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Investigating the Relation between Risk Preferences and Concerns about the Impacts of Global Warming in the Netherlands.

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Abstract

This paper investigates the relation between risk aversion and individual specific concerns about the impacts of global warming in the Netherlands. In this research it is tested if people who are more risk averse perceive more risk regarding the impacts of climate change and if this causes them to be more concerned about this topic.

This contributes to current scientific literature since research to this relation has not been done before in the Netherlands. Policy makers can use this information to understand how risk aversion influences people's opinion regarding climate change.

An online survey was conducted to retrieve the data for this research. The relation between the main variables was tested by different OLS regressions. Despite the expected positive relation between risk aversion and concerns about the impacts of global warming, the results of the data analysis did not show any significant relation between these two variables. Reason for this can be that the sample was slightly biased and therefore did not fully represent the Dutch population. Therefore, it may be interesting to redo this research with a larger sample size that is more representable for the Dutch population to have more meaning for policy makers.

Table of Contents

Abstract.....	1
1 Introduction.....	4
2 Theoretical Framework	6
2.1 Literature Overview	6
2.1.1 Global Warming Concerns.....	6
2.2 Risk Aversion and Global Warming.....	8
2.3 Hypothesis.....	10
3 Research Design	11
3.1 Methodology and Operationalization.....	12
3.1.1 Concerns about Global Warming	12
3.1.2 Risk aversion	15
3.1.3 Control Variables	18
3.2 Conceptual Model.....	19
3.3 Regression analyses	20
4 Results	21
4.1 Robustness	24
4.2 Data analysis	25
5 Conclusion & Discussion.....	27
6 Bibliography.....	30
7 Appendix.....	34
7.1 Summary statistics	34
7.2 Summary Global Warming Scores	34
7.3 Tests for Heteroscedasticity	35

7.3.1	Test for Heteroscedasticity. Model 1	35
7.3.2	Test for Heteroscedasticity. Model 2	35
7.3.3	Test for Heteroscedasticity. Model 3	35
7.4	Tests for Multicollinearity	35
7.4.1	Test for Multicollinearity. Model 2.....	35
7.4.2	Test for Multicollinearity. Model 3.....	36
7.5	The Stata Do-File.....	37
7.6	The Survey.....	39

1 Introduction

The Climate Change 2023 Synthesis Report by the Intergovernmental Panel on Climate Change (IPCC) shows that the effects of human caused global warming have a large impact on our climate (Calvin et al., 2023). This report shows that global warming has negative impacts on ecosystems, biodiversity and human society. Reports like this give global reason for concern.

The Dutch Central Statistics Office (2023) has addressed that a growing number of people in the Netherlands are worried about global warming. They mention 76% of the adult Dutch population is currently worried about global warming and its consequences for future generations. However, this shows that despite the large potential impacts of global warming there is still 24% of the Dutch population that has less concerns on global warming.

People's risk preference can give a possible explanation for this difference. In that case, people who are less worried about the impacts of climate change are relatively more risk seeking. This means that they are less likely to avoid taking risk in uncertain situations. Therefore, the risks they experience regarding the impacts of global warming have less effect on them which causes them to have less concerns regarding this topic.

Then, there are also risk averse individuals. These people are willing to put in more effort to avoid risks. Therefore, they may be willing to do more to prevent the risks regarding the potential negative impacts of global warming. Due to their attitude towards risks they may have more concerns on global warming. Being risk averse or risk seeking is called someone's risk preference (Pratt, 1964). This concept may explain the degree of concern someone has about the impacts of global warming

Cameron & Gerdes (2007) did research to the relation between individual-specific global warming policy preferences and someone's risk attitude. They state that a more risk averse individual is willing to pay more to implement a policy that reduces global warming. However, this research is based on the US and Canada which both play a big role in global greenhouse gas emission.

Despite the fact that the US, Canada and the Netherlands are all considered western countries, there are still other factors in which the Netherlands stands out. For instance, the

difference in the degree of carbon emission and the different environmental challenges the Netherlands has to deal with as a result of climate change (JCR, 2023). This makes research regarding this topic in the Netherlands specifically interesting because climate change affects the Netherlands differently. More on these differences in the theoretical framework.

The goal of this research is to test if the relation between risk preferences and concerns about the impacts of global warming also occurs in the Netherlands on an individual level. Therefore, this research aims to test if there is a relation between Dutch people's concerns regarding global warming and their degree of risk aversion. In other words, to what extent someone's risk preference can explain how much they worry about the potential impacts of climate change. This results in the following research question:

“How does someone's degree of risk aversion influence individual-specific global warming concerns in the Netherlands?”

Answering the research question will give a deeper insight on how risk preferences affect the climate sentiment in the Netherlands. If this research shows that Dutch people who are more risk averse are also more concerned about global warming, it gives an extra real-life application on how someone's risk preference affects their behavior. Therefore, this research contributes to earlier research by Cameron & Gerdes (2007). It tries to give deeper understanding on risk preferences and its effect on people's position in the climate change debate in the Netherlands.

In addition, this research also has the potential to explain why some people are less concerned about global warming than others in the Netherlands. It tries so explain how risk aversion can cause some of the skepticism regarding the impacts of climate change as described by the Dutch Central Statistics Office (2023).

The results of this research will have value for society as well. Research to the connection between someone's risk preference and their concerns about global warming will help policy makers. It will give a deeper understanding on how someone's risk preference can be a

psychological motivation for their global warming concerns. Policy makers can adapt their communication strategy to be based on these motivations. For example, by prioritizing mentioning the risks of the impacts climate change if it appears that risk aversion is an important driver of climate change concerns. This will cause people to act on these concerns and incentivize them to act in line with the preferred policy. Moreover, policy makers can determine which population groups have certain risk attitudes. When they know how this affects their concerns on global warming, they can focus on making policy that affects these groups the most. When the concerns about global warming increase, they are more likely to adapt their behavior which results in less global warming.

This research is done in a deductive manner with the use of quantitative data analysis. Chapter two contains the theoretical framework with the literature overview. This theoretical background will give the basis for hypothesis. In chapter three an elaboration of the used research methods will follow. Chapter four contains the results of the survey and the final chapter consists of the conclusion and the discussion.

2 Theoretical Framework

In this chapter the main concepts of this research are discussed. This includes a theoretical background on individual-specific global warming concerns, risk preference and the relation between these two concepts. This chapter contains a hypothetical answer on the research question as well.

2.1 Literature Overview

2.1.1 Global Warming Concerns

Global warming is described as the long-term rise of the average temperature of our climate. As mentioned before, the Climate Change 2023 Synthesis Report by the IPCC shows that human emission of greenhouse gases plays a big role in global warming and that this has large impacts on our climate (Calvin et al., 2023). This report shows that global warming has many negative impacts.

For instance, ecosystems become more vulnerable. The higher temperatures cause more extreme weather patterns which influences people's food and water sources. This rise in temperature also increases the chance and power of floods, landslides, wildfires and hurricanes (Khandekar et al., 2005). The report by the IPCC also illustrates the effects of global warming on biodiversity (Calvin et al., 2023). The earlier mentioned changes in ecosystems decreases the biodiversity in those areas. Therefore, higher temperatures as a causes of human greenhouse emission increases the risks of extinction of certain species (Khandekar et al., 2005).

