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## Situation at Russian Regional Food Markets: Specific Features of Formation

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## **SITUATION AT RUSSIAN REGIONAL FOOD MARKETS: SPECIFIC FEATURES OF FORMATION**

The authors analyze the trends observed in the differentiation of the regional food markets" principal parameters, such as consumption and income rates, prices, etc. Special attention is paid to the specific features of the regional food markets regulation mechanisms. We believe that the latter should be based on the results of the market development economic indicators temporal dynamics non-linear property analysis carried out by using the stochastic convergence model. As a result of the research the regions have been broken down into groups by regulation models proposed. The analysis shows that the current food markets regulation systems are applied arbitrarily and have no correspondence with the specific features of the region.

It is demonstrated that the process of formation of a common Russian food market is hampered by the isolation the regional markets are in and also by numerous support systems and administrative restrictions. The paper contains a number of measures, which can be taken to develop the market, including the measures related to the revision of the whole strategy of interaction of the federal and regional budgets.

It is shown in the paper that notwithstanding the still existing considerable regional differences in prices, the inflation is clearly tending to slow down accompanied by gradual levelling of prices in the regions.

## **Introduction**

One of the specific features of the present stage of the agrarian reform, taking place in Russia, are the increasing regional differences in terms of food market parameters – rate of consumption, incomes, prices and etc. The analysis shows that the regions differ greatly in respect of money incomes of the population. The situation is more or less pleasant in the regions, which chose “soft” methods of transition to the market and still apply relatively strong administrative regulation levers (for instance, Belgorod and Ulianovsk Oblasts), and in the raw material supplying regions with high export potential (for example, Kemerovo Oblast). In Moscow and Tyumen Oblasts the incomes of the population outrun the subsistence minimum more than 2,5 times. The rate of this inter-regional unevenness in terms of money incomes varies by stages of the transition, usually getting higher following the periods of relative stability.

The food purchasing potential of the population reduced almost 2 times if compared with the pre-reform period and considerably varies by region. Saratov Oblast is among the regions with the most unfavourable relation between the average wage and the price of the food basket. Thus, in 1996 the price of the latter was 102% higher than the Russian average, while the average wage exceeded the Russian average rate just some 60%. Only about 20% of the population earn the incomes no less than twice exceeding the subsistence minimum, which is also insufficient to satisfy the optimal demand.

By the end of 1992 the gap between the maximum and minimum prices in Russian cities reached 37 times for milk, 19 times for butter and 10-15 times for beef, vegetable oil, sour cream and bread. The regional price differences remained considerable in the subsequent several years, making up 9-11 times for bread, butter, vegetable oil, milk and beef in 1994-1995. Owing to the slowdown of inflation experienced during the last few years, the dynamics of prices in the regions is gradually getting more or less even.

The observed considerable regional differences in the price of the food basket are not only a consequence of production cost differences, but are also a result of the break up of the economic relations aggravated by the uncontrolled increase in transportation tariffs and administrative interference.

The system of economic relations in Russia was very complicated. Now that the former economic labour division and inter-regional re-distribution mechanism has been destroyed without being substituted for a new market-oriented one, we have to face the situation when there is an oversupply of food products in some of the regions, while other regions suffer food shortages.

Traditional regions-suppliers reduced their exports. Highly specialized regions found themselves isolated from traditional sales markets, and now have to either radically change the volume and structure of production, or search for alternative sales markets.

As a result of de-specialization there appeared a multitude of relatively isolated regional markets with generally higher prices of agricultural products and consumer goods. The competition at the majority of the regional food markets is very weak, which makes such markets quite vulnerable in case there is an expansion of imports.

The inter regional price differences also remain considerable. In the end of 1997 the biggest differences were observed in the North and Far East Regions – the prices of respective 43,9 and 28,6% of the monitored food products in that regions differed more than 2 times. At the same time price differences were the slightest in the Central region, where the prices of more than a half of the monitored products differed less than 1,3 times.

The existing system of subsidies and compensations is a factor that not to the least extent influences the price differences, as the rate of regulation of prices varies by region from 5% to 30%. The way consumer price regulation methods are combined with the system of support extended to agricultural producers is not one and the same in all the regions either.

### **Grounding of Regional Regulation Systems**

The analysis shows that the rate of support provided in the regions has very little to do with the specific features of the territories. Direct subsidies to agricultural producers and restrictions on the export of food products from the region often go hand in hand, which, naturally, does not facilitate the formation of a common market, but, on the contrary, leads to the emergence of low-competitive local markets. There are no any clear guarantees of financial security in the regions. Even the “well-to-do” regions are not able to support the local commodity producers. In view of all this it seems very important that the unjustified regional tapestry be removed, and the state protectionism be implemented in practice.

The observed price differences are explained by whether the region is predominantly agrarian or industrial. Consumer prices are also different in the producing and importing regions.

