

Duden, Christoph; Offermann, Frank; Mußhoff, Oliver

Working Paper

Comparing experiments for modelling farm risk management decisions with a focus on extreme weather losses

Diskussionsbeitrag, No. 2301

Provided in Cooperation with:

Department for Agricultural Economics and Rural Development, University of Goettingen

Suggested Citation: Duden, Christoph; Offermann, Frank; Mußhoff, Oliver (2023) : Comparing experiments for modelling farm risk management decisions with a focus on extreme weather losses, Diskussionsbeitrag, No. 2301, Georg-August-Universität Göttingen, Department für Agrarökonomie und Rurale Entwicklung (DARE), Göttingen

This Version is available at:

<https://hdl.handle.net/10419/271020>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



Department für Agrarökonomie
und Rurale Entwicklung

2023

Comparing experiments for modelling farm risk management decisions with a focus on extreme weather losses

Christoph Duden^a, Frank Offermann^a und Oliver Mußhoff^b

^aJohann Heinrich von Thünen Institute, Institute of Farm Economics,
Braunschweig, Germany

^bUniversity of Göttingen, Department of Agricultural Economics and Rural
Development, Göttingen, Germany

Department für Agrarökonomie und
Rurale Entwicklung
Universität Göttingen
D 37073 Göttingen
ISSN 1865-2697

Diskussionsbeitrag 2301

Comparing experiments for modelling farm risk management decisions with a focus on extreme weather losses

Discussion Paper

Christoph Duden^a, Frank Offermann^a and Oliver Mußhoff^b

^aJohann Heinrich von Thünen Institute, Institute of Farm Economics, Braunschweig,
Germany

^bUniversity of Göttingen, Department of Agricultural Economics and Rural Development,
Göttingen, Germany

April 2023

Abstract

Extreme weather events pose an economic threat to farms. The risk management behaviour against such events is often studied using prospect theory as a framework, but empirically deriving corresponding parameters in the field involving farmers is challenging. To address this issue, we compare three methods of eliciting prospect theory parameters using a multiple price list design in Germany: a framed field experiment, a framed student experiment and an artefactual field experiment. The results show that these experiments generate different prospect theory parameters. The lower the probability the higher the differences, which is particularly important for managing risk from low-probability shocks. Despite these differences, the mean coefficients of the three experiments reveal a low willingness to pay for crop insurance. We find evidence that individual responses to the artefactual and student experiments correlate with the risk attitude self-assessment, whereas responses to the framed field experiment correlate with the purchase of crop insurance.

Keywords: prospect theory, risk management, catastrophic risk, behavioural economics, decision analysis

1 Introduction

Extreme weather shocks lead to yield losses and threaten the economic viability of farms. Yield insurance is one option for protecting against the financial consequences of such events. However, farmers' willingness to pay (WTP) for crop insurance is often too low to enable a comprehensive private insurance market (Feng et al., 2020). The prospect theory is often used to explain the WTP for insurance (e.g., Tversky & Kahneman, 1992; Feng et al., 2020). However eliciting its parameters is a challenge because complex economic experiments are necessary (Charness et al., 2013). We investigate to what extent the results of different experimental methods to elicit prospect theory parameters differ with a focus on low-probability shocks.¹

The prospect theory according to Kahneman and Tversky (1992)², is an often-confirmed behavioural approach to explain risk behaviour (e.g., Bocquého et al., 2014; Bougherara et al., 2017). It contributes to explaining risk management decisions in the context of low-probability shocks (Barberis, 2013). Following Tversky and Kahneman (1992), two of its features are particularly important to explain the WTP for insurance against the risk of unexpected losses. First, people subjectively value risky monetary values; they tend to prefer an uncertain monetary loss over a *sure* loss of similar height. That means they have a general tendency to engage in risk-loving behaviour when dealing with monetary losses and, thus, farmers generally have a low WTP and do not insure losses due to crop damages. Second, people evaluate probabilities subjectively and overweight low probabilities which increases the WTP for low-probability shocks. Overweighting low probabilities can cancel out the risk-loving valuation of monetary values. The intensity of these two features is modelled with two separate prospect theory parameters.

While economists often use behavioural experiments to investigate decisions under risk (Iyer et al., 2020) the discussion on how to design these experiments is ongoing. Various agricultural economic studies conduct field experiments with farmers. They investigate prospect theory parameters in “artefactual field experiments” (following the terminology of Harrison & List, 2004). These experiments usually use specific abstract, multiple-price-list-based lottery games with a focus on low-stake monetary gains (e.g., Bocquého et al., 2014; Ward & Singh, 2015; Rommel et al., 2022). Other authors argue that using a “framed field experiment” could enhance the external validity of decisions under risk by framing the experimental tasks as real farm

¹ In our paper, we denote adverse low-probability and high-consequence shocks as “low-probability shocks”.

² More precisely, we refer to the “cumulative prospect theory”.

business decisions (Cerroni, 2020; Iyer et al., 2020). Especially behaviour in the context of low-probability shocks is expected to depend on context situations (Kahneman, 2011). However, framing an experiment in a specific farm business context reduces its replicability, its transferability to other decision-making situations and can be complex. The framing can add confounding factors that decrease the internal validity (Thoyer & Préget, 2019). The challenge is to counterbalance the advantages and disadvantages of a real and an abstract frame (Thoyer & Préget, 2019).

Another experimental method that is discussed in the literature is conducting an experiment with “standard subject pools”, such as students, instead of conducting a field experiment (Harrison & List, 2004). Multiple studies use students to conclude on risk behaviour in the wider population (e.g., Bruhin et al., 2010; Tversky & Kahneman, 1992). Also, agricultural economists discuss the advantages of conducting experiments with students (Grüner et al., 2022). Students are usually easier to recruit. They are more homogeneous, making it easier to statistically measure factors in small samples (Belot et al., 2015). In agricultural economics in high-income countries, the advantage of students is particularly high, as financial compensation for farmers may become expensive and the proportion of farmers in the population is low.

Studying the differences between these methods is relevant for the interpretation of the experiments (Harrison & List, 2004). In the existing agricultural economics literature, studies compare the results of framed field experiments with artefactual field experiments with respect to farmers’ risk attitude (Menapace et al., 2016; Rommel et al., 2019). Also, there are studies comparing the risk aversion of students of agricultural sciences with that of farmers (Grüner et al., 2022; Maart-Noelck & Mußhoff, 2014; Peth & Mußhoff, 2020). However, these comparative studies use the expected utility framework and do not consider probability weighting. Moreover, they do not address differences between the experimental methods with regard to low-probability shocks. They only examine risks in the domain of monetary gains but not risks of losses although dealing with risks of losses is very relevant for farmers and policymakers.

Against this background, this paper aims to compare the prospect theory parameters of a framed field experiment, framed student experiment and an artefactual field experiment with respect to low-probability shocks. Our framed field experiment resembles a farm risk management decision with farmers. The framed student experiment is conducted with students of agricultural sciences instead of with farmers. The artefactual field experiment resamples a lottery game with farmers. Moreover, we investigate whether there is an effect of additionally focusing the

experimental design of the framed field experiment on low-probability shocks. We define low-probability shocks as risks with $\leq 10\%$ probability for an income drop of at least 50%. The experimental results on risk management behaviour are compared with subjects' risk attitude self-assessment and farmers' observed crop insurance decisions. To the best of our knowledge, we are the first to compare a framed field experiment with a framed student experiment and an artefactual framed field experiment in agriculture in the context of low-probability shocks using the prospect theory framework.

In Section 2, we refer to related literature and generate our hypotheses on differences between different experimental methods. Section 3 describes the experimental protocol, followed by Section 4, which outlines the prospect theory framework and our econometric strategy. We present and discuss the results in Section 5 before concluding this paper in Section 6.

2 Hypotheses

Many authors assume that the risk attitude depends on the decision context (Dohmen et al., 2011; Iyer et al., 2020). In this respect, we expect the prospect theory parameters in framed field experiments with farm risk management decisions to differ from prospect theory parameters in often applied artefactual field experiments with lottery games (Hypothesis 1a). Moreover, existing literature suggests that in affect-rich contexts the weighting of low probabilities is higher than in affect-poor contexts (Kahneman, 2011; Rottenstreich & Hsee, 2001). We assume that for farmers a framed field experiment is more affect-rich than an artefactual experiment, as it is closer to their real decision situations. Thus, we expect the weighting of low probabilities to be higher in the framed field experiment than in the artefactual field experiment (Hypothesis 1b).

We also investigate to what extent WTP differs for a decision experiment with a focus on low-probability shocks from an experiment with no such focus. A large body of literature suggests that in a decision situation with low-probability shocks, the WTP for risk mitigation depends strongly on individual and situation-specific decision rules (e.g., Kahneman, 2011; Kunreuther et al., 2013; Barberis, 2013). These can increase or decrease the WTP. The WTP for low-probability shocks is highly variable (Kahneman, 2011). We therefore expect that the prospect theory parameters of a situation in which the focus is on low-probability shocks differ from the situation with no such focus (Hypothesis 2). However, the direction of the influence is not clear.