All these effects on our climate, ecosystems and the biodiversity will also have an effect on human societies. The IPCC report mentions that global warming will affect different sectors such as agriculture, fishery, energy and tourism (Calvin et al., 2023). Destruction of homes and infrastructure as a result of more extreme weather conditions is also a consequence of human caused climate change. Combined this will cause a problem for human health, food security and social equity. Moreover, global warming will cause higher costs for the economy in order to deal with all the earlier mentioned problems. In addition, global warming will generally increase risks which require higher returns in financial markets (Dietz et al., 2021).

Logically speaking, these kind of global warming related problems can be a cause for concern for a large part of the population. As mentioned earlier, the Dutch Central Statistics Office (2023) shows that a growing number of people in the Netherlands are worried about global warming. The main concerns are for dry summers (76%), floodings (71%), extinction of animal- and plant species (68%) and heavy precipitation (67%) as a result of global warming.

Brulle et al. (2012) did research to causes for climate change concerns among the U.S. citizens. They mention that economic factors, media attention and elite cues have a large effect on public concerns on global warming. However, they do not find a significant relation between extreme weather and concerns on global warming. This differs from the Dutch population.

Research from Lewis et al. (2019) states that in western societies female, younger and less religious people are generally more worried about climate change. This relation is quite weak, but they do state that the relation between global warming concerns and education is larger. This is partly in line with research of the Dutch Central Statistics Office (2023). They state that in the

Netherlands woman and people with high education are generally more worried about climate change. However, their results show that older people are generally more worried than younger people in the Netherlands, which opposes the research of Lewis et al. (2019).

Research by Tranter & Booth (2015) give possible explanations for why a part of the Dutch population is less worried about global warming. They state that affiliation with conservative parties, gender, low government trust and just not caring about the environment are good predictors of climate change skepticism. In addition, they state that greenhouse emissions and vulnerability to climate change are positively correlated with climate skepticism. However, there are also other theories that give an explanation for this difference in concern about the impacts of global warming. A difference in risks preferences of the Dutch population can be one of them.

2.2 Risk Aversion and Global Warming

Heal & Kristrom (2002) did research to the relation between the degree of risk aversion of policy makers and their global warming policy. The model in their paper shows that policy makers that are highly risk averse will implement policies with the aim to reduce global warming. Lontzek & Narita (2011) extends this model by adding more parameters, this results in a different outcome.

Lontzek & Narita (2011) state that risk aversion of policy makers can either have a positive or negative effect depending on the level of capital. They state that for medium or high levels of capital there is a positive relation between risk aversion and the tendency to reduce global warming. However, this relation becomes negative for lower levels of capital. They mention that the reason for this difference is that policy makers that are more risk averse prefer capital investments over a global warming policy when the return on capital is relatively high, which is the case for lower levels of capital. Therefore, the capital level that is needed as a proportion of total capital plays a role in the relation between risk aversion and climate change policy. However, both these papers are based on a macro level instead of an individual level.

Arrow (1965) and Pratt (1964) also mention that the total wealth of an individual affects the risk preference of an individual. Therefore, they differentiate between absolute and relative risk aversion. Absolute risk aversion describes an individual's degree of risk aversion based on the

change in wealth without taking total wealth of the individual into account. According to Arrow, (1965) and Pratt (1964) the amount of wealth someone has influences someone's risks attitude. When we look at the degree of risk aversion someone has when a change in wealth as part of their total wealth, we speak of relative risk aversion. Because people take their total wealth into account when making decisions it is assumed that they make their decisions based on relative risk aversion.

Cameron & Gerdes (2007) researched the relation between individual-specific global warming policy preferences and someone's risk preference. This is different from the research of Lontzek & Narita (2011) since their research is on a macro level. Cameron & Gerdes (2007) state that a more risk averse individual is willing to pay more to implement a policy that reduces global warming. However, this research is based on the US and Canada which both play a big role in global greenhouse gas emission.

Despite the fact that the US, Canada and the Netherlands are all considered western countries, there are still some reasons to conduct research to this relation in the Netherlands. The Netherlands have less greenhouse emissions than the US and Canada because it is a smaller country. Moreover, they have a lower greenhouse gas emission per capita as well (JCR, 2023). This can be a reason for a difference in general concerns about global warming.

Another reason to conduct such research in the Netherlands specifically is that a large part of the Netherlands is below sea level. Therefore, the impacts of a rising sea level as a result of global warming may be a larger concern for people in the Netherlands than it is for people in other countries. This differs from other countries since they have to deal with other geographical changes as a result of global warming.

It is also a possibility that risk aversion causes more climate skepticism. Hobson & Niemeyer (2013) did research to what drives climate skepticism. They provide five different explanations that can be explained by risk aversion to a certain extent. Despite the fact that there is no earlier empirical research that points out the relations between these five points and risk aversion they are still interesting points that should be mentioned.

First, they mention emphatic negation, which is the idea that we currently don't have enough knowledge to determine if climate change is real. This aligns with risk aversion because skeptics are possibly avoiding to take the risk of a potentially unnecessary investment. They avoid this risk because they state there is not enough evidence for climate change.

Another reason they give for climate change skepticism is earnest acclimatization. This suggests that global warming is a natural phenomenon. Therefore, the focus should be on adaptation and not on emission reduction. This can be seen as a risk averse since they do not want to take the risk of potential unnecessary costs trying to stop something that cannot be hold back. This argument also holds proactive uncertainty and noncommittal consent. Proactive uncertainty suggest that people don't feel the need to do anything to slow down global warming. They believe that if global warming is real, we should focus on adaption instead of prevention. Noncommittal suggests that people are uncertain about the fact that climate change is happening. They believe that if it is happening that we should focus on managing the impacts rather than the causes

Then they mention unperturbed pragmatism, which means that people reject climate change policy in combination with the idea that if there is a problem with regard to climate change there is enough time to sort it out. This can be seen as risk averse behavior because they do not want to potentially invest too early in reducing the effects of climate change.

2.3 Hypothesis

The research question of this paper is *"How does someone's degree of risk aversion influence individual-specific global warming concerns in the Netherlands?"*. The theory as earlier described in this chapter can be used to give a hypothetical answer on this question.

Different studies illustrate how people's risk preference may affect their opinion on global warming and how worried they are about this problem. Both Heal & Kristrom (2002) and Lontzek & Narita (2011) state that the degree of risk aversion of policy makers has a positive relation with their power of their climate change policy on a macro level. However, Lontzek & Narita (2011) state that low capital levels can reverse this effect. Looking at an individual-specific level, Cameron & Gerdes, (2007) did find a positive relation between the degree of risk aversion and the power of their preferred global warming mitigation policies. Despite this study was performed

in the U.S and Canada, it can be expected that such a study will get similar results in the Netherlands since this is also a western country. As mentioned before, Hobson & Niemeyer (2013) give reason for a negative relation between skepticism about climate change and risk aversion. However, there is no empirical evidence for this relation.

So, this indicates a positive relation between the degree of risk aversion and people's concerns about the impacts global. Therefore, the following hypotheses can be formulated.

H_0 : *"The degree of risk aversion has no effect or a negative effect on individual-specific global warming concerns."*

H_A : *"The degree of risk aversion has a positive effect on individual-specific global warming concerns."*

3 Research Design

This chapter includes the methodology of this research and the operationalization of the conceptual model. The survey with experiments that are used to retrieve data for the variables are explained as well. Moreover, this chapter also discusses how the correlation between the main variables is measured.

