

25. Nollet, J., Filis, G., Mitrokostas, E., 2016. Corporate social responsibility and financial performance: A non-linear and disaggregated approach. *Economic Modelling*, 52(B), pp.400-440. DOI: <https://doi.org/10.1016/j.econmod.2015.09.019>.

26. Oh, W., Park, S., 2015. The Relationship Between Corporate Social Responsibility and Corporate Financial Performance in Korea. *Emerging Markets Finance and Trade*, 51(sup3), pp.85-94. DOI: <https://doi.org/10.1080/1540496X.2015.1039903>.

27. Order no. 1.938 of 17 August 2016 on the Amendment and Completion of Accounting Regulations, published in Official Monitor no. 680 of 2 September 2016.

28. Orlićky, M., Schmidt, F.L., Rynes, S.L., 2003. Corporate Social and Financial Performance: A Meta-analysis. *Organization Studies*, 24(3), pp.403-441. DOI: <https://doi.org/10.1177/0170840603024003910>.

29. Renneboog, L., Horst, J. Ter, Zhang, C., 2008. Socially responsible investments: Institutional aspects, performance, and investor behaviour. *Journal of Banking and Finance*, 32, pp.1723-1742. DOI: <https://doi.org/10.1016/j.jbankfin.2007.12.039>.

30. Rodríguez-Fernandez, M., 2016. Social responsibility and financial performance: The role of good corporate governance. *Business Research Quarterly*, 19(2), pp.137-151. DOI: <https://doi.org/10.1016/j.brq.2015.08.001>.

31. Servaes, H., Tamayo, A., 2013. The impact of corporate social responsibility on firm value: The role of customer awareness. *Management Science*, 59(5), pp.1045-1061. DOI: <https://doi.org/10.1287/mnsc.1120.1630>.

32. Simionescu, L., Dumitrescu, D., 2014. Corporate social responsibility and financial crisis. *Monetary, Banking and Financial Issues in Central Eastern EU Members Countries: How can Central and Eastern EU Members overcome the current economic crisis* 2, pp.281-289. DOI: https://doi.org/10.1007/978-3-319-27573-4_41.

33. Skare, M., Golja, T., 2015. Corporate Social Responsibility and Corporate Financial Performance – Is There A Link?. *Economic Research-Ekonomska Istraživanja*, 25(sup 1), pp.215-242. DOI: <https://doi.org/10.1080/1331677X.2012.11517563>.

34. United Nations Global Compact, 2012. *Sustainable Stock Exchanges. A Report on Progress*. URL : https://www.unglobalcompact.org/docs/issues_doc/Financial_markets/Sustainable_Stock_Exchanges.pdf, las accessed 2018/02/22.

35. Wang, M., Qiu, C., Kong, D., 2011. Corporate Social Responsibility, Investor Behaviors, and Stock Market Returns: Evidence from a Natural Experiment in China. *Journal of Business Ethics*, 101, pp.127-141. DOI: <https://doi.org/10.1007/s10551-010-0713-9>.

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ВПЛИВ ПРИЙНЯТТЯ КСВ НА ФІНАНСОВІ РЕЗУЛЬТАТИ КОРПОРАЦІЙ. НА ОСНОВІ ДАНИХ БФБ

Аналізується зв'язок між корпоративною соціальною відповідальністю (КСВ) і корпоративними фінансовими показниками (КФП) на прикладі компаній, зареєстрованих на румунському ринку. Для цього спочатку розглядається існуюча література, а далі використано дані за період із 2007 по 2015 рік (панельні дані), до яких застосовано просту модель регресії. Із загальної кількості компаній, що котируються на Бухарестській фондовій біржі (БФБ), ми вибрали 59 компаній, які не виключали з торгів і за якими були доступні фінансові результати за весь досліджуваний період. Ці дані свідчать про зростання фінансових показників у компаній, що виконують КСВ (тільки 16 із 59 компаній здійснюють діяльність відповідно до КСВ), порівняно з компаніями, що не мають КСВ. Це дослідження має важливе практичне значення для політиків, менеджерів, інвесторів та інших зацікавлених сторін.

Ключові слова: корпоративна соціальна відповідальність, корпоративні фінансові показники, Бухарестська фондова біржа.

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ВЛИЯНИЕ ПРИНЯТИЯ КСО НА ФИНАНСОВЫЕ РЕЗУЛЬТАТЫ КОРПОРАЦИЙ. НА ОСНОВЕ ДАННЫХ БФБ

Анализируется связь между корпоративной социальной ответственностью (КСО) и корпоративными финансовыми показателями (КФП) на примере компаний, зарегистрированных на румынском рынке. Для этого вначале рассматривается существующая литература, а далее используются данные за период с 2007 по 2015 год (панельные данные), к которым применена простая модель регрессии. Из общего числа компаний, котирующихся на Бухарестской фондовой бирже (БФБ), мы выбрали 59 компаний, которые не исключали из торгов и по которым были доступны финансовые результаты за весь исследуемый период. Эти данные свидетельствуют о возрастании финансовых показателей у компаний, выполняющих КСО (только 16 из 59 компаний осуществляют деятельность в соответствии с КСО), по сравнению с компаниями, не имеющими КСО. Данное исследование имеет важное практическое значение для политиков, менеджеров, инвесторов и других заинтересованных сторон.