It is too early now to speak of even relative price equilibrium at the food market. However, in spite of the fact that the regional price differences still remain considerable, the gradual leveling of the prices by regions of Russia becomes more and more noticeable.

The analysis of retail prices for basic food products carried out in 76 Russian cities signifies that the prices are getting more or less equalized. For instance, Table 1 shows a breakdown of the surveyed cities by groups of low, average, high and maximum prices of milk. It is clear from the Table that the price fluctuations tend to decrease.

Table 1

**Variation of Retail Prices of Milk in Russian Cities**

	Number of cities		Margins of price fluctuations	
	Jan 1993	Jan 1996	Jan 1993	Jan 1996
Low prices	12	8	2-10	955-1602
Average prices	11	20	11-15	1836-2315
High prices	26	32	16-26	2390-3506
Max prices	30	16	27-72	3700-6690

Source: Statistical Compilation "Prices in Russia", Moscow: Goskomstat, 1996

Another obvious trend is that the price fluctuations are getting more synchronized. The gap between the maximum and minimum price of the food basket in regional centres of Russia has decreased from 4,8 times in 1994 down to 2,8 times in 1997 (see Table 2). For the regions in the European part of Russia this difference dropped down to 1,7 times, making 2,5 times for Siberian and Far Eastern regions.

Table 2

**Price of the Food Basket by Russian Cities as on December 1997**

	Price of the basket consisting of 25 basic food products per month		Change of the price of the basket, % of December 1996
	thousand rubles	% of the Russian average	
Russia	233,3	100,0	110,4
Cities with the highest price			
Magadan	503,5	215,8	115,2
Petropavlovsk-Kamchatsk	466,4	199,9	102,4
Yakutsk	455,5	195,2	95,0
Yuzhno-Sakhalinsk	394,7	169,2	99,0
Cities with the lowest price			
Kazan	188,0	80,6	113,6
Cheboksari	184,2	78,9	102,8
Ulianovsk	183,1	78,5	124,4

Source: Statistical Compilation "Socio-economic Situation in Russia", Moscow: Goskomstat, 1997

The relative level of prices is getting equalized by groups of food and non-food goods, and the prices of the products produced by the "leading" branches are getting stabilized. All this allows speaking of the objective need for regional economic re-integration, which in turn would lead to formation of a common food market. Integration of the regional markets into an all-Russian market requires maintenance of the traditional commodity flows and re-establishment of the efficient inter-regional economic connections.

It was already in 1994 that the first positive shifts towards stabilization and increase in the volume of inter-regional exchange were observed at the markets for some individual food products. Thus, the volume of inter-regional exchange in meat products that year was 10% higher than that in the corresponding period of the previous year. Similar trends could be seen at the markets for dairy products and vegetable oil beginning with 1995. Although the volume of food import-export operations was still 3-4 times lower than that in 1990-1992, it was clear that the inter-regional exchange was gradually becoming more intensive.

The regional food-market regulation methods must have an objective grounding, which in turn can be based on the results of our analysis.

Basing ourselves on the stochastic convergence model described in the paper by Rosselio and Caralt (A.S. Rosselio, J.S.Caralt. The Convergence among the Regional Inflation Rates & Spanish Case Proceedings of the 35<sup>th</sup> European Congress of RSA, Odence University, August 21-25, 1995), we have researched the non-linear properties of the market economic indicators (prices and incomes) temporal dynamics.

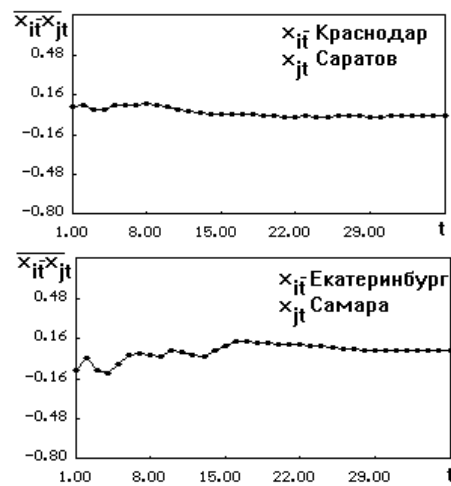
If linear trends in the levels of economic indicators for a number of regions are drawing closer to one another, or dispersion in different levels of indicators for each pair of regions is on a decrease, this signifies the existence of convergence. Stochastic convergence is quite different, as it exists when the difference of indicators for two regions represents a stationary random process with a zero average and constant dispersion.

Convergence of economic indicators of two regions, i.e. their coming to one and the same stationary state means existence of some common factors influencing the behaviour of such indicators. In this case the economic policy has to simply affect these common factors, that is to make the stationary state change. Along with this it is understood, that the common stationary state is different for the regions with different types of economic structures (agrarian, industrial, extracting or mixed). In view of this we have started our research by making a cluster analysis of

Russian regions according to the types of temporal dynamics of their economic indicators.

