

## THE DIFFERENCE IN THE BEHAVIOUR OF DOMESTIC AND FOREIGN PRIVATE INVESTORS IN THE RUSSIAN STOCK MARKET

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*The issues of irrational behavior of domestic private investors in the Russian stock market come from their poor awareness of the events having a material effect on the prices of stocks. This is a major factor that lowers the confidence of domestic private investors in risk-bearing assets and long-term savings opportunities.*

### The role of domestic investors

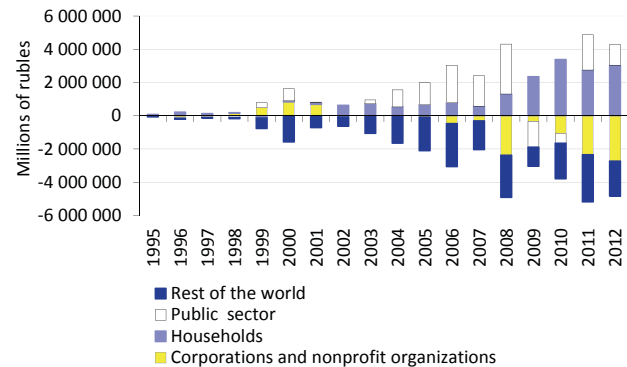
The data of the national accounting system shows (Fig. 1) that households is the key generator of excessive savings in Russia, which are used to finance the development of other economic sectors. In 2012, households accounted for 69.8% (Rb 3,0 trillion) of the total amount (Rb 4,3 trillion) of sources of net lending.

Regretfully, Russia cannot set up a mechanism of their transformation into long-term investment in the stock market. Most of these resources take the form of relatively long-term bank deposits or capital outflow as gains in foreign-exchange holdings by individuals. The lack of households' confidence in long-term investment in risk-bearing assets is determined by many factors, one of which is poor awareness of the factors which have a material effect on the prices of stocks. This can be perfectly seen in comparing the behavior of unitholders in Russian unit investment funds (hereinafter UIFs) and foreign private investors who invest in investment funds specializing in investment in Russian companies (hereinafter IFSRCs).

### Foreign private investors' behavioral features

Emerging Portfolio Fund Research (EPFR), an information resource, has long been publishing its weekly statistics of cash flows of foreign private investors who invest in IFSRCs established under foreign jurisdictions. The behavioral features of this group of investors can be summarized as follows. Their behavior is cyclical, upon a strong downtrend/uptrend signal they invest or, conversely, withdraw their funds from IFSRCs within a period of several years; and they keep on until there is another strong signal making them change the foregoing behavior. From what we have observed, the signal represents a drastic change in 24-month forecasts of GDP growth rates, above all, in the United States and Russia. Any substantial downgrading of such forecasts is a sign of downtrend in prices of energy resources exported by Russia and devaluation of its national currency.

IFSRC investors' behavior resembles a child's game called the "musical chair". While the music is ply-