Ключевые слова: корпоративная социальная ответственность, корпоративные финансовые показатели, Бухарестская фондовая биржа.

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AN AGGREGATE EXAMINATION OF THE INVESTMENT BEHAVIOUR

As individuals we are egocentric, consistently intending to enhance our self-interests by satisfying our most demanding needs and accomplishing our targets. After assembling all the missing information and estimating the probabilities that will ease our directions without being too excessive, the decision is being made. Individuals are perceived to be rational investors. Although the theory is teaching us that we all choose based on calculated possibilities and desired outcomes, the observed conduct disproves it. The aim of this paper is to discern how humans behave, react and invest, with the help of an aggregate research based on historical economic contexts and models. By evaluating as well the strategic conduct in uncertain situations will definitely lead to the identification of some patterns in the decision-making process. Because in the end, humans are being distinguished by their pragmatic way of deciding.

Keywords: bounded rationality, ambiguity aversion, adaptive expectations, behavioural biases.

Introduction. "An aggregate examination of the investment behaviour" intends to outline a clearer and more detailed picture regarding individuals' preferences and the

resources that guide personal behaviour. Through this article, we will be able to understand how people shape their expectations, the methods that are used in building

forecasts and last, but not least, how can behaviour adapt to a continuously changing environment.

The present work is structured in 7 sections, as follows: part two reveals some examples of rational choice theories, together with the "bounded rationality" concept, while in the third section, paradoxes to the rational conduct are being presented. Summarizing the next section, the rational expectations and the behaviour adjustment are being put into light, while through section number 5 the pillar of a new scientific field is being approached, namely behavioural economics. The sixth part investigates the most important and frequently met behavioural biases, while chapter seven briefs the main ideas of the paper.

The "Homo Economicus" approach. In the history of the economic models we can surely observe that humans are perceived and believed to be substantially rational, always looking to enlarge their personal welfare, or stated in simple language, they are *Homo Economicus*, or *economic men*. The basic idea is established on the hypothesis that anyone is a self-interest individual, evaluating all unascertained possibilities before making a decision. By choosing the most considerable utility of an alternative, also the least struggle is being put, as Adam Smith firstly illustrated in his book entitled *The Wealth of Nations*, 1776 [12].

The judgement that economic cooperation between humans is generally guided by self-interest was Scottish economist's fundamental belief, describing that "it is not from the benevolence of the butcher, the brewer, or the baker that we can expect our dinner, but from their regard to their own interest" [12]. What the economist wanted to emphasize is the fact that although we might benefit from a service, it is not because of the provider's generosity, but on account of an eagerness to maximize the personal profit.

Adam Smith's perceptions were positively welcomed also by John Stuart Mill, who considered that every human-being seeks to obtain a high level of wealth, not only financial, but also spiritual. The philosopher, whose thoughts were promoted in the 19th century, detected the impulse of individuals to attain a maximum level of welfare, but in the same time trying to put as little effort as possible when reaching their goals.

This classic economic model of the 18th century, which describes attitudes and actions presumes that every member that takes part on a market is well researched and rational, but we have to admit that this is only the perfect scenario, without being always applicable. Nowadays, the concept of the *economic man* is seen as the theory of the rational choices, where humans make decisions taking into account the worth and welfare of the social or economic alternatives. The experts in the field of economics consider that a rational response can result only from a serious and controlled forecast of all the costs and benefits that may arise from taking such a decision. Important to mention is the fact that in analyzing this approach the personal objectives are not taken into account, because of the differences in desires and ambitions, which can seem entirely irrational to others.

As any other theory, the "Homo Economicus" concept had to face some contradictions, being called into question the reality and suitability of the arguments. The problem with the acceptance of the present dogma relies in the explanation that the surrounding context is such a complex one, making almost impossible to accurately weigh every significant element of decision. In reality, when facing a difficulty in the decision-making process, we usually look for help into past behaviour and experiences, not knowing all the factors in order to approximate the costs or the benefits.

When referring not only to short-term, but also long-term ends, economists discovered another drawback of this

axiom. Thinking of the present and most demanding needs, people react variously as if they were to rationally determine the long-lasting purposes of the choice. Although opinions may diverge, most of the economists agree that Smith's theory can be a helpful tool in evaluating firms' decisions that lead to a profit maximization. Because, in the end, as the Greek philosopher Aristotle himself believed, the fundamental economic incentive is being represented by the inherent egocentricity. Also, important to mention is the fact that the same idea and approach was underlined as well in the 1750s by François Quesnay.

In the 1940, it was time for Herbert Simon to disclose his opinion in regards to decision-making process, considering that the investment behaviour of humans cannot be explained only by rational judgement. Seven years later, the US economist introduced to the existing thesis the image of a *bounded rationality*, of the behaviour of human beings who satisfice because they have not the wits to maximize [11]. The 1978's Nobel Prize Winner formulated the impossibility for humans to succeed in gathering all the data needed for a clear and enlightened decision, due to time restraints or competence borders.