75 Russian regions have been analyzed from the viewpoint of changes in the average per head income and prices in the 1992-1995 period. As a result, there have been singled out 7 classes of regions having principally different dynamics of the analyzed indicators (see Fig. 1 at the bottom of the paper).

After that we attempted to find out if there was any convergence among the regions in each class and between the representatives of different classes (Fig. 2). Convergence among the regions included in one and the same class was revealed in practically all of the cases with the only exception, that being the class consisting of the regions for this or that reason considered “depressive”.



**Fig. 2: Average Difference in Economic Indicators for Two Regions by Finite Time Span**

There was no convergence observed between the representatives of different classes, except for a number of the regions. That indicates existence of different factors typical of that very type of economic structure. The policy in relation to those regions should therefore be implemented with taking into account their specific features.

The results of such an analysis can serve an objective basis for food-market regional regulation mechanisms.

As a result of our research, we have singled out the groups of regions, in which particular regulation models could be applied. Such models comprise the rate of subsidizing, balance between the administrative and economic methods of regulation, extent of government interference, amounts of transfers from the federal budget and other. However, the analysis shows that there is hardly any correspondence between the regulation methods currently applied and the

specific features of the regions the former are applied to. At the present time the government regulation of the regional food markets is performed quite chaotically.

The current regulation mechanisms are very specific in that they are not always closely connected with the peculiarities of reproduction in the region and the rate of its development, but are often based on the experience, political and economic views of the local authorities and traditions.

The still unsettled problems in the regulation of the relations between the federal and regional markets are often a source of regional crises, especially for the regions with agricultural specialization, and lead to instability in production and food supply. Regions differently react to the hardships of transition to a market-oriented economy.

Our opinion is that the most prospective is such a concept of government support, which is based on the production efficiency. At the initial stage of the reforms support was mostly extended to the collapsing farms in order to enable them to prolong their unsuccessful existence. Today the principle of efficiency is already included in the regulation concept applied in the Saratov Oblast. Moreover, it is considered that the rate of support should depend on the efficiency of management. The latter indicator compares the actual efficiency of management with the potential production efficiency.

The rates of subsidies on the products of animal breeding are fixed irrespective of whether the region is a specialized region or not (see Table 3).

Table 3

**Share of Subsidies in the Price of Animal Products (9 months of 1996)**

<b>Region</b>	<b>Cattle and poultry</b>	<b>Milk</b>	<b>Eggs</b>
Krasnodar	8	8	1
Astrakhan	14	31	9
Volgograd	15	9	0
Saratov	1	2	0
Penza	0	1	0
Ulianovsk	0	0	0
Oryol	3	2	0
Ryazan	7	8	5
Belgorod	0	0	0
Voronezh	0	1	0
Lipetsk	0	2	0
Tambov	2	3	1

There are no any clear systems in extending price support either. In accordance with the principle of guaranteed prices, guaranteed prices should just be the instrument to remove the



groundless price differences. However, the application of guaranteed prices has not been financed yet. The amount of finance to support the guaranteed prices is in direct proportion to the amount of products purchased for the federal fund, and rates of such prices and inflation. Guaranteed prices only served a guide in the process of price formation. The analysis shows that free market prices were lower than the guaranteed ones in all of the studied regions. For instance, the market price of milk in the Volga Region equaled 704 thousand rubles per ton with the guaranteed price being 950 thousand rubles.

There is no co-ordination in terms of the amounts and purposes of transfers to the regions from the federal budget and vice versa. It makes no sense to increase the efficiency in this situation since it brings no benefit.

### **Conclusions**

The process of creation of the uniform food market is braked by isolation of the regional markets, operation of numerous regional systems of support and administrative restrictions, that results in differentiation of the prices on regions, emerging of the local markets. For elimination it is necessary to reconsider the strategy of interaction federal and regional budgets. The modifications in systems of federal and regional transfer deeds should take into account an existing level of a production efficiency, it specialization. The support of more effective regions - manufacturers will give a large response, will allow considerably to reduce production costs and consumption of production.

For development of the mechanism of regulation of inflationary processes, prices and incomes we apply a model of a stochastic convergence. It has enabled to develop criterions of the substantiation of directions and sizes of state support, which are necessary for differentiating both on the separate documentary markets, and with reference to different regions. In conditions of a convergence of parameters market there are premises of realization of close to each other models of regulation of the of the same type regional markets.

### **Acknowledgments**

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**Fig. 1: Breakdown of Russian Regions by Dynamics of Prices and Incomes (1992-1996). Levels: 1 – maximum, 2 – high, 3 – above average, 4 – average, 5 – below average, 6 – low, 7 - minimum**