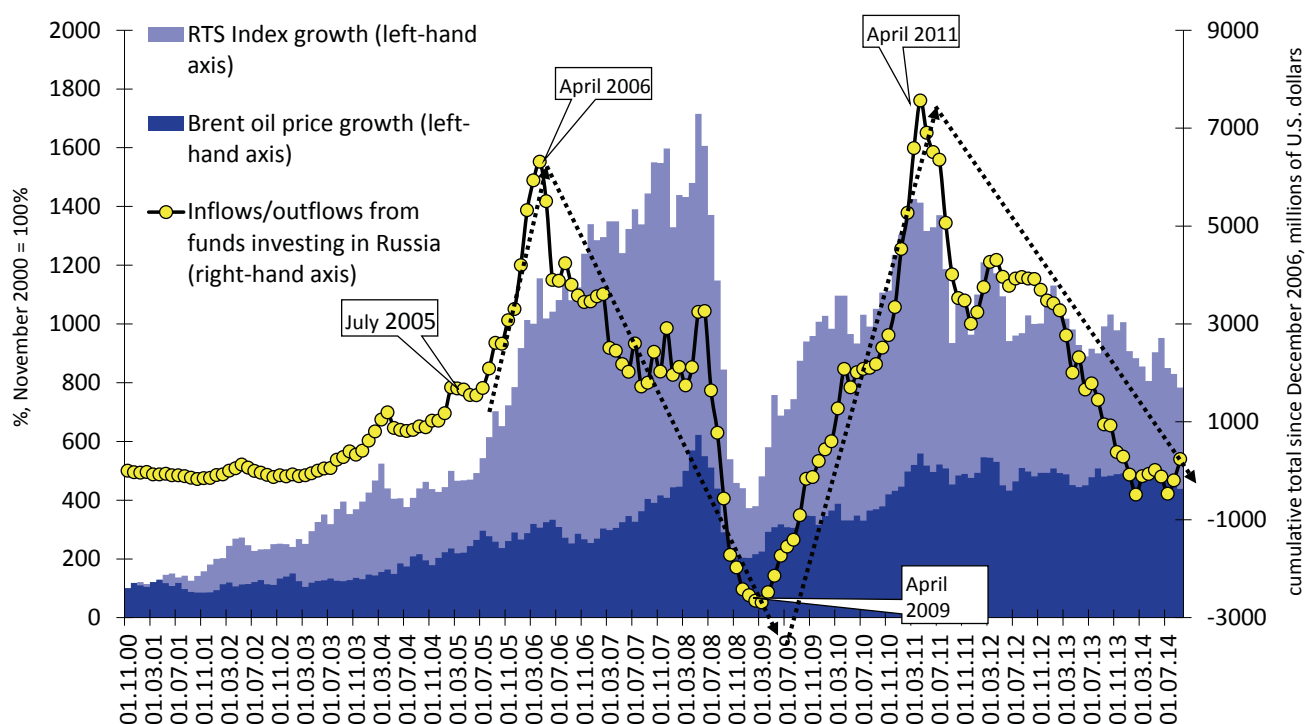


Source: the author's estimates based on the data provided by the Federal State Statistics Service (Rosstat).

Fig. 1. Volumes of net lending (+) and net borrowing (-) in Russia in 1995–2012, millions of rubles

ing investors run around chairs, altogether investing in or withdrawing their money from funds. Their task upon any information signal is seat down on a chair at the right time, i.e. change inversely their investment behavior. At the same time, the behavior is based on serious and simple information signals. We assume that this is first of all Consensus Economics, an information resource which is actively used by international financial institutions and investment entities. Understanding that key investment decisions are based on serious information signals is very important for investors, because it makes them feel they can control the situation in any case, rather than the reverse. This is why such investors don't get pessimistic even in the case of long periods of exits from the Russian market. They know that such investment is exposed to risks but the rules are clear for them.

IFSRCs saw a continuous inflow of investment after Russia was ranked late in 2004 by major international rating agencies (Fig. 2). In May 2006, the trend reversed abruptly and investors began to withdraw their money from special-purpose funds within a period of three years until April 2009 when the trend reversed again and investment funds began to return back to IFSRCs. Another change took place in May 2011, the begin-



Source: estimated on the basis of the data provided by IFS IMF, Moscow Stock Exchange and EPFR.

Fig. 2. Growth in the RTS Index and crude oil prices, inflows (outflows from) to funds investing in Russia (November 2000 – September 2014)

ning of a long-lasting period of outflows from special-purpose funds which is still in place. Nine billion U.S. dollars were withdrawn from special-purpose foreign funds in the period of May 2006 to March 2009, and \$7,3bn between May 2011 and September 2014.

We will refer to two surveys in order to prove assumptions regarding the reasons for the behavior of IFSRC private investors.

Factors that predetermine adverse changes in the behavior of global portfolio investors in emerging markets were explained by IMF experts in the Global Financial Stability Report, September 2011<sup>1</sup>. They used the EPFR data regarding the flows in special-purpose equity investment funds worldwide, in Asia, Latin America, Europe, Middle East and developed economies in the period between January 2005 and May 2011. The survey shows that the inflows/outflows were basically influenced by the following key factors:

- official forecasts of real GDP growth rates<sup>2</sup> (positive);
- volatility of GDP growth rate forecasts (negative);
- volatility of the exchange rate of foreign currencies (negative);

1 IMF. Financial Stability Report. September 2011, pp. 11–18. Available on [www.imf.org](http://www.imf.org).

2 GDP growth forecasts and their volatility were estimated on the basis of the Consensus Economics database.

- stock market volatility indicator – Volatility Index (VIX) (negative).