Studies that conceptionally or empirically investigate the differences between farmers' and students' risk attitudes are scarce. Various studies find no difference between these two groups (Grüner et al., 2022; Peth & Mußhoff, 2020). In contrast, Maart-Noelck and Mußhoff (2014)

find that students behave more risk-averse than farmers when dealing with monetary gains. However, this finding cannot directly be transferred to the loss domain and the prospect theory framework. Moreover, studies find evidence that risk attitude is influenced by age (Dohmen et al., 2011; van Winsen et al., 2016) and education level (Dohmen et al., 2011). Therefore, we expect that the prospect theory parameters differ between the farmer and student experiment (Hypothesis 3). We do not have a clear apriori expectation on the sign of the difference.

3 Experimental protocol

3.1 Artefactual field experiment

We employ a lottery-based multiple price list design which is often used to elicit prospect theory parameters (e.g., Bocquého et al., 2014; Tanaka et al., 2010). That means, we ordered multiple choice situations in rows and asked the participants to decide for each row whether they prefer a certain safe amount of money or whether they want to participate in a lottery. We offered two series of choice situations, with 14 rows each.

In the first series, the offered safe amount is €1,000. The offered lottery includes a high-gain outcome with 10% probability and a low-gain outcome with 90% probability. The high gain increases row by row from €2,600 to €28,000 logarithmically while the low gain remains constant at €500. In the second series, the offered safe amount is €4,000. The probability for a high-gain outcome of the lottery is 70% and for a low-gain outcome 30%. The values of the high gain increase row by row from €5,600 to €13,700 logarithmically, while the value of the low gain remains constant at €500. As the high-gain outcomes of the lotteries increase row by row, the lotteries become more attractive with each row. Participants had to specify the row at which they switched from preferring the safe amount to the lottery (“switching point”). With this design, we strictly follow Ward and Singh (2015; see their publication for more details and illustrations of the design). In contrast to Tanaka et al. (2010), the design of Ward and Singh (2015) includes a choice between a safe amount and a lottery instead of between two lotteries. Using one safe option simplifies the experiment, a technique that is often employed in the literature (Bruhin et al., 2010; Freudenreich & Mußhoff, 2018; Robinson & Botzen, 2020; Zeisberger et al., 2012).

3.2 Framed field experiment and framed student experiment

We framed the choices of the multiple price list design as a decision on payments for risk management. Similar to real risk management decisions, participants had to indicate their WTP for protecting themselves against a given risk of a weather-related yield loss. To this end, we asked participants to choose between the safe option “paying a fixed amount to prevent weather-

related yield losses” and the risky option “taking the risk of a yield loss”. A series of decisions consisted of 20 rows.³ Within each series, the costs for risk prevention increased row by row and, again, participants were asked to make row-wise decisions. We collected the row at which participants switched to using risk management, instead of taking the risk (“switching point”).

In the framed experiments, we implemented eight series, with 20 rows each, to analyse various probabilities and loss levels (Table 1). For instance, in the first series, a 50% drop in income occurs at 2.5% probability and no loss occurs at 97.5%. Expert interviews and pre-tests show that in Germany a 50% loss is understood as a realistic low-probability shock. We have also varied this value. Since high probabilities in connection with income drops $\geq 50\%$ are not considered as realistic, we analysed only 10% income drops for high probabilities.

Table 1

Series, probabilities and losses of the framed field experiment and framed student experiment

Series	Probability of loss	Loss (in % of income)
1	2.5%	50%
2	5%	50%
3	10%	25%
4	10%	50%
5	10%	75%
6	30%	50%
7	70%	10%
8	90%	10%

We selected the monetary values of the risk prevention costs in a manner that enabled us to collect a wide spectrum of different risk preferences. That means, we selected the highest possible costs of risk prevention corresponding to the outermost risk preference parameters of Tanaka et al. (2010). The lowest offered cost for risk prevention was €1 (see Bruhin et al., 2010; Robinson & Botzen, 2019).

We used multiple measures to emphasise the farm business context. We stressed that “weather risk” (see Rommel et al., 2019) is the reason for damage. In the introduction to the experiment, “weather risk” is explained as the loss from extreme events of hail, heavy rain, storms, frost, drought, heat, or flooding. “Risk prevention” is referred to as the usage of typical risk management tools, such as the adaptation of production technology, cultivation methods, or insurance. Moreover, we strengthened the farm business context by making the financial loss and the fixed payment dependent on the individual farm profit level (Menapace et al., 2016). Introducing the experiment to the participants with “cheap talk” (Penn & Hu, 2018) and role-playing story (Thomas et al., 2019; Thoyer & Préget, 2019) are other measures we applied to

³ A series consisted of 20 rows instead of 14 because otherwise it was not possible to offer a sufficient number of answer possibilities also for low probabilities and high stakes.

increase the contextualization and minimize the potential hypothetical bias. We asked participants to “imagine” that they face the loss risk on their own farm and “decide as if the experiment were about your own farm’s money.” To avoid charity hazard behaviour (see Miglietta et al., 2021), we told the participants that no public disaster reliefs are available. The adequacy of our framing was critically verified in our pre-test.

3.3 Incentivization and experiment implementation

We made the choices “incentive compatible” (Harrison, 2007) by randomly selecting 10% of the participants to receive a payment proportional to the experimental gains or losses (see Bauermeister et al., 2018; Vollmer et al., 2019). Farmers received payments up to €100 and students up to €50 to reflect their lower income. By providing a starting capital, we were able to claim experimental losses without making participants pay money for participation. As an additional non-financial incentive, the participants received an individual result report (see Menapace et al., 2016). An ethical committee approved our study design.

The experiment was conducted online between January and April 2021 in Germany. We recruited participants using mailing lists of farm consultants, universities, agricultural magazines, and social media. Before the experiment started participants had to answer control questions. The various series of our experiment were displayed in random order. We randomly assigned the farmers to two groups. One group conducted the framed field experiment and the other the artefactual field experiment.

3.4 Descriptive statistics and sample characteristics

Table 2 provides an overview of descriptive statistics. The participants of the student sample are substantially younger. They all belong to the age group below 25 and 40% already have a bachelor’s degree. There are relatively more students from northern Germany and fewer from southern Germany, which is to the location of participating universities.

We collected participants’ risk attitude self-assessment using the popular method of Dohmen et al. (2011). The participants had to indicate their risk attitude on an 11-point scale from 0 “I am not at all willing to take risks” to 10 “I am very willing to take risks”. In our survey, the average risk attitude self-assessment varies between 5.62 and 6.22, depending on the sample.

Table 2*Sample description of three subject groups with a total of N=213 participants*

Mean (SD)	Field experiment		Student experiment
	Framed	Artefactual	Framed
Age ^a	45.62 (13.20)	43.97 (11.77)	20 (0.0) ^c
University degree ^b	0.44	0.53	0.40
Male ^b	0.92	0.91	0.78 ^c
Region north ^b	0.56	0.55	0.75 ^c
Region east ^b	0.12	0.1	0.11
Region south ^b	0.15	0.19	0.02 ^c
Region west ^b	0.16	0.15	0.13
Uses crop insurance – hail ^b	0.78	0.81	not available
Uses crop insurance – heavy rain ^b	0.11	0.14	not available
Uses crop insurance – storm ^b	0.21	0.19	not available
Uses crop insurance – frost ^b	0.05	0.04	not available
Uses crop insurance – drought ^b	0.04	0.06	not available
Uses crop insurance – no. of insured perils	1.24 (0.91)	1.19 (0.94)	not available
Risk attitude self-assessment	6.22 (1.88)	5.62 (2.10) ^c	6.13 (2.04)
Relative risk premium paid in the experiment			
Loss domain	-0.40 (0.40)		-0.21 (0.48) ^c
Gain domain		0.15 (0.26)	
N	80	78	55

Note. a) In accordance with the data protection rules and public statistics, age has been surveyed in classes. The six classes are 20: age < 25, 30: age between 25 and 34, 40: age between 35 and 44, 50: age between 45 and 54, 60: age between 55 and 64 and 70: age ≥ 65. b) Equals 1 if true, otherwise 0. c) Kruskal–Wallis test with H₀ of equal means when compared with participants of the framed field experiment was rejected at 5 %-level.

We describe the response of the risk experiments with the relative risk premium (see, e.g., Bruhin et al., 2010; Fehr-Duda & Epper, 2012) to make the WTP comparable for different probabilities and risky stakes. The relative risk premium is $RRP = (EV - CE)/|EV|$, where EV is the expected value of the risky option, and CE is its certainty equivalent. The certainty equivalent is the maximum (minimum) save monetary value a participant prefers over the risky monetary gain (loss). A negative risk premium indicates risk-loving behaviour and a positive risk-averse behaviour. The mean relative risk premia in the framed experiments are negative. In the gain domain in the artefactual field experiment, the risk premium is positive. These differences between the gain and loss domain are in line with the prospect theory.

