concern only the gnoseologic level. This is pessimistic concerning the present,

whose reality we habitually take for granted, but rather optimistic concerning the two other moments – the past and the future. The past and future acquire equal rights with the present; for pure reason, the present, past and future have equal phenomenological value. The future in this case is the phenomenon, and therefore phenomenological. And, being the phenomenon, it is real.

Kant, analysing the *a priori* forms of sensibility, places time nearer to the subject, and space nearer to the object. This indicates that time orbits the subject more closely. Time is hence subjective; it is the transcendental subject who installs time in the perception of an object.

Now let us change perspective and consider time in a phenomenological way. Husserl proposed that we use the example of music to help understand time. The consciousness of hearing a piece of music is not based on the strict identification of each note as it is played in a concrete and discrete moment. Hearing music is more than hearing the note that sounds now, in the present. The consciousness of musical perception is such that we recall past notes as they dissolve, little by little, into nothingness. Their resonance, their echo, continues in our consciousness and gives the musical phrase its aesthetic sense. Husserl calls it “the continuous instance”. The past is present, in the present. Thus the present becomes continuous, and it includes the past as a vanishing presence.

This is the methodological key to understanding history. History is the awareness of the past’s presence in the present. Vanishing events continue to play in the recalling of them. Clio and Polyhymnia are sisters. This recalling is necessary to give sense to the present. The anamnesis of Plato has the same function; the soul recalls its hidden past in order to reconstruct the wholeness of destiny’s melody. Only thus can it play (be played) harmoniously.

So the future should be placed in this context. It is the continuous present. Not the moment of “novum”, but the process of the vanishing present, that is now. The future is the tail of the present, its resonance. We live the future just now, already now, when we play the note of the melody of life. The future is the process, the dying present. It is the dissolution of melody in the mainframe of harmony. The “novum” appears in the future only when this harmony is lost, when our attention falls asleep only for us to wake suddenly, unable to identify the sounds we hear. For a moment they simply do not make sense. That is the “novum” – the spontaneous incomprehension of what is going on. This is the nature of the discrete, discontinued event, the moment that exists without history and, therefore, without sense.