

Behavior Finance Perspectives for Climate Investments on Bulgarian Market – Empirical Study

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Info Articles

Abstract

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*Climate finance, Behavior finance,
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The current study examines the behavior predisposition of Bulgarian investors to imply their resources in climate financial instruments. It starts from the theory settlement and puts in action the principles of behavior finance testing investor preferences and attitudes towards climate financial instruments. The aim of the empirical study is to be identified the financial preferences that are to create the critical investor's mass for a "green" financial market in Bulgaria. Thus, all the newly born risks from the changing environmental scene could be implemented and "bought" on the financial market.

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INTRODUCTION

Environmental changes and disasters have a significant impact on the population and economic life of the Earth nowadays. It is for this reason that in the last two decades the Socially responsible investments (SRIs) has emerged, being defined as those with goals related to the environment and social activities and achieving a return on invested capital close to the market one¹.

The financial sector is increasingly trying to accept climate change as a factor in building its products, but there are still gaps in adapting to emerging uncertainty and enriching the complexity of existing ones. The importance of this problem is enhanced by the lack of unambiguous empirical studies in the field of green finance (whether their results are positively or negatively correlated with the traditional ones) and the development of the primary and secondary markets for climate derivatives.

In this new kind of responsible investing major factor, is human behavior, defining expectations, attitude, experiencing biases and thus, creating an ecosystem with critical mass of investors. This kind of establishment is the subject of the current empirical study, based in Bulgaria.

That is why we will look at some of the behavioral and ethical aspects of green investment to see if investors are investing in environmentally responsible projects because:

1. They would like the investment to have an added value for the society
2. They do realize that that the green financial instruments are less corelated with the traditional financial instruments and suggest an alternative return in periods of declines because of the higher risks that tend to cover.

Based on the two questions above, two hypothesis are going to be established:

- The investors are being guided by their ethical principles and values, taking green investment instruments in their portfolios
- Investors include green instruments, as they believe, that it will take them to increased returns at times of crisis and declines registered for traditional financial instruments.

Theory framework

Which are the factors that define investor's predisposition through selection of green/climate investments?

On first place, these are the variables of the investment itself:

Inherent to the investment risk, the price of the product, the perceived "added" value for the environment, the amount of trust in the issuer, transparency of company actions are just a few from the variables in the assessment.²

Secondly, there are to be noted the demographic characteristics of the economic agents taking decision for investment in a climate financial instrument. Literature review in the area can outline the following framework:

Straughan and Roberts³ through their empirical research came to the conclusion that the young investors are significantly correlated with environmentally conscious attitude. As of gender, Laroche⁴ came to the conclusion that women are more associated with green idea than men demographically. This is most likely due to their stronger emotionality in decision-making and the activation of the mechanisms that "anchor" their behavior to socially significant activities and investments dictated by socially responsible affiliation.

The results of the study by Herath, Renuka & Wanninayke⁵, obtained after a structured representative survey of 200 people, lead to several conclusions:

- Respondents assess the risk in green investments as increased compared to conventional investments;
- The greater choice of instruments offered by companies favors the attitude of investors to investing in climate finance instruments;
- The transparency of the company's policy does not favor the attitude of investors to climate investment;

¹ Sparkes, R. 2001., Ethical investment: whose ethics, which investment?. *Business Ethics: A European Review*, 10, p: 201

² Herath, Renuka & Wanninayke, W.M.C.B.. 2009. The Attitudes of Customers towards Green Investments. *Journal of Management*. 5. 22-30.

³ Straughan, Robert & Roberts, James. 1999. Environmental segmentation alternatives: A look at green consumer behavior in the new millennium. *Journal of Consumer Marketing*. 16. p:558-575.

⁴ Laroche, Michel & Bergeron, Jasmin & Barbaro-Forleo, Guido. 2001. Targeting Consumers Who Are Willing to Pay More for Environmentally Friendly Products. *Journal of Consumer Marketing*. 18. p: 503-520.

⁵ As 2.

- The relationship between the coverage of the investment - different insurance packages that the company provides for its customers does not have a significant impact on the perception of socially responsible investment;
- The price paid for climate finance instruments is indicated as unreasonably high;

The main conclusion of the survey of attitudes discussed above - the negative attitude of consumers to climate investment, mainly due to the high level of risk and higher prices, which could not be offset even by the transparency of the company and additional security, which is demonstrated by additional insurance instruments on the offered green ones.