The field of rational choices has been later on replenished in 1992 with Gary Becker's work, who also focused on investment behaviour, combining economics and sociology. As he stated, "individuals maximize welfare, as they conceive it, whether they be selfish, altruistic, loyal, spiteful or masochistic" [3], while their "actions are constrained by income, time, imperfect memory and calculating capacities, and other limited resources" [3]. Gary's vision had as a central point an economic and always rational behaviour, to him every decision meaning a mathematical analysis. Even when it comes to tenderness or the pathology of murders, the American economist suggested that even the non-economic decisions resonate with the list of gains and costs. As expected, opposite points of view blustered, deeming that it is absurd to believe only in a maximization of the personal wealth, without taking into consideration other factors that can change the entire course of a decision.

Paradoxes in rational and strategic conduct. Year 1944 represents the roots to the expected utility doctrine, together with its representative book, "A Theory of Games and Cooperative Behaviour". The authors, two mathematicians and economists, John von Neumann, together with Oskar Morgenstern pursued in evaluating strategic conduct in uncertain situations in order to identify some patterns in the decision-making process. The utility measurement referred to in the theory aims to quantify the amount of contentment that has been obtained out of different results. Without being able to recognize the possible outcomes that can derive from our choices, the theory presumes that our rationality will be highlighted by trying to measure the utility which can be earned. In unknown situations people tend to approximate the probability of a certain unwanted event, aiming for the highest benefit. The expected utility method is a useful mathematical path in discovering how humans behave when facing economic uncertainties. Although John von Neumann "was well aware of the objections to the principle of maximizing expected winnings as a prescription for behaviour, he warned that mathematics loses much of its creative drive when too far removed from empirical sources" [7].

Some years later, concepts from psychology were being initiated, criticizing the expected utility theory and inspiring new decision-making models. For instance, in 1953, Maurice Allais [2] challenged the assumption that the factual choices in life are always completely rational. In his book "*The behaviour of rational man confronting risk*", the Western economist tested the ideologies of the American

School of economics, validating the hypothesis that humans react distinctively from what the utility theory envisions. This is how "Allais versus von Neumann-Morgenstern became one of the battlefields of scientific development which proved to be a most creative source of new advances and new developments in all those sciences which are based on evaluation of utilities" [2].

Maurice Allais, the initiator of the utility's French School explained that in case of expected utility doctrine, people will impersonally pay attention to the probabilities of results and the efficiency they will achieve from each of them. This is what the economist highlighted, that the anticipated utility concept is found on a premise, also referred to as the independence axiom. Going into details, this means that people will judge each alternative separately, without considering aspects that can be observed in every option. Believing that this could never be true or only in seldom cases, the Allais paradox was revealed in the decision-making process, coming into contradiction with the theory of the expected utility.

Though, we are unable to directly analyse humans' understanding and thinking when they face a compromise, but what we can certainly do is to examine their choices and notice if they are constant, rational and which is the correlation with the independence axiom. Conceptualizing a scenario, let's suppose that I have to choose between the colours blue and brown, and I will choose blue. Afterwards, the green colour is added so that I will be appointed to name a single preferred colour. This is the independence axiom briefly explained, which theorize, in a simple way, that I might choose again the colour blue, or maybe the green one, but my predilection would not be towards the brown colour. The fact that another element has been added to my alternatives cannot be seen as a conclusive factor to my first desire.

The French economist discovered infringements in the independency only in uncertain situations. For a clearer picture, let's imagine again that I can choose between two alternatives, with every of them having several feasible results and precise possibilities. One of the alternatives will offer me a 50% change of colour blue, and the same percentage for green. In the second scenario, I will be given half chances for the brown colour and half for the green. In theory, the independence axiom presupposes that because of the fact that I prefer blue to brown, this will convince me to choose the first alternative. Now thinking logically, by adding the colour green also to the second alternative makes it a certain probability and in practice, will assure me of a reasonable outcome, so my predilection for blue will be changed.

Returning now again to the economic concepts described above, it seems that adding some new elements in a decision-making process can undoubtedly change the entire course of action, interfering with people's needs and desires. Not only in experiments, but also in the solid financial world, people usually infringe the independence axiom, coming into conflict with the standard perception that everyone proceeds on a rational basis, regardless the case. Revealing these types of attitudes has led to the appearance of the behavioural economy field, which is now trying to create some new thesis and approaches for a pragmatic decision-making model.

Until 1960 people's investment behaviour has been adjusted on a group of commonly accepted fundamentals, humans being distinguished by their rational and pragmatic way of deciding. In case of an unpredictable future, the calculating individuals appointed a possibility for every potential result so they could make a decision properly. When encountering many alternatives, people pursued on maximizing the expected satisfaction, invoking personal manners in regards to the probability of certain forthcoming

outcomes. But, as expected, this group of perceptions was also being confronted by results proving that human beings are not acting in line with the theory, not even in experimental situations. A 1930's idea portrayed by Maynard Keynes was brought again into question, this time by Daniel Ellsberg. Known as the *Ellsberg paradox*, the US economist's ideology of the 1960's was one of the most meaningful provocation towards the classical approach.