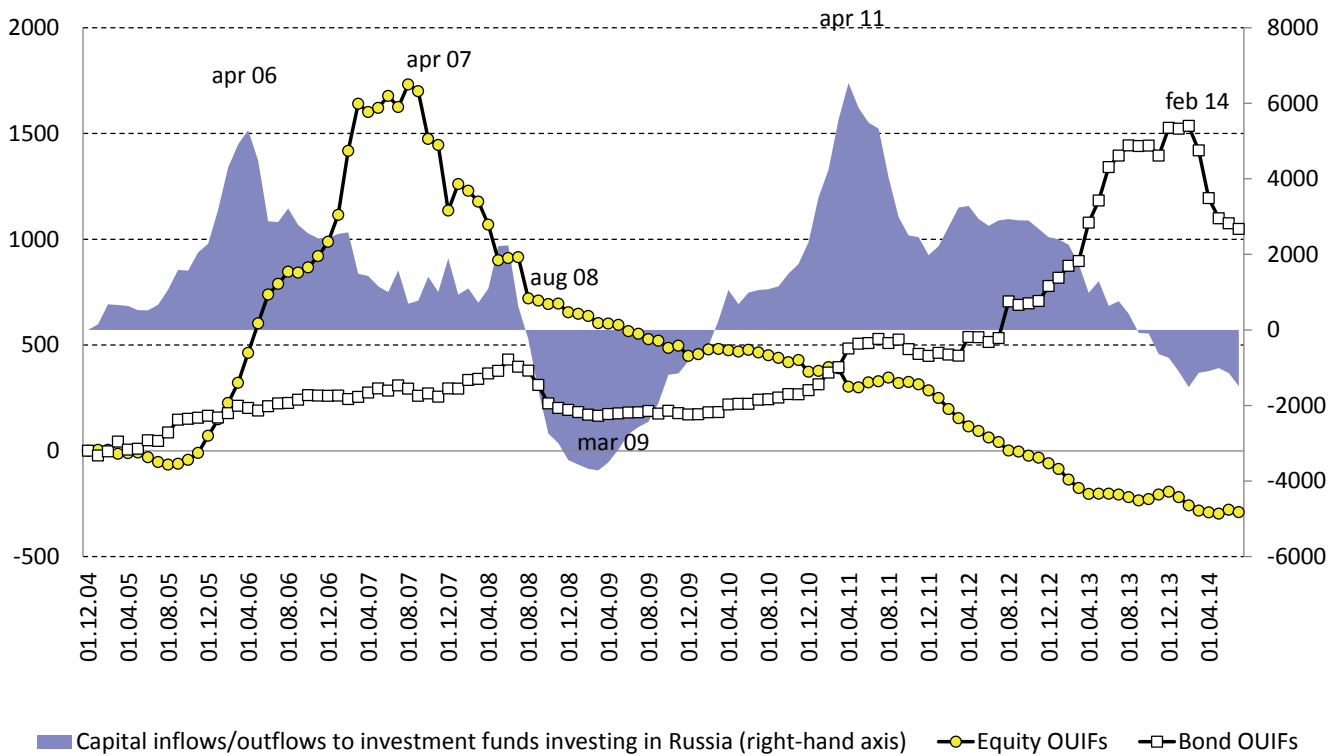
Indicators of interest rates and currency regulations came to be among less important factors.

Our survey – the results of the survey were published in the Gaidar Institute's Russian Economy Review in 2013 on the basis of the Consensus Economics' data available for IFSRC private investors in May 2006 – showed that outflows from IFSRCs since the foregoing month might have been triggered first of all by the information about drastic downgrading of consensus forecasts of GDP growth in the U.S. economy in 2007<sup>3</sup>. Similar outflows from IFSRCs almost repeated when forecasts were changed in May 2011.

#### Russian UIF unitholders' behavioral features

Over the past decade the behavior of unitholders of Russian open-end equity UIFs differed from that of IFSRCs (Fig. 3). In the period of booming Russian stock market till August 2007 private investors kept investing in unit equity investment funds. In May 2006, unlike IFSRC foreign private investors, the signal about global growth downtrend had no effect whatsoever on Russian UIF investors. It wasn't until September 2007 that Russian investors began to withdraw their funds from equity UIFs, when Russian stock indices driven by full-throttle outflows from foreign IFSRCs began to fall

3 Russian Economy in 2013. Trends and Outlooks. (Issue 35) – M.: Gaidar Institute, 2014, pp. 119–124.



\*the diagram shows monthly inflows (+) / outflows (-) from unit investment funds and foreign investment funds as calculated on a cumulative total; the initial value for the series as of December 2004 is taken as zero.

Source: www.investfunds.ru with regard to the sales balance data in Russian unit investment funds, EPFR with regard to information on inflows/outflows in foreign funds specializing in investment in the shares of Russian issuers.