4 Procedure of parametric analysis

4.1 Prospect theory framework

We explore the effect of heuristics based on the prospect theory framework. According to this framework, the utility U for an option with two possible outcomes y_m ($m = (1,2)$) and their associated probabilities p and $1 - p$ is calculated as:

$$U = v(y_1) \cdot w(p) + v(y_2) \cdot (1 - w(p)), \quad (1)$$

where w is a function that reflects the weighting of probability p , and v is a function that determines people's valuation of monetary outcomes y . Following Tversky and Kahneman's (1992) the weighting function is:

$$w(p) = \frac{p^\gamma}{(p^\gamma + (1-p)^\gamma)^{1/\gamma}} \quad (2)$$

Parameter γ determines the curvature of the probability weighting function. If $\gamma < 1$, the function has an inverse-S-shaped curvature. In this case, low probabilities are overweighted ($w(p) > p$), and high probabilities are underweighted ($w(p) < p$). If $\gamma = 1$, the relationship is linear ($w(p) = p$). If $\gamma > 1$, the function has an S-shaped curvature, which includes underweighting of low probabilities and overweighting of high probabilities.

The value function v is assumed to be concave in the gain domain and convex in the loss domain. Such a curvature implies that the valuation of monetary values is risk-averse in the gains and risk-loving in the loss domain. Following Tversky and Kahneman (1992), it is parameterized as follows:

$$v(y_m) = \begin{cases} y_m^\sigma & \text{if } y_m \geq 0 \text{ (gain)} \\ 0 & \text{if } y_m = 0 \\ -(-y_m)^\sigma & \text{if } y_m < 0 \text{ (loss)} \end{cases} \quad (3)$$

The parameter σ is between 0 and 1. A smaller σ indicates an increasing concavity (convexity), implying *ceteris paribus* an increased risk-averse (risk-loving) behaviour. For our parametric analysis, we follow the many studies that assume σ is identical in the gain and loss domain when eliciting prospect theory parameters (e.g., Tanaka et al., 2010; Bocquého et al., 2014) and applying them to explain specific insurance behaviour (e.g., Chavas, 2019; Feng et al., 2020). We define loss as any reduction in the farmer's wealth due to their experimental decisions (cf. "reference point"; Bocquého et al., 2014; Kahneman & Tversky, 1979).

In contrast to several applications of the prospect theory, our value function does not include a second parameter for "loss aversion". The loss aversion parameter is used when people have to compare gains and losses in a single decision. Since this is not necessary to analyse risk behaviour for low-probability shocks (see "fourfold pattern" in Tversky & Kahneman, 1992) and our experiment does not contain mixed lotteries, this parameter is cancelled out (Bruhin et al., 2010).

4.2 Parameter estimation

We applied the maximum likelihood approach in accordance with Harrison and Rutström (2008) and to estimate the prospect theory parameters, γ and σ , and their correlation with individual characteristics. Assuming that farmers are maximizing their utility, their choice is determined by the difference in utility between options A and B, which can be modelled with the latent decision index $\Delta U_i = (U_i^A - U_i^B)/\mu$. The parameter μ is a structural noise parameter, which was introduced by Fechner and popularized by Hey and Orme (1994).

We estimated the influence of individual characteristics X_i (these characteristics also include dummies for the experimental design) on each of the prospect theory parameters, γ and σ . We assume a linear relationship between X and the parameters γ and σ , respectively. For the instance of γ , $\gamma = \beta_\gamma X$. Vector β includes the coefficients to be estimated. For σ , we proceeded similarly. Since noise can bias risk preferences (Andersson et al., 2016), we also consider μ to be dependent on X_i (see Harrison & Rutström, 2008). As a result, we can describe decision c between options A and B depending on X_i with the following latent regression model:

$$c_i^* = \Delta U_i(X_i) + \varepsilon_i \text{ and } c_i = \begin{cases} A & \text{if } c_i^* > 0 \\ B & \text{otherwise} \end{cases} \quad (4)$$

The error term ε is normally distributed with mean 0 and standard deviation μ . Consequently, from Equation (4), we can derive that the probability of choosing option A corresponds to the standard normally distributed cumulative distribution function $\Phi(\Delta U_i(X_i))$. This “probit” function converts ΔU_i into a number between zero and one. We used the probit function derived from Equation (4) to establish the following conditional likelihood function, which estimates the prospect theory parameters γ and σ :

$$\ln(L(\gamma, \sigma; c_k, X_k)) = \sum_{k=1}^K [\ln(\Phi(\Delta U_k)) \cdot I(c_k = A) + \ln(1 - \Phi(\Delta U_k)) \cdot I(c_k = B)] \quad (5)$$

where I is an indicator function, which equals 1 [0], if participants chose option B [A]. Variable k is an index of all observations, including all individuals, series, and rows of the series.

5 Results and discussion

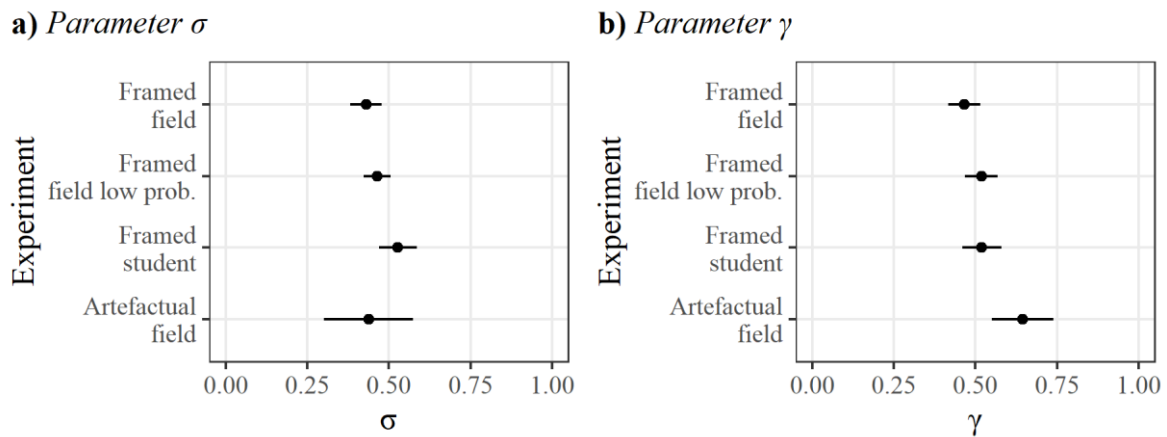
5.1 Comparing experiments based on the prospect theory framework

We estimated the prospect theory parameters using Equation (5). Figure 1 gives an overview of the prospect theory parameters for the framed field experiment, the framed student experiment and the artefactual field experiment. In addition, the figure shows the coefficients for the “framed field experiment with a focus on low probabilities”, which is an extended

analysis of the framed field experiment and only includes series with $\leq 30\%$ probability and $\geq 50\%$ income drop. Although 30% is not a low probability, we had to include it to obtain stable estimation results. All estimated parameters are smaller than 1, which means that our results are consistent with prospect theory and confirm the results of numerous empirical studies with farmers (e.g., Bougherara et al., 2017).

Figure 1

Overview on coefficients (point) with 95% confidence intervals (whiskers) of prospect theory parameters (N=213)



Compared to the framed field experiment, the estimated prospect theory parameters, σ and γ , on average, are higher in the artefactual field experiment (Table 3a; confirming Hypotheses 1a and 1b). Our results are supported by Menapace et al. (2016), who also found an effect of experimental framing on risk attitude.

The elicited prospect theory parameters are affected in the field experiment if the framing specifically focuses on low-probability shocks (Table 3b; confirming Hypothesis 2). We find that when focusing on low-probability shocks σ and γ increase.

Table 3

Estimated difference of prospect theory parameters in different experiments

a) Framed vs. and artefactual field experiment

	σ	γ
Artefactual ^a	0.05 (0.06)	0.16** (0.06)
Constant	0.43*** (0.02)	0.47*** (0.02)
Log likelihood	-7,201.75	
Obs./clusters	15,530/158	

Note. Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.001$. a) =1 if yes.

b) Framed field experiment vs. framed field experiment focused on low-probability shocks

	σ	γ
Focus on low-probability shocks	0.07*** (0.02)	0.04 (0.03)
Constant	0.40*** (0.03)	0.47*** (0.03)
Log likelihood	-5,547.83	
Obs./clusters	12,800/80	

Note. Standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.001$. a) =1 if yes.