The experiment which helped visualize the paradox consisted of a financial winning if a certain ball having a specific colour was being drawn from a pot. After analysing member's choices, it could easily be observed that in case of some auxiliary details from which the uncertainty or the odds can be quantified, humans tend to choose more accurate. Nevertheless, if an eventual result may appear inconclusive, people switch the way they behave, this being the paradox that resides in the theory of the expected utility. "Ambiguity is a subjective variable" [4], this being the reason why human beings would rather find out as many information as possible regarding the unpredictable circumstances, not vice versa. Or, as Donald Rumsfeld, one of United States' Defence Secretary asserted: "people prefer the known unknowns to the unknown unknowns" [6]. The results and the conclusions of the observation have been since then referred to as *ambiguity aversion* and occasionally *the Knightian uncertainty*, after one of the most important economists of that time, Frank Knight.

Daniel Ellsberg's contradiction became, as any other philosophy, questionable in time. Other specialists blustered that this hypothesis replicates only the experimental framework and does not accurately apply to people's actions when encountering the real and inflexible uncertainty. Notwithstanding, the 2008's worldwide financial crises has raised deep reflection regarding the ambiguity perception, making people wondering about the unmeasurable risks and unexplained directions that the standard expected utility approach cannot clarify.

Rational expectations and behaviour adjustment.

People's rationality is guiding them in making as proper predictions as possible, handling all the accessible information they can possess. This is why the process of taking a decision has three fundamental pillars: shaping the expectation, forecasting the outcomes and then adapting the behaviour. Understanding and approaching the concept of *expectation* has to be of great concern because what humans believe will materialize in the future may alter their attitudes at this time. Originally, expectations were perceived as being "*adaptive*", presuming that everyone conceives prospects for the forthcoming period based entirely on the past experiences.

Assuming that humans are taking into consideration only the prior events when trying to project the unknown future, makes us believe that they are inclined to miscalculate it. Sudden and unanticipated breakdowns in the economy are unquestionably changing the entire structure and preceding paths, leading to perpetual errors of forecasting. But in this scenario, if people were to permanently be wrong, this means that they would endlessly fail to benefit from the market, which does not seem to be the genuine image of the economic framework or society's behaviour.

It was a disapproval towards the *adaptive expectations* ideology that persuaded John Muth to explain his vision on a new theory of *rational expectations*. The 1961's persuasion was based on a very plain idea: "It often appears that reported expectations underestimate the extent of changes that actually take place" [8]. The rationality of people should not lead them to guessing future events or outcomes by only comparing the previous results and conditions. In preference, it will be advisable for them to try

to estimate upcoming effects with the help of all the information available at that moment, together with the usage of an equitable economic model. Instead of imitating previous experiences, Muth's theory suggests that people's predictions are educated, because if not so, they will end up losing money. Any correction applied by the market represents the proof that people do behave in a rational way.

In year 1975, Neil Wallace and Thomas Sargent asserted that if the forecasts are entirely rational, then the individuals will start awaiting for the government to intervene, so they would shape their behaviour in order to prove the policy's inefficiency. "In an ad hoc macroeconomic model in which the public's expectations about prices are rational" [10], humans will sense that the government has a stimulus to generate some economic shocks and will react accordingly.

As well Robert Lucas, the initiator of the new traditional macroeconomics field mentioned that if people's predictions infallibly accustoms to a government's policy, this can be referred to as the whole architecture of the economy (dependencies between companies, government, households) being reshaped altogether with the changes in strategy. The idea that the results of a certain policy are not constantly the same with the intentions became accepted and moreover, it had the power to persuade some economists that the Keynesian models in regards to the structural relationships are improper. Robert Lucas explained that the focus should be on individuals' inclinations and on the resources that guide personal behaviour, suggesting a new view upon macroeconomics, with a partially return before the Keynesian models.

Psychological economic decisions. Until 1980, the standard economic theories were influenced by the concept of the *rational economic man*. Humans were perceived to be prudent and logical in making decisions, carefully analysing all the sacrifices and possible outcomes that can arise from an investment of any kind. This type of behaviour was considered common not only in certain situations, but also in the unpredictable ones, leading the economists to delineate the framework of a rational decision-making process in the expected utility theory. Nonetheless, the reality is proving us that on a regular basis, individuals have an unreasonable judgement, that would not offer them the maximum rewards, but in fact may even harm their expectations.