Fig. 3. Comparative analysis of OUIF unitholders and foreign portfolio investors in funds specializing in investment in Russian joint-stock companies in the period of December 2004 to September 2014 (millions of U.S. dollars on a accrual basis: December 2004 = 0 USD)

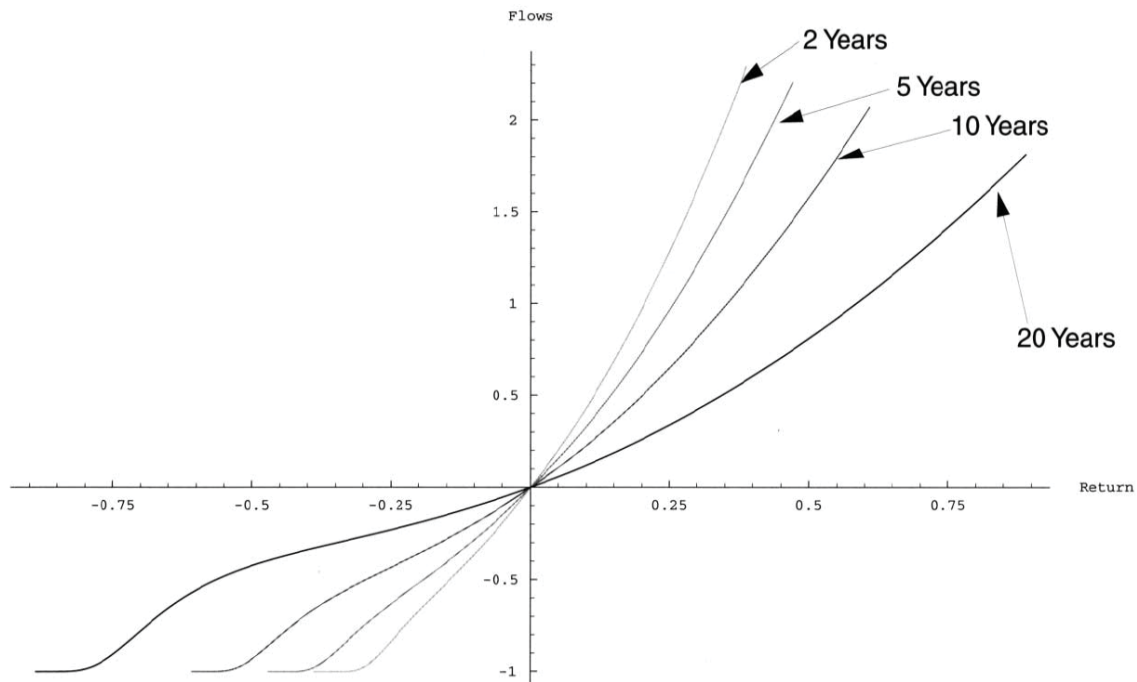
while crude oil prices were still growing. Furthermore, later, at the very height of the crisis, in September–November 2008 Russian UIF investors were still trying to play the game of “buying shares while they are cheap”, not realizing yet the severity of the developed financial crisis.

Naturally, showing such an irrational behavior, Russian UIF unitholders sustained material investment losses which totally undermined their credibility in the Russian stock market. However, the problem was actually the lack of services allowing investors to make reasonable investment decisions. At the same time, private investors’ shattered confidence in the domestic stock market (Fig. 3) shows the onset of non-stop outflows from equity UIFs, which are still there. While exiting such UIFs, domestic investors ignored the signal of recovery in the global and Russian economies in March 2009; they still keep exiting. This points to the fact that during the crisis private investors have lost confidence in equity unit funds, while investors themselves lost the ability to see any positive signals of stock market recovery. Unlike Russian UIF unitholders, foreign IFSRC investors didn’t miss the chance to make money on the recovery growth in the market of shares of Russian issuers through active investment in these

funds in March 2009 till April 2011. In other words, foreign private investors again showed a more systemic and informed approach towards pooled investment in the Russian stock market.

Massive retargeting of investment strategies from equity UIFs towards bond UIFs was another behavioral feature of unitholders of Russian unit investment funds as a result of the 2008 crisis. The latter saw substantial inflows in the period between March 2009 and February 2014. The curves of post-crisis cumulative inflows/outflows in both equity and bond unit investment funds intersect in the form of a cross (Fig. 3). Such a “unit cross” shows that a substantial part of unitholders’ funds previously invested in equity UIFs were reinvested in bond unit investment funds after the crisis. Unitholders’ retargeting towards bond UIFs was interrupted in March 2014 due to the devaluation of these funds’ portfolios driven by growth in rates in the domestic market in response to western sanctions against Russia over the events in Ukraine and because the Bank of Russia lifted the key interest rate.

