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Afterword to the Interview That Took Place More Than Thirty Years Ago*

Sergey L. Komlev

Gazprom Export

Abstract

The article reproduces the text of the author's interview with A. A. Konyus, Doctor of Economic sciences, which took place in the late 1980s, during the years of perestroika and glasnost when it became possible to return the undeservedly forgotten names of Soviet economists who had become victims of political repression. A. A. Konyus shared his memories about the activities of the Institute of Conjuncture of the People's Commissariat of Finance, which in the 1920s was headed by N. D. Kondratieff. The Institute set itself the task of studying the conjuncture of the world and domestic economy in order to control spontaneous processes in the economic life and in the sphere of financial regulation of the country with the help of dirigiste methods. Special attention was paid to the methods of constructing indices of 'free' market prices.

Keywords: *economic history of the USSR, research of world market conjuncture, scientific planning and forecasting in the USSR, dirigism in the USSR, price indices in the USSR, economic heritage of N. D. Kondratieff, Soviet economists during the NEP.*

This conversation with Aleksander Aleksandrovich Konyus, the only living at that time researcher of Kondratieff's Institute of Conjuncture of the People's Commissariat of Finance of the USSR, took place in 1987.¹ I came to his apartment on Taganka after spending almost a year working at the Central State

* See Komlev 1991: 163–180.

¹ At the end of the 1980s, another member of the Institute of Conjuncture, L. S. Cherkassky, was alive; in the famous photo given to me by A. A. Konyus he is standing next to him. Cherkassky was not a researcher, but in fact he looked after his colleagues as a representative of the First Department. I travelled to Vitebsk to meet him. But we did not have a meaningful conversation: the NKVD veteran asked me to leave him alone.

Archive of the National Economy, where I was studying archival documents of the Institute of Conjuncture while preparing the first edition of N. D. Kondratieff's selected works in the academic series 'Economic Heritage'. In the late 80s, the names of forgotten economists began to return to the scientific discourse, and I, then a senior researcher at the Institute of World Economy and International Relations of the USSR Academy of Sciences, was actively involved in this process, initiated, in turn, by the Institute of Economics of the USSR Academy of Sciences. This interview is essentially the result of several months' dialogue with A. A. Konyus, during which my interviewee, who was at that time over 90 years old, recalled more and more new details of the events of 60–70 years ago.

The text of the interview is reproduced in the form in which it was published in 1991. In the content of the conversation, the reader will easily find the ideas characteristic of the late perestroika period. The Soviet Union had not yet disintegrated, and Lenin was seen as the wise founder of the state, not as a 'villain' or a 'German spy'. There was an illusion of a peaceful transformation of socialism into capitalism with a 'human face' without the repetition of another 'great crisis', which remained an illusion. And precisely because modern economic science has not found adequate answers to the questions that worried N. D. Kondratieff and his colleagues in the 1920s, the experience of the Institute of Conjuncture has not lost its relevance today.² What is remarkable about this experience? Probably because the Institute of Conjuncture is an unrivalled example of synthesis of applied and fundamental economic science in Russia. The solution of the practical problem of 'measuring the purchasing power of money' in the realities of the Soviet economy was combined with and enriched by global research. Researchers faced a giant challenge: nothing less than mastering the spontaneous and destructive forces of the market, not by destroying it, but by understanding its regularities, anticipating them and using mechanisms of state regulation to minimize negative consequences. Kondratieff relied on the best achievements of the world economic thought of the time, but preferred to follow his own path, which, naturally, did not lead to subservience to patterns imposed from the outside. Finally, the founder of the Institute was not afraid of the distinguished staff, each of whom was an outstanding personality. Contrary to popular belief, like attracts like.

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The times when scientists and whole schools were expunged from Soviet science are irrevocably gone. Blank pages of its history, in particular, of the history of economic science are a reminder of them. In the 1920s the Institute

² How, *e.g.*, to explain the global crisis of 2008, the consequences of which the world economy cannot overcome to this day? N. D. Kondratieff would certainly not ignore the question of why the financial system in post-Soviet Russia has been functioning in isolation from the real economy for the last quarter of a century.

of Conjunction, the country's largest at that time scientific institution for the study of the Soviet and world economy, wrote bright but for many years forgotten pages in the history of science. The Institute was headed by an outstanding scientist N. D. Kondratieff. Such prominent Soviet economists as A. L. Weinstein, Y. P. Gerchuk, I. N. Zhirkovich, M. V. Ignatyev, L. M. Kovalskaya, A. A. Konyus, I. N. Leontiev, D. I. Oparin, T. I. Rainov, E. E. Slutsky, N. S. Chetverikov, N. N. Shaposhnikov, B. E. Shprink, and N. V. Yakushkin fruitfully worked within its walls.

In the majority of modern economists the mention of the Institute of Conjunction can at best be associated with the one-name institute of the Ministry of Foreign Trade of the USSR in Moscow. We will not find this Institute in the last four-volume encyclopaedia on political economy, which was published in the 1970s. However, during the NEP years it was one of the leading centres of Soviet economic thought. Kondratieff managed to unite a group of scientists, which left a noticeable trace in the national science and can rightfully be considered its pride. The works of the Institute already in the 1920s received international recognition. For example, its activities were reflected in the fundamental study on the history of world economic thought by J. Shumpeter (1954: 1157–1158).

The fate of the Institute of Conjunction and the school of Soviet scientists formed around it reflected all the dramatic events of the period of the 1920s. Solving the most complex problems of building a socialist economy, the school of N. D. Kondratieff³ put the best achievements of world science at the service of this building. It is natural that this school was the first to oppose the illusion of all-permissiveness in the economy, and gave a detailed criticism of voluntarism in planning and the emerging administrative-command system. It is also logical that it was one of the first to suffer the blows of this system.

In order to determine the extent of the losses experienced by economic science in the late 1920s – early 1930s, it is necessary, abandoning the political labels of the Stalinist times, to give a strictly scientific assessment of the legacy of the school of the Institute of Conjunction. Today, Soviet science is making the first steps in this direction, which became possible as a result of the judicial rehabilitation of scientists.

³ The notion of the 'Kondratieff school' became widespread in the late 1920s and was a kind of label, and indeed, an indictment of 'pests' and 'agents of a class alien line' in the case of collectivization and industrialization. The Kondratieff school in this sense was a collective term which included agronomists with pre-revolutionary experience, zemstvo statisticians, engineers of former and other 'experts' who could at any moment be exposed as members of mythical counter-revolutionary parties, bureaus and unions. Historians have yet to find out why exactly N. D. Kondratieff was chosen by the organizers of the falsified trials to be the head of the non-existent Labour Peasant Party. In this case, we are talking about the Kondratieff school in the scientific sense, institutionally formed around the Institute of Conjunction in Moscow.

The revival of interest in N. D. Kondratieff and scientists of his circle is not only a tribute to undeservedly forgotten names. Kondratieff's school is the lost component of Soviet economic science, by which it was inextricably linked to the world and the best examples of pre-revolutionary economic thought. Therefore, mastering the heritage of this school is a step towards overcoming the autarkic tendency in the development of Soviet science.

Kondratieff school is characterized by a high scientific culture, which manifested itself in a deep understanding of the nature of self-regulating processes in the economy, the development of methodology for market research. Revival of this culture is a prerequisite for the successful implementation of radical economic reform.

This interview covers little-known pages of the history of economic science in the 1920s. The interviewee is one of the elders of Soviet science Aleksander A. Konyus, Doctor of Economic sciences, member of the editorial board of the international statistical journal *Metron*, honorary doctor of political economy at the University of Munich, fellow of the International Econometric Society. A. A. Konyus was born in Moscow in 1895.⁴ In the 1920s he was an employee of the Institute of Conjuncture of the People's Commissariat of Finance of the USSR. The interview is led by Sergey Lvovich Komlev, Candidate of Economic Sciences, Senior Research Officer at the Institute of World Economy and International Relations of the USSR Academy of Sciences.