The studies of the ingenuities discovered in people's behaviour were firstly approached by two psychologists: Kahneman Daniel and Tversky Amos, who analysed the psychological part implicated in making decisions. Their crucial work, entitled "*Prospect Theory: An analysis of decision under risk*" provided some unencountered conclusions, together with empirical exemplification and was the pillar of a new scientific field, namely *behavioural economics*. Aiming to profoundly explain the arguments behind the decision-making process, the two Israeli-American authors revealed that humans tend to disregard the generally accepted premises about behaviour, especially in the situation where uncertainty prevails. After the psychological examination, it was remarkable the fact that far from behaving selfish and rational, individuals can be misled by the way the possibilities are unveiled, so that they will respond in a way that antagonizes with the classical philosophy.

For a long period of time economists asserted that humans are reluctant when it comes to risk. In order to validate this belief, let's consider the scenario in which individuals have to choose between undeniably winning 100 € and a 50% change of winning 250 €. Despite the fact that the second option has a greater average outcome of 125 €, people tend to choose the guaranteed amount. Then, the two psychologists formulated the reversed situation, with the

choices of either lose 100 € without doubt, or a 50% chance of no loss and the other half chance of retaining 250 €. Comparing the two scenarios has led to the conclusion that those who went with the safer possibility in the first situation are now choosing the riskier option, that of a large loss. This kind of behaviour is what Kahneman and Tversky referred to as *risk-seeking behaviour*.

The standard economic viewpoint of the investment decision presumed that the risk approaches (risk averse or risk loving) fit any situation, regardless the outcome (gain or loss). Yet, the two psychologists discovered that human beings react distinctively, being risk-averse when it comes to winnings and risk-loving when encountering losses. The significance of their work resides in their breakthrough, showing that individuals are prone to take risks in order to avoid losing, but they would not behave the same when it comes to earnings. As an example, the loss of 100 € seems to be considerably greater than winning the same amount.

Other anomalies in people's behaviour highlights that investment decisions can be modified by the way the possibilities are being disclosed, even if the results are the same. For instance, let's consider a boat with 300 passengers that is sinking. To this situation we have available the following alternatives in order to save people's lives: 1, which saves 100 passengers and 2, which gives us a 1/3 chance to rescue all 300 people and 2/3 chance of not being able to rescue someone. When describing the alternatives this way, almost all the individuals exhibit a risk-averse behaviour, choosing to rescue 100 passengers. Now, if the scenario is being reformulated, with the choice 3, which assures the death of 200 people or the 4th alternative, which states that there are one third chances that no one will die, versus 2/3 change of all 300 passengers dying, participants will predominantly choose the fourth option, which is riskier.

Analysing the choices 1 and 3, we can observe that the possible outcomes are identical: 200 deaths, while with the other two alternatives there will be an expected result of 200 deaths. Despite this, people would rather choose the alternative which seems to be more of a bet. From this experiment we can notice that humans are more amenable to assuming risks (avoid lives being taken), than they are to gains (saving lives). It seems that is part of the human nature to place more personal worth on costs than on benefits.

The impulse towards loss animosity can be seen as an instrument for influencing people. When the alternatives are exposed in a way that the results seem to have a negative impact, individuals tend to think of the probabilities as an uncertainty. For example, if a government aims to convince the society to embrace a policy, maybe it will succeed, but only if the positive aspects will be firstly presented. Otherwise, in order for an idea to be dismissed, it is mandatory to aim the attention at the losses.

Kahneman and Tversky, the pioneers of the behavioural economics also explained that the decision-making process can have a significant influence on the options, even if the entire process does not perturb the final outcomes. In case of a game with two phases, let's suppose that the participant is given at the second round the alternative to choose between two benefits, if he succeeds in arriving at that point. However, the choice has to be taken before the game starts. In case of a two phases process, humans give the impression that the first stage is being omitted, because it makes no difference between both gains. They perceived the alternatives as a selection between a secured win and hardly the possibility of an earning, even though they forget that the alternatives can be modified by the first phase's result. The two philosophers emphasize the fact that the

standard rationality in which decisions can be controlled only by the ultimate result is now being disclaimed.

Indisputable, the fact that we dislike losing outperforms the quantitative gaining, and that we exemplify the costs and benefits in regards to the circumstances, helped elucidating why individuals make investment decisions that are not in accordance with the theory of the *expected utility* or the *Homo Economicus* approach. Although the most fundamental comprehension from all this work represents the foundation of the new economic field, it has as well implications in the advertising sector. Discerning how people react, behave and invest, marketers will be capable of performing more efficiently.

Many economic decisions imply the presence of the prospect theory. The same theory also justifies why human beings are willing to make some sacrifices (time, gasoline and so on) in order to put aside for instance 10 € from a 30 € product, but they do not seem that eager when they can save the same amount out of a 500 € product. Although the net profit can be modified with the same amount in each scenario, it's the loss-aversion that illustrates what can be acknowledged as the *endowment effect*: objects that are possessed are perceived to be more valuable than before, when they were only a likely achievement.

Behavioural economics is providing us with new instruments for depicting people's actions and ways of understanding the economy. It has included psychological authenticity into the contemporary economy, being the first to imply that we are not entirely rational devices. The true connotations of this achievement are diverse, ranging from economic theses to governmental policies. For instance, by transferring the possession of property to someone else may influence their judgements. *"One may discover that the relative attractiveness of options varies when the same decision problem is framed in different ways"* [13].