Table 4 shows the estimated differences between the prospect theory parameters of the framed field experiment and the framed student experiment. Parameters σ and γ are higher in the field experiment than in the student experiment (difference of σ confirmed by a hypothesis test; confirming Hypothesis 3). By adding age and other explanatory variables to the estimation, the effect of the student status decreases substantially. We conclude that the difference between students and farmers is mainly due to age rather than student status. In the literature also Maart-Noelck and Mußhoff (2014) found differences between farmers' and students' risk attitudes. However, they did not control for age effects. In contrast, Grüner et al. (2022) found no differences between farmers' and students' risk attitudes.

Table 4

Estimated difference of the framed field experiment and the framed student experiment

Models M1 to M3 with various covariates	M1: Covariate student		M2: (M1) + age		M3: (M2) + further farm characteristics	
	σ	γ	σ	γ	σ	γ
Student	0.10** (0.04)	0.05 (0.04)	-0.00 (0.06)	-0.02 (0.06)	0.01 (0.06)	-0.01 (0.06)
Age			-0.04* (0.02)	-0.03 (0.02)	-0.04** (0.02)	-0.03 (0.02)
University degree					0.05 (0.04)	0.03 (0.04)
Male					0.10** (0.04)	0.12** (0.04)
Region east					0.09 (0.06)	-0.00 (0.06)
Region south					-0.05 (0.06)	0.02 (0.07)
Region west					0.01 (0.04)	-0.02 (0.05)
Constant	0.43*** (0.02)	0.47*** (0.02)	0.57*** (0.08)	0.57*** (0.08)	0.46*** (0.08)	0.46*** (0.09)
Log likelihood	-9,552.81		-9,469.10		-9,261.17	
Obs./clusters			21,600/135			

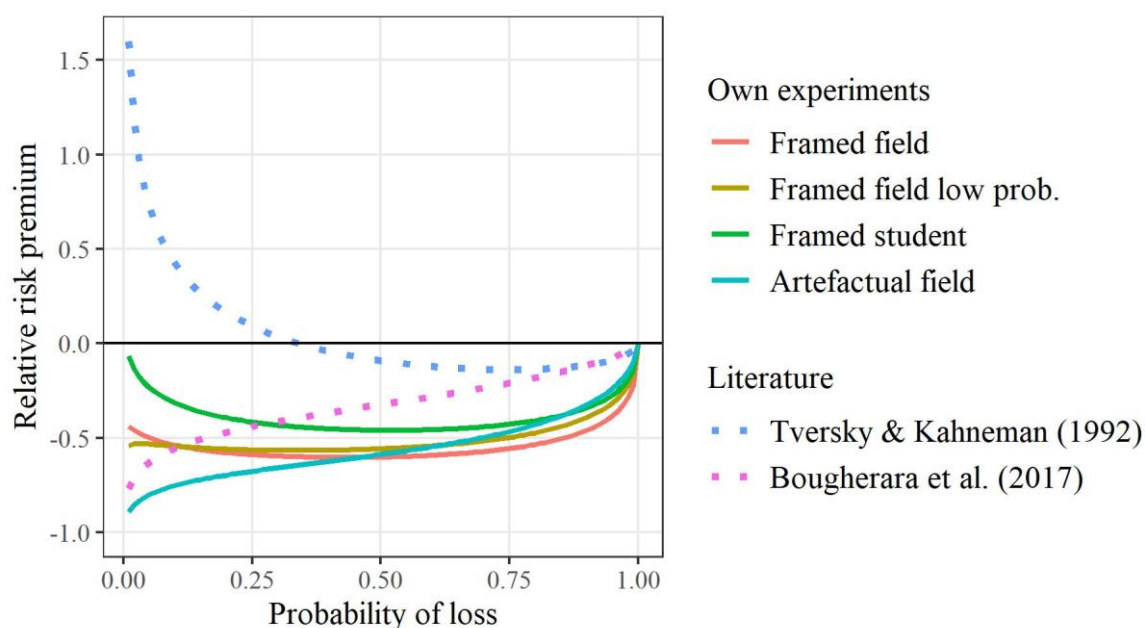
Note. Standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.001$. a) =1 if yes.

Figure 2 illustrates the relative risk premium for loss risks based on the estimated mean prospect theory parameters. The figure allows us to conclude on the WTP based on the σ and γ values of our experiments for various probabilities. The relative risk premia in the framed field experiment, the framed field experiment with a focus on low probabilities and the artefactual field experiment are negative and thus indicate risk-loving behaviour. This holds also for very low probabilities. Other studies in agriculture find similar results. For instance, the relative risk premium resulting from the artefactual field experiment of Bougherara et al. (2017), the only

known study conducted with loss-risk and European farmers, is also very low (see Figure 2).⁴ In contrast, the relative risk premium resulting from Tversky and Kahneman's (1992) study becomes positive at probabilities lower than 34% (see Figure 2), since their σ ($\sigma = 0.88$) is greater than the σ found in our experiments. Thus, we conclude that the *general* observation of a low WTP for risk mitigation, even for very low probabilities, does not depend on the analysed experimental designs. In this sense differences between *mean* prospect theory values of our experimental design seem to be less relevant as the resulting risk premiums are all substantially below zero and below Tversky and Kahneman's (1992) results. Nevertheless, the differences between the framed field experiment, the framed student experiment and the artefactual field experiment increase the lower the probability of loss.

Figure 2

Relative risk premium resulting from estimated mean prospect theory parameters depending on the probability of loss



5.2 Comparison of experimental responses with other indicators of risk behaviour

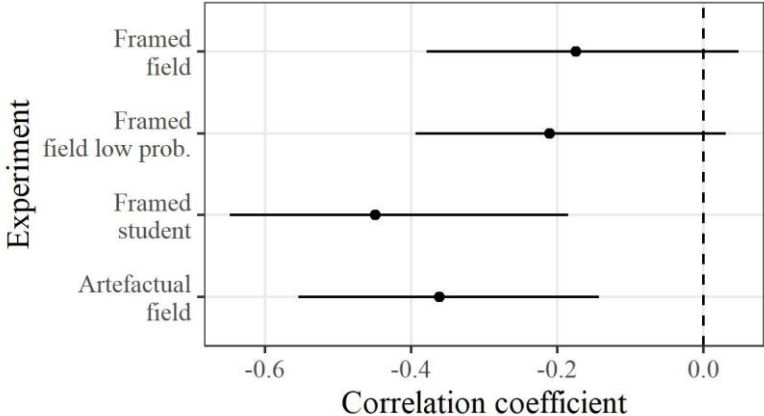
Finally, we compare farmers' and students' experimental responses with their risk-attitude self-assessment and the farmers' responses with their actual crop insurance purchases. This is to shed light on the validity of the various experiments.

Various studies show that the risk attitude self-assessment is able to predict risk behaviour (Dohmen et al., 2011), often better than more complex measures of risk attitude (Charness et

⁴ Relative risk premiums predicted with other studies such as the frequently cited study of Bocquého et al. (2014) or the replication study of Rommel et al. (2022) are even lower than the risk premiums resulting from Bougherara et al. (2017).

al., 2020). The self-assessment differs methodologically from our experiments. Therefore, we use the risk attitude self-assessment as a proxy for risk behaviour to validate our experimental results. Figure 3 shows the correlation coefficient between the relative risk premium and the risk attitude self-assessment. As expected, the correlation coefficients are all negative which means the higher the risk premium the lower the self-assessed willingness to take risks. The correlation coefficients of the framed field experiment are lower than the other experiments' correlation coefficients; also a hypotheses test does not confirm that the framed field experiments' coefficient is different from zero.

Figure 3
Spearman correlation of the relative risk premium and the risk attitude self-assessment (N=213)

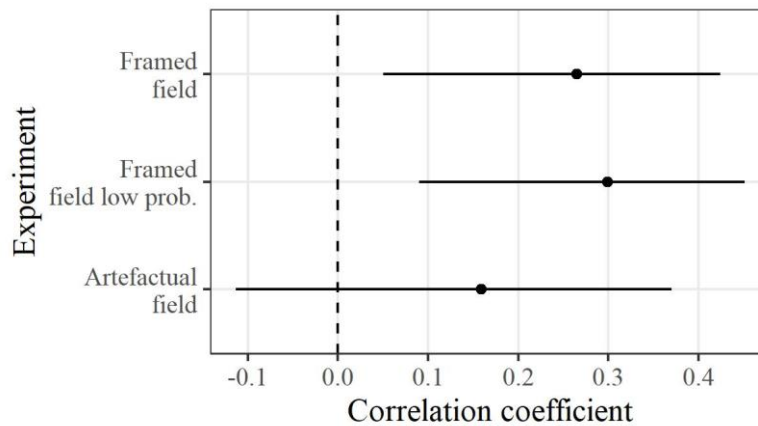


Note. Point: correlation coefficient. Whiskers: 95% bootstrapped confidence intervals.