S. K.: Aleksander Aleksandrovich, your scientific activity began in the 1920s in the famous Institute of Conjuncture, often called 'Kondratieff Institute' after the name of its founder. What led you there?

A. K.: Of course, in the early 1920s, the number of scientific institutions dealing with economy was not as large as, say, it is now. But it was not only this circumstance that determined my choice. Despite his youth, N. D. Kondratieff was already an important figure in the scientific world in the early 1920s, and it was, to say at least, honourable to work with him. Of course, I accepted his proposal to become an employee of his institute, which was expanding at that time with the transfer to the USSR People's Commissariat for Finance, without hesitation. I worked at the Institute of Conjuncture from the beginning of 1923 until it was finally disbanded.

However, I would like to clarify that my scientific activity began even before I came to Kondratieff, during my years of study at the Cooperative Institute. Its full name was the Cooperative Institute at the Council of All-Russian Cooperative Congresses. This institution was established in the first years of Soviet power in Moscow, famous Russian co-operators such as S. N. Prokopyov, A. V. Merkulov, S. L. Maslov, and A. A. Rybnikov gave lectures there. I was lucky enough to meet here A. V. Chayanov. I always considered myself

⁴ On 5 April 1990, A. A. Konyus passed away.

as his student, although there was a time when it was considered reprehensible to say his name aloud. I still have one of my works with his remarks. At the Co-operative Institute I got acquainted with N. D. Kondratieff, who taught one of our special courses on the economics of flax-growing.

I graduated from the institute in 1920, and in the same year it was closed down, so that the first graduating class was also the last one. Some of the Institute's teachers emigrated at that time. Both Kondratieff and Chayanov had the opportunity to leave the country, but they believed that they belong to their homeland, and probably they could not imagine their lives without it. Kondratieff soon began teaching at the Petrovskaya, now Timiryazev, Agricultural Academy, where he founded the Institute of Conjuncture in 1920. Until 1923 it was essentially a small scientific laboratory, which existed due to the enthusiasm of its staff. Chayanov also taught at the Academy. In addition, he guided the work of the Higher Seminar of Agricultural Economy and Policy, as they say now, on a voluntary basis. The seminar used to be held in Moscow, on Tverskoy Boulevard. Together with numerous audience members, scientists with various views and convictions were invited to the meetings of the seminar. S. G. Strumilin together with B. D. Brutskus⁵ also were there. After the Co-operative Institute I worked as a statistician and at the same time tried to attend all the sessions of the seminar, which were extremely interesting. Subsequently, Chayanov's Research Institute of Agricultural Economics, no less famous than Kondratieff's, was formed from the students of this seminar. My classes with Chayanov attracted Kondratieff's attention, and soon followed the proposal I have already mentioned.

S. K.: You had been working together with N. D. Kondratieff for several years. Tell us what was your head of the institute like?

A. K.: A lean man with short stature – that is how I remember him. He always stayed confident, as befitted a professor. His judgements were direct, often harsh, although this harshness came from a genuine interest in the work to which he devoted himself. In spite of an enormous workload, he was always open for communication.

When I entered the Institute of Conjuncture, Kondratieff was just over 30 years old. Many of his staff was much older than their head. Of course, his authority was created not by years and not by his position. He was a special versatile scientist, the author of unique research in sociology, theoretical economics, statistics, and philosophy. He was well-versed in mathematics. Even in prison he tried to keep up with the new ideas that appeared in mathematics. I judge this by the fact that through his wife, Evgeniya Davydovna, I sent him mathematical literature. At one time he was very interested in A. A. Markov's latest book *Probability Theory*.

⁵ Boris Davidovich Brutskus (1874–1938) was a Russian economist, professor. After the revolution he was the editor of the journal *Ekonomist*. In 1922 he was exiled from the country.

He was a man of great energy, the centre around which the whole life of the Institute revolved. As the head of the Institute, Kondratieff directly guided the work of its sections and took on the most difficult issues. He was best known for his high scientific culture: I do not know of any case when he would put his signature under someone else's work or misappropriate the research results of his staff. Speaking on behalf of the institute with reports, he always mentioned the personal contribution of each participant of this or that development.

It is also worth mentioning that he worked with full dedication, which only a person who is passionate about his work is capable of. Running the Institute, which was considered large at that time (it had about 50 employees) occupied most of his time. In addition, he gave lectures at the Timiryazev Academy and worked at Zemplan under the People's Commissariat of Agriculture. I remember, in a conversation with Kondratieff, I complained that scientific activity is possible only when a scientist is in the conditions of special comfort. 'Learn to work in any conditions', he replied to me, 'I have acquired the habit of thinking over my ideas even when travelling with a coachman'.

S. K.: What practical tasks did the Institute of Conjuncture face?

A. K.: At the end of 1922, as a result of the monetary reform, chervonets was put into circulation. Therefore, the main task facing our institute as a division of the People's Commissariat of Finance of the USSR was to monitor the stability of the new currency. For this purpose, of course, it was necessary to make qualified observations of the conjuncture. This task was set before us by the then leadership of the People's Commissariat headed by G. Y. Sokolnikov. It was largely on his initiative that the Institute of Conjuncture changed its residence and moved to Ilyinka 9, to the building that is now occupied by the USSR Ministry of Finance.

S. K.: In a letter dated 2 May 1922, addressed to G. Y. Sokolnikov, V. I. Lenin stressed that the conditions of the 'speculative market' necessitate the organization of operational control over the ratio of emission and price growth (Lenin 1970b: 178). It can be assumed that by inviting Kondratieff and his colleagues to work in the People's Commissariat for Finance in January 1923, the new People's Commissar thus fulfilled Lenin's instructions.

A. K.: This was probably the case. I would only add that V. I. Lenin, having turned the country towards the NEP, was well aware that the management of the national economy would require statistics that would clearly reflect all the dynamics of its development. In 1921, at least three times – in letters to the State Planning Committee (Gosplan), the Central Statistical Administration and the editorial board of the newspaper *Ekonomicheskaya Zhizn* – Lenin pointed out the urgent need to calculate index-numbers for this purpose on the model of foreign ones. In a letter of 1 September 1921 to the editors of the newspaper *Ekonomicheskaya Zhizn*, Lenin insisted on 'the elaboration of an index-number

for determining the general state of our national economy' and its monthly publication (*Idem* 1970a: 114; 1970c: 214; 1970d: 122–123). One should note that Lenin paid such attention to indices for a reason: they were a novelty and there was almost no experience with them. Even the very notion of 'index' had not yet become generally accepted. However, before the First World War, the former Ministry of Industry and Trade had begun to calculate wholesale trade indices and to publish them in the 'Summary of Commodity Prices'. But that was probably all.

S. K.: In 1901, Lenin translated a book by the English socialists Sidney and Beatrice Webb, which mentioned A. Sauerbeck's price indices. For the Russian readers, who at that time had no idea about indices, Lenin provided the translation with a special commentary in which he explained their essence in a popular way (Lenin's... 1980: 20).

S. K.: In 1920 N. D. Kondratieff and his colleague at the Institute of Conjunction, Lyudmila Marianovna Kovalskaya, began to calculate the first retail price index after the October Revolution, and apparently in the history of the country, which was later published. In the spring of 1922, regular publication of indices began in *The Economic Bulletin of the Institute of Conjunction*. It covered wholesale price indices: for Moscow large, for 98 goods, and small, for 39 goods, and retail price indices for private trade.

From September 1921 to June 1924, the Institute of Conjunction calculated the All-Union free retail price index for 15 goods. Subsequently, this index was replaced by a more advanced one. The publication of statistical materials was accompanied by analyses of the conjuncture, which were prepared both by the Institute's staff and by specialists invited for this purpose. By the divergence of the large and small Moscow indices, which had a different composition of goods, it was possible, in particular, to judge the movement of the relative price level of industrial and agricultural goods, that is 'the scissors crisis' of prices. Special sub-indices for these groups of goods began to be calculated due to the new price index.