Investor's behavioural biases. The entire progress of the financial behaviour field aspired to assimilate the irrational component with the decision-making process. Various approaches have been developed, addressing financial incomes, financial uncertainty or both altogether in the usual procedure of investing in financial markets. The rationality, taken into its aggregate form encompasses the support for market's efficiency, to which Eugene Fama referred in 1970. Investors assumed that they can surpass the stock markets, but the US economist contradicted this idea, adding that it cannot be possible to overtake the market. The author asserted that all the investors have the same means of informing as their competitors, so the prices on the market completely indicate the entire amount of knowledge that is available. "A market in which prices always fully reflect available information is called efficient" [5].

On the other hand, the behavioural specialists began to accentuate the issues uncovered within the axiom, criticizing the theorem's incapability to explain the overconfidence of investors or the "herd" instinct. Afterwards, these obstacles led in 1990 to the Dotcom bubble, whereas the irrational excitement was being accused of overestimating unnaturally the stocks of technology and the latter financial crises. The theory has proved to be unnecessary, making some economists blame it for the collapses.

Even so, many economists are now sure that the markets can lose control, this being the reason why they concentrate on the dissimilarities in information which are held by some of the players. Before George Akerlof, a US economist, started to examine markets and prices in 1960, most of the economists considered that the financial markets would let anyone eager to sell goods to close transactions with anyone who was looking forward to buy products at the same price. This is what Akerlof

demonstrated in his book, that sellers and buyers possess different amount of available information, and this imbalance can negatively impact financial markets.

In case of a second-hand object, it is obvious that the seller possesses more information about the product's quality than the buyer, being in his property. It is again the seller who can appraise if the product is more deteriorated than an average complementary object, or simply said, whether it is a glitch lemon. Anyone who ends up with a different product than the one expected, feels tricked. The idea of lemons being present in the market in an unnoticeable way generates uncertainty, which can after enlarge to concerns in the minds of the consumer. Anxiety can easily lead to a decline in the amount of money that the buyer was previously willing to offer, influencing the whole market's demand prices. "But the difficulty of distinguishing good quality from bad is inherent in the business world; this may indeed explain many economic institutions and may in fact be one of the more important aspects of uncertainty" [1]. Akerlof's ideology has been firstly introduced by an English financier named Sir Thomas Gresham (1519-1579), who noticed that when 2 coins were both in the market, people would attempt to grasp those that were made with a bigger amount of silver content, implying that *bad money will drive good money out of circulation* (Federal Reserve Bank of Minneapolis [9]).

The history of the financial markets' literature is a comprehensive one, not only from a traditional, but also from a behavioural angle and leads to the actual research on biases that the investors are susceptible of. For instance, *overconfidence* is an attitude which makes investors pretend that they are more prepared and better than the others. Expecting larger returns and trading frequently, both behaviour, but also psychological investigations have been made on overconfidence. Trying to boost the trading process, not only the skills, but also the additional information in regards to the marketplace can be used.

If it was for us to try to examine the affective motives that can control the decision-making process, we would deduce that the actual feeling and results about the investment conduct could traverse to another influential bias, *the disposition effect*. This concept details the investor's tendency to firstly sell the stocks that have performed accordingly, while holding the others in hope of a future boost in value. Returning to the prospect theory, it is important to mention again that the utility function can be graphically described as concave in winnings and convex in the area of losses, depicting a risk-aversion when it comes to benefits. With this imagine in mind, in 2005 John Nofsinger asserted that investors have their ego aroused after selling stocks that have risen in amount. Contrary, in case of stocks which have diminished in value investors tend to maintain them for a longer period, as the selling option may awaken regrets. This type of approach undoubtedly reveals that stocks have to be referred to at individual stage, rather as a portfolio phase.

The classical financial theory is facing controversial reactions from another dominant bias that venture capitalists' have been devoted to. The *representativeness bias* states that the investors should make the decisions based on a comparison between the possible options. Investors have always exhibit a pattern in deciding to invest in prestigious companies, believing that if the quality of the product / services or any other essential fundamentals are being recognized, then the investment decision will be a proper one. Moreover, it has also been observed that the investors were more eager to infuse money in those stocks that recently registered higher earnings.

Individuals make irrational choices in everyday occasions. Such imperfect decisions are also being assumed in the marketplace, where the tension of losing money can quickly foster, leading to some psychological inaccuracies.

Conclusions. Although the "Homo Economicus" approach is not thoroughly conclusive in order to explain people's behaviour, due to time restraints, competence borders or flawed memory, it still continues to be effective in determining the responses of firms that attempt to maximize their profits.

We are unable to directly analyse humans' understanding and thinking when they face a compromise, but what we can certainly do is to examine their choices and notice if they are constant and rational, humans being distinguished by their rational and pragmatic way of deciding. Desiring to obtain as many information as possible regarding the "unknown unknowns," people may behave contradictory with former, and more relevant decisions, and will put aside the queries about possibility when choosing an alternative.