Furthermore, studies of the so-called sales curve of the units of these funds show the irrational behavior of Russian equity UIF private investors. According to the



\* The diagram shows different curves for investment funds with different lifetime.

Source: Berk, J. and Green, R. (2004) Mutual fund flows and performance in rational markets, *Journal of Political Economy* 112 No. 6, pp. 1269–1295.

Fig. 4. An illustration of convexity of the function of dependence of sales balance of the current period (Y axis) on mutual funds' excess returns<sup>3</sup> in the preceding period of time (X axis)

model of Berk J. and Green R.<sup>1</sup>, mutual funds the sales balance is a function of excess return of such funds in the previous period (hereinafter – *the sales curve*). The curve in the loss zone has a convex form (Fig. 4). The convexity of the sales function reflects irrational behavior of mutual fund investors, i.e. when funds face growth in losses the investors are not so quick in exiting as it could be expected from a rational behavior of investors<sup>2</sup>. At the same time, flows are more sensitive to changes in returns of “young” rather than mature investment funds.

According to some researchers<sup>4</sup>, the sales curve's convexity in the loss zone can be explained by inves-

tors' strong tolerance to mutual funds' losses, because such funds are quick in announcing the replacement of loss-making portfolio managers and investment strategies. Goetzmann W. and Peles N.<sup>5</sup> explained this phenomenon by the fact that investors in ineffective investment funds fell into a state of cognitive dissonance and overestimated (whitewashed) to a certain extent the performance of such funds, staying more tolerant in making decisions to withdraw their money from such funds. Explaining the convexity phenomenon, Huang J. et al<sup>6</sup> tried to offer an integrated model of convexity factors through analysis of investors' costs of obtaining information on mutual funds and their transaction costs.

We will try to assess how this regularity can be seen in average values of quarterly NAV (NAV means the net asset value) and sales balance for all open-end equity unit investment funds in Russia (Fig. 5) in the period beginning 2005 and ending Q2 2014. Although the obtained diagram failed to reveal the presence of the sales curve in its classic form, the key aptitude of mutual fund

1 Berk, J. and Green, R. (2004) Mutual fund flows and performance in rational markets, *Journal of Political Economy* 112 No. 6, 1269–1295.

2 The phenomenon of convexity of the curve of dependence of sales balance on mutual funds' returns is somehow similar to the abnormal behavior in the loss zone of the utility function binding returns on investment with their utility for rational investors caused by the human cognitive aptitude, namely, the fear of losses. The foregoing abnormality in the behavior of rational investors was discovered by Kahneman and Twersky.

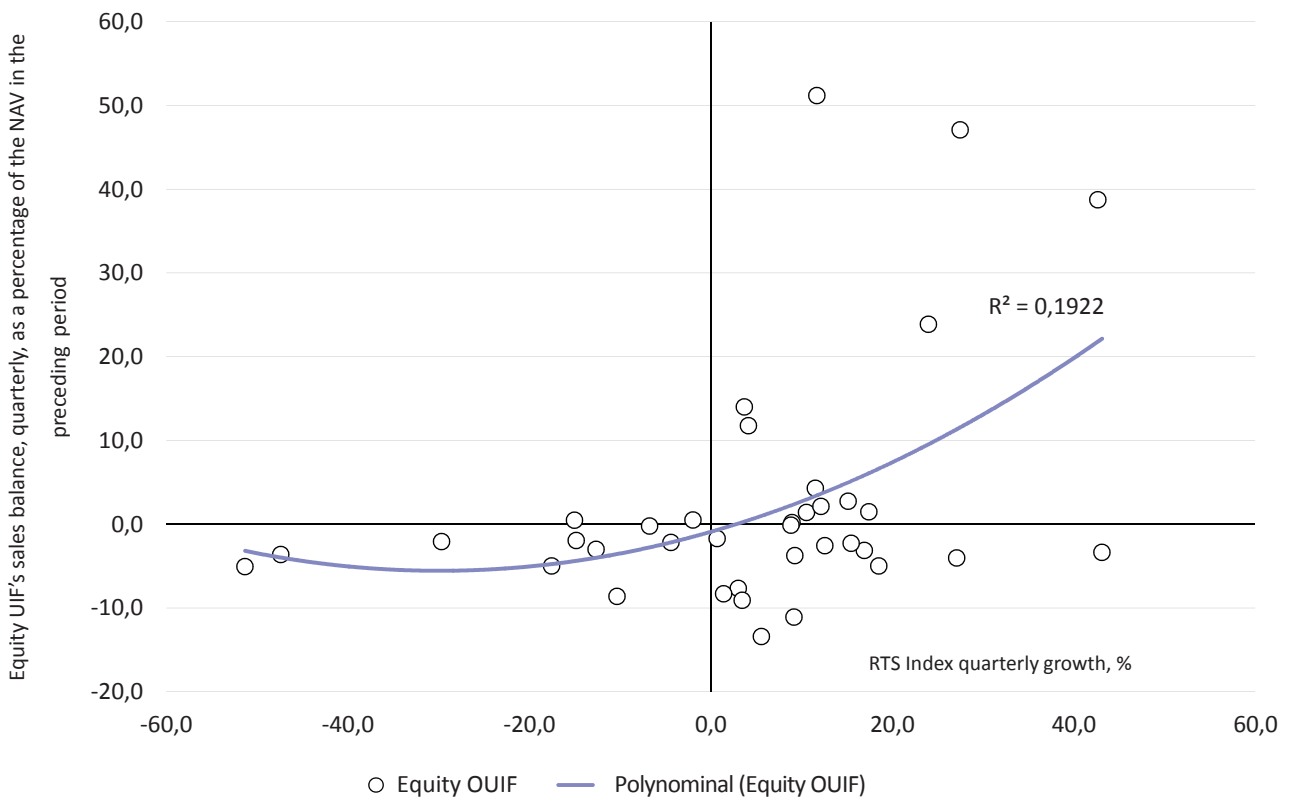
3 More specifically, excess returns compared to the Carhart four-factor model.