The research design consists of a statistic analysis by STATA with data that is retrieved from an online survey by Qualtrics. The data analysis consists of multiple OLS regressions. An OLS regression is a good tool to test the correlation between different variables. Therefore, it helps to test the relation between someone's degree of risk aversion and individual-specific global warming concerns. This makes it possible to tests the hypothesis and answer the research question.

An online survey is a good tool to collect data for the main variables risk aversion and individual specific global warming concerns since it allows to reach a large group of people relatively easily. The first section of the survey consists of questions regarding risk aversion, the second section contains questions regarding global warming concerns, the third and final section is used to collect the demographic data of the participants. A more thorough explanation on how each section provided data for the data analysis will follow later in this chapter.

The participants were able to fill in the online survey with a link on social media or in real live by scanning a QR-code. A part of the participants was approached at either the Radboud University Nijmegen or at Nijmegen Central Station. They were handed a business card which contained a QR-code which send them to the online survey.

G*Power software was used to do the power analysis in order to determine the target sample size (*G Power Manual*, 2023). Research from Cameron & Gerdes (2007) was used as a benchmark for effect size and the standard deviation for the power analysis. They found an effect size of 0.166 for the correlation between concerns about the impacts on ecosystems as a result of global warming and risk aversion. They also found an effect size of 0.212 for the correlation between concerns about the impacts on equity as a result of global warming and risk aversion. For the power analyses the average of these effect sizes was used because this comes closer to the correlation between the dependent and independent variables of this research. This effect size is equal to 0.19.

A power level of 0.80 and a significance level of 0.05 is commonly used to determine the target sample size. Therefore, these values are used in this research as well. By combining this power level, significance level and an effect size of 0.19, G*power gives a target sample size of 167.

3.1 Methodology and Operationalization

A regression analysis is conducted in order to determine the relation between global warming concerns and the participants risk preference. Therefore, “individual-specific concerns about global warming” is the dependent variable and “risk aversion” will be the independent variable

3.1.1 Concerns about Global Warming

The dependent variable of this research is “individual-specific concerns about global warming”. Both Capstick et al. (2014) and Yu et al. (2013) conducted surveys to determine public perceptions on climate change. In order to cover all the concerns about global warming as described in the literature overview, questions from both papers were combined to construct the survey questions for this paper. Since the papers by Capstick et al. (2014) and Yu et al. (2013) address the general public perception of global warming, only questions regarding the concerns about the

impacts of global warming were used in this research. Questions that address perceived cause or awareness of climate change were excluded. In addition, questions of a similar nature were merged into single survey question in order to decrease the amount of survey questions. This decreases the time that is needed to fill in the survey which leads to a higher chance that the participants will finish the survey. This means more useful responses for the data analysis. This resulted in five survey questions that describe global warming concerns. Five more filler questions were added to the survey that are related to climate change but not to climate change concerns specifically. By doing this the main goal of the survey remains unknown which withholds the participants from giving answers that they think that the researcher wants to hear. This makes the answers less biased.

The variable individual-specific concerns about global warming will be described with the “global warming concern index”. This index is determined based on the answers of the survey questions. Each survey question addresses one of the five sub-concepts of concerns about global warming. These sub-concepts are; personal concerns about the impact of global warming, environmental concerns about the impact of global warming, societal concerns about the impact of global warming, concerns towards global warming policy and willingness to act on the global warming problem.

Each answer on the survey question will give the individual a “global warming concern score”. The global warming concern index is the weighted average of the global warming concern scores. A higher the global warming concern score, leads to a higher global warming concern index, which means that this individual is more concerned about the impacts of global warming.

The participants of the experiment need to fill in a five-point Likert scale to answer the survey questions where they receive a global warming concern score. The scale goes from “totally disagree” which gives them a score of 0, till “totally agree” which gives them a score of 1.0 with intervals of 0.25. The individuals global warming concern index can be calculated with the following formula:

$$\text{Equation 1: Global Warming Concern Index} = \frac{\text{Sum Global Warming Scores}}{\text{Total \#Global Warming Score Questions}}$$

The first sub-concept “personal concerns about the impact of global warming” is described as the degree at which a person perceives concerns about the impact of global warming on their personal life. Various sources mention personal concerns play a large role in the opinion-forming of individuals (Capstick et al., 2014; Dutch Central Statistics Office, 2023; Khandekar et al., 2005). Therefore, it is included as a sub-concept of the variable concerns about global warming. The survey question that addresses this sub-concept is to what extent participant agrees with the statement “I am concerned about the impacts of global warming on my personal life”.

The second sub-concept “environmental concerns about the impact of global warming” is described as the degree at which a person perceives concerns about the impact of global warming on the environment. This includes concerns on various ecosystems and the biodiversity. Calvin et al. (2023), the Dutch Central Statistics Office (2023), Khandekar et al. (2005) mention the environment as one of the drivers for concerns about the impacts of global warming. Therefore, this sub-concept is also included to describe concerns about global warming. The survey question that addresses this sub-concept is to what extent participant agrees with the statement “I am concerned about the impacts of global warming on the environment”.

The third sub-concept “societal concerns about the impact of global warming” is described as the degree at which a person perceives concerns about the impact of global warming on society. This includes concerns about the impact on the economy and social security. According to various sources this can lead to more general concerns about global warming (Brulle et al., 2012; Calvin et al., 2023; Dietz et al., 2021; Dutch Central Statistics Office, 2023). Therefore, this sub-concept is included to describe concerns about global warming as well. The survey question that addresses this sub-concept is to what extent participant agrees with the statement “I am concerned about the impacts of global warming on society”.

The fourth sub-concept “concerns towards global warming policy” is described as the degree that individuals have concerns about the current global warming policy. This is included as a sub-concept since it describes the opinion on how the government handles global warming. Capstick et al. (2014) and Yu et al. (2013) mention that this can be used to describe perceived global warming concerns. Therefore, this sub-concept is also used to describe concerns about global

warming. The survey question that addresses this sub-concept is to what extent the participant agrees with the statement “I am concerned about the current global warming policy of the government”.

The final sub-concept “willingness to act on the global warming problem” is described as the degree that people are willing to act on their own to reduce global warming. For instance, this includes making sustainable decisions in their day to day live and voting behaviour. This is included as a sub-concept of concerns about global warming since it describes to what extent an Individual is willing to act on their concerns (Capstick et al., 2014). The survey question that addresses this sub-concept is to what extent the participant agrees with the statement “I am willing to reduce my own energy usage in order to mitigate global warming”.

3.1.2 Risk aversion

The concept risk aversion is defined as the degree to which someone is risk averse (Arrow, 1965; Pratt, 1964). As mentioned before, a person who is risk averse has the tendency to avoid risk. People are risk averse when they prefer a situation with a certain lower payoff over a situation with an uncertain but higher payoff, even when weighted average of payoff in the uncertain situation is higher. For a risk seeking person holds the opposite. They prefer an uncertain situation with a potential higher payoff over certain situation with a lower payoff. A positive risk preference indicates risk aversion, a negative risk preference indicates a risk seeking behaviour. In this research, a situation of relative risk aversion is assumed.

An experiment similar to the experiment by Holt & Laury (2002) is used to measure the risk preference of the participants. They used a paired lottery choices to determine the participant’s risk preference.