S. K.: The works of N. D. Kondratieff and L. M. Kovalskaya were appreciated by Soviet statisticians of those years. Thus, about the calculation of the retail price index for Moscow (1920) and the All-Union index of private trade (1921), the Soviet economist S. P. Bobrov wrote, 'Under the conditions of an intensively falling currency, disorganized economy, and unsettled apparatuses, these were almost heroic attempts' (Bobrov 1925: 22).

The special importance which Kondratieff attached to retail price indices was due to the fact that he considered them as the most sensitive indicator of the conjuncture for the Soviet economy of those years. In contrast, when studying the dynamics of the economy of capitalist countries, he regarded wholesale price indices as a more important tool of analysis.

A. K.: Yes, largely due to retail price indices, the activities of the Institute of Conjuncture have acquired extremely important practical significance. For example, the all-union index of retail 'free' prices was included in the system of three main indices of the national economy of the USSR. In addition to the retail price index, it contained the wholesale index of the Gosplan (the State Planning Committee) and the budgetary price index of the Bureau of Labour Statistics which, unlike the retail index, involves only goods included in the worker's ration.

Given the importance of the work on the retail price index, the People's Commissariat of Finance, even before the Institute of Conjuncture became subordinate to it, gave the Institute the information of local financial authorities. They reported to the Institute the prices of about 50 cities. Although the Institute itself remained a purely scientific institution, the materials prepared by it were often used to justify various economic policy measures. The transition of the Institute of Conjuncture to the People's Commissariat for Finance of the USSR gave official status to the practical side of its activities and considerably strengthened it. At the same time, the Institute retained its real autonomy, primarily in the choice of research areas.

S. K.: I admire the insight and scientific courage of N. D. Kondratieff. After all, he seriously undertook the study of the conjuncture in October 1920, that is, at a time when the turn from war communism to the NEP was not yet foreseen, when, according to the figurative expression of A. V. Chayanov, 'there was no market conjuncture other than Sukharev's' (Chayanov 1926: 254). The history of the emergence of the Institute of Conjuncture is a vivid example of the advance that we expect from our economic science today.

A. K.: Do not forget that during the years of the First World War, the Civil War, and the intervention, the country's monetary economy fell into such disorder that the growth of high prices took on the scale of a national disaster. For a scientist at that time there was no more responsible task than to find ways out of the crisis. This is how Kondratieff understood his duty. Therefore, he did not need instructions from above to begin studying the dynamics of prices. After all, without assessing the size of the disaster, which was inflation, it was impossible to determine the means of fighting against it.

I suppose that also from a professional point of view Kondratieff thought that he was too late with organizing the Institute of Conjuncture. Shortly before that, the Harvard Bureau of Economic Research had emerged in the United States, which quickly became the world's leading institution for the study of conjuncture. Kondratieff was creating his institute similar to the American one. In Chayanov's opinion, in the mid-1920s his institute was on a par with American research organizations.

S. K.: While working on the archive of the Institute of Conjuncture I found an equally authoritative opinion dating back to that time in the Central State

Archive of the National Economy of the USSR. It belonged to E. Wagemann, director of the Institute for Business Cycle Research. According to him, the Institute of Conjuncture at the People's Commissariat of Finance 'in the subtlety of its methods and high scientific merits of the works' represented the best in Europe institution of this type and was not inferior to the research organizations of the USA (Central State Archive of the National Economy of the USSR F. 7733. Op. 5. D. 71b. P. 123).

A. K.: In the People's Commissariat of Finance, or more precisely, in its scientific subdivision – the Financial and Economic Bureau – the Institute of Conjuncture was given very favourable opportunities for both methodological research and research agenda on the study of the conjuncture. As regards the latter, the advantage was that the Institute of Conjuncture had at its disposal an extensive apparatus of provincial and district financial authorities at the local level. This made it possible to construct a new all-union retail price index for 35 goods (since 1927 49 goods), which was calculated in two versions: full, for 101 cities once a month, and reduced, for 40 largest cities on a decadal basis. At first, the index reflected only private trade, but from the beginning of 1927 it included the prices of co-operative and state trade. Price monitoring and calculation of the corresponding indices for Moscow was conducted since 1924. The support of the People's Commissariat of Finance of the USSR allowed Kondratieff to expand and strengthen the staff of the Institute. In 1923, Nikolai Sergeevich Chetverikov, a remarkable scientist and outstanding person, joined the Institute of Conjuncture. Previously, he was the head of the Department of Scientific Methodology of the Central Statistical Administration. He also headed the work on the wholesale price index in the State Planning Committee. In 1926, Kondratieff attracted a world-renowned mathematical economist, Evgeny Evgenievich Slutsky, to the Institute's research. In the 1910s he expressed original ideas about the development of the V. Pareto's theory of consumer demand. Slutsky's ideas were not recognized in Russia. His article was published in Italy in 1915. Subsequently, the famous English economist J. Hicks worked in the direction indicated by Slutsky, although independently of him.

S. K.: Aleksander Aleksandrovich, what was the reason for the revision of the methodology of constructing retail price indices in 1924? Until then, the general index of group indices of goods was calculated by arithmetic mean without weighting. The new indices began to be calculated by the chain method as a geometric mean of group indices with set weights.

A. K.: Giving weights to commodity groups made it possible to significantly improve the indices of the Institute of Conjuncture. As for the chain method, it was chosen because it allowed substitution of one type of goods for another without changing either the base prices or all previous calculations.

Such substitutions were inevitable when prices were collected from almost the entire territory of the Soviet Union.

At that time the use of the geometric mean in the world practice was taking its first steps. Therefore the transition to it became the subject of serious study. N. S. Chetverikov and the Head of the Indices and Prices Section of the Institute, M. V. Ignatiev, were in favour of the transition to the new average. I was also a supporter of this transition. In my opinion, the main disadvantage of arithmetic and harmonic means is that these averages cause systematic error of their corresponding aggregate indices. An aggregate index with the quantities of the base period given to the formula of the arithmetic mean gives exaggerated results if there is an inverse relationship between changes in quantities and prices. Under the same condition, which is almost always observed, the weighted aggregate index, converted to the harmonic mean formula, on the contrary, consistently underestimates price dynamics. I. Fisher was one of the first to note this circumstance, who proposed his 'ideal' index formula – the geometric mean of the products of the two aggregate indices mentioned above. Both of these indices accumulate inherent error when calculated by the chain method. The index calculated by the geometric mean of the group indices, although being imperfect, does not have such a gross error. This is partly due to the fact that its weights – shares in turnover or consumer budget – are less sensitive than natural quantities to price changes.

S. K.: The geometric mean, and in a number of indices in combination with the arithmetic mean, has become a characteristic feature of the methodology of the Institute of Conjuncture. Thus, the Institute was the first in the country to construct an index of the physical volume of industrial production. The merit in this belonged to the famous Soviet statistician Ya. P. Gerchuk.

The geometric mean was also used in the Institute's other system of indices, the so-called peasant indices, which were destined to remain a unique phenomenon in the history of Soviet statistics. Peasant indices reflected the dynamics of goods sold and purchased by peasants on local markets. These indices thus characterized the welfare of peasant households and their purchasing power. They also took into account the price of agricultural labour. The indices were calculated for eight specialized agricultural districts in the RSFSR and the Ukrainian SSR and thus showed the relative conjuncture of various branches of crop-growing and livestock farming. I. N. Zhirkovich, the head of the section of agricultural market conjuncture, supervised the work on peasant indices. The Institute began to calculate indices in 1925. They were regularly published from 1926 to 1929 (Central State Archive of the National Economy of the USSR Fond 7733. Series 5. File 71b. P. 17).