Figure 4 shows the correlation coefficient between the relative risk premium and farms' crop insurance purchases. The student experiment is not included in this analysis because students do not buy crop insurance. As expected, the correlation coefficients are all positive. However, the correlation between the artefactual experiment and insurance purchase is low compared to the other experiments. A hypotheses test cannot confirm that they are different from zero. Our results are in line with Menapace et al. (2016) who find a correlation between the framed field experiment and crop insurance participation but no strong evidence for a correlation between artefactual field experiments and crop insurance participation. The observed correlation with the framed experiments is an interesting finding, as multiple studies generally do not find strong evidence for a correlation between risk experiments and real-world insurance decisions (Charness et al., 2020; Rommel et al., 2019).

Figure 4

Spearman correlation of the relative risk premium and the number of perils insured (N=158)



Note. Point: correlation coefficient. Whiskers: 95% bootstrapped confidence intervals.

6 Conclusion

The prospect theory is often used to explain risk behaviour for low-probability shocks. We compared three different experimental methods for estimating its parameters with a focus on implications for farm risk management against these shocks. The three experimental methods are (1) a framed field experiment collecting farmers' WTP for risk prevention against weather-related crop damages, (2) a framed student experiment with students of agricultural sciences instead of with farmers, and (3) an artefactual field experiment, in which farmers had to indicate their willingness to participate in a lottery.

We find evidence for differences between the mean prospect theory parameters obtained with the three methods. In the comparison between the framed field experiment and the framed student experiment, we could explain the difference with the age of the participants. Moreover, the differences between the predicted WTP of the three experiments increase as the probabilities become smaller. Thus, differences between the experimental methods are more important for low-probability shocks than for more frequent shocks. Nevertheless, the calculated WTP for protection against low-probability shocks is low regardless of the method. Finally, we find evidence that individual responses in the artefactual and student experiments correlate with the risk attitude self-assessment while responses of the framed field experiment correlate with farmers' purchase of crop insurances.

Given the lower transferability and replicability and the higher costs of framed field experiments compared to student and artefactual field experiments, a researcher should have good reasons why he chooses the framed method. While the correlation between the individual risk attitude and the use of risk management instruments is higher in the framed experiment, an

artefactual field experiment or framed student experiment might be sufficient to investigate mean prospect theory values for more frequent shocks.

The low WTP, which is not larger than the fair premium, is in line with the literature (Feng et al., 2020) and explains to some extent why subsidies for crop insurance premiums are often discussed in agricultural policy (OECD, 2021). However, 79% of the farmers in the sample purchased hail insurance. A possible explanation for the high market penetration of hail insurance could be that farmers assess hail risk differently than other weather risks, for instance, in terms of damage probability or damage potential. Another explanation could be that hail insurance in Germany often includes low-impact hail events, because its deductible is usually low.⁵ Receiving insurance payments for frequent, low-impact hail damages might increase farmers' WTP, as people are more likely to insure high-probability and low-impact events than low-probability and high-impact events (Browne et al., 2015).

Although we consider the degree of contextualization in our study higher as similar studies in agricultural economics (Menapace et al., 2016), it could be improved by future research by framing the decision tasks even more concretely, for instance, as drought insurance decisions. Moreover, future research should investigate the selection of the risky prospects' reference point.

⁵ For example, the Vereinigte Hagel, Germany's largest crop insurer, usually makes indemnity payments if a single plot exceeds 8% yield loss. Once this threshold is reached, the insurance compensates the entire yield loss ("integral franchise"; Vereinigte Hagel, 2023).

References

- Andersson, O., Holm, H. J., Tyran, J.-R., & Wengström, E. (2016). Risk aversion relates to cognitive ability: Preferences or noise? *Journal of the European Economic Association*, *14*(5), 1129–1154. <https://doi.org/10.1111/jeea.12179>
- Barberis, N. C. (2013). The Psychology of Tail Events: Progress and Challenges. *American Economic Review*, *103*(3), 611–616. <https://doi.org/10.1257/aer.103.3.611>
- Bauermeister, G.-F., Hermann, D., & Mußhoff, O. (2018). Consistency of determined risk attitudes and probability weightings across different elicitation methods. *Theory and Decision*, *84*(4), 627–644. <https://doi.org/10.1007/s11238-017-9616-x>
- Belot, M., Duch, R., & Miller, L. (2015). A comprehensive comparison of students and non-students in classic experimental games. *Journal of Economic Behavior & Organization*, *113*, 26–33. <https://doi.org/10.1016/j.jebo.2015.02.007>
- Bocquého, G., Jacquet, F., & Reynaud, A. (2014). Expected utility or prospect theory maximisers? Assessing farmers' risk behaviour from field-experiment data. *European Review of Agricultural Economics*, *41*(1), 135–172. <https://doi.org/10.1093/erae/jbt006>
- Bougherara, D., Gassmann, X., Piet, L., & Reynaud, A. (2017). Structural estimation of farmers' risk and ambiguity preferences: a field experiment. *European Review of Agricultural Economics*, *44*(5), 782–808. <https://doi.org/10.1093/erae/jbx011>
- Browne, M. J., Knoller, C., & Richter, A. (2015). Behavioral bias and the demand for bicycle and flood insurance. *Journal of Risk and Uncertainty*, *50*(2), 141–160. <https://doi.org/10.1007/s11166-015-9212-9>
- Bruhin, A., Fehr-Duda, H., & Epper, T. (2010). Risk and Rationality: Uncovering Heterogeneity in Probability Distortion. *Econometrica*, *78*(4), 1375–1412. <https://doi.org/10.3982/ECTA7139>
- Cerroni, S. (2020). Eliciting farmers' subjective probabilities, risk, and uncertainty preferences using contextualized field experiments. *Agricultural Economics*, *51*(5), 707–724. <https://doi.org/10.1111/agec.12587>
- Charness, G., Garcia, T., Offerman, T., & Villeval, M. C. (2020). Do measures of risk attitude in the laboratory predict behavior under risk in and outside of the laboratory? *Journal of Risk and Uncertainty*, *60*(2), 99–123. <https://doi.org/10.1007/s11166-020-09325-6>
- Charness, G., Gneezy, U., & Imas, A. (2013). Experimental methods: Eliciting risk preferences. *Journal of Economic Behavior & Organization*, *87*, 43–51. <https://doi.org/10.1016/j.jebo.2012.12.023>

- Chavas, J.-P. (2019). Adverse Shocks in Agriculture: The Assessment and Management of Downside Risk. *Journal of Agricultural Economics*, 70(3), 731–748.
<https://doi.org/10.1111/1477-9552.12312>
- Dohmen, T., Falk, A., Huffman, D., Sunde, U., Schupp, J., & Wagner, G. G. (2011). Individual Risk Attitudes: Measurement, Determinants, and Behavioral Consequences. *Journal of the European Economic Association*, 9(3), 522–550.
<https://doi.org/10.1111/j.1542-4774.2011.01015.x>
- Fehr-Duda, H., & Epper, T. (2012). Probability and Risk: Foundations and Economic Implications of Probability-Dependent Risk Preferences. *Annual Review of Economics*, 4(1), 567–593. <https://doi.org/10.1146/annurev-economics-080511-110950>
- Feng, H., Du, X., & Hennessy, D. A. (2020). Depressed demand for crop insurance contracts, and a rationale based on third generation Prospect Theory. *Agricultural Economics*, 51(1), 59–71. <https://doi.org/10.1111/agec.12541>
- Freudenreich, H., & Mußhoff, O. (2018). Insurance for Technology Adoption: An Experimental Evaluation of Schemes and Subsidies with Maize Farmers in Mexico. *Journal of Agricultural Economics*, 69(1), 96–120. <https://doi.org/10.1111/1477-9552.12226>
- Grüner, S., Lehberger, M., Hirschauer, N., & Mußhoff, O. (2022). How (un)informative are experiments with students for other social groups? A study of agricultural students and farmers. *Australian Journal of Agricultural and Resource Economics*, 66(3), 471–504.
<https://doi.org/10.1111/1467-8489.12485>
- Harrison, G. W. (2007). Making Choice Studies Incentive Compatible. In I. J. Bateman & B. J. Kanninen (Eds.), *The Economics of Non-Market Goods and Resources: Vol. 8. Valuing Environmental Amenities Using Stated Choice Studies* (Vol. 8, pp. 67–110). Dordrecht: Springer Netherlands. https://doi.org/10.1007/1-4020-5313-4_4
- Harrison, G. W., & List, J. A. (2004). Field Experiments. *Journal of Economic Literature*, 42(4), 1009–1055. <https://doi.org/10.1257/0022051043004577>
- Harrison, G. W., & Rutström, E. E. (2008). Risk Aversion in the Laboratory. In J. C. Cox & G. W. Harrison (Eds.), *Research in Experimental Economics: Vol. 12. Risk Aversion in Experiments: Research in Experimental Economics* (Vol. 12, pp. 41–196). Bingley: Emerald. [https://doi.org/10.1016/S0193-2306\(08\)00003-3](https://doi.org/10.1016/S0193-2306(08)00003-3)
- Hey, J. D., & Orme, C. (1994). Investigating Generalizations of Expected Utility Theory Using Experimental Data. *Econometrica*, 62(6), 1291–1326.