4 See Ippolito R. 1992. Consumer reaction to measures of poor quality: Evidence from the mutual fund industry. *Journal of Law & Finance* 35, 45–70; Chevalier J., Ellison G. 1997. Risk taking by mutual funds as a response to incentives. *Journal of Political Economy*, 105, 1167–1200; Sirri E.R., Tufano P. 1998. Costly search and mutual funds flows. *Journal of Finance*. 53, 1589–1622; Lynch A., Musto D. How Investors Interpret Past Fund Returns. *The Journal*

of Finance. Vol. LVIII, No. . 5, October 2003; Berk, J. and Green, R. 2004. Mutual fund flows and performance in rational markets, *Journal of Political Economy* 112 No. 6, 1269–1295.

5 Goetzmann W., Peles N. Cognitive dissonance and mutual fund investors. *The Journal of Finance Research*. Vol. XX, No. 2, 145-158, Summer 1997.

6 Huang J., Wei K., Yan H. Participation Costs and the Sensitivity of Fund Flows to Past Performance. *The Journal of Finance*. Vol. LXII, No. 3, June 2007.



Source: the authors' estimates on the data of sales of the units in UIFs from [www.investfunds.ru](http://www.investfunds.ru) and equity UIFs' NAV from [www.nlu.ru](http://www.nlu.ru).

Fig. 5. The dependence of quarterly balance of sales of the units at Russian equity OUIFs on their returns in the preceding quarter, on the basis of the data on the period of 2005 to Q2 2014

investors' behavior in Russia was proved to be present. The diagram of polynomial function with a determination factor of 0.192 shows that UIFs saw inflows growing at faster rates than ROE while the RTS Index grew up, but they slowed down unexpectedly as equity unit funds saw their losses rising. This is indicative of unitholders' irrational behavior. They are too optimistic about further investment in funds, with growing returns in the stock market, while in the face of rising losses they are too slow in withdrawing their money, for fear of losses. This corresponds to the behavioral finance postulates formulated by Kahneman and Twersky.

Investment in Russian companies has always been exposed to risk. The issues of economic growth stagnation and western sanctions make more difficult to invest. The recovery of investment growth and private investors' confidence in this market requires actions

aimed at building up a culture of domestic savings based on private persons' objective and comprehensive awareness of investment assets opportunities and risks. The example of foreign investors investing in foreign IFSRCs shows advantages of systemic investment based on signals and projections from stable and time-honored sources of information. However, Russian private investors are exposed to more serious risks in the stock market of domestic issuers, as they are left to themselves in the aggressive environment of information asymmetry and tend to listen to their heart rather than head in making decisions. This in many respects is the source of mounting nihilism of individuals when it comes to investment in risk-bearing assets, which has to be overcome before dreaming of any investment growth. ●