TABLE 1. THE PAIRED LOTTERY-CHOICE DECISIONS OF THE HOLT & LAURY EXPERIMENT (2002)

Option A	Option B	Expected Payoff Difference
1/10 of \$2.00, 9/10 of \$1.60	1/10 of \$3.85, 9/10 of \$0.10	\$1.17
2/10 of \$2.00, 8/10 of \$1.60	2/10 of \$3.85, 8/10 of \$0.10	\$0.83
3/10 of \$2.00, 7/10 of \$1.60	3/10 of \$3.85, 7/10 of \$0.10	\$0.50
4/10 of \$2.00, 6/10 of \$1.60	4/10 of \$3.85, 6/10 of \$0.10	\$0.16
5/10 of \$2.00, 5/10 of \$1.60	5/10 of \$3.85, 5/10 of \$0.10	-\$0.18
6/10 of \$2.00, 4/10 of \$1.60	6/10 of \$3.85, 4/10 of \$0.10	-\$0.51
7/10 of \$2.00, 3/10 of \$1.60	7/10 of \$3.85, 3/10 of \$0.10	-\$0.85
8/10 of \$2.00, 2/10 of \$1.60	8/10 of \$3.85, 2/10 of \$0.10	-\$1.18
9/10 of \$2.00, 1/10 of \$1.60	9/10 of \$3.85, 1/10 of \$0.10	-\$1.52
10/10 of \$2.00, 0/10 of \$1.60	10/10 of \$3.85, 0/10 of \$0.10	-\$1.85

As shown in table 1, in this experiment the participants had to choose ten times between two lotteries, the lottery in Option A and the lottery in Option B. The lottery in option A had a winning payoff of \$2.00 and a losing payoff of \$1.60. The lottery in option B had a winning payoff of \$3.85 and a losing payoff of \$0.10. Each round the probability of winning the lottery increases by 10%. Note that the difference between winning and losing is smaller for Option A than in Option B. The expected payoff for choosing Option A is the highest in the first round and the lowest in the last round. Therefore, it is expected that at a given round the participant switches from Option A to option B. The later the participant switches from Option A to Option B, the higher the degree of risk aversion of the individual. Therefore, this experiment is useful to measure the someone's risk preference.

TABLE 2. THE PAIRED LOTTERY-CHOICE DECISIONS OF THIS RESEARCH

Option A	Option B	Expected Payoff Difference
1/10 of \$40.00, 9/10 of \$32.00	1/10 of \$77.00, 9/10 of \$2.00	\$23.30
2/10 of \$40.00, 8/10 of \$32.00	2/10 of \$77.00, 8/10 of \$2.00	\$16.60
3/10 of \$40.00, 7/10 of \$32.00	3/10 of \$77.00, 7/10 of \$2.00	\$9.90
4/10 of \$40.00, 6/10 of \$32.00	4/10 of \$77.00, 6/10 of \$2.00	\$3.20
5/10 of \$40.00, 5/10 of \$32.00	5/10 of \$77.00, 5/10 of \$2.00	-\$3.50
6/10 of \$40.00, 4/10 of \$32.00	6/10 of \$77.00, 4/10 of \$2.00	-\$10.20
7/10 of \$40.00, 3/10 of \$32.00	7/10 of \$77.00, 3/10 of \$2.00	-\$16.9
8/10 of \$40.00, 2/10 of \$32.00	8/10 of \$77.00, 2/10 of \$2.00	-\$23.60
9/10 of \$40.00, 1/10 of \$32.00	9/10 of \$77.00, 1/10 of \$2.00	-\$30.3
10/10 of \$40.00, 0/10 of \$32.00	10/10 of \$77.00, 0/10 of \$2.00	-\$37

Table 2 shows the experiment of this paper. In this case the participants will also choose ten times between two lotteries Option A and Option B. However, the lottery in Option A has a winning hypothetical payoff of \$40.00 and a losing hypothetical payoff of \$32.00. The lottery in Option B had a winning payoff of \$77.00 and a losing payoff of \$2.00. The payoffs of the Holt & Laury experiment (2002) are multiplied by twenty in order to compensate for the risk that the participants think that the expected payoff difference is too little, which can result in careless behaviour during the experiment. Each round the probability of winning the lottery increases by 10%. The expected payoff for choosing Option A is the highest in the first round and the lowest in the last round. Therefore, it is expected that at a given round the participant switches from Option A to option B. The later the participant switches from Option A to Option B, the higher the degree of risk aversion of the individual.

Constant relative risk aversion is assumed for this experiment. Therefore, the utility function $u(x)^{1-r}$ is used. x describes the payoff and r describes the participant's risk preference. As mentioned before, a positive risk preference indicates risk aversion, a negative risk preference indicates a risk seeking and a risk preference of zero indicates risk neutral behaviour. This means that if the participant switches from Option A to Option B in row one till three there is risk seeking behaviour. A switch in row 4 indicates risk neutral behaviour. And a switch between row five and ten indicates risk averse behaviour. The values for r and their meaning are shown table 3.

TABLE 3. RISK PREFERENCE FOR NUMBER OF SAFE CHOICES

Number of safe choices	Range of Risk Aversion	Average Risk Aversion
0-1	$r < -0.95$	-0.95
2	$-0.95 < r < -0.49$	-0.72
3	$-0.49 < r < -0.15$	-0.32
4	$-0.15 < r < 0.15$	0
5	$0.15 < r < 0.41$	0.28
6	$0.41 < r < 0.68$	0.55
7	$0.68 < r < 0.97$	0.83
8	$0.97 < r < 1.37$	1.17
9-10	$1.37 < r$	1.37

Since the r is given in ranges, the average value of the bounds of r is used to describe the participant's degree of risk aversion. For the values that do not have two limits the limit value is taken as an average.

3.1.3 Control Variables

The model of this research also contains some control variables. These control variables are gender, age, gross household income and educational level.

As mentioned in the theoretical framework, gender influences both individual-specific concerns about global warming and someone's risk preference. Women are generally speaking more concerned about global warming (Dutch Central Statistics Office, 2023; Lewis et al., 2019) and more risk averse than men (Filippin & Crosetto, 2014; Ronay & Kim, 2006). Therefore, a dummy for gender is included in the model. The dummy for men is used as reference point in the model.

Age is included in the model as a control variable as well. Theory from Lewis et al., (2019) describes that young people are more worried about climate change. However, in the Netherlands this effect seems to be reversed (Dutch Central Statistics Office, 2023). Therefore, we expect that age has a positive influence on someone's concerns about global warming. The same effect is expected for the correlation between age and risk aversion (Weber, 2010).

The model also includes gross household income as a control variable since it influences both someone's global warming concerns and their risk preference. The Dutch Central Statistics Office (2023) indicates that people with a low income are more worried about the costs of the climate.