In the present paper, a similar study will be executed on the attitudes of Bulgarian investors, the results and analysis of which will be presented in the next chapter.

How investor behavior could be guided in considering climate investments?

Starting from the fundamental theory in Behavior finance - Kahneman and Tversky's Prospect Theory (Nobel Prize in Economics), we will place the fundamental elements in the study of investment behavior for the socially responsible type of instruments.

We will start with the two main motives driving the theory of climate investment - limitation and adaptation to climate change. They are the ones that relate climate investment and the behavior of economic agents from **Prospect theory**. This is also the opinion of Osberghaus⁶, according to which there are three main lines of communication:

- The perception of whether the results of an investment strategy are evaluated *as profits or losses*, related to the main line of analysis of the theory of Kahneman and Tversky and the willingness of the economic agent to accept them. Here the connection is the complex dependence between the perception of profit and loss, given the socially responsible target and the success of a funded "green" initiative against the actual results achieved by holding the security.

- **Security effect**, which affects the lack of normal distribution of the results obtained from the exercise of financial instrument. This is one of the principles that contradicts to the theory of efficient markets, proving that consumers are not rational and identical in their investment perceptions.

- **Isolation effect** as a special case of the security effect for solutions in non-transparent environment. It affects the transparency of spending the accumulated funds collected from climate financial instruments, while also being part of the future motivation of investors to continue in the same segment.

Another useful view in this analysis is the **Theory of planned behavior**. Founded by Eisen and Fishbein in 1980⁷, this theory defines behavioral intent as a harbinger of decision making. Behavioral intent is defined as dependent on three variables:

- attitude
- the subjective norm
- perceived behavioral control

The attitude is influenced by the perceived benefit and the perceived risk⁸ or social responsibility in the choice of climate financial instrument and the higher risk associated with it; the subjective norm is influenced by the normative belief and the moral obligation - represented by government incentives or a supranational regulatory framework that would encourage the investments in question; and perceived behavioral control is influenced by the power of it. All of these factors work together to determine the deviation of actual behavior from behavioral intent⁹.

This behavioral theory could shed light on how the investor's personal attitude (ethical norms and internal attitudes) is influenced or whether it is influenced at all by the existence of a subjective norm (external regulation) and how these two elements "coexist" together with perceived behavioral control (social environment or perceived social norms). In this Bermuda Triangle of internal attitude, normativeness set by official bodies and social conditioning, the investor must make a decision based on the available market information with a minimum value of moral hazard and minimal psychological deviations in his behavior.

All the elements from the Prospect Theory as well as the Theory of planned behavior are to be the guidelines how to treat the investor's behavior and demographic characteristics that are to be collected with the current study below.

⁶ Daniel Osberghaus. 2017. Prospect theory, mitigation and adaptation to climate change, *Journal of Risk Research*, 20:7, 909-930

⁷ Ajzen, I., & Fishbein, M. 1980. Understanding Attitudes and Predicting Social Behavior. *Prentice-Hall Press*

⁸ Mehrens, J., Cragg, P. B., & Mills, A. M. 2001. A model of Internet adoption by SMEs. *Information and Management*, 39, 165-176.

⁹ Wu, Shwu-Ing & Chen, Jia-Yi. 2014. A Model of Green Consumption Behavior Constructed by the Theory of Planned Behavior. *International Journal of Marketing Studies*. 6.

In conclusion, from the considered elements of influence of agency characteristics and the application of behavioral finance theories in socially responsible and climate investment, it is clear that there is no unambiguous answer to the motives of investors whether they are ethical (willingness to finance restrictive activities and adaptation to climate change) or rational (seeking a maximized return) caused by a variety of instruments and investment objectives. This basic review of the behavioral framework for climate investment analysis will be continued in next chapter, with specific accent on the inclinations and deviations of economic agents.

Empirical study for Bulgarian investors and their behavior predisposition to invest in climate financial instruments

Characteristics for empirical study

The collection of data

It is related to the filling in of a survey by the respondents - individual investors, with questions aiming to see what is the behavior of Bulgarian investors to climate financial instruments.

