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УДК 651.159.9.019

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SAVINGS IN THE MARKET ECONOMY: FACTORS OF INFLUENCE

В работе рассматривается влияние когнитивных диспропорций на принятие решений в сфере сбережений, проведен анализ диспропорций с позиции модели поведения потребителей в рыночной экономике (бихевиористский подход). Рассматривается важная и актуальная проблема увеличения объема сбережений на рынках развивающихся стран.

Traditional theory suggests that individuals have full information and are able to process it, so they make rational decisions, and their preferences are well-defined and don't change over time. However, these assumptions are questioned by behavioral economists and decision-making researchers. They are interested in a process of decision making in the context of incomplete information, limited cognitive resources, and behavioral. A lot of research in the areas of judgment and decision making and behavioral economics provide empirical evidences suggesting that individuals often act in ways that are economically suboptimal [1].

It is important to notice that saving is crucial for development of emerging economies while microcredit have modest effect. Despite this fact, savings levels in developing countries remain relatively low and reasons for this are still not fully understood. In many cases, low level of savings is not caused by fact that individuals in emerging markets have not enough money to save. They meet different constraints to saving. One of the sufficient constraints is behavioural bias, that is more tangible among poor people. Thus, it is important to understand the nature of this phenomenon in general and its features in emerging markets in order to realise how to implement policies to increase formal savings and contribute to development of economy.

Psychologists used four main paradigms to measure attentional bias. Every test has own specific characteristics and is used to capture different features of attentional bias. First one is Stroop paradigm which was described above. However, the gold standard in attentional bias research is dot-probe paradigm [2]. Two stimuli, one of which is neutral and one of which is threatening, are presented simultaneously for predetermined length of time. The probe then replaces one of the two stimuli to which participants must respond – by classifying the probe or responding to a location.

The Posner paradigm or Posner cueing task is similar to the dot-probe paradigm. This test measures the ability of individuals to switch and focus on different stimuli presented [2-3]. The visual search is a less used way of measuring attentional bias. It includes the measurement of the ability to detect and distinguish specific objects among other objects.

People behave in suboptimal way making savings decision. It is caused by many factors: one of them is imperfect information. Moreover, imperfect information often distorted by processing by individuals in biased manner. As was shown in first chapter, attention bias is the cause of cognitive distortion. This happens when a person does not think about all possible scenarios for making decision. Such sort of distortion was implemented in a model of savings and consumption in a work of D. Karlan et. Al [4]. Individual's aggregate utility consists of utility of "routine" consumption ($u(c_t)$) and on exceptional expenditure (x_t) which gives additional extra utility (\bar{u}). Exceptional expenditure has a unit cost 1 (x_t is a binary dummy variable and can be either 1 or 0) and can vary across time (travel expenditure in one period, medical expenditure in next and so on). So, anticipated expenditure is equal to keeping in mind future consumption goals [4-6].

There are two different type of individuals "fully attentive" and "inattentive". Fully attentive individuals will have perfect plan and smooth their "routine" consumption. They will be indifferent in financing one unit of exceptional consumption.

$$\sum_{t=1}^T (u(c_t) + x_t \bar{u}) \quad (1)$$

$$w_{t+1} = w_t = y - c_t - x_t \forall t \quad (2)$$

subject to:

$$w_1 = 0 \text{ and } w_{t+1} = 0 \quad (3)$$

In reality, individuals are not fully attentive regarding exceptional expenditures in future (but they attend in both type of consumption in current period) and will use opportunity to get extra utility from it with probability:

$$u(c_t) + x_t \bar{u} + \sum_{t=1}^T (\theta u(c_t) + x_t \bar{u} + (1 - \theta)u(c_t)) \quad (4)$$

Inattentive individuals face problem each period either to increase ordinary consumption or to consume one unite of exceptional consumption only in current period in order to maximize total utility. So, they are unaware of their inattention and the underforecast the number of expenditure opportunities [1]. Inattentive-ness is a reason for individuals to reoptimize their saving-consumption plan every period with new realization of total number of future exceptional expenditures opportunities in period t \tilde{k}_t . Individuals don't save amount of money every period.

They decide how much to save in period t with respect to wealth in this period and plan of future exceptional consumption. However, $t \tilde{k}_t$ is changing over time and in some periods, individuals attend in unanticipated consumption consequently they are changing their save-consumption plan. When unanticipated exceptional consumption is sufficiently high, individuals have to drastically cut consumption in this period, borrow money and smoothly cut consumption in future periods, or forgo some exceptional expenditures.

Savings of inattentive individuals is:

$$\tilde{S}_t = \frac{\tilde{k}_t + \tilde{x}_t}{T-t+1} - \tilde{x}_t \quad (5)$$

So, savings in period t depend on difference between "routine" consumption in period t and sum of current expenditure (\tilde{x}_t) and future expenditures (\tilde{k}_t) divided by number of future periods till the end of lifetime when individuals will face decision to attend in exceptional consumption. So, consumers can only plan to spent periodically less money than the future exceptional spending opportunities they predict. Difference between inattentive and

fully attentive individuals here that for inattentive individuals' savings can turn negative and they will have to borrow or forego some consumption.