- Iyer, P., Bozzola, M., Hirsch, S., Meraner, M., & Finger, R. (2020). Measuring Farmer Risk Preferences in Europe: A Systematic Review. *Journal of Agricultural Economics*, 71(1), 3–26. <https://doi.org/10.1111/1477-9552.12325>
- Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar Straus and Giroux.
- Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263–292.
- Kunreuther, H., Pauly, M. V., & McMorrow, S. (2013). *Insurance and Behavioral Economics: Improving Decisions in the Most Misunderstood Industry*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139050319>
- Maart-Noelck, S. C., & Mußhoff, O. (2014). Measuring the risk attitude of decision-makers: Are there differences between groups of methods and persons? *Australian Journal of Agricultural and Resource Economics*, 58(3), 336–352. <https://doi.org/10.1111/j.1467-8489.2012.00620.x>
- Menapace, L., Colson, G., & Raffaelli, R. (2016). A comparison of hypothetical risk attitude elicitation instruments for explaining farmer crop insurance purchases. *European Review of Agricultural Economics*, 43(1), 113–135. <https://doi.org/10.1093/erae/jbv013>
- Miglietta, P. P., Porrini, D., Fusco, G., & Capitano, F. (2021). Crowding out agricultural insurance and the subsidy system in Italy: empirical evidence of the charity hazard phenomenon. *Agricultural Finance Review*, 81(2), 237–249. <https://doi.org/10.1108/AFR-04-2020-0061>
- OECD (2021). *Design Principles for Agricultural Risk Management Policies* (OECD Food, Agriculture and Fisheries Papers). Paris: OECD: Paris: OECD, 157. Retrieved from <https://www.oecd-ilibrary.org/>
- Penn, J. M., & Hu, W. (2018). Understanding Hypothetical Bias: An Enhanced Meta-Analysis. *American Journal of Agricultural Economics*, 100(4), 1186–1206. <https://doi.org/10.1093/ajae/aay021>
- Peth, D., & Mußhoff, O. (2020). Comparing Compliance Behaviour of Students and Farmers. An Extra-laboratory Experiment in the Context of Agri-environmental Nudges in Germany. *Journal of Agricultural Economics*, 71(2). <https://doi.org/10.1111/1477-9552.12352>
- Robinson, P. J., & Botzen, W. J. W. (2019). Determinants of Probability Neglect and Risk Attitudes for Disaster Risk: An Online Experimental Study of Flood Insurance Demand

- among Homeowners. *Risk Analysis: An Official Publication of the Society for Risk Analysis*, 39(11), 2514–2527. <https://doi.org/10.1111/risa.13361>
- Robinson, P. J., & Botzen, W. J. W. (2020). Flood insurance demand and probability weighting: The influences of regret, worry, locus of control and the threshold of concern heuristic. *Water Resources and Economics*, 30, 100144. <https://doi.org/10.1016/j.wre.2019.100144>
- Rommel, J., Hermann, D., Müller, M., & Mußhoff, O. (2019). Contextual Framing and Monetary Incentives in Field Experiments on Risk Preferences: Evidence from German Farmers. *Journal of Agricultural Economics*, 70(2), 408–425. <https://doi.org/10.1111/1477-9552.12298>
- Rommel, J., Sagebiel, J., Baaken, M. C., Barreiro-Hurlé, J., Bougherara, D., Cembalo, L., . . . Zagórska, K. (2022). Farmers' risk preferences in 11 European farming systems: A multi-country replication of Bocquého et al. (2014). *Applied Economic Perspectives and Policy*. Advance online publication. <https://doi.org/10.1002/aepp.13330>
- Rottenstreich, Y., & Hsee, C. K. (2001). Money, kisses, and electric shocks: On the affective psychology of risk. *Psychological Science*, 12(3), 185–190. <https://doi.org/10.1111/1467-9280.00334>
- Tanaka, T., Camerer, C. F., & Nguyen, Q. (2010). Risk and Time Preferences: Linking Experimental and Household Survey Data from Vietnam. *American Economic Review*, 100(1), 557–571. <https://doi.org/10.1257/aer.100.1.557>
- Thomas, F., Midler, E., Lefebvre, M., & Engel, S. (2019). Greening the common agricultural policy: a behavioural perspective and lab-in-the-field experiment in Germany. *European Review of Agricultural Economics*, 46(3), 367–392. <https://doi.org/10.1093/erae/jbz014>
- Thoyer, S., & Préget, R. (2019). Enriching the CAP evaluation toolbox with experimental approaches: introduction to the special issue. *European Review of Agricultural Economics*, 46(3), 347–366. <https://doi.org/10.1093/erae/jbz024>
- Tversky, A., & Kahneman, D. (1992). Advances in prospect theory: cumulative representation of uncertainty. *Journal of Risk and Uncertainty*, 5(4), 297–323.
- Van Winsen, F., de Mey, Y., Lauwers, L., van Passel, S., Vancauteran, M., & Wauters, E. (2016). Determinants of risk behaviour: Effects of perceived risks and risk attitude on farmer's adoption of risk management strategies. *Journal of Risk Research*, 19(1), 56–78. <https://doi.org/10.1080/13669877.2014.940597>

- Vereinigte Hagel (2023). *Kundeninformation*. Version 2022, Stand: 10.02.2023. Retrieved from https://vereinigte-hagel.net/de/wp-content/uploads/vereinigte-hagel_versicherung_kundeninfo_2018_2023.pdf
- Vollmer, E., Hermann, D., & Mußhoff, O. (2019). The disposition effect in farmers' selling behavior: an experimental investigation. *Agricultural Economics*, *104*(2), 251. <https://doi.org/10.1111/agec.12475>
- Ward, P. S., & Singh, V. (2015). Using Field Experiments to Elicit Risk and Ambiguity Preferences: Behavioural Factors and the Adoption of New Agricultural Technologies in Rural India. *The Journal of Development Studies*, *51*(6), 707–724. <https://doi.org/10.1080/00220388.2014.989996>
- Zeisberger, S., Vrecko, D., & Langer, T. (2012). Measuring the time stability of Prospect Theory preferences. *Theory and Decision*, *72*(3), 359–386. <https://doi.org/10.1007/s11238-010-9234-3>



Diskussionspapiere

2000 bis 31. Mai 2006

Institut für Agrarökonomie

Georg-August-Universität, Göttingen

<u>2000</u>		
0001	Brandes, W.	Über Selbstorganisation in Planspielen: ein Erfahrungsbericht, 2000
0002	von Cramon-Taubadel, S. u. J. Meyer	Asymmetric Price Transmission: Factor Artefact?, 2000
<u>2001</u>		
0101	Leserer, M.	Zur Stochastik sequentieller Entscheidungen, 2001
0102	Molua, E.	The Economic Impacts of Global Climate Change on African Agriculture, 2001
0103	Birner, R. et al.	„Ich kaufe, also will ich?\": eine interdisziplinäre Analyse der Entscheidung für oder gegen den Kauf besonders tier- u. umweltfreundlich erzeugter Lebensmittel, 2001
0104	Wilkens, I.	Wertschöpfung von Großschutzgebieten: Befragung von Besuchern des Nationalparks Unteres Odertal als Baustein einer Kosten-Nutzen-Analyse, 2001
<u>2002</u>		
0201	Grethe, H.	Optionen für die Verlagerung von Haushaltsmitteln aus der ersten in die zweite Säule der EU-Agrarpolitik, 2002
0202	Spiller, A. u. M. Schramm	Farm Audit als Element des Midterm-Review : zugleich ein Beitrag zur Ökonomie von Qualitätssicherungssystemen, 2002
<u>2003</u>		
0301	Lüth, M. et al.	Qualitätssignaling in der Gastronomie, 2003
0302	Jahn, G., M. Peupert u. A. Spiller	Einstellungen deutscher Landwirte zum QS-System: Ergebnisse einer ersten Sondierungsstudie, 2003
0303	Theuvsen, L.	Kooperationen in der Landwirtschaft: Formen, Wirkungen und aktuelle Bedeutung, 2003