Primary data

The primary information consists of the results obtained from the survey conducted with 30 active individual investors in Bulgaria. They are being assumed as suitable for the examined focus group since their investor's expertise is considered as greater than the averaged one for the Bulgarian market. The questionnaire consists of 16 questions that address the fundamental factors affecting investment decisions and issues related to climate finance instruments.

Critics of the initially collected information

The questionnaire is related to the subjective and personal opinions of the respondents. If the question is related to a past event, the answers are exposed to the tendency to subjectively attribute qualities or circumstances to a decision. Thus, the answers given by the respondents may deviate from what they think would be correct if they were given the same choice today instead of thinking about the same decision that was made in the past. In a behavioral-psychological aspect, this is called a retrospective tendency.

The purpose of this empirical study is to reveal which factors, investment characteristics and processes are related to decision-making by individual investors in Bulgaria when deciding for climate financial instruments. On the other hand, in a narrow context, we will examine the prerequisites for choosing a green financial instrument and diversifying the portfolio.

The study is limited to the behavioral mechanisms of active individual investors in Bulgaria.

The condition-definition set at the beginning of the survey is that a climate financial instrument (CFI) means a stock, bond (green, catastrophic / governmental, municipal) or derivative (option), the basic value of which is related to activities limiting or adapting to changes in the environment and in particular climate change.

We will make a statistical analysis in the search for connections and dependencies between the influencing decision-making factors for individual investors within climate financial instruments.

The objectives of the survey among investors are several:

- Outline the investment behavior towards CFIs
- Outline the general behavioral attitudes of investors towards risk / return / time preferences / rational inattention in the economy / self-control / decision-making
- Generate "food for thought" how such climate emissions can be positioned based on behavioral finance characteristics demonstrated

All the analysis presented below is made via SPSS.

Profile of the respondents

Number of responses received from individual investors: 30

% of men participated - 56.7% -% of women - 43.3%

Age groups:

30 responses

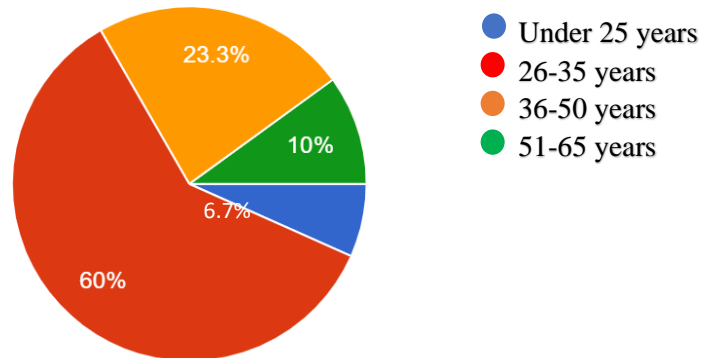


Figure 1. Percentage of age groups participating in the survey

We will start with the analysis of the obtained results. To the first question from the survey "Would you invest in a climate finance instrument?" (CFI) - 63% of respondents answered "Yes", 13.3% with "No" and 23.3% with I cannot judge, and we will look for the reason for these results in subsequent questions examining investors' predisposition to take risks. Depending on gender, the results are as follows:

82% of male investors in the study would invest in climate finance instruments, and the percentage for women was 38.5%. 11.8% of men and 38.5% of women could not say. We can conclude that women are much more insecure about this type of investment, divided between investing and not being able to judge. This confirms the results obtained from the socio-demographic section of one of the studies discussed above.

What is the relationship between the expected return on a climate finance instrument (climate financial instrument) and the willingness to invest in one?

"Higher" (coded as "1") reflects the expectation of sampled investors that the return of CFIs will be higher than that of conventional instruments.

"Lower" (coded as "2") reflects the expectation of sampled investors that the return of CFIs will be lower than that of conventional instruments.

"No difference" (coded as "3") reflects the expectation of sampled investors that the return of CFIs will be similar to that of conventional instruments.