It should be noted that the Institute had its own press organ – *Ekonomicheskii Byulleten Konyunktur'nogo Instituta*. It was intended both for specialists and the general reader. Since 1924, the bulletin became a self-supporting publi-

cation. By 1927 its circulation reached a significant figure for that time – 2,000 copies. It reported to subscribers about 150 different indicators reflecting the dynamics of the national economy of the USSR, its industries, as well as the world economy. The bulletin paid special attention to price statistics: from the movement of prices for agricultural and industrial goods, the so-called ‘scissors’, to the comparison of prices for the most important goods in the USSR and abroad. Real wage indices for Moscow and the Soviet Union were also published there.

A. K.: The Institute of Conjuncture in 1923 began to publish a single economic index-number of the dynamics of the national economy, the one, on the necessity of ‘elaboration’ of which Lenin wrote to the editorial board of *Ekonomicheskaya Zhizn*. The single index-number was calculated as the geometric mean of a weighted in a certain way combination of indices. There were eight of them in our index: prices, money circulation, production of heavy and light industry, commodity turnover, labour, trade and freight turnover. The novelty of the single index-number consisted in its unification of various dynamic series with the common property of reflecting the main elements of economic dynamics.

In the Institute's publications the single index was initially called ‘economic barometer’. This name was conditional, as the index only identified, not predicted the conjuncture. The more precise calculation of the barometer was made by M. V. Ignatiev later and began to be published since 1927. It was a barometric indicator of the purchasing power of money. It predicted private market price fluctuations by the movement of the combined curve, which represented the difference between the money supply and the commodity supply, preceding these fluctuations. The barometer became operational in April 1924. At first, it covered the reflection of money supply shocks on retail prices in four months very accurately. However, at the end of 1929 the barometer was broken – fluctuations in money supply and private market prices began to occur simultaneously. The barometer was created for the conditions of the first years of the NEP, but at the end of the 1920s the nature of the economy changed significantly.

S. K.: I will try to interpret what you mean by the conditions of the first years of the NEP. The conjuncture in those years was characterized by a pronounced ‘restorative’ trend, which determined the dynamics of the economy as a whole. As claimed by M. V. Ignatiev, it ‘overlapped’ the manifestation of the downward wave of the large cycle. Cyclical fluctuations characteristic of the pre-revolutionary economy were not detected during the years of the NEP. However, ‘short’ crises, according to Ignatiev, which are of the type of random fluctuations, not only occurred, but were also experienced by the economy of the country in a very painful way (Ignatiev 1925: 74–75; 1927: 656–657). These short-term fluctuations, as well as seasonal waves of a more regular na-

ture, naturally became the main subject of the study of the conjuncture of the Soviet economy.

N. D. Kondratieff set before the institute an extremely important task for that time – to determine the conditions for the emergence of these fluctuations, to learn how to forecast them and thus neutralize their negative impact. As for the ‘short’ crises and upswings, their study was directly connected with the assessment of the effectiveness of measures of state regulation of the economy.

A. K.: You are right that our institute was not limited to simple observation of the conjuncture. A great personal merit in this belonged to N. D. Kondratieff. In the 1920s, he was one of the first in the country to try to combine conjuncture science with forecasting and planning. Unfortunately, the generation of economists, to which I belong, failed to appreciate the significance of this attempt.

S. K.: N. D. Kondratieff had a grandiose, even by today's standards, idea of creating a school of scientific planning and forecasting in Soviet Russia. The cornerstone of its methodology was the empirical method – accumulation and generalization of data on the development of the economy and identification of regularities of its dynamics using methods of mathematical analysis.

Another important aspect of Kondratieff's methodology is the recognition of the inseparable unity of plan and market. Considering planning as a means to save the economy from acute crisis shocks, Kondratieff did not regard it as an alternative, a substitute for the market. In his view, the market remained an adequate environment for the functioning of both capitalist and socialist economies. Moreover, Kondratieff considered the market and prices, formed in accordance with the internal laws of the latter, a necessary prerequisite for planning, which ensured the objectivity of information about the state of the economy.

In fact, he saw the purpose of his institute in the cognition of the laws of the dynamics of commodity production, mastering these laws and their use in the interests of the new society. Hence, another feature of the methodology of Kondratieff's scientific school – the recognition of the role of forecasting as the main tool of the plan.

Kondratieff understood planning as a single process of making up current and prospective plans. The scientific justification of current plans lasting up to a year consisted in the development of methods of forecasting the economic situation for this period. The forecast was based on the study of short-term dynamic processes. The plan based on such a forecast included specific measures necessary for its implementation and was characterized by detailed elaboration of its elements. Prospective plans were based on the forecast of long-term evolution of the economy. Such a forecast primarily took into account the regularities of economic dynamics with a longer period of development and determined only the general outlines of the future state of the economy. In this connection,

one should note that the interest in the study of large cycles of conjuncture, the study of which was led by Kondratieff personally, was not only academic in nature. The source of this interest was primarily practical tasks, the need to create a theory of long-term planning and forecasting.

Kondratieff's dismissal as head of the Institute in early 1928 and his subsequent arrest prevented him from completing his plan. His works on large cycles, published in 1926 and 1928, turned out to be in fact the most complete part of his theory of planning and forecasting. In the 1930s, these works brought his author international recognition, and the long-term fluctuations of the conjuncture which he studied were introduced into scientific use under the name of Kondratieff cycles (waves).

Today we have new understanding of N. D. Kondratieff's scientific heritage, including his works on planning, in which he urged to pay close attention to the 'organic' tendencies of economic development.

Aleksander Aleksandrovich, what problems did you work on at the institute?

A. K.: I was accepted to work at the Institute as Assistant to the Head of the Indices and Prices Section. Under my supervision, the prices we received from our correspondents were collected, checked and systematized. The institute also had special employees who recorded prices at the Smolensk and Sukharev markets in Moscow. By the way it was not easy to find out the 'live' price of goods without buying them. The institute even developed a special instruction according to which, among other things, the recorder had to write down not the price originally named, but the last price shouted by the seller to the leaving recorder.

N. D. Kondratieff saw my main purpose in the Institute in scientific and methodological work. The sphere of my scientific interests was the cost of living indices, that is, indices that showed the change in the monetary value of the consumer budget. Kondratieff attached great importance to theoretical research in this direction. The correct setting of salaries depended on the degree of accuracy and representativeness of consumer budget price indices; major economic calculations and forecasts were made on the basis of these indices.

The problem of the cost of living indices was directly connected with another one – the determination of the level of consumption, since the real change in the cost of living can be measured by comparing only the same levels of consumption over a certain period. In my first paper (Konyus 1924) I managed to show the disadvantages of aggregate indices, which underestimated the fact that when prices change due to the elasticity of demand, a different set of goods is consumed, and therefore the level of consumption changes. If we regulate salaries in strict accordance with the aggregate index, which has the quantities of the base period, the level of consumption of the buyer will increase. On the contrary, if we assume that the regulation is conducted with an aggregate index

using current period weights, then the level of consumption will fall. I developed these ideas in later works and, above all, in a paper written in 1926 together with S. S. Byushgens, a Doctor of physical and mathematical sciences (Konyus and Byushgens 1926).

N. D. Kondratieff encouraged the interest of the Institute's staff in fundamental problems. In particular, while working on the theoretical basis for the construction of the cost of living indices, I began to apply the apparatus of indifference curves. I presented my findings in several reports at the institute. Following V. K. Dmitriyev and M. I. Tugan-Baranovsky, I considered fruitful the idea of dialectical synthesis of the theory of labour value with the theory of marginal utility. Thus, with the approval of N. D. Kondratieff, the project 'The Theory of Purchasing Power Indices of Money in the Light of the Teachings of K. Marx' appeared in the programme of the Institute. I did not manage to publish this work.

S. K.: How is the level of consumption or, in other words, the utility of a given set of goods measured?

A. K.: It is impossible to measure the level of consumption in any natural units. I consider it as a function of the quantity of goods consumed. There are only three correlations between two levels of consumption: either inequalities 'more' and 'less', or equality. In mathematics, such correlations are called partial orderings, the special kind of which is Boolean algebra. At one time I touched upon the question of the possibilities of using it, along with its already known area applications – in mathematical logic and probability theory – also in the theory of consumer choice (Konyus 1984). In the 1930s, the Soviet mathematician V. I. Glivenko contributed significantly to the development of Boolean algebra. He died early, in the 1940s, and his works are little known to economists and mathematicians.