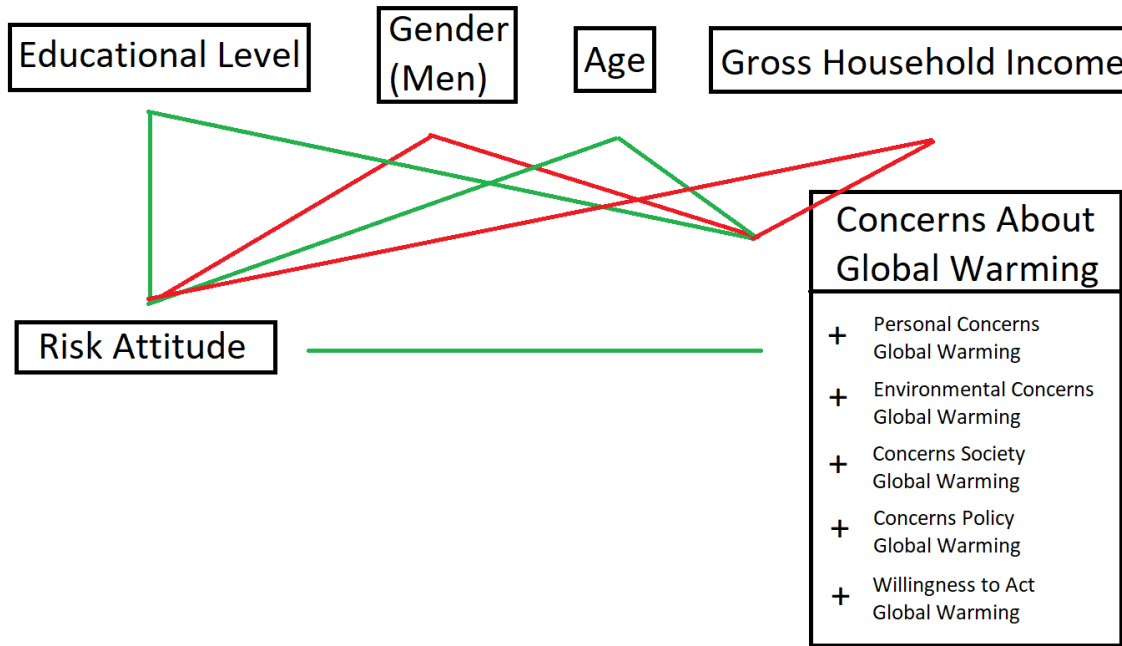
However, they also state that people with a higher income are more worried about climate change in general. Therefore. It is expected that gross household income level positively influences individual-specific global warming concerns. In addition, Arrow, (1965) & Pratt (1964) mention that people with a high income level are less risk averse because of relative risk aversion. The model assumes a negative relation between gross household income level and risk aversion. Therefore, a control variable for gross household income is included in the model as well.

The last control variable in the model is a dummy for education. People who are higher educated are more concerned about the consequences of global warming (Dutch Central Statistics Office, 2023) and are more risk averse (Rosen et al., 2003). The dummy for education is split up in three categories; low, middle and high. In the Netherlands, low-level education includes primary education, VMBO/MAVO and MBO-1/MBO-2. Middle-level education includes MBO-3/MBO-4, HAVO, VWO. High-level education includes HBO-, WO-bachelor and HBO-, WO-master (Dutch Central Statistics Office, 2021). The dummy for low education is used as reference point in the model.

3.2 Conceptual Model

Individual specific concerns about global warming is the dependent variable and risk aversion is the independent variable. As elaborated in the theoretical framework this relation is expected to be positive. Since the variable concerns about global warming consists of multiple sub-concepts they are also included in the conceptual model. The control variables are included as well. The conceptual is shown in figure 1. Green lines indicate a positive relation and red lines a negative relation.

FIGURE 1. CONCEPTUAL MODEL



3.3 Regression analyses

The data analysis consists of three different ordinary least square regression analyses to test the correlation between dependent variable individual-specific concerns about global warming (*CGW*) and the independent variable risk aversion (*RA*). The first regression analysis only consists of the dependent and independent variables to test the correlation without the control variables. This results in the following model.

$$\text{Model 1: } CGW = \beta_0 + \beta_1 * RA + e$$

The second regression analysis consist of the dependent and independent variable but also a dummy variable for gender (*Female*), a variable for age and gross household income (*GHI*). The values for male are included in the intercept. This results in the following model.

$$\text{Model 2: } CGW = \beta_0 + \beta_1 * RA + \beta_2 * Female + \beta_3 * Age + \beta_4 * GHI$$

The third regression analysis is the same as the second regression analysis. However, gross household income is replaced by dummy variables for middle-level education (*MidEdu*) and high-level education (*HighEdu*) to include educational-level in the model. The values for low-level education are included in the intercept. Since gross household income and educational level are likely to be highly correlated, they cannot be in the same model. Therefore, they are included in

separate regression analyses because it remains interesting to test the effect of both these control variables on the model. Because of the high correlation between gross household income and educational level similar results are expected for the second and third regression. The third regression has the following model.

$$\text{Model 3: } CGW = \beta_0 + \beta_1 * RA + \beta_2 * Female + \beta_3 * Age \\ + \beta_5 * MidEdu + \beta_6 * HighEdu + e$$

As described in the theoretical framework, a positive relation between the dependent and independent variable is expected. This results in the following hypotheses for each of the three models.

$$H_0: \beta_1 \leq 0 \text{ \& } H_A: \beta_1 > 0$$

For each model a test for heteroscedasticity and multicollinearity are conducted to test if the data is robust. To test for heteroscedasticity the Breusch-Pagan test is done. To test for multicollinearity the variance inflation factor is used. STATA was used to do the data analysis and the tests for heteroscedasticity and multicollinearity.

4 Results

This chapter contains the results of this research. This includes the discussion of the summary statistics, the robustness checks and the results of the OLS regressions. The survey had a total of 311 respondents. 69 results were dropped which results in a total of 242 useful responses for the data analysis. The main reason for dropping responses was that some participants switched to many times between Lottery A and Lottery B. Therefore, it was impossible to determine their preference. It is noteworthy that some participants switched one time from Lottery B to Lottery A. Since this is opposite from what was initially expected, these responses were excluded from the dataset as well. There were some participants that preferred a 100% chance of €44 over a 100% chance of €77. These responses were dropped as well since they most likely did not understand the assignment since this goes against common sense.

TABLE 4. SUMMARY STATISTICS

Variable Name	Observations	Mean	Standard Deviation	Minimum	Maximum
Concern Global Warming Index	251	3.52	0.955	0.5	5
Average Risk Aversion	251	0.40	0.503	-0.97	1.37
Age	251	24.2	9.591	0	85
Dummy for Gender (Female)	243	0.54	0.499	0	1
Gross Household Income	250	1.75	2.372	0	10
Dummy for Low Level Education	251	0.019	0.140	0	1
Dummy for Middle Level Education	251	0.562	0.497	0	1
Dummy for High Level Education	251	0.418	0.494	0	1

The summary statistics of the main variables are shown in table 4. The average age of the sample is 24. This is lower than the average age in the Netherlands which is 42 (Dutch Central Statistics Office, 2024). 54% of the sample is female which is in line with the Dutch Population. It is also noteworthy that 81% of the sample is still studying, which makes the sample more biased.

The average degree of risk aversion of the population is equal to 0.40. This indicates that people are a bit risk averse. This is in line with the expectations as described in the theoretical framework. In addition, the mean of the global warming concern index is equal to 3.52. This means that people are generally neutral to concerned about the impacts of global warming. This is in line with the theory earlier mentioned theory.

TABLE 5. SUMMARY OF THE GLOBAL WARMING SCORES.