Return_expect * inv_will Crosstabulation

		inv_will			Total
		no	yes	I cannot say	
return_expect	1 Count	1	9	2	12
	Expected Count	1,6	7,6	2,8	12,0
	% within return_expect	8,3%	75,0%	16,7%	100,0%
	% within inv_will	25,0%	47,4%	28,6%	40,0%
	% of Total	3,3%	30,0%	6,7%	40,0%
2	Count	3	7	4	14
	Expected Count	1,9	8,9	3,3	14,0
	% within return_expect	21,4%	50,0%	28,6%	100,0%
	% within inv_will	75,0%	36,8%	57,1%	46,7%
	% of Total	10,0%	23,3%	13,3%	46,7%
3	Count	0	3	1	4
	Expected Count	,5	2,5	,9	4,0
	% within return_expect	,0%	75,0%	25,0%	100,0%
	% within inv_will	,0%	15,8%	14,3%	13,3%
	% of Total	,0%	10,0%	3,3%	13,3%
Total	Count	4	19	7	30

Expected Count	4,0	19,0	7,0	30,0
% within return_expect	13,3%	63,3%	23,3%	100,0%
% within inv_will	100,0%	100,0%	100,0%	100,0%
% of Total	13,3%	63,3%	23,3%	100,0%

75% of investors who believe that the return of CFIs is higher than traditional ones would invest in them. An interesting fact is that 75% of those who do not see difference between the returns of the two types of instruments would also invest in them. And only 21.4% of those who think that CFIs have lower returns would not invest in them. From the data presented in this way, it seems that the investors in the sample would invest in CFIs, regardless of their expectations for their return.

If we hypothesize the relationship between the expectations of profitability and willingness to invest, they would be:

H0: There is no statistically significant relationship between the expected return of the CFI and the willingness to invest in such an instrument

H1: There is a statistically significant relationship between the expected return of the CFI and the willingness to invest in such

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2,581 ^a	4	,630
Likelihood Ratio	3,067	4	,547
N of Valid Cases	30		

a. 7 cells (77,8%) have expected count less than 5. The minimum expected count is ,53.

		Value	Approx. Sig.
Nominal by Nominal	Phi	,293	,630
	Cramer's V	,207	,630
N of Valid Cases		30	

Given the available data and perceived risk of first-order error $\alpha = 0.05$, there is reason to accept the null hypothesis - there is no statistically significant relationship between the expected return for CFIs and the willingness of the respondents to invest in the sample. This means the favorable attitude of investors to the profitability of this type of instruments to their overall willingness to include them in their portfolios.

Is there a statistically significant relationship between the expected risk of a climate finance instrument and the willingness to invest in one?

We will do this test based on the hypotheses:

H0: There is no statistically significant relationship between the risk expectations of an CFI and the willingness to invest in one

H1: There is a statistically significant relationship between the risk expectations of an CFI and the willingness to invest in one

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3,711 ^a	4	,446
Likelihood Ratio	4,585	4	,333
Linear-by-Linear Association	1,159	1	,282
N of Valid Cases	30		

a. 7 cells (77,8%) have expected count less than 5. The minimum expected count is ,40.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	,352	,446

	Cramer's V	,249	,446
N of Valid Cases		30	

After the Chi-square test, it turns out that with the available data and perceived risk of first type error $\alpha = 0.05$, there is reason to accept the null hypothesis.

There is no statistically significant relationship between the risk expectations of the CFI and the willingness to invest in one. In other words, regardless of the amount of uncertainty associated with holding an CFI, potential bulgarian investors would choose it. This, in addition to neutrality in terms of expected returns, speaks on the one hand to investors' curiosity about financial market innovations and, on the other hand, to the potential of socially responsible investment aimed at limiting or adapting to climate change.

Factors that would affect investing in a climate finance instrument

These factors on the part of investors can be grouped as follows:

- A. Related to the financial indicators of the investment itself
- B. Related to the nature of the investment and its objectives
- C. Personal qualities of the investor - awareness and preparation about the type of investment and its specifics
- D. Related to system factors such as regulations, government policy, business cycle phase

The influencing factors indicated by the respondents for the selection of CFIs as an integral part of the investment portfolio are the following:

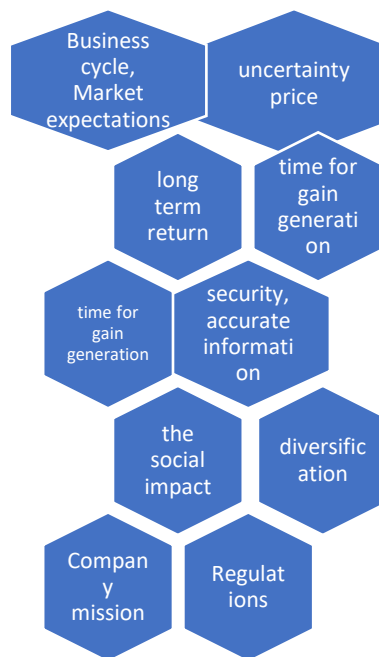


Figure 2. CFI selection factors

Are climate financial instruments considered a good diversification instrument and what percentage of the portfolio would they set aside on an annual basis for such investments?