S. K.: Aleksander Aleksandrovich, how do you assess the period of work at the Institute of Conjuncture from a scientific point of view?

A. K.: After more than 60 years since then, I think that this period of scientific activity was extremely fruitful. My most important works were published in the editions of the Institute of Conjuncture. They were highly appreciated by my colleagues at the Institute and the Financial and Economic Bureau of the People's Commissariat of Finance. They were also noted by one of the most authoritative economists of the 1920s, Professor V. Y. Zheleznov. But still there was nothing that I, as a young scientist, was looking forward to. Those important questions which were raised in my articles of 1924 and 1926 never became the subject of serious discussion. At the end of the 1920s, one could no longer dream of this. For example, my article written with S. S. Byushgens was only honored with the name a 'mathematized Böhm-Bawerkiad'. In the question of what should be the Soviet price indices, one point of view had been es-

established arbitrarily. I believe that the time has long since come to return to the discussion of the questions on which the debate was closed before it began.

S. K.: Aleksander Aleksandrovich, it is known that your research at the Institute of Conjuncture gave rise to a whole direction in world indexology. Did your name become known to foreign economists in the 1920s?

A. K.: It did not happen immediately. The first person who drew attention to my article of 1924 in the late 1920s was the Professor of Berlin University Ladislaus von Bortkiewicz, a native of Russia. Then it was noticed by G. Stehle from Switzerland, and the American G. Schultz, who knew Russian, recommended it to the journal *Econometrica*, where it appeared in English translation in January 1939. My 1926 paper was apparently first reviewed by E. Devert, a Canadian with Russian roots, in the 1970s.

The translation of E. Slutsky's article 'The Summation of Random Causes as a Source of Cyclic Processes' which was first published in *The Proceedings of the Institute of Conjuncture* in 1927 also appeared in *Econometrica* in 1937. His work was evaluated in the West as a major scientific discovery, and since then every economist-mathematician knows about him.

S. K.: If the way to foreign readers in the 1930s was not easy for many studies of the Institute of Conjuncture carried out in the 1920s, their return to Soviet readers spanned for decades. The fate of the work of Timofey Ivanovich Rainov, an employee of the Institute, in which he was the first in the world science to study long waves in the sphere of scientific and technical inventions, was bizarre. Chetverikov rendered great help to him in his calculations. Rainov made a report on the subject at the Comacademy in 1927, but the results of his research were not published. The work, which laid the foundations of modern scientometrics, survived only in English translation, as it was published in the international journal *Isis* in 1929. Finally, in 1983, a Russian translation in an abridged form was published by the journal *Voprosy istorii yestestvoznaniya i tekhniki*. However, the article excluded the essence of the study – long waves in scientific activity.

There is still a widespread belief that the first school of economists-mathematicians was formed in the USSR only in the 1960s. Obviously, this timing is outdated, as it reflects the objective to silence many achievements of economic science before the 'great turning point'.

There is no doubt that the economists who clustered around the Institute of Conjuncture represented Soviet economic science. As for the Institute, as a Soviet institution, it was guided by the decisions of the party and state bodies and the board of the People's Commissariat of Finance of the USSR. The head of the Institute reported directly to the head of the Financial and Economic Bureau of the People's Commissariat of Finance M. G. Bronsky (in 1924–1928), an old Bolshevik, a Party member since 1902, an economist by training. In 1917 Bronsky took part in organizing Lenin's move to Russia from exile. In 1928, on

the charge of patronizing 'bourgeois' economists and using their recommendations during the reconstruction of the national economy, he was dismissed from his post and later repressed.

During the NEP years, the Institute of Conjuncture played a major role in the economic life of the country. This role was not limited to the preparation of statistical publications. The Institute gained great prestige through scientific consulting work. Its staff annually prepared more than 100 references and notes on special assignments of the Organizational Bureau of the Central Committee of the Communist Party of the Soviet Union, The All-Russian Central Executive Committee, The Executive Committee of the Communist International, The Central Control Commission, Supreme Board of the National Economy, The Main Concession Committee and other organizations. According to archival documents, the Institute of Conjuncture was primarily consulted on the state of the past and present economy of capitalist countries and our economy, its individual sectors and industries, forecasting the conjuncture, assessing the conducted or proposed measures of economic policy. The materials of the institute were often used in their public speeches by N. I. Bukharin, F. E. Dzerzhinsky, M. I. Kalinin, L. B. Kamenev, and L. D. Trotsky. This is an incomplete list and it can be continued. The credibility of N. D. Kondratieff is also evidenced by the fact that he, not being a member of the Party, was an executive editor of two periodicals on economics – *Ekonomicheskii Byulleten konjunktornogo instituta* and *Voprosy konjunktury*. Moreover, the idea of publishing the latter in 1925 was supported by N. I. Bukharin in his letter addressed to the board of the People's Commissariat of Finance.

A. K.: This letter played a role in the decision of the board to publish *Voprosy konjunktury*. It happened so that I owe the appearance of my 1926 article to N. I. Bukharin.

S. K.: The strong position of the Institute of Conjuncture in the mid-20s as one of the largest scientific centres in the country is also evidenced by the following fact. In 1926 through the offices of N. S. Chetverikov, N. D. Kondratieff began negotiations on the return of the famous statistician A. A. Chuprov to the Soviet Union, who had emigrated shortly after the revolution. In one of his letters Chetverikov wrote to Chuprov,

...Nikolai Dmitriyevich Kondratieff ... has brought up the question of the possibility of your return to Moscow; the Institute of Conjuncture is now standing firmly, despite its competition with the Gosplan Conjunctural Council; working conditions in it are now quite acceptable, there is no slightest violence against the research conscience. The publication of the results is also possible, as you will see when you receive the first issue of *Voprosy konjunktury*... The question of an annual trip abroad can probably be put as a basic condition. Undoubtedly, in the Institute you will find a staff that hardly any other institution in Russia can offer; staff who

work wholeheartedly on the most nagging tasks. These tasks are at your complete discretion: any economic and statistical research will find its place in the system of the Institute's work, and its key task – the study of the mutual relationship of economic indicators – is so immensely broad... It goes without saying that all the technical work of setting up calculations will not affect you, free teaching work is quite possible... Drawbacks: everything is always 'under threat', there is nothing immutable, there are no such regulations, no such staff, no such plans whose existence would not be subject to stochastics. But I repeat that the position of the Institute of Conjuncture and personally of N. D. Kondratieff is relatively stable. This also applies to some extent to travelling abroad... I do not deny that, in the opinion of a very competent person, whose opinion you have every reason to value, it is better, if possible, to wait at least another year.⁶

One can assume that N. D. Kondratieff was well aware of the warning of the 'competent person', which turned out to be prophetic. But he did not adjust to such a 'conjuncture' and did not change his scientific views in accordance with it.

A. K.: It was impossible not to feel the 'stochastics' that N. S. Chetverikov wrote about. In early 1925 I had the opportunity to attend the People's Commissariat for Agriculture of the USSR and to hear N. D. Kondratieff's report on his trip abroad. The reaction of the audience to his report, which spoke of the success of agriculture in the United States, was mixed. My neighbour expressed his rejection of what he heard quite clearly, 'The floor is yours!'.

S. K.: From the second half of 1927, the position of the Institute of Conjuncture changed dramatically. Together with the approval of the course for the liquidation of the NEP and the transition to administrative-command methods of economic management, the direction of research of the Institute was recognized as 'bourgeois' and 'harmful'. From that time on, almost all the studies that emerged from the Institute of Conjuncture received a negative evaluation. The sharp criticism of N. D. Kondratieff and other employees of the Institute, as well as the scientific forces of the Financial and Economic Bureau of the People's Commissariat of Finance of the USSR of the erroneous assumptions laid down in the draft of The First Five-Year Plan did not go unnoticed. In his articles and numerous speeches Kondratieff argued that the ultra-high rates (during the implementation of the plan they were adjusted upwards several times) of heavy industry development will inevitably lead to imbalance in the economy, undermining of the domestic market, and thus the rupture of the economic union of the working class and peasantry, the inevitable strengthening of administrative dictate in the economy.

