EXPERIENCE OF WEEKLY PROPERTY INDICES IN BELARUS

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From the beginning of 1999 we lead monitoring of the apartment market of capital city of Minsk, which is the most formed real estate market in Belarus, and thereby can emerge as an indicator of development of market of the whole country. As the results of that work from September 2000 the ***apartment index of the BSV***, the ***quality index of supply***, the ***quality index of demand*** and the ***factor of market structure*** are produced weekly. Paper presents a description of this set of property indices and their dynamics.

Keywords: apartment market, Belarus, property indices, transition economies, valuation.

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INTRODUCTION

Minsk is the capital of Belarus. On 1 January 2001 his population is 1.6 mln. Apartments in many-storeyed houses are typical dwellings in Minsk. More than 80% of them are privatized. Because of that the market of apartments is one of the most developed and active real estate markets in Belarus. In some aspects it can indicate an economical situation in the whole country. Typical currency unit for transactions is USD.

During the period from January 1999 a quaterly reviews of the market of Minsk apartments were produced by the Belarusian Society of Valuers, the BSV, on the base of monthly statistics of supply and demand. As the result in the mid of 1999 a price fall down till summer 2000 was predicted which proved to be true later *(Trifonov 2000a)*. For the description of the market first two indices were introduced *(Trifonov 2000b)* and after that quality indices *(Trifonov 2001)* else. From September 2000 on, the set of four indices which described the market of Minsk apartments is produced every week.

As a source of information the weekly newspapers of free announcements were use. For first two years the study covered 25602 offers for sale and 5719 aplications to buying. Typical week volume of market in last time (May 2001) has form 740 offers on sale and 250 aplications to buying.

THEORY

As results of statistical processing of an accumulated material a set of indices were defined. These indices are to be divided into two groups: price one and non-price one. As money units in price indices US dollars are used as a typical unit of payment for the

apartment market of the city. The most important price index is apartment index of the BSV. Non-price indices are to be denominated in the manner of share (percent), quantitative evaluation in units of object under investigation measurement (for instance, amount of applications to buying, amount of offers for sale), ratio (for instance, factor of market structure).

The following group system emerges division of indices on complex (describing the market of apartments in Minsk as a whole) and sectoral (describing separate sectors of this market). The most attention deserves to complex indices, since their purpose consists in smoothing of trends established in separate sectors of the market, it is possible with their help to see a picture of development of market as a whole. Such indices as a apartment index of the BSV, complex price index of the demand, quality index of supply, quality index of demand, and factor of market structure belong to the given group.

Apartment index of the BSV occupies one of the lock-and-key positions in the study. He represents an average price in USD of 1 square metre of tolal area of supplied apartments. Calculation of apartment index of the BSV is produced by the following formula:

$$ \text{ITS } ? \frac{\sum\limits_{i?1}^{n} P_i}{\sum\limits_{i?1}^{n} S_i}, $$

where P_i is a price of separate proposed apartment in the mass of processed statistical data for a certain period (week),

S_i is a total area of separate proposed apartment in the mass of processed statistical data for a certain period (week).

Complex price index of the demand is defined by the similar way, but as values P_i and S_i are used accordingly price and total areas of apartments from the mass of applications to buying for a certain period.

Dwelling apartment is most typical housing in Minsk. And the quality of apartment is defined first af all by number of rooms in the apartment. In that number one includes all rooms with windows besides kitchen, bathroom and toilet. That is why the *quality index of supply* represents simply the average number of rooms in proposed apartments and is calculated by the following formula:

$$QIS = \frac{\sum_{j=1}^{5} jS_j}{S},$$

where S_j is an amount of proposed apartment with **j** rooms in the mass of processed statistical data for a certain period (week),

S is an amount of proposals for sale (apartments offered for sale) accumulated for a certain period (week).

Analogically the *quality index of demand* is defined by the following formula:

$$QID = \frac{\sum_{j=1}^{5} jD_j}{D},$$

where D_j is an amount of apartments with **j** rooms proposed for buying in the mass of processed statistical data for a certain period (week);

D is an amount of proposals for buying accumulated for a certain period (week).

Factor of market structure represents the ratio of the total number of apartments proposed for sale to the total number of apartments proposed for buying. Given factor is

refer to the group of non-price indices of the market. Calculation of the factor is produced by the following formula:

$$\mathbf{KSD = S \: /D,}$$

where as above **S** is the total supply and **D** is the total demand.

For the ideal market the given factor must tend to 1. Its excess on 1 reflects an accumulation of excessive offer that brings the growing of competitions amongst sellers. Such growing of competitions causes prices to low. If the factor of market structure becomes below 1, the offer is obviously insufficiently. In this case competition increases amongst buyers. For equalising the market sellers raise the prices, *etc*. Nevertheless the equilibrium value of this factor for the concrete market must be defined from statistical *data*.

INDICES TRACK RECORDS

Dynamics of market in August-October 2000 is presented in Table 1.

Table 1. Track record of apartment index of the BSV, supply, demand and factor of market structure (August 18 – October 6, 2000)

Date	Aug 1	Aug 2	Sep	Sep	Sep 1	Sep 2	Sep 2	Oct	
BSV	270,3	269,2	268,6	274,5	275,0	274,3	275,8	282,2	
S	430	440	561	507	548	562	569	600	
D	171	184	183	218	232	233	268	271	
KSD	2,51	2,39	3,07	2,33	2,36	2,41	2,12	2,21	

From autumn 2000 the apartment index of the BSV is rather stable near the mark 300. It means that an average price of 1 square metre on apartment market in Minsk is about USD300. Typical meanings of quality indices are: **QIS**=2.32, **QID**=1.94. Factor of market structure varies in the beginning of 2001 in the frames of 2-3.5 (see Table 2).

Table 2. Track record of apartment index of the BSV, supply, demand and factor of market structure, quality index of supply and quality index of demand (December 2000 – January 2001)

Date	Dec 8	Dec 15	Dec 22	Dec 29	Jan 5	Jan 12	Jan 19	Jan 26
BSV	301,4	301,5	302,6	302.0	303.8	320.9	304.0	304.5
S	708	761	689	484	298	525	666	711
D	271	259	263	275	217	183	227	226
KSD	2,61	2,94	2,62	1,76	1,37	2,87	2,93	3,15
QIS	2,38	2,40	2,35	2,33	2,35	2,35	2,29	2,32
QID	2,01	1,97	1,92	1,86	1,83	1,87	1,82	1,94

Now we can conclude that the apartment market in Minsk is stabilized. It is interesting to obtain a correlation between behaviour of different indices. Note that quality indices can be applied to any structurized market.

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