0304	Jahn, G.	Zur Glaubwürdigkeit von Zertifizierungssystemen: eine ökonomische Analyse der Kontrollvalidität, 2003
<u>2004</u>		
0401	Meyer, J. u. S. von Cramon-Taubadel	Asymmetric Price Transmission: a Survey, 2004
0402	Barkmann, J. u. R. Marggraf	The Long-Term Protection of Biological Diversity: Lessons from Market Ethics, 2004
0403	Bahrs, E.	VAT as an Impediment to Implementing Efficient Agricultural Marketing Structures in Transition Countries, 2004
0404	Spiller, A., T. Staack u. A. Zühlsdorf	Absatzwege für landwirtschaftliche Spezialitäten: Potenziale des Mehrkanalvertriebs, 2004
0405	Spiller, A. u. T. Staack	Brand Orientation in der deutschen Ernährungswirtschaft: Ergebnisse einer explorativen Online-Befragung, 2004
0406	Gerlach, S. u. B. Köhler	Supplier Relationship Management im Agribusiness: ein Konzept zur Messung der Geschäftsbeziehungsqualität, 2004
0407	Inderhees, P. et al.	Determinanten der Kundenzufriedenheit im Fleischerfachhandel
0408	Lüth, M. et al.	Köche als Kunden: Direktvermarktung landwirtschaftlicher Spezialitäten an die Gastronomie, 2004
<u>2005</u>		
0501	Spiller, A., J. Engelken u. S. Gerlach	Zur Zukunft des Bio-Fachhandels: eine Befragung von Bio-Intensivkäufern, 2005
0502	Groth, M.	Verpackungsabgaben und Verpackungslizenzen als Alternative für ökologisch nachteilige Einweggetränkeverpackungen? Eine umweltökonomische Diskussion, 2005
0503	Freese, J. u. H. Steinmann	Ergebnisse des Projektes 'Randstreifen als Strukturelemente in der intensiv genutzten Agrarlandschaft Wolfenbüttels', Nichtteilnehmerbefragung NAU 2003, 2005
0504	Jahn, G., M. Schramm u. A. Spiller	Institutional Change in Quality Assurance: the Case of Organic Farming in Germany, 2005
0505	Gerlach, S., R. Kennerknecht u. A. Spiller	Die Zukunft des Großhandels in der Bio-Wertschöpfungskette, 2005

<u>2006</u>		
0601	Heß, S., H. Bergmann u. L. Sudmann	Die Förderung alternativer Energien: eine kritische Bestandsaufnahme, 2006
0602	Gerlach, S. u. A. Spiller	Anwohnerkonflikte bei landwirtschaftlichen Stallbauten: Hintergründe und Einflussfaktoren; Ergebnisse einer empirischen Analyse, 2006
0603	Glenk, K.	Design and Application of Choice Experiment Surveys in So-Called Developing Countries: Issues and Challenges,
0604	Bolten, J., R. Kennerknecht u. A. Spiller	Erfolgsfaktoren im Naturkostfachhandel: Ergebnisse einer empirischen Analyse, 2006 (entfällt)
0605	Hasan, Y.	Einkaufsverhalten und Kundengruppen bei Direktvermarktern in Deutschland: Ergebnisse einer empirischen Analyse, 2006
0606	Lülfs, F. u. A. Spiller	Kunden(un-)zufriedenheit in der Schulverpflegung: Ergebnisse einer vergleichenden Schulbefragung, 2006
0607	Schulze, H., F. Albersmeier u. A. Spiller	Risikoorientierte Prüfung in Zertifizierungssystemen der Land- und Ernährungswirtschaft, 2006
<u>2007</u>		
0701	Buchs, A. K. u. J. Jasper	For whose Benefit? Benefit-Sharing within Contractual ABC-Agreements from an Economic Perspective: the Example of Pharmaceutical Bioprospection, 2007
0702	Böhm, J. et al.	Preis-Qualitäts-Relationen im Lebensmittelmarkt: eine Analyse auf Basis der Testergebnisse Stiftung Warentest, 2007
0703	Hurlin, J. u. H. Schulze	Möglichkeiten und Grenzen der Qualitäts-sicherung in der Wildfleischvermarktung, 2007
Ab Heft 4, 2007:		Diskussionspapiere (Discussion Papers), Department für Agrarökonomie und Rurale Entwicklung Georg-August-Universität, Göttingen (ISSN 1865-2697)
0704	Stockebrand, N. u. A. Spiller	Agrarstudium in Göttingen: Fakultätsimage und Studienwahlentscheidungen; Erstsemesterbefragung im WS 2006/2007
0705	Bahrs, E., J.-H. Held u. J. Thiering	Auswirkungen der Bioenergieproduktion auf die Agrarpolitik sowie auf Anreizstrukturen in der Landwirtschaft: eine partielle Analyse bedeutender

		Fragestellungen anhand der Beispielregion Niedersachsen
0706	Yan, J., J. Barkmann u. R. Marggraf	Chinese tourist preferences for nature based destinations – a choice experiment analysis
<u>2008</u>		
0801	Joswig, A. u. A. Zühlsdorf	Marketing für Reformhäuser: Senioren als Zielgruppe
0802	Schulze, H. u. A. Spiller	Qualitätssicherungssysteme in der europäischen Agri-Food Chain: Ein Rückblick auf das letzte Jahrzehnt
0803	Gille, C. u. A. Spiller	Kundenzufriedenheit in der Pensionspferdehaltung: eine empirische Studie
0804	Voss, J. u. A. Spiller	Die Wahl des richtigen Vertriebswegs in den Vorleistungsindustrien der Landwirtschaft – Konzeptionelle Überlegungen und empirische Ergebnisse
0805	Gille, C. u. A. Spiller	Agrarstudium in Göttingen. Erstsemester- und Studienverlaufsbefragung im WS 2007/2008
0806	Schulze, B., C. Wocken u. A. Spiller	(Dis)loyalty in the German dairy industry. A supplier relationship management view Empirical evidence and management implications
0807	Brümmer, B., U. Köster u. J.-P. Loy	Tendenzen auf dem Weltgetreidemarkt: Anhaltender Boom oder kurzfristige Spekulationsblase?
0808	Schlecht, S., F. Albersmeier u. A. Spiller	Konflikte bei landwirtschaftlichen Stallbauprojekten: Eine empirische Untersuchung zum Bedrohungspotential kritischer Stakeholder
0809	Lülfs-Baden, F. u. A. Spiller	Steuerungsmechanismen im deutschen Schulverpflegungsmarkt: eine institutionenökonomische Analyse
0810	Deimel, M., L. Theuvsen u. C. Ebbeskotte	Von der Wertschöpfungskette zum Netzwerk: Methodische Ansätze zur Analyse des Verbundsystems der Veredelungswirtschaft Nordwestdeutschlands
0811	Albersmeier, F. u. A. Spiller	Supply Chain Reputation in der Fleischwirtschaft
<u>2009</u>		
0901	Bahlmann, J., A. Spiller u. C.-H. Plumeyer	Status quo und Akzeptanz von Internet-basierten Informationssystemen: Ergebnisse einer empirischen Analyse in der deutschen Veredelungswirtschaft

0902	Gille, C. u. A. Spiller	Agrarstudium in Göttingen. Eine vergleichende Untersuchung der Erstsemester der Jahre 2006-2009
0903	Gawron, J.-C. u. L. Theuvsen	„Zertifizierungssysteme des Agribusiness im interkulturellen Kontext – Forschungsstand und Darstellung der kulturellen Unterschiede“
0904	Raupach, K. u. R. Marggraf	Verbraucherschutz vor dem Schimmelpilzgift Deoxynivalenol in Getreideprodukten Aktuelle Situation und Verbesserungsmöglichkeiten
0905	Busch, A. u. R. Marggraf	Analyse der deutschen globalen Waldpolitik im Kontext der Klimarahmenkonvention und des Übereinkommens über die Biologische Vielfalt
0906	Zschache, U., S. von Cramon-Taubadel u. L. Theuvsen	Die öffentliche Auseinandersetzung über Bioenergie in den Massenmedien - Diskursanalytische Grundlagen und erste Ergebnisse
0907	Onumah, E. E.,G. Hoerstgen-Schwark u. B. Brümmer	Productivity of hired and family labour and determinants of technical inefficiency in Ghana's fish farms
0908	Onumah, E. E., S. Wessels, N. Wildenhayn, G. Hoerstgen-Schwark u. B. Brümmer	Effects of stocking density and photoperiod manipulation in relation to estradiol profile to enhance spawning activity in female Nile tilapia
0909	Steffen, N., S. Schlecht u. A. Spiller	Ausgestaltung von Milchlieferverträgen nach der Quote
0910	Steffen, N., S. Schlecht u. A. Spiller	Das Preisfindungssystem von Genossenschaftsmolkereien
0911	Granoszewski, K.,C. Reise, A. Spiller u. O. Mußhoff	Entscheidungsverhalten landwirtschaftlicher Betriebsleiter bei Bioenergie-Investitionen - Erste Ergebnisse einer empirischen Untersuchung -
0912	Albersmeier, F., D. Mörlein u. A. Spiller	Zur Wahrnehmung der Qualität von Schweinefleisch beim Kunden
0913	Ihle, R., B. Brümmer u. S. R. Thompson	Spatial Market Integration in the EU Beef and Veal Sector: Policy Decoupling and Export Bans
<u>2010</u>		
1001	Heß, S., S. von Cramon-Taubadel u. S. Sperlich	Numbers for Pascal: Explaining differences in the estimated Benefits of the Doha Development Agenda
1002	Deimel, I., J. Böhm u. B. Schulze	Low Meat Consumption als Vorstufe zum Vegetarismus? Eine qualitative Studie zu den Motivstrukturen geringen Fleischkonsums