The rational constituent is guiding us in making as proper predictions as possible, handling all the accessible information we can possess. This is why the process of taking a decision has three fundamental pillars: shaping the expectation, forecasting the outcomes and then adapting the behaviour.

As Robert Lucas explained, the focus should be on individuals' inclinations and on the resources that guide personal behaviour. Rationality should not lead humans to guessing future events or outcomes by only comparing the previous results and conditions. In preference, it will be advisable for them to try to estimate upcoming effects with the help of all the information available at that moment, together with the usage of an equitable economic model.

For a long period of time economists asserted that humans are reluctant when it comes to risk. Nonetheless, the reality is proving us that on a regular basis, individuals have an unreasonable judgement, that would not offer them the maximum rewards, but in fact may even harm their expectations. far from behaving selfish and rational, individuals can be misled by the way the possibilities are unveiled, so that they will respond in a way that disregards the generally accepted premises about behaviour, especially in the situation where uncertainty prevails.

The standard economic viewpoint of the investment decision presumed that the risk approaches fit any situation, regardless the outcome. Yet, it has been discovered that human beings react distinctively, being risk-averse when it comes to winnings and risk-loving when encountering losses. It seems that is part of the human nature to place more personal worth on costs than on benefits.

Other anomalies in people's behaviour highlights that investment decisions can be modified by the way the possibilities are being disclosed, even if the results are the same. Behavioural economics is providing us with new instruments for depicting people's actions and ways of understanding the economy. It has included psychological authenticity into the contemporary economy, being the first to imply that we are not entirely rational devices.

Sellers and buyers possess different amount of available information, and this imbalance can negatively impact the financial markets. The history of the financial markets' literature is a comprehensive one, not only from a

traditional, but also from a behavioural angle and leads to the actual research on biases that the investors are susceptible of. Because individuals make irrational choices in everyday occasions. Such imperfect decisions are also being assumed in the marketplace, where the tension of losing money can quickly foster, leading to some psychological inaccuracies.

Discussion. "An aggregate examination of the investment behaviour" intends to outline a clearer and more detailed picture regarding individuals' preferences and the resources that guide personal behaviour. Through this article, we will be able to understand how people shape their expectations, the methods that are used in building forecasts and last, but not least, how can behaviour adapt to a continuously changing environment. For a long period of time economists asserted that humans are reluctant when it comes to risk. Nonetheless, the reality is proving us that on a regular basis, individuals have an unreasonable judgement, that would not offer them the maximum rewards, but in fact may even harm their expectations. Far from behaving selfish and rational, individuals can be misled by the way the possibilities are unveiled, so that they will respond in a way that disregards the generally accepted premises about behaviour, especially in the situation where uncertainty prevails. Other anomalies in people's behaviour highlights that investment decisions can be modified by the way the possibilities are being disclosed, even if the results are the same. Behavioural economics is providing us with new instruments for depicting people's actions and ways of understanding the economy. It has included psychological authenticity into the contemporary economy, being the first to imply that we are not entirely rational devices.

References:

1. Akerlof, G.A. (1970): The market for "lemons": quality uncertainty and the market mechanism. *The Quarterly Journal of Economics* 84 (3), 488-500.
2. Allais, M., Hagen, G.M.: (2013) *Expected Utility Hypotheses and the Allais Paradox: Contemporary Discussions of the decisions under uncertainty with Allais' Rejoinder*. Springer Science & Business Media: Berlin.
3. Becker, G.S. (1992) *The economic way of looking at life*. URL : https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1992/becker-lecture.html, last accessed 2018/03/04.
4. Ellsberg, D. (1961): Risk, ambiguity, and the Savage axioms. *The Quarterly Journal of Economics* 75 (4), 643-669.
5. Fama, E.F. (1970): Efficient capital markets: a review of theory and empirical work. *The Journal of finance* 25 (2), 383-417.
6. Kishtainy, N. (2012): *The economics book*. DK Pub: New York.
7. Kuhn, H.W., Tucker, A.W. (1958): John von Neumann's work in the theory of games and mathematical economics. *Bulletin of the American Mathematical Society* 64, 100-122.
8. Muth, J.F. (1961): Rational expectations and the theory of price movements. *Econometrica* 29 (3), 315-335. URL : <http://dx.doi.org/10.2307/1909635>
9. Rolnik, A.J., Weber, W.E. (1986): Gresham's law or Gresham's Fallacy? *Quarterly Review of the Federal Reserve Bank of Minneapolis* 10 (1), 17-24.
10. Sargent, T.J., Wallace, N. (1975): Rational expectations, the optimal monetary instrument, and the optimal money supply rule. *The Journal of political economy* 83 (2), 241-254.
11. Simon, H. (2013): *Administrative Behaviour. Fourth Edition*. Simon and Schuster: New York.
12. Smith, A. (1977): *An Inquiry into the Nature and Causes of the Wealth of Nations*. University of Chicago Press: Chicago.
13. Tversky, A., Kahneman, D. (1981): The framing of decisions and the psychology of choice. *Science* 211, 453-458.