Variable Name	Observations	Mean	Standard Deviation	Minimum	Maximum
Score Question 2 Statement 1	251	0.712	0.228	0	1
Score Question 2 Statement 2	251	0.829	0.160	0	1
Score Question 2 Statement 3	251	0.644	0.272	0	1
Score Question 2 Statement 4	251	0.773	0.211	0	1
Score Question 2 Statement 5	251	0.691	0.223	0	1
Score Question 2 Statement 6	251	0.745	0.247	0	1
Score Question 2 Statement 7	251	0.710	0.229	0	1
Score Question 2 Statement 8	251	0.733	0.238	0	1
Score Question 2 Statement 9	251	0.756	0.233	0	1
Score Question 2 Statement 10	251	0.701	0.269	0	1

Table 5 shows the scores global warming concerns scores that were used to determine the global warming concern index. The mean scores are close to each other varying from 0.69 till 0.83. This indicates that on average people agreed with the statements mentioned in the survey which means that on average they were concerned about global warming or were willing to act to limit its impacts.

TABLE 6. BIVARIATE CORRELATION OF THE VARIABLES.

	CGW	Average RA	Dummy Gender (Female)	Age	GHI	Dummy Low Education	Dummy Middle Education	Dummy High Education
CGW	1.000							
Average RA	0.060	1.00						
Dummy Gender (Female)	0.195	0.219	1.00					
Age	0.055	0.031	-0.085	1.00				
GHI	-0.061	0.107	-0.193	0.444	1.00			
Dummy Low Education	-0.288	-0.037	-0.158	0.054	0.027	1.00		
Dummy Middle Education	-0.001	0.015	0.169	-0.241	-0.215	-0.163	1.00	
Dummy High Education	0.083	-0.004	-0.125	0.227	0.208	0.121	-0.960	1.00

Table 6 shows the bivariate correlations between the variables in this model. Here we see a weak positive correlation between the dependent and independent variable. In addition, we see that higher gross household income is positively correlate with the dummy for high level education. Therefore, it is better to model these control variables separately to avoid multicollinearity.

4.1 Robustness

Tests for heteroscedasticity and multicollinearity were conducted. The results of these tests are shown in the appendix.

To test for heteroscedasticity a Breusch-Pagan test was conducted. This test has as a null hypothesis that there is no heteroscedasticity in the data. For the first regression that only includes the dependent and the independent variable the test shows a Chi-Square test statistic of 1.92 and a P-value equal to 0.1663. Therefore, the null hypothesis can be accepted which means that there is no heteroscedasticity in the data.

For the second regression which also includes the control variables gender, age and gross household income the Chi-Square test statistic value of the Breusch-Pagan test is equal to 10.46 and a P-value of 0.0012. Therefore, the null hypothesis is rejected which indicates heteroscedasticity in the model. A regression analysis with robust standard errors is conducted to compensate for the heteroscedasticity. The VIF was equal to 1.19 which indicates that there is no multicollinearity in the model.

The third regression which includes the control variables gender, age and the dummies for educational level has a Chi-Square test statistic value of 0.50 and a P-value of 0.4815 as a result of the Breusch-Pagan test. Therefore, the null hypothesis can be accepted which means that there is no heteroscedasticity in the data. However, the VIF value is 5.76 which indicates multicollinearity in the model.

4.2 Data analysis

TABLE 7. THE THREE DIFFERENT REGRESSION MODELS SHOWING THE RELATION BETWEEN CONCERNS ABOUT GLOBAL WARMING AND AVERAGE RISK AVERSION.

	Model 1	Model 2	Model 3
Number of Observations	251	242	243
Prob > F	0.344	0.0172*	0.000
R-Squared	0.0036	0.0485	0.1198
Average Risk Aversion	0.114 (0.345)	0.015 (0.908)	-0.006 (0.960)
Dummy for Gender (Female)		0.374 (0.005) *	0.316 (0.010) *
Age		0.010 (0.137)	0.010 (0.123)
Gross Household Income		-0.024 (0.372)	
Dummy for Middle Level Education			1.781 (0.000) *
Dummy for High Level Education			1.849 (0.003) *
Constant	3.478 (0.000) *	3.103 (0.000) *	1.329 (0.003) *

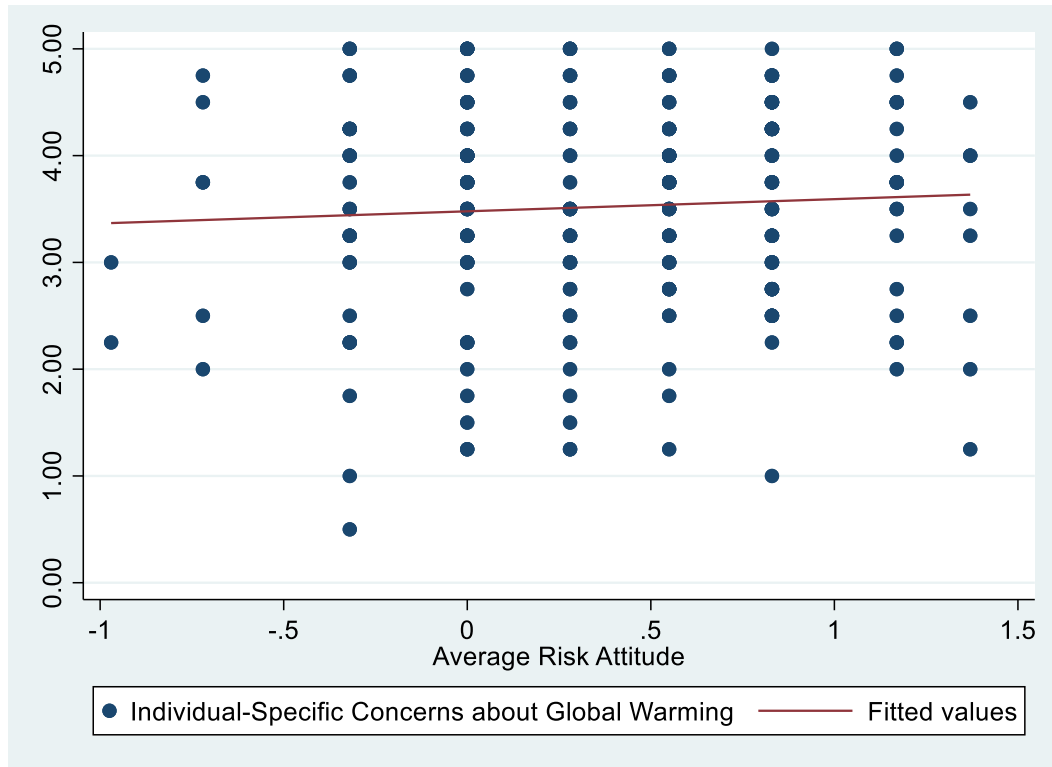
*P < 0.05

Table 7 shows the results of the three different OLS regressions. The hypothesis as described in the methodology is that there is a positive correlation between individual-specific concerns about global warming and risk aversion. The first model shows the OLS regression with only the dependent and independent variable. The results show a positive coefficient of 0.114. However, because of the T-value (0.95) and P-value (0.345) this result is insignificant. Therefore, the null hypothesis cannot be rejected which means that there are no indications of a positive correlation between individual-specific concerns about global warming and risk aversion.