1003	Franz, A. u. B. Nowak	Functional food consumption in Germany: A lifestyle segmentation study
1004	Deimel, M. u. L. Theuvsen	Standortvorteil Nordwestdeutschland? Eine Untersuchung zum Einfluss von Netzwerk- und Clusterstrukturen in der Schweinefleischerzeugung
1005	Niens, C. u. R. Marggraf	Ökonomische Bewertung von Kindergesundheit in der Umweltpolitik - Aktuelle Ansätze und ihre Grenzen
1006	Hellberg-Bahr, A., M. Pfeuffer, N. Steffen, A. Spiller u. B. Brümmer	Preisbildungssysteme in der Milchwirtschaft -Ein Überblick über die Supply Chain Milch
1007	Steffen, N., S. Schlecht, H-C. Müller u. A. Spiller	Wie viel Vertrag braucht die deutsche Milchwirtschaft?- Erste Überlegungen zur Ausgestaltung des Contract Designs nach der Quote aus Sicht der Molkereien
1008	Prehn, S., B. Brümmer u. S. R. Thompson	Payment Decoupling and the Intra – European Calf Trade
1009	Maza, B., J. Barkmann, F. von Walter u. R. Marggraf	Modelling smallholders production and agricultural income in the area of the Biosphere reserve “Podocarpus - El Cóndor”, Ecuador
1010	Busse, S., B. Brümmer u. R. Ihle	Interdependencies between Fossil Fuel and Renewable Energy Markets: The German Biodiesel Market
<u>2011</u>		
1101	Mylius, D., S. Küest, C. Klapp u. L. Theuvsen	Der Großvieheinheitenschlüssel im Stallbaurecht - Überblick und vergleichende Analyse der Abstandsregelungen in der TA Luft und in den VDI-Richtlinien
1102	Klapp, C., L. Obermeyer u. F. Thoms	Der Vieheinheitenschlüssel im Steuerrecht - Rechtliche Aspekte und betriebswirtschaftliche Konsequenzen der Gewerblichkeit in der Tierhaltung
1103	Göser, T., L. Schroeder u. C. Klapp	Agrarumweltprogramme: (Wann) lohnt sich die Teilnahme für landwirtschaftliche Betriebe?
1104	Plumeyer, C.-H., F. Albersmeier, M. Freiherr von Oer, C. H. Emmann u. L. Theuvsen	Der niedersächsische Landpachtmarkt: Eine empirische Analyse aus Pächtersicht

1105	Voss, A. u. L. Theuvsen	Geschäftsmodelle im deutschen Viehhandel: Konzeptionelle Grundlagen und empirische Ergebnisse
1106	Wendler, C., S. von Cramon-Taubadel, H. de Haen, C. A. Padilla Bravo u. S. Jrad	Food security in Syria: Preliminary results based on the 2006/07 expenditure survey
1107	Prehn, S. u. B. Brümmer	Estimation Issues in Disaggregate Gravity Trade Models
1108	Recke, G., L. Theuvsen, N. Venhaus u. A. Voss	Der Viehhandel in den Wertschöpfungsketten der Fleischwirtschaft: Entwicklungstendenzen und Perspektiven
1109	Prehn, S. u. B. Brümmer	“Distorted Gravity: The Intensive and Extensive Margins of International Trade”, revisited: An Application to an Intermediate Melitz Model
<u>2012</u>		
1201	Kayser, M., C. Gille, K. Suttorp u. A. Spiller	Lack of pupils in German riding schools? – A causal-analytical consideration of customer satisfaction in children and adolescents
1202	Prehn, S. u. B. Brümmer	Bimodality & the Performance of PPML
1203	Tangermann, S.	Preisanstieg am EU-Zuckermarkt: Bestimmungsgründe und Handlungsmöglichkeiten der Marktpolitik
1204	Würriehausen, N., S. Lakner u. Rico Ihle	Market integration of conventional and organic wheat in Germany
1205	Heinrich, B.	Calculating the Greening Effect – a case study approach to predict the gross margin losses in different farm types in Germany due to the reform of the CAP
1206	Prehn, S. u. B. Brümmer	A Critical Judgement of the Applicability of ‘New New Trade Theory’ to Agricultural: Structural Change, Productivity, and Trade
1207	Marggraf, R., P. Masius u. C. Rumpf	Zur Integration von Tieren in wohlfahrtsökonomischen Analysen
1208	S. Lakner, B. Brümmer, S. von Cramon-Taubadel J. Heß, J. Isselstein, U. Liebe, R. Marggraf, O. Mußhoff, L. Theuvsen, T. Tschardtke, C. Westphal u. G. Wiese	Der Kommissionsvorschlag zur GAP-Reform 2013 - aus Sicht von Göttinger und Witzenhäuser Agrarwissenschaftler(inne)n

1209	Prehn, S., B. Brümmer u. T. Glauben	Structural Gravity Estimation & Agriculture
1210	Prehn, S., B. Brümmer u. T. Glauben	An Extended Viner Model: Trade Creation, Diversion & Reduction
1211	Salidas, R. u. S. von Cramon-Taubadel	Access to Credit and the Determinants of Technical Inefficiency among Specialized Small Farmers in Chile
1212	Steffen, N. u. A. Spiller	Effizienzsteigerung in der Wertschöpfungskette Milch ? -Potentiale in der Zusammenarbeit zwischen Milcherzeugern und Molkereien aus Landwirtssicht
1213	Mußhoff, O., A. Tegtmeier u. N. Hirschauer	Attraktivität einer landwirtschaftlichen Tätigkeit - Einflussfaktoren und Gestaltungsmöglichkeiten
<u>2013</u>		
1301	Lakner, S., C. Holst u. B. Heinrich	Reform der Gemeinsamen Agrarpolitik der EU 2014 - mögliche Folgen des Greenings für die niedersächsische Landwirtschaft
1302	Tangermann, S. u. S. von Cramon-Taubadel	Agricultural Policy in the European Union : An Overview
1303	Granoszewski, K. u. A. Spiller	Langfristige Rohstoffsicherung in der Supply Chain Biogas : Status Quo und Potenziale vertraglicher Zusammenarbeit
1304	Lakner, S., C. Holst, B. Brümmer, S. von Cramon-Taubadel, L. Theuvsen, O. Mußhoff u. T.Tscharntke	Zahlungen für Landwirte an gesellschaftliche Leistungen koppeln! - Ein Kommentar zum aktuellen Stand der EU-Agrarreform
1305	Prechtel, B., M. Kayser u. L. Theuvsen	Organisation von Wertschöpfungsketten in der Gemüseproduktion : das Beispiel Spargel
1306	Anastassiadis, F., J.-H. Feil, O. Musshoff u. P. Schilling	Analysing farmers' use of price hedging instruments : an experimental approach
1307	Holst, C. u. S. von Cramon-Taubadel	Trade, Market Integration and Spatial Price Transmission on EU Pork Markets following Eastern Enlargement
1308	Granoszewski, K., S. Sander, V. M. Aufmkolk u.	Die Erzeugung regenerativer Energien unter gesellschaftlicher Kritik : Akzeptanz von Anwohnern

	A. Spiller	gegenüber der Errichtung von Biogas- und Windenergieanlagen
2014		
1401	Lakner, S., C. Holst, J. Barkmann, J. Isselstein u. A. Spiller	Perspektiven der Niedersächsischen Agrarpolitik nach 2013 : Empfehlungen Göttinger Agrarwissenschaftler für die Landespolitik
1402	Müller, K., Mußhoff, O. u. R. Weber	The More the Better? How Collateral Levels Affect Credit Risk in Agricultural Microfinance
1403	März, A., N. Klein, T. Kneib u. O. Mußhoff	Analysing farmland rental rates using Bayesian geoadditive quantile regression
1404	Weber, R., O. Mußhoff u. M. Petrick	How flexible repayment schedules affect credit risk in agricultural microfinance
1405	Haverkamp, M., S. Henke, C., Kleinschmitt, B. Möhring, H., Müller, O. Mußhoff, L., Rosenkranz, B. Seintsch, K. Schlosser u. L. Theuvsen	Vergleichende Bewertung der Nutzung von Biomasse : Ergebnisse aus den Bioenergieregionen Göttingen und BERTA
1406	Wolbert-Haverkamp, M. u. O. Musshoff	Die Bewertung der Umstellung einer einjährigen Ackerkultur auf den Anbau von Miscanthus – Eine Anwendung des Realloptionsansatzes
1407	Wolbert-Haverkamp, M., J.-H. Feil u. O. Musshoff	The value chain of heat production from woody biomass under market competition and different incentive systems: An agent-based real options model
1408	Ikinger, C., A. Spiller u. K. Wiegand	Reiter und Pferdebesitzer in Deutschland (Facts and Figures on German Equestrians)
1409	Mußhoff, O., N. Hirschauer, S