⁶ The Rare Book and Manuscript Department of the Gorky Library. Maxim Gorky Library (Moscow State University), document 16, card 24.

The campaign of political accusations against the head of the institute began in mid-1927. G. E. Zinoviev's article, published in the 13th issue of the journal *Bolshevik* served as a signal for it. The article was entitled '*Manifesto of the Kulak Party*' and described N. D. Kondratieff as the leader of a certain party that had gained 'real political influence in some of our most important state bodies'. Kondratieff's proposals for correcting the mistakes of economic policy, which essentially called for a return to Lenin's concept of the NEP, were qualified by Zinoviev as a programme for the 'restoration of capitalism'.

Zinoviev's article was published just before the July Plenum of the Central Committee and Central Committee of the All-Union Communist Party of Bolsheviks, which was to consider the question of its author's membership in the Party for participation in opposition activities. By choosing the 'bourgeois' professor N. D. Kondratieff as the target of his criticism, Zinoviev sought not only to restore his reputation, but also to direct the attack against the right-wing in the Party, primarily against N. I. Bukharin. In a note to the article, the editors of *Bolshevik* assured the reader that the existence of a Kulak party was the author's exaggeration. However, the phantom of a non-existent party, invented by Zinoviev, turned out to be really capable of controlling people's destinies in the atmosphere of those years.

While working on the archives of the Institute of Conjuncture, I had the opportunity to observe how, from the second half of 1927, the signature of the head of the Institute ceased to appear on official documents sent by the Institute to higher authorities. The denouement occurred at the beginning of 1928. At first, in April, N. D. Kondratieff was removed from the leadership of the Institute and transferred to the position of a consultant, and then dismissed from the People's Commissariat of Finance of the USSR. On 1 July 1928, the Institute of Conjuncture as a subdivision of the USSR People's Commissariat of Finance ceased to exist.

The decision to dismiss N. D. Kondratieff from the position as the head of the Institute of Conjuncture, and then the transfer of the Institute itself from the People's Commissariat of Finance of the USSR to the Central Statistical Administration was a purely political decision. Nevertheless, in the decree of the Council of People's Commissars of the Soviet Union on 8 May 1928, this transfer was justified by the need to concentrate statistical research in the country. And perhaps it is worth paying attention to this issue. It is known that along with the Institute of Conjuncture work on price indices was carried out in the Central Statistical Administration, Gosplan, Centrosoyuz, Supreme Board of the National Economy (VSNKh). Was there an objective need to concentrate efforts in this field?

A. K.: The very idea of price indices is quite clear and simple, but there are many differences in the methods of their construction. One should not forget that any index is only a model, which reflects the real price movement with

varying degrees of approximation. From this point of view, the 'statistical' pluralism that existed in the 1920s was quite appropriate.

I would like to mention such an important detail. Simultaneous and independent from each other collection of data on prices and calculation of indices by different institutions are a necessary way to check and ensure the reliability of statistical material. In the 1920s several price indices were calculated and any interested person could get exhaustive information about the methods of their construction, set of goods, nature of registered prices, *etc.* in public sources. Reference material of this kind about the indices of the Institute of Conjuncture was published at least three times (Ignatiev 1925: 97–143; Kohn 1926: 166–177; Dynamics... 1930: 92–173).

S. K.: The modern price index is calculated according to a unified methodology, but how exactly, I think, most specialists do not know.

A. K.: I would like to express my view. It seems that there can be no universal price index suitable for all occasions. There was a certain division of labour between the institutions that calculated their own indices in the 1920s. This was dictated by the different purposes of the indices. The retail price indices of the Institute of Conjuncture, for example, were intended to cover the picture of the changing economic conjuncture with maximum efficiency. They were highly valued for this quality. In the interests of efficiency, the observation was carried out for a relatively small set of goods, the most representative of the commodity turnover. In the Central Statistical Administration the retail price index was calculated for a wider range of goods. However, it did not meet the requirements of the People's Commissariat of Finance for 'conjunctural' indices. The centralization of work on indices in one institution, of course, disrupted the existing division of labour.

As for the fate of the Institute of Conjuncture, its transfer to the Central Statistical Administration did not contribute to the strengthening of the research it was carrying out, but actually led to their curtailment, since its connection with the financial authorities was cut off locally. The Institute existed in the Central Statistical Office for a little over a year, for some time it was headed by the famous Soviet statistician P. I. Popov. At the end of 1929, shortly before the CSA was transformed into a department of the State Planning Committee of the USSR – Central Administration of Economic Accounting of Gosplan, the Institute was disbanded.

S. K.: In vain, N. D. Kondratieff with his colleagues tried to prove the obvious inexpediency of the decision to bring the Institute under the purview of the Central Statistical Administration. First of all, they were critical of the very idea of centralizing statistical research in the country. The Institute's internal note stated,

The work of two institutions (the Central Statistical Administration and the Institute of Conjuncture – S. K.) on the problem of assessing the conjuncture ensures their mutual control and criticism of both methods of

work and sources of information. As for the parallelism in the field of scientific work, this is now not even a question, because the Institute of Conjuncture is the only institution that conducts large-scale research work in the field of scientific conjuncture (Central State Archive of the National Economy of the USSR Fond 7733. Series 5. File 71b. P. 84).

The transfer to the Central Statistical Administration meant the termination of the most important research of the Institute, as they could not be carried out outside the People's Commissariat of Finance of the USSR, and the established ties between the Institute and the Financial and Economic Bureau of Banks were broken. In turn, the Central Statistical Administration was not prepared for the development of additional research during this period, 'Calculation of peasant indices in the CSA is not carried out and cannot be organized there in the near future', according to the same note of the Institute, 'due to the fact that the significant reduction of staff made in the CSA, forced it to abandon the preparation of new research work' (*Ibid.*: 104–105).

Aleksander Aleksandrovich, what did you do after the liquidation of the Institute of Conjuncture?

A. K.: After 1929, I had to leave my work on the construction of price indices. Conjuncture research in the country was discontinued, and numerous conjuncture departments were abolished. I would be labelled as 'not our man' and 'a disciple of an enemy'. People with this label were the last to be hired and the first to be dismissed, getting rid of them at the first opportunity, for example, with the reduction of staff. In the 1930s, I experienced myself what unemployment was like, living in an atmosphere of distrust and persistent prejudice. I returned to work in central economic research institutions in 1945. At that time I defended my PhD thesis. My fate was quite favourable in comparison with the fate of many of my comrades at the Institute of Conjuncture. I believe that I escaped repressions because I was considered not as an economist, but as an applied mathematician, and the use of mathematical methods in economics was not a big crime. I was not closely acquainted with N. D. Kondratieff at the Institute.

S. K.: Tell us about the persecutions to which your colleagues at the institute were subjected.

A. K.: I do not know almost anything about the fate of many of them. People disappeared and then reappeared many years later, some never returned. The first to be arrested, back in 1928, was S. Sh. Mekler. After the dismissal of N. D. Kondratieff, he worked as a head of the Bureau of Financial Conjuncture of the People's Commissariat of Finance. Mekler was declared a spy and exiled to Solovki. After Kondratieff's arrest in 1930, N. S. Chetverikov, I. N. Leontiev, former assistant head of the Institute, Ya. P. Gerchuk, A. L. Weinstein, V. A. Revyakin, G. S. Kustarev, V. E. Shprink, and the staff of the Agricultural Market Section, N. I. Zhirkovich and I. N. Ozerov were sentenced to exile or to

two-four years' imprisonment in the camps. During the second wave of repressions in 1937–1938, as I have learnt recently, N. D. Kondratieff, A. A. Karpov, I. O. Dik were shot; V. E. Shprink's death penalty was commuted to 25 years' imprisonment. For the second time N. S. Chetverikov was sentenced to imprisonment in a camp. At the beginning of 1941, L. M. Kovalskaya disappeared. In her youth she participated in the revolutionary movement in a group with N. I. Bukharin, and this, apparently, was the reason for her arrest. I do not know anything about her fate.