The second model shows the OLS regression with robust standard errors which also includes the control variables for gender, age and gross household income. The regression shows a weak positive coefficient for the correlation between individual-specific concerns about global warming and risk aversion with a value of 0.0152. However, because of the T-value (0.12) and P-value (0.905) this result is insignificant in this regression analysis as well. The only significant variable in the model is the dummy for gender. The variable indicates that woman is generally more concerned about climate change. The null hypothesis cannot be rejected which means that there are no indications of a positive correlation between individual-specific concerns about global warming and risk aversion.

The third model shows the OLS regression which includes the same variables as the second model. However, income is replaced with dummies for educational level. The regression shows a weak negative correlation of -0.006 between individual-specific concerns about global warming and risk aversion. However, the value is insignificant again because of and P-value of (0.960). The dummy for gender is significant in this model as well. This is another indication that woman is generally more concerned about climate change. Moreover, the dummies for educational-level are significant as well. These dummies indicate that middle and highly educated people are more concerned about the impacts of global warming. However, as mentioned before there is multicollinearity in the model. This means that the results of the OLS regression are not trustworthy. Therefore, the null hypothesis cannot be rejected which means that there are no indications of a positive correlation between individual-specific concerns about global warming and someone's risk preference.

FIGURE 2. SCATTER PLOT INDIVIDUAL SPECIFIC CONCERNS ABOUT GLOBAL WARMING AND AVERAGE RISK AVERSION.



The scatter plot of the model is in line with the data analysis. There seems to be no significant relation between individual-specific concerns about global warming and someone's risk preference.

5 Conclusion & Discussion

This research aims to answer the question: *"How does someone's degree of risk aversion influence individual-specific global warming concerns in the Netherlands?"*. The results of the data analyses do not show a significant relation between these two variables. Neither of the three regression analyses did show a significant correlation between someone's degree of risk aversion and their individual specific global warming concerns.

These results are unexpected since they do not align with earlier mentioned research from Cameron & Gerdes (2007) that shows a positive relation between someone's degree of risk aversion and their willingness to limit the impacts global warming in the United States and

Canada. Maybe the differences between the United States, Canada and the Netherlands are larger than expected which can affect the relation between the main variables.

The results of this research don't match the hypothesis as well. The hypothesis was that higher risk aversion leads to more concerns about the impacts of global warming. This means that the null hypothesis cannot be rejected which means that this research does not show any indications for a relation between the individual-specific concerns about global warming and someone's risk preference.

Limitations of this research can give a possible explanation for the difference between the expectations and the results of this research. One of these limitations is that the sample of this research is not a good representation of the Dutch population. Possible reason for this is that a large part of the participants was approached at the Radboud University. This resulted in 81% of the sample being a student and the mean age of the sample being 24.2. This is not representable for the Dutch population which made the data set more biased. In addition, the dataset lacked people with a low education level (2%). This made it harder to show a difference in effect based on educational level. However, when educational level was replaced by income, the results remained insignificant.

Another potential limitation of this research is that there is a risk that participants were not incentivised enough to fill in the survey seriously because there was no monetary reward. This can also explain why 22% of the respondents had to be dropped because of not being consistent or logical in their decisions regarding the lottery questions in the experiment.

Future research can take these limitations into account by getting a more representative sample of the Dutch population and giving a monetary incentive to get more trustworthy results. It is also a possibility to go more into dept with the questions regarding people's concerns about the impacts of climate change. Asking follow up questions gives a deeper understanding on why they agree or disagree with the statements in the survey and how risk aversion plays a role in their decision.

It may also be interesting to test if the relation between risk aversion and concerns about global warming holds in other countries and which factors are leading in causing differences in between countries. By doing this policy makers can use the information to adapt their strategies. They can implement the relevance of risk preferences in people's opinion forming on climate change in their strategy to reach people more specifically for each country.

Another interesting idea for future research is testing if ambiguity aversion does have an effect on concerns about global warming instead of risk aversion. One could argue that the not knowing the effects of climate change is a larger driver for concern than the perceived risks of people. Testing this relationship may be interesting in the future. This can be of interest for policy makers as well since is another way of approaching concerns about climate change regarding uncertainties. This information can also be used by policy makers to adapt their strategy on how to reach people and influence them to act to limit the impacts of global warming.

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7 Appendix

7.1 Summary statistics

Variable Name	Observations	Mean	Standard Deviation	Minimum	Maximum
Concern Global Warming Index	251	3.52	0.955	0.5	5
Average Risk Aversion	251	0.40	0.503	-0.97	1.37
Age	251	24.2	9.591	0	85
Dummy for Gender (Female)	243	0.54	0.499	0	1
Gross Household Income	250	1.75	2.372	0	10
Dummy for Low Level Education	251	0.019	0.140	0	1
Dummy for Middle Level Education	251	0.562	0.497	0	1
Dummy for High Level Education	251	0.418	0.494	0	1

7.2 Summary Global Warming Scores

Variable Name	Observations	Mean	Standard Deviation	Minimum	Maximum
Score Question 2 Statement 1	251	0.712	0.228	0	1
Score Question 2 Statement 2	251	0.829	0.160	0	1
Score Question 2 Statement 3	251	0.644	0.272	0	1
Score Question 2 Statement 4	251	0.773	0.211	0	1
Score Question 2 Statement 5	251	0.691	0.223	0	1
Score Question 2 Statement 6	251	0.745	0.247	0	1
Score Question 2 Statement 7	251	0.710	0.229	0	1
Score Question 2 Statement 8	251	0.733	0.238	0	1
Score Question 2 Statement 9	251	0.756	0.233	0	1
Score Question 2 Statement 10	251	0.701	0.269	0	1

7.3 Tests for Heteroscedasticity

7.3.1 Test for Heteroscedasticity. Model 1

Chi Squared	1.92
Prob > Chi Squared	0.1663

7.3.2 Test for Heteroscedasticity. Model 2

Chi Squared	10.46
Prob > Chi Squared	0.0012

7.3.3 Test for Heteroscedasticity. Model 3

Chi Squared	0.50
Prob > Chi Squared	0.4815

7.4 Tests for Multicollinearity

7.4.1 Test for Multicollinearity. Model 2

Variable	VIF
Gross Household Income	1.32
Age	1.25
Dummy for Gender (Female)	1.11
Average Risk Aversion	1.08
Mean VIF	1.19

7.4.2 Test for Multicollinearity. Model 3

Variable	VIF
Dummy for High Level Education	12.89
Dummy for Middle Level Education	12.65
Dummy for Gender (Female)	1.10
Age	1.09
Average Risk Aversion	1.06
Mean VIF	5.76