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КОМПЛЕКСНЕ ДОСЛІДЖЕННЯ ІНВЕСТИЦІЙНОЇ ПОВЕДІНКИ

Як особистості, ми егоцентричні, постійно прагнемо до досягнення наших цілей, збільшення особистої вигоди, задоволення наших найвибагливіших потреб. Рішення нами приймається після того, як зібрана вся інформація, якої бракує, й оцінені ймовірності, які полегшать досягнення оптимальності наших розрахунків. Фізичні особи розглядаються як раціональні інвестори. Хоча теоретично вважається, що ми робимо вибір, ґрунтуючись на оцінених можливостях і бажаних результатах, однак реальна поведінка індивідів спростоує це. Мета цієї статті – за допомогою комплексного дослідження, що ґрунтується на історичних економічних контекстах і моделях, зрозуміти, як люди поводяться, реагують та інвестують. Додаткова оцінка стратегічної поведінки в невизначених ситуаціях, безумовно, приведе до виявлення деяких закономірностей у процесі прийняття рішень. У кінцевому підсумку – люди відрізняються один від одного прагматичним способом прийняття рішень.

Ключові слова: виборча раціональність, неприйняття невизначеності, адаптивні очікування, поведінкові відхилення.

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КОМПЛЕКСНОЕ ИССЛЕДОВАНИЕ ИНВЕСТИЦИОННОГО ПОВЕДЕНИЯ

Как личности, мы эгоцентричны, постоянно стремимся к достижению наших целей, увеличению личной выгоды, удовлетворению наших самых прихотливых потребностей. Решение нами принимается после того, как собрана вся недостающая информация и оценены вероятности, которые облегчат достижение оптимальности наших расчетов. Физические лица рассматриваются как рациональные инвесторы. Хотя теоретически считается, что мы совершаем выбор, основываясь на оцененных возможностях и желаемых результатах, однако наблюдаемое поведение индивидов опровергает это. Цель этой статьи – с помощью комплексного исследования, основанного на исторических экономических контекстах и моделях, понять, как люди себя ведут, реагируют и инвестируют. Дополнительная оценка стратегического поведения в неопределенных ситуациях, безусловно, приведет к выявлению некоторых закономерностей в процессе принятия решений. В конечном итоге, люди различаются между собой прагматическим способом принятия решений.

Ключевые слова: избирательная рациональность, неприятие неопределенности, адаптивные ожидания, поведенческие отклонения.

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THE EXPERIENCE OF THE REPUBLIC OF MOLDOVA IN REFORMING THE ACCOUNTING SYSTEM AND ITS HARMONIZATION WITH IFRS AND EUROPEAN DIRECTIVES

Reforming the accounting system in the Republic of Moldova and its harmonization with IFRS and European directives takes almost three decades and is a complex technical route which involves important financial and human resources. The given paper aims to present and interpret the way in which the accounting system reform was achieved, how international accounting standards and European directives have been transported into national legislation in order to identify the main waves of the accounting reform and the regulatory changes made by the regulator, of the benefits and costs, advantages and disadvantages arising from the implementation of the reformed regulatory framework. The responses are obtained by applying, as a method of research, the phenomenological interpretive analysis, the documentary and analytical research, the comparative opinion and analysis, thus being categorized as a qualitative empirical research. The results and conclusions of the study will serve as the basis and lessons learned for future reforms. However, knowing the past is building the future.

Keywords: accounting reform, accountancy, national accounting standards, IFRS, accounting directive.

Introduction. Since the end product of accounting is the provision of financial information, the development of accounting is implicitly related to the development of the demand for financial information from the users of information, whose needs depend on the economic, political, social and cultural environment. So, these factors determine the development of accounting systems over time, often different from one country to another. Consequently, the regulatory framework of accounting differs at the country level, and the accounting objectives become different, that hinders the financial communication. Thus, the need for harmonization and accounting convergence arises. Some countries prefer to directly apply international rules, others to transfer these rules into national regulatory framework. Regardless of the path chosen, the science of accounting evolves as a living organism, as the complexity of economic and financial transactions develops. In the Republic of Moldova, accounting has been under the reform for almost three decades. In this context, the study of historical evolution and the reform of the national accounting

system is appropriate, relevant, important, interesting and instructive, since valid conclusions of a permanent character will be made. Or, knowing the past is building the future.

Thus, over the past three decades, the Republic of Moldova has gone through a complicated and controversial way towards reforming its accounting and financial reporting. The reform of the regulatory framework and of the accounting system in the private sector started in 1996 and was part of the list of reforms aimed at creating a functioning market economy aiming to contribute to the development of capital markets, increasing the investments, integrating the economy of the republic into the world economy, and optimizing the correlation between the interests of the entities, the state and other external information users. In the meantime, through the agreements concluded with the European Union – the Partnership and Cooperation Agreement (PCA) of 1998, the European Neighborhood Policy Action Plan (ENP AP) of 2005 and the EU-Moldova Association Agreement of 2013 the Republic of Moldova confirms the priority on the development of legislation and accounting policies in harmony with the EU's