The repressions did not affect all the researchers of the Institute of Conjunction, but most of them had to leave their sphere of activity. Even if we imagine that N. D. Kondratieff would not have been arrested and convicted, even then he would hardly have been able to remain an economist. He would have been required to renounce himself and his views, which, I think, he would never have done.

M. V. Ignatiev retired from economics. He became a major specialist in biometrics, Doctor of Biological Sciences. T. I. Rainov dealt with the problems of economic equilibrium at the Institute of Conjunction; after 1930 he devoted himself entirely to the study of the history of science. E. E. Slutsky became widely known for his research in mathematics, but few people now know that Slutsky was also a serious economist. Very few of my colleagues who passed through camps and exile were able to continue their research in economics. Here I should mention first of all A. L. Weinstein, who in the 1960s completed his research on the problems of national wealth and income, which he had started at the Institute of Conjunction. N. S. Chetverikov and Ya. P. Gerchuk returned to the scientific research.

S. K.: N. D. Kondratieff and many of his colleagues were convicted in a fabricated case of the Labour Peasant Party, the leader of which Kondratieff was named. In order to punish the scientist and his school, the organizers of the process used without evasion the ready-made scheme of accusation proposed in due time by G. E. Zinoviev, but, as they say, brought the case to its logical end. The monstrous absurdity of the accusation was that Kondratieff and other 'enemies' were held responsible for failures in the economy, with which they had nothing to do. But it was they who predicted the possibility of such failures and warned against them, when the situation could still be corrected. Due to landmark cases Stalin and his entourage simultaneously solved several problems: firstly, to neutralize potential critics of the administrative system of management, secondly, to channel discontent with the falling living standards of the population in a favourable direction, and thirdly, to create an atmosphere of fear in the country.

Not only were the employees of the Institute of Conjunction persecuted, but also the methods of calculating indices, which were the achievements of the scientific school of N. D. Kondratieff.

Critical analysis, necessary for science, turned from an instrument of its development into its opposite at the end of the 1920s. The initial premise of criticism – the ‘bourgeois’ methodology of indices is supposedly flawed in its essence – at the same time turned out to be the result, the final conclusion of any research. The circle is closed. The very specific content of the criticism was determined by the qualification of the executors. N. D. Kondratieff, M. V. Ignatyev, Y. P. Gerchuk, I. N. Zhirkovich and others were accused of all failures.

There were also accusations of mysticism and idealism (Khotimsky 1932: 391). S. G. Strumilin called the retail price indices of the Institute of Conjecture ‘speculative’ and denied the economic meaning of the peasant indices (Strumilin 1980: 248–249). From their student years, statisticians were taught that I. Fischer's formula had an ideologically harmful bourgeois meaning and that it was completely unscientific. Recurrences of such criticism could be found in statistical literature as early as in the 1960s.

Former employees of the Institute of Conjecture also participated in exposing the ‘unscientific’ nature of its indices (see, *e.g.* Conjecture 1931; Baturayev 1941: 111–112). Against the background of the flow of publications, in which the Institute and its head were mentioned exclusively with pejorative epithets, your article ‘Economic Conjecture’, published in the 51st volume of *The Granat Encyclopedic Dictionary* in 1933, stood out. There was made an attempt to summarize the world experience of conjecture studies, to provide an objective picture of the activities of the Institute of Conjecture of the People's Commissariat of Finance of the USSR.

A. K.: The importance of this article should not be overestimated, given the time when it was written. *The Granat Encyclopedic Dictionary* was ‘living out’ its last days, and my article could not, of course, influence the general tone of publications about the Institute of Conjecture.

Of course, the division of price indices into Marxist and bourgeois ones is absurd. The aggregate index with current weights, declared in our country as the highest achievement of Marxist indexology, for example, successfully served official Italian statistics in the time of Mussolini. I have already mentioned the disadvantages of the aggregate formula with variable weights, the main of which is a systematic error in the direction of underestimation of price dynamics. When using the chain method, this error is accumulated.

The aggregate index with moving weights correctly reflects the dynamics of prices only in an economy with a strict, ‘barrack’ rationing of products and there is no relationship between their quantity and prices. But such a relationship was always preserved, even in our country in the 1930s, when this index formula, at the insistence of V. N. Starovsky and B. S. Yastremsky, was recognized as the only correct one. In the modern economy, where consumer choice is very wide and inflationary processes are not curbed, the aggregate index with moving weights strongly distorts price dynamics.

I suppose that the retail price index published in our country does not take into account the disappearance of cheap goods from the commodity turnover while prices remain fixed. When such processes took place in the late 1920s, the Institute of Conjuncture considered the question of introducing into the index reflecting the general price level a correction that takes into account the probability of purchasing goods at these prices.

S. K.: Since 1927, an administrative and command economy began to develop in the Soviet Union. How did the methods of studying the conjuncture change under these conditions? Tell us, in particular, about the index of goods ‘particularly sensitive to inflation’, which the Institute planned to calculate from the second half of 1927.

A. K.: Under conditions of strict price control in private trade or their rigid fixation in the generalized sector, it became increasingly difficult to monitor the market. Free from regulation were mainly non-essential items, ‘conditionally luxury’, as we called them. They met the goals of conjunctural research to the greatest extent. In this category we included 28 food and 29 non-food products. The index was calculated for Moscow. Then the index of ‘conditionally-luxury’ goods became the subject of special attacks on the Institute of Conjuncture, the main proof of its ‘bourgeoisness’.

Periodic goods famine and the associated lack of a sufficiently wide range of goods created additional difficulties for processing dynamic price series. From the spring of 1928, *Ekonomicheskiiy Byulleten* began to publish an indicator of shortages – the number of interpolated goods in the price index, *i.e.* goods for which prices were not actually fixed because they were not available for sale, but were conditionally introduced into the index. There were proposals to calculate a special index of queues, but this idea was not realized in practice.

It is necessary to discard many prejudices, first of all, suspicion of Western experience, and carefully study the world achievements in the field of indexology. The prestige of Soviet science, which for a long time was in self-isolation, will only benefit from this. One can learn from N. D. Kondratieff the persistence with which he sought and used all the best that appeared abroad. He considered his research a part of the world economic science and was proud of the fact that he placed Soviet conjuncture statistics on the same level as the best world achievements.

S. K.: The unemotional lines of official documents of the Institute of Conjuncture could not hide this pride. Here is an excerpt from a report prepared in 1926 in which N. D. Kondratieff highlighted the fact as a major achievement of the Institute of Conjuncture ‘thanks to its scientific authority, it was possible to put the information about the economy of the USSR in the foreign economic press on a par with the information about the main countries of the world’. ‘It should be emphasized’, continued Kondratieff, ‘that the information reported by the Institute for the foreign press, is published without any changes, re-

sulting in correct information about our economic situation abroad' (Central State Archive of the National Economy of the USSR Fond 733. Series 3. File 1248. P. 39).

Since 1926, the monthly and quarterly statistical reviews of the Institute of Conjecture, which characterized the state of the Soviet economy, began to be regularly reprinted in the journals of the London School of Economics and then the Royal Statistical Society, as well as in the bulletin of the US Federal Reserve Bureau. In 1926, in the journal of the London School of Economics, such reviews covered only such countries as England, France, Italy, Germany, the USA and the USSR.

Summaries of the economic situation in the Soviet Union, prepared by the Institute of the People's Commissariat of Finance, were published in statistical compendium of many European countries and the United States, as well as in the documents of the League of Nations. All this was an undoubted success of the young Soviet science.