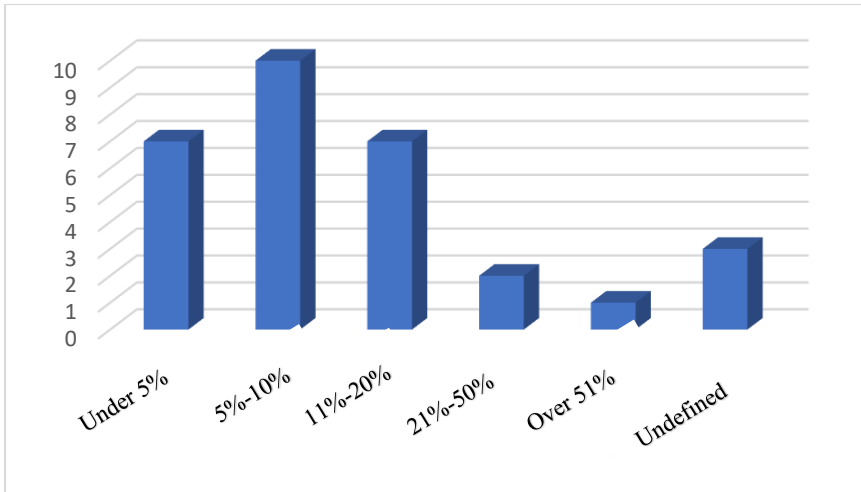


Figure 3. Desired% of CFIs for diversification on an annual basis

The largest percentage of respondents would allocate between 5 and 20% of the contents of their portfolio in order to diversify and tend to do it more if there are government regulations or incentives to support investment in this direction. In addition, if they are confident in the business of companies and their ethical goals, as well as the transparency of the spending of funds issued by green bonds, for example, this percentage would also increase.

33% of respondents believe that CFIs are a good diversification tool, 10% do not think so, and 57% cannot judge. We could relate this fact to the lack of sufficient information and the unpopularity of this type of tools nowadays.

Which climate financial instruments are known among potential investors?

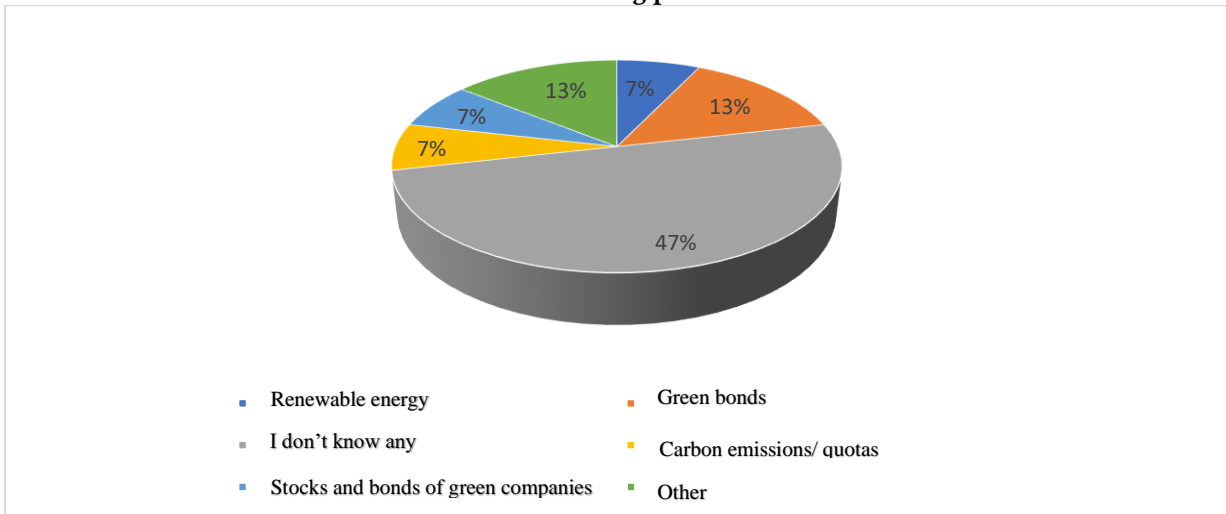


Figure 4. Scope of known CFI in the sample

It is being observed that the largest percentage of investors do not know specific instruments labeled as CFIs, but they are familiar with green bonds, trading CO2 quotas and shares of companies in the field of green energy. That is, there is room for the development of awareness and marketing of socially responsible behavior, as an opportunity for investment in certain financial instruments.

Is there a statistically significant relationship between the preference for investing in climate finance instruments and the time preferences of investors (short-term / long-term)?

The purpose of this test is to identify whether the time horizon of investors' preferences depends on the willingness to invest in CFIs. This would be useful information when marketing a "green" issue to the appropriate behavioral contingent.

For this purpose, we will use the Mann-Whitney test, examining the hypotheses:

H0: There is no statistically significant relationship between willingness to invest in CFIs and preferences for long-term / short-term investments

H1: There is a statistically significant relationship between the willingness to invest in CFIs and the preference for long-term / short-term investments

Results for long-term investment preferences are:

Ranks

inv_will	N	Mean Rank	Sum of Ranks
long_percno	4	8,50	34,00
yes	19	12,74	242,00
Total	23		

Test Statistics^b

	long_perc
Mann-Whitney U	24,000
Wilcoxon W	34,000
Z	-1,151
Asymp. Sig. (2-tailed)	,250
Exact Sig. [2*(1-tailed Sig.)]	,286 ^a

a. Not corrected for ties.

b. Grouping Variable: inv_will

The results show that a higher percentage of investors who would invest in CFIs do have preferences and invest more in long-term investments. We could conclude that CFIs are perceived by investors with long-term preferences favorably and most likely as those with long-term potential.

However, the significance level is 0.286, which is higher than the accepted theoretical characteristic $\alpha = 0.05$, so we must accept the null hypothesis that there is no statistically significant relationship between the willingness to invest in CFIs and long-term investment preferences.

Results for short-term investment preferences are analogical to what we received for long-term investments - the sampled investors, with a preference for short-term investments would not invest in CFIs. That is, CFIs are not perceived as a short-term solution, most likely due to the need for time to achieve the desired changes both in the real sphere (change in environmental conditions) and in the financial one - the achievement of the expected return.

The statistical hypothesis test states that there is no statistically significant relationship between the willingness to invest in CFIs and the preference for short-term investments.

What is the relationship between the willingness to invest in climate finance instruments and the long-term / short-term investment strategy of investors?

The investment strategy is defined as a set of preferences for the elements of the risk-return ratio, the size of the companies in whose financial instruments are invested, their origin, and the degree of targeted diversification.

The biggest impact on the long-term investment strategy for the sampled investors who would invest in CFI are:

- Assets with low risk and low expected return (31.6%)
- Large companies (21.1%)

For those who would not invest in CFIs, preferences for assets with low risk and low expected return have the greatest impact (75%). For the sampled investors, who could not say, the most important element is again low risk-low return (71.4%).

In summary, it can be said that the leading factor in the strategy for choosing long-term investments is the low level of return and the low risk of achieving it, regardless of whether investors would or would not invest in the CFI.

The biggest impact on the short-term investment strategy for investors who would invest in CFIs are:

- Assets with low risk and low expected return (26.3%)
- Assets that are uncertain but with high expected returns (21.1%)
- International origin (21.1%)

The greatest impact on the short-term investment strategy for investors who would **not** invest in

CFIs have:

- Assets with low risk and low expected return (50%)
- Assets that are uncertain but with a high expected return (25%)
- Large companies (25%)

For the group of investors who could not say, the most important element (by 71.4%) are assets with low risk and low expected return

The conclusion of this section of the analysis is that the leading factor in the strategy for choosing short-term and long-term investments is the low level of return and the low risk for its achievement, regardless of whether investors would or would not invest in the CFI. Thus, according to this criterion, there is no statistically significant relationship in the sampled investors' view of the intersection between the time horizon and the willingness to invest in CFIs.

What is the relationship between the factors that determine an investment and the willingness to invest in climate finance instruments?

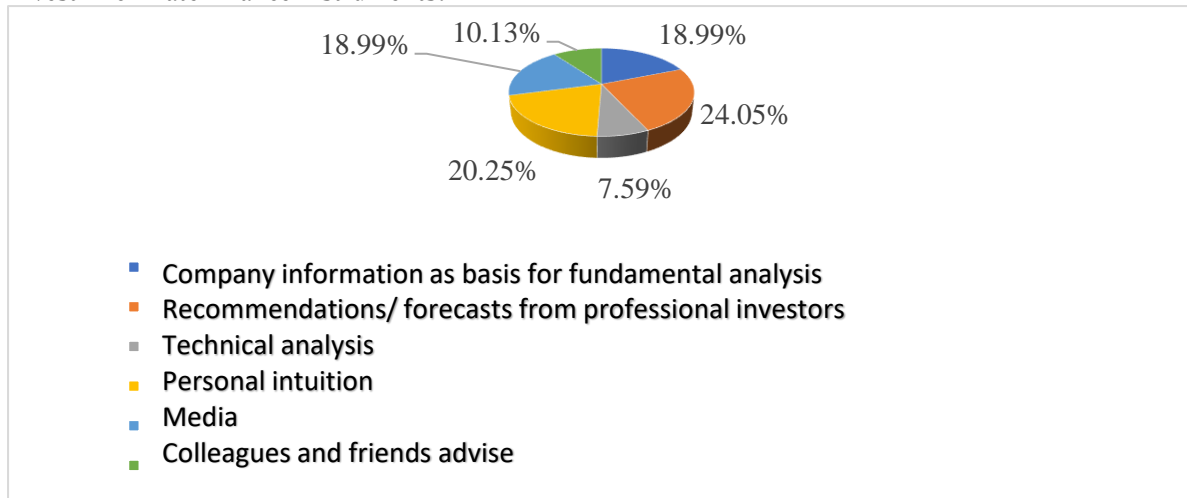


Figure 5. Factors for making an investment decision among the respondents

Here, the statistical analysis will focus on the search for significant variables for investors in making financial decisions and the willingness to invest in CFIs.

Is there a relationship between factors influencing investment choice and whether investors will choose CFIs? The hypotheses are as follows:

H0: There is no statistically significant relationship between CFI preferences and the factors indicated by investors as influencing their investment choice

H1: There is a statistically significant relationship between CFI preferences and the factors identified by investors as influencing their investment choices

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19,456 ^a	10	,035
Likelihood Ratio	17,658	10	,061
Linear-by-Linear Association	4,395	1	,036
N of Valid Cases	30		

a. 18 cells (100,0%) have expected count less than 5. The minimum expected count is ,27.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	,805	,035
	Cramer's V	,569	,035
N of Valid Cases		30	

The significance level is 0.035, which is less than the perceived risk of a first-order error, giving us reason to reject the null hypothesis – i.e there is a statistically significant relationship between the factors influencing investment choice and preference for CFIs.

For those who would invest in CFI, the most important factor is "Personal intuition" with 26.3%. For those who would not invest - "information from colleagues and friends" by 50%. Those who do not have an opinion on the issue - the main factor is the information from the company as a basis for fundamental analysis with 57.1%. The main role of personal expertise, knowledge and informal information can be mentioned, which confirms the theory of the widespread presence of behavioral factors and tendencies in making investment decisions. The information obtained could be used in targeting CFIs to potential investors and using appropriate marketing channels to inform them.

What is the relationship between the investment decision factors and the stated reasons for the failure of the investment?

The purpose of this test is to examine the incoming expectations and the outgoing result of the investment.

We set the following hypotheses:

H0: There is no statistically significant relationship between the investment decision factors and the stated reasons for the failure of the investments already made

H1: There is a statistically significant relationship between the investment decision factors and the stated reasons for the failure of the investments already made

The dependencies found are the following:

- Investors who prefer the method of fundamental analysis to make an investment decision tend to cite as "own mistakes" the reasons for their failed investments

- 100% of respondents that they make a decision based on recommendations and forecasts from professional investors, as well as based on technical analysis, say that the reason for their failure is a bad strategy because of their own mistakes

- 50% of respondents said that they made their decisions based on personal intuition and 83.3% of those who trusted the media and the Internet felt that they were failing again because of a bad strategy as a result of their own mistakes.

- Investors, for whom a factor is the opinion of friends and colleagues about making an investment decision in 66.7% of the surveyed group believe that the reason for their failure was that the market was just going down and nothing depended on them

From the test it seems that the obtained data and perceived risk of first-class error = 0.05% and there is reason to reject the null hypothesis and accept the alternative, according to which there is a statistically significant relationship between investment decision factors and the reasons for failure course of the investments already made. This in behavioral language means that the incoming attitudes of investors predetermine the result obtained from the realization of the investment.

From the test it seems that the data obtained and the perceived risk of first type error= 0.05% has grounds for accepting the null hypothesis, according to which there is no statistically significant relationship between investment decision factors and the perceived satisfaction from investments made. This result is relevant to the confirmation of the behavioral decision-making elements and in particular, what CFI issuers can expect when targeting investors.

What is the relationship between decision making investment factors and the understanding of overvaluation of the market according to investors?

Factors being outlined for overevaluating the market are : herd behavior, media, over - confidence among stock market investors, government intervention with fiscal instruments, analyst forecasts.

We set the following hypotheses:

H0: There is no statistically significant relationship between the investment decision factors and the stated reasons for overvaluation of the market

H1: There is a statistically significant relationship between investment decision factors and the stated reasons for market overvaluation

The dependencies that were found are the following:

- Investors who rely on a fundamental analysis for investor decision-making believe that the market is overvalued due to herd behavior in 50% of cases

- 57.1% of investors who rely on recommendations, forecasts from professional investors, say that the market is overvalued because of the media

- 50% of those who rely on personal intuition say that the market is overvalued due to overconfidence among stock market investors

- 66.7% of those who rely on the media and the Internet say that the market is overvalued

precisely because of the media

From the test it seems that the data obtained and the perceived risk of first type error = 0.05% has grounds for accepting the null hypothesis, according to which there is no statistically significant relationship between investment decision factors and the reasons for the successful course of already the investments made.

Conclusion for results found:

The empirical study of investors' behavioral characteristics specifically towards CFIs and in a more general context regarding their preferences and attitudes leads us to the following conclusions:

- Bulgarian women are more insecure than men in their willingness to invest in CFIs
- Sample investors would invest in CFIs, regardless of their expectations for the return
- There is no statistically significant relationship between risk expectations of CFIs and the willingness to invest in them
- CFI are considered a good diversification tool by respondents to the current study
- There is no statistically significant relationship between the willingness to invest in CFIs and the preference for long-term investments
- The leading factor in the strategy for choosing long-term investments is the low level of return and the low risk for its achievement, regardless of whether investors would or would not invest in the CFI
- There is a statistically significant relationship between the factors influencing the investment choice and the preference for CFIs

Contributions and future studies

Current empirical study is part from a greater at volume and scope project, named "The influence of climate change over portfolio investments and the opportunities for Bulgarian market". It includes the evaluation and analysis of both traditional finance, behavior and neurofinance aspects, focused at climate investments. That is to say that empirically testing the potential investors behavior is the first step to elaborate on the potential of climate financial instruments market that can cover environmental risks. The main contribution of the empirical study above is to outline the behavior predisposition of potential investors so as to analyze which are the prerequisites for having such market developed in Bulgaria.

Future studies are to make more profound analysis of the practical implications over climate derivatives over their application at climate vulnerable industries like agriculture for example.

CONCLUSION

In conclusion, Climate financial instruments are aimed at reducing costs as a result of non-catastrophic, correlated climate change events for the society if incentives and a financial ecosystem for their use are properly identified. Thus, it is important to increase investors' knowledge and awareness of these tools as to reduce risks and potential losses. Once this happens, a critical mass of investors would be created, which will be the basis for the formation of an over-the-counter market for CFIs in Bulgaria.

Thus, we should outline that a study of investor's attitude and behavior towards the variables defining CFIs is a crucial part from identifying, managing and setting the marketing plan to target the right group of investors and spread the market of this type socially responsible instruments. This was achieved with the current study in setting investors' expectations for risk, profitability ratios, terms, etc.

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