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V.N. TISHCHENKO, PhD (Law), Head of Department

Scientific-research Institute of the Academy of Prosecutor General's Office of the Russian Federation

SIGNS OF THE OBJECTIVE IN THE DYNAMICS OF MODERN CRIME IN RUSSIAN FEDERATION

The article views the interconnection between economic development and crime change. The dynamics of registered crime on the territory of the Russian Federation is shown, the rules of its rises and falls are defined.

As is known, in 2008 3 209 862 crimes were registered in Russia, which is by 10.4% less than in 2007 (3 582 541 actual crimes). Therefore, the tendency of reducing the number of registered crimes in the country, noted before, has persisted. At the same time the investigations and checks mark the facts of constant violation of report-and-control discipline, which results in hiding crimes from registration and reporting. Consequently, the issue of the reasons for registered crimes reduction should be studied.

We are absolutely sure that hiding crimes from registration and reporting influences the resulting indicators of the registered crimes. Nevertheless, we consider it possible to view from a different point the processes noted since the second half of 2006, and to propose a hypothesis that the mentioned dynamics is based not only on the subjective factor but on certain objective mechanisms connected with other, still uninvestigated, factors (social or natural, biological, technogenic, or other).

Applying mathematical categories, we can assert that the total of annual resulting indices of crime follows, first of all, the law of large numbers, which states that "the necessity makes its way through a mass of contingency". Thus, it is an objective phenomenon, the revelations of which inevitably contain the rules not depending on the subjective attempts of certain workers to pervert the real state of crime.

The above-mentioned leads to the conclusion that those crimes which are included into criminal

statistics, regardless of their conceiving from registration practice, should form annual massifs which totally, regardless of the human will, should reflect certain objective rules in the dynamics of their changes, which can be revealed and then studied.

The above-mentioned approach to the understanding of the crime rate dynamics, registered during 2007-2008, has led to rather interesting conclusions shown in this article.

Let us first study Fig. 1, presenting the dynamics of crime rate registered on the Russian Federation territory from 1971 to 2008. In spite of the seemingly chaotic curve, we can trace certain **rules of raises and falls cyclicity**.

This cyclicity looks more obvious if we divide the curve into separate parts, which allows to see not only the number of "splashes", but also to analyze their duration and reveal certain other rules (Fig. 2).

The first "splash" embraces the period of 1982-1987, that is, when RSFSR existed, the next is 1988-1997, which began from "perestroika" causing the total criminalization in the society, and ended with consummation of the Russian Federation Criminal Code. The third "splash" went on for 5 years (from 1997 till the middle of 2002), its end coincides with the introduction of the Russian Federation Criminal-Procedural Code. The fourth "splash", as we can assume, is presented only partially, and it terminates with the end of statistical observation in 2008.



Fig. 1. Dynamics of crime rates registered on the Russian Federation territory during 1971-2008



Fig. 2. Splitting of the curve of crime rates dynamics registered on the Russian Federation territory during 1971-2008

The presented graph allows to make several interesting conclusions, including those which make it possible to calculate the prognosis of the registered crime dynamics in the country.

1. The present reduction of the registered crime numbers should have some objective limit.

It is interesting that in 1997 and in 2002 the crime rates reduced up to the same figure (2.42 and 2.43 million crimes). Taking into account the trend rise (according to calculations it shows objective

growth of crime rate in the country by 5 thousand crimes a month), we can assume that in future the lower limit of the registered crime reduction will grow up to about 3 million crimes and will not go below that figure (Fig. 3).

2. Fluctuation process is attributable for crime, though its objective reasons are not yet clear.

Fluctuation amplitude of the registered crime number (Fig. 3) is quite vivid in relation to the trend



Fig. 3. Upper and lower limits of fluctuations in the dynamics of crime registered on the Russian Federation territory during 1971-2008*

* On the graph the figures in brackets indicate the number of crimes registered for the end of respective years (in millions crimes). The dotted line shows the trend line. Unlike other graphs, this one was drawn not by yearly points, but by monthly ones, which allowed to reflect the amplitude fluctuations in detail.

line, and the areas of the upper and lower half-waves should be balanced with each other. This rule gives additional proof to the possibility to predict the future criminal situation.

3. Like any social process, crime should undoubtedly have its own reasons and conditions, and the objective splashes and reductions should also have their own underlying objective reasons and conditions.