N. D. Kondratieff himself, who was born to a large peasant family with many children and who, in his own words, 'worked his way up' from a plow to the professor's lecture desk' through his own labour and talent, had much to be proud of. Having graduated from Petrograd University during the war years, the young scientist became a world-famous scientist in a short period of time. During Kondratieff's lifetime, all his significant articles were translated into foreign languages. He was elected a member of seven economic and statistical societies in the USA and Great Britain and was on the editorial board of the American scientific journal of social sciences. He was personally acquainted or was in correspondence with the greatest economists of his day such as W. Mitchell, A. Burns, S. Kuznets, A. Young, W. Persons, I. Fisher, J. M. Keynes, A. Bowley, A. Aftalion, V. von Bortkiewicz, E. Wagemann, and W. Ricci.

N. D. Kondratieff did not exaggerate when he defined as one of the Institute's goals 'the desire to take a certain place among the most authoritative scientific and economic institutions of the main countries to demonstrate in its special field the participation of the USSR in solving the issues that occupy the world economic thought' (Central State Archive of the National Economy of the USSR Fond 733. Series 3. File 1248. P. 39). It is hard not to notice that we remembered about global problems, the responsibility for which is borne by the Soviet economic science, only in the 1980s!

A. K.: It seems to me that until recently normal relations with our colleagues in the West have been hampered by our claim that we have some special secret that they do not have, and the lack of it devalues everything they do. We are, of course, used to defiant rhetoric, sometimes without noticing it, which often puts us in an awkward position. I once received a letter from a researcher in Germany and began a correspondence with him, but it was suddenly interrupted. I sent him one of my recent publications, which contained the usual for us cliché but which were contrary to scientific ethics.

S. K.: Quite recently, in 1987, the four-volume dictionary *The New Palgrave* (Eatwell *et al.* 1987), one of the most authoritative encyclopaedias on economic sciences, was published in Great Britain. Among the few Soviet economists mentioned in it are three employees of the Institute of Conjunction. The dictionary included the articles devoted to the works of N. D. Kondratieff, E. E. Slutsky, and A. A. Konyus. All this demonstrates the high international prestige gained by the Institute of Conjunction of the People's Commissariat of Finance of the USSR, and the Soviet economic science of the 1920s. There is something to think about for the economists of the 1990s.

In conclusion of our conversation, let me thank you for your story about the Institute of Conjunction, which brought us closer to a time so distant, but in many respects close to us today. Your recollections were able to revive the scanty lines of archival documents, to establish details that seemed to have been lost forever.

A. K.: 'In old age I live anew; the past unrolls before me', Pushkin said. I would like to thank you and your colleagues who have taken up the study of previously secret or one-sidedly covered pages of the history of our economic science. I think that much of what has been long and unfairly forgotten can become useful today. I have always been well aware of the value of the accusations that served as the basis for the condemnation of N. D. Kondratieff and his colleagues. I am happy that I have lived to have witnessed the rehabilitation of this outstanding scientist.

References

- Batuyev M. I. 1941.** *Indices of Production and Economic Barometers of Capitalist Countries.* Moscow – Leningrad. *In Russian* (Батуев М. И. *Индексы продукции и экономические барометры капиталистических стран.* М. – Л.).
- Bobrov S. P. 1925.** *Indices of the Gosplan.* Moscow. *In Russian* (Бобров С. П. *Индексы Госплана.* М.).
- Chayanov A. V. 1926.** Review of the Book: *Issues of Conjunction* (Ed. by N. D. Kondratieff, 1925). *Nauka i Iskusstvo* 1: 254. *In Russian* (Чаянов А. В. Рецензия на книгу: *Вопросы конъюнктуры* (под ред. Н. Д. Кондратьева, 1925). *Наука и искусство* 1: 254.
- Conjunction. 1931.** *Great Soviet Encyclopedia.* 1st ed. Vol. 34, clms 188–189. Moscow. *In Russian* (Конъюнктура. БСЭ. 1-е изд. Т. 34, стб. 188–189. М.).
- Dynamics of Prices of the Soviet economy. 1930.** Moscow. *In Russian* (Динамика цен советского хозяйства. М.).
- Eatwell J., Milgate M., and Newman P. (Eds). 1987.** *The New Palgrave: A Dictionary of Economics.* London.
- Ignatiev M. V. 1925.** *Conjunction and Prices.* Moscow. *In Russian* (Игнатъев М. В. *Конъюнктура и цены.* М.).

- Ignatiev M. V. 1927.** Conjuncture. *Financial Encyclopaedia* / Ed. by G. Ya. Sokolnikov *et al.* 2nd ed., clm. 656–657. Moscow – Leningrad. *In Russian* (Игнатьев М. В. Конъюнктура. *Финансовая энциклопедия* / Ред. Г. Я. Сокольников и др. 2-е изд., стб. 656–657. М. – Л.).
- Khotimsky V. I. 1932.** *Statistics*. Textbook for universities. Moscow – Leningrad. *In Russian* (Хотимский В. И. Статистика: учебник для вузов. М.– Л.).
- Komlev S. L. 1991.** The Institute of Conjuncture (The Fate of the Scientific School of N. D. Kondratieff). *Repressed Science* / Ed. by M. G. Yaroshevsky, pp. 163–180. Leningrad: Nauka. *In Russian* (Комлев С. Л. Конъюнктурный институт (судьба научной школы Н. Д. Кондратьева). *Репрессированная наука* / Отв. ред. М. Г. Ярошевский, с. 163–180. Л.: Наука).
- Konyus A. A. 1924.** The Problem of the True Cost of Living Index. *Ekonomicheskii Vyulleten Konjunktornogo instituta* 9–10. *In Russian* (Конюс А. А. Проблема истинного индекса стоимости жизни. *Экономический бюллетень Конъюнктурного института* 9–10).
- Konyus A. A. 1984.** Definition of Mathematical Probability in Connection with its Application in Economics. *Methods of Economic Justification of Development Plans of Foreign Economic Relations*. Moscow. *In Russian* (Конюс А. А. Определение математической вероятности в связи с ее применением в экономике. *Методы экономических обоснований планов развития внешнеэкономических связей*. М.).
- Konyus A. A., and Byushgens S. S. 1926.** To the Problem of the Purchasing Power of Money. *Voprosy konjunktury* 2. *In Russian* (Конюс А. А., Бюшгенс С. С. К проблеме покупательной силы денег. *Вопросы конъюнктуры* 2).
- Kokhn M. P. 1926.** Russian Price Indices. Moscow – Leningrad. *In Russian* (Кохн М. П. *Русские индексы цен*. М. – Л.).
- Lenin V. I. 1970a.** Collected Works. In 55 vols. 5th ed. Vol. 44. Moscow. *In Russian* (Ленин В. И. *Полн. собр. соч.*: в 55 т. 5-е изд. Т. 44. М).
- Lenin V. I. 1970b.** Collected Works. In 55 vols. 5th ed. Vol. 45. Moscow. *In Russian* (Ленин В. И. *Полн. собр. соч.*: в 55 т. 5-е изд. Т. 45. М).
- Lenin V. I. 1970c.** Collected Works. In 55 vols. 5th ed. Vol. 52. Moscow. *In Russian* (Ленин В. И. *Полн. собр. соч.*: в 55 т. 5-е изд. Т. 52. М).
- Lenin V. I. 1970d.** Collected Works. In 55 vols. 5th ed. Vol. 53. Moscow. *In Russian* (Ленин В. И. *Полн. собр. соч.*: в 55 т. 5-е изд. Т. 53. М).
- Lenin's Collection. 1980.** Vol. 39. Moscow. *In Russian* (Ленинский сборник. Т. 39. М.).
- Shumpeter I. 1954.** *History of Economic Analysis*. New York, NY.
- Strumilin S. G. 1980.** *On the Plan Front*. Moscow. *In Russian* (Струмилин С. Г. *На плановом фронте*. М.).