Mobilization of savings plays an important role for individuals and societal welfare. At the individual level, savings is an instrument for smoothing consumption and finance investments in human or entrepreneurial capital. At the macroeconomic level, savings rates help predict future economic growth. In developing countries, saving is an important financial tool while access to credit for private consumers and small business is very limited.

Attention bias is one of the most studied distortions of savings in modern literature. There are plenty experiments which prove that inattentiveness reduces amount of savings of households in emerging markets. Messaging is the most used way to overcome attention bias, however it is possible to suggest other methods.

Mental accounting is well studied concept, however, there were done not many experiments based on it. For example, online banks or fintech start-ups as Revolut and №26 in EU or Tinkoff in Russia gain popularity and compete with traditional banks for customer savings. They provide with easy and good tools based on mental accounting concept to increase amount of savings. One of this tools was called "Spaces". It gives opportunity to divide your account into different "spaces" like account for current expenditures, account for monthly payments, and saving-goals account. This accounts are visualised what give people opportunity to see amount of money on every account, statistics from previous periods and, for saving accounts, percentage of fullness to achieve goal. It helps rationalize consumption-saving behaviour. Moreover, good features is possibility to automatically distribute incomes between different spaces and distinguish savings account among others. Thus, when consumer withdrawal cash or pay in shop, than money is withdrawn from the "space" intended for these payments and saving "space" remain untouched. So, automatization of amount of savings can reduce inattentiveness and visualisation can help to see full picture of assets and focus on future expenditure.

It is a commonly known, that individuals pay more attention to what they count as important. The importance of different things is perceived in different ways by people with different levels of knowledge and education. Thus, financial literacy will likely influence attention bias. Financial literacy is now globally recognized as an important element of economic and financial stability and development, however not many re- search has been done to estimate effect of financial literacy on behavioural biases in general. One reason for that is complexity of measurement of financial literacy itself. It is highly possible that increase of financial literacy lead to increase of responsibility for financial decisions and consequently attention to future financial statement.

Different age and gender groups have own features of attention bias and different saving behavior. Especially, this situation is interesting in traditional economies most of them are also emerging markets. There are studies that claim that young people are overconsume and undersave and old generation otherwise. However, most of this research was done in context of developed economies. Evidences from emerging markets can be different, especially in case of gender issues. For example, evidences from Turkey suggest, that male investors tend to overestimate their knowledge and be over- confident in their decisions, while female are less tend to behave like that. These features can be relevant for analysis of saving behavior in context of attention bias.

As was mentioned in first part of this paper, attention bias depends on past experiences. Thus, it is possible to combine it with rational expectation of agents. Attention of individuals can be affected by today's state of the world and can be changed by appropriate change in policy. For example, individuals, who experienced hyperinflation will consider possible expenditures in future, even after overcoming of crisis, differently from those who

used to stable currency. So, it is possible to conclude that attention bias tomorrow can be affected by macroeconomic policy today.

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УДК 330.341

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СОВРЕМЕННАЯ ЭКОНОМИЧЕСКАЯ ПОЛИТИКА И СОЗДАНИЕ СВЕРХИНДУСТРИАЛЬНОЙ ЭКОНОМИКИ В РЕСПУБЛИКЕ БЕЛАРУСЬ

Материалы посвящены экономической политике Республики Беларусь в контексте проведения новой индустриализации. Показано, что поскольку Республика Беларусь ориентирована на переход к сверхиндустриальной экономике, базирующейся на реальном секторе, экономическая политика должна быть направлена на технологическую модернизацию национального промышленного комплекса и подчинение финансовой политики промышленной политике. Для Республики Беларусь одним из инструментов реализации экономической политики должно стать целевое насыщение экономики «длинными деньгами», направленное, прежде всего, на модернизацию национального промышленного комплекса. Обойтись при этом без целевой (связанной) денежно-кредитной эмиссии невозможно.

Республика Беларусь относится к государствам, ориентированным на формирование национальной экономики как сверхиндустриальной. Такая цель требует использования соответствующих инструментов реализации современной экономической политики. Именно выбор инструментов проведения экономической политики является сегодня одной из наиболее спорных проблем в экономической теории и практике. В качестве главных (агрегированных) инструментов экономической политики можно рассматривать промышленную политику, финансовую политику, социальную политику, структурную политику, демографическую политику, экологическую политику, внешнюю политику и т.д. Если перед обществом стоит задача провести новую индустриализацию для создания сверхиндустриальной экономики, то приоритетным инструментом становится промышленная политика, именно ей должны подчиняться все остальные политики. Не следует понимать последнее высказывание буквально, поскольку не люди существуют для экономики, а экономика для людей – это проистекает из функционального назначения