If the noted processes actually objective, this reason-consequence complex should significantly differ from the one we now deal with (alcoholism, drug addiction, etc., as they, inn turn, should be a consequence of some deeper complex of factors). It is possible that such deeper regulators are some biological cyclic processes (for example, the rhythms of active sun). In the 90-s of the last century S.L. Kiselyov from All-Russia Scientific-research institute of the Ministry of Domestic Affairs successfully defended the doctoral thesis, in which he proved the correlation of violent and lucrativeviolent crime and the 11-year cycle of the Sun.

4. Before the next growth of the registered crime rate there are certain "areas of acceleration".

Such areas (shown by arrows on Fig. 4) come before the next splash, thus reflecting the inertia of

the vector of crime dynamics from the fall to the rise, after which there is a rapid growth of the number of registered crimes. The presence of such "acceleration areas" in the graph line proves that the turn of the dynamics vector takes place under the influence of some counteraction, which bars the further reduction of the registered crime rates.

5. Each cycle graphically resembles the "twohumped camel", as there is not a peak, but a small dip in the middle of each cycle.

If we study the configuration of such splashes (Fig. 3), in their upper part we can see a small "statistical dip", repeating on every splash. Thus, the present crime reduction can be viewed as such shortterm "statistical dip", which will be followed by the approximately equal period of crime growth. If it is true for the present cycle, only time will show.

This peculiarity is quite curious, though not yet explained. Why there should be such a dip, not a peak, and will such a dip exist in future -it is not yet clear.

6. Peculiarities of the general crime rates dynamics are to a certain extent attributable for certain types of crimes.

Larceny of all types is the most widely spread crime, and the fluctuation of the curve for registered larceny rates (Fig. 5) objectively corresponds to



Fig. 4. "Acceleration areas" (shown by arrows)



Fig. 5. Correlation between amplitude fluctuation of all registered crimes dynamics and larceny rates in 1971-2008*

* On the graph the figures in brackets show the number crimes registered by the end of corresponding year (in millions crimes). The straight line is the trend line.

the changes in the overall number of registered crimes.

An attempt to analyze the crime dynamics, if their number is significantly lower than that of all general crimes (for example, registered murders, the number of which is by a factor of a hundred less than the number of all registered crimes or a number of thefts) leads to smoothing of the curve (which can be clearly seen when comparing Fig. 5 and 6), which again confirms the law of large numbers stating that the rules emerge only when a lot of material is analyzed.

6. In spite of the fluctuations of the resulting indicator of the annually registered crimes, the trend line shows steady growth since Soviet period.

Using the parabola for trend line of 1971-2008 period (Fig. 7) allows to obtain a more accurate characteristic of the average dynamics of registered crime rates in comparison with the linear trend in Fig. 3, as it reveals the tendency of the trend line change.



Fig. 6. Correlation between amplitude fluctuation of all registered crimes dynamics and murders rates in 1971-2008*

* On the graph the figures in brackets show the number crimes registered by the end of corresponding year (in millions crimes). The straight line is the trend line.



Fig. 7. Parabolic trend of crime dynamics registered during 1971-2008

In spite of the evident growth of the trend, its reasons are not clear, more by token, Russian has far less population than RSFSR. Though the tendency of the registered crime rates growth is marked not only in Russia – it a world-wide phenomenon, – but it demands special attention concerning Russia, if we analyze not only the recent period, but also the final stage of the Soviet period.

If we continue the trend parabola, which has the vivid tendency of steepness growth, we can assume that in the nearest future we will face the rapid growth of registered crime, and this assumption does not need the crisis factor – this conclusion comes from the presented graph.

If we ask about the reasons for such trend, the most probable answer is predictable – the growth

of criminal activity of the modern Russia population. However, in our opinion, there are other underlying factors influencing such dynamics, as the trend grew steadily even in the remote Soviet period when the number of registered crimes was almost officially artificially reduced to minimum and actually coincided with the trend line. Anyway, the tendency could not been changed even by the orders from above.

Everything mentioned hereinabove gives ground to assume that the dynamics of economy development and changes in the crime dynamics are not only interconnected, but are also influenced by the same underlying regulators.

The presented data allows to state that the modern dynamics of the registered crime rate includes both subjective and objective factors determining its growth or reduction.

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