7.5 The Stata Do-File

```
//Import data
clear
set more off
global path "\\CNAS.RU.NL\s1020845\Documents\scriptie 2024\"
capture log close

import excel "$path\2024 Scriptie data bewerkt.xlsx", sheet("Sheet3") firstrow clear

//Destring variables
destring AVG_RA, replace
destring Job_Code, replace

destring Vraag1_1, replace
destring Vraag1_2, replace
destring Vraag1_3, replace
destring Vraag1_4, replace
destring Vraag1_5, replace
destring Vraag1_6, replace
destring Vraag1_7, replace
destring Vraag1_8, replace
destring Vraag1_9, replace
destring Vraag1_10, replace

label variable Concern_Index "Individual-Specific Concerns about Global Warming"
label variable AVG_RA "Average Risk Attitude"

//summary variables
summarize, detail
summarize Concern_Index
summarize Score_V2_1
summarize Score_V2_2
summarize Score_V2_3
summarize Score_V2_4
summarize Score_V2_5
summarize Score_V2_6
summarize Score_V2_7
summarize Score_V2_8
summarize Score_V2_9
summarize Score_V2_10
summarize AVG_RA
summarize Age
summarize Gender_Code
```

```
summarize Income_Code
summarize Code_EDU_Low
summarize Code_EDU_Mid
summarize Code_EDU_High
summarize Code_VMBO_MAVO
summarize Code_HAVO
summarize Code_VWO
summarize Code_MBO1_2
summarize Code_MBO3_4
summarize Code_HBOBach
summarize Code_HBOMas
summarize Code_WOBach
summarize Code_WOMas

//Correlations between the variables
pwcorr Concern_Index AVG_RA Gender_Code Age Income_Code Code_EDU_Low
Code_EDU_Mid Code_EDU_High

// Regression and tests for heteroscedasticity and multicollinearity without control
variables
reg Concern_Index AVG_RA
hettest
vif

// Regression and tests for heteroscedasticity and multicollinearity with gender age and
income as control variables
reg Concern_Index AVG_RA Gender_Code Age Income_Code
hettest
vif
reg Concern_Index AVG_RA Gender_Code Age Income_Code, vce(robust)
vif

// Regression and tests for heteroscedasticity and multicollinearity with gender age and
education level as control variables
reg Concern_Index AVG_RA Gender_Code Age Code_EDU_Mid Code_EDU_High
hettest
vif

// scatter plot of the dependent and independent variable
graph twoway (scatter Concern_Index AVG_RA) (lfit Concern_Index AVG_RA)
```

7.6 The Survey

Start of Block: Default Question Block

. (Graag uw scherm een kwartslag draaien wanneer vragen lastig leesbaar zijn)

Beste Deelnemer,

Bedankt voor het deelnemen aan deze enquête. Dit onderzoek vindt plaats in kader van mijn master thesis. Ik doe onderzoek naar klimaatverandering.

Het invullen van de enquête zal ongeveer 3 minuten duren. Uw antwoorden zijn op geen enkele manier herleidbaar naar uw identiteit. Verder kunt u op elk moment stoppen met de enquête. Bij eventuele vragen, opmerkingen of wanneer u achteraf toch niet wil dat de data van uw antwoorden wordt gebruikt bij het onderzoek kunt u contact opnemen via het onderstaande e-mail adres.

Nogmaals dank voor uw tijd en moeite.

Vriendelijke groet,
Noah Goedee
Noah.goedee@ru.nl

End of Block: Default Question Block

Start of Block: Blok 1

Vraag 1 (Wanneer lastig leesbaar graag het scherm een kwartslag draaien) In onderstaande taak krijgt u twee verschillende loterijen te zien, loterij A en loterij B. U dient tien keer een keuze te maken of u loterij A of loterij B wilt spelen.

Er zijn geen goede of foute antwoorden. Bedragen ontvangt u niet echt.

De meeste mensen zullen op een gegeven moment een loterij aantrekkelijker vinden dan de ander en dus zien we over het algemeen dat mensen eenmalig wisselen van een loterij naar de andere loterij.

	Loterij A	Loterij B	
--	-----------	-----------	--

	4 (4)	5 (5)	
10% kans op €40 en %90 kans op €32	<input type="radio"/>	<input type="radio"/>	10% kans op €77 en 90% kans op €2
20% kans op €40 en %80 kans op €32	<input type="radio"/>	<input type="radio"/>	20% kans op €77 en 80% kans op €2
30% kans op €40 en %70 kans op €32	<input type="radio"/>	<input type="radio"/>	30% kans op €77 en 70% kans op €2
40% kans op €40 en %60 kans op €32	<input type="radio"/>	<input type="radio"/>	40% kans op €77 en 60% kans op €2
50% kans op €40 en %50 kans op €32	<input type="radio"/>	<input type="radio"/>	50% kans op €77 en 50% kans op €2
60% kans op €40 en %40 kans op €32	<input type="radio"/>	<input type="radio"/>	60% kans op €77 en 40% kans op €2
70% kans op €40 en %30 kans op €32	<input type="radio"/>	<input type="radio"/>	70% kans op €77 en 30% kans op €2
80% kans op €40 en %20 kans op €32	<input type="radio"/>	<input type="radio"/>	80% kans op €77 en 20% kans op €2
90% kans op €40 en %10 kans op €32	<input type="radio"/>	<input type="radio"/>	90% kans op €77 en 10% kans op €2
100% kans op €40 en %0 kans op €32	<input type="radio"/>	<input type="radio"/>	100% kans op €77 en 0% kans op €2

End of Block: Blok 1

Start of Block: Blok 2

Vraag 2 In hoeverre bent u het eens met de volgende stellingen?

	Sterk mee oneens (1)	Oneens (2)	Neutraal (3)	Eens (9)	Sterk mee eens (5)
Ik ben op de hoogte van de huidige maatschappelijke discussie met betrekking tot klimaatverandering. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De gemiddelde temperatuur op aarde is de afgelopen decennia omhoog gegaan. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik maak me zorgen om de impact van klimaatverandering op mijn eigen leven. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik ben van mening dat de mens de oorzaak is van klimaatverandering. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik ben bereid mijn eigen energiegebruik te verminderen om klimaatverandering tegen te gaan. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik maak me zorgen om de impact van klimaatverandering op het milieu. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik maak me zorgen om de impact van klimaatverandering op de maatschappij. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik maak me zorgen om het huidige klimaatbeleid van de overheid. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ik ben bereid zonnepanelen aan te schaffen om klimaatverandering tegen te gaan. (8)

Ik ben bereid om elektrisch te rijden om klimaatverandering tegen te gaan. (9)

End of Block: Blok 2

Start of Block: Blok 3

Vraag 3 Wat is uw geslacht

- Man (1)
- Vrouw (2)
- Anders (3)
- Zeg ik liever niet (4)

Vraag 4 Wat is uw leeftijd?

0 10 20 30 40 50 60 70 80 90 100

Uw leeftijd in jaren ()



Vraag 5 Wat omschrijft uw huidige school/werk situatie het best?

- Geen opleiding/werk (1)
 - Schoolier of student (3)
 - Werkend (4)
-

Vraag 6 Wat is uw hoogst behaalde opleidingsniveau?

- Lager dan middelbareschool (1)
 - VMBO/ MAVO (5)
 - HAVO (6)
 - VWO (15)
 - MBO-niveau 1/ MBO-niveau 2 (7)
 - MBO-niveau 3/ MBO-niveau 4 (10)
 - HBO Bachelor (11)
 - HBO Master (12)
 - WO Bachelor (13)
 - WO Master (14)
-

Vraag 7 Wat zijn uw gemiddelde totale maandelijkse bruto inkomsten van uw huishouden in euros? (Leningen en toeslagen inbegrepen)

- €1000 of minder (13)
- €1001 - €2000 (14)
- €2001 - €3000 (12)
- €3001 - €4000 (15)
- €4001 - €5000 (16)
- €5001 - €6000 (17)
- €6001 - €7000 (18)
- €7001 - €8000 (19)
- €8001 -€9000 (20)
- €9001 - €10 000 (21)
- €10 001 of meer (22)

End of Block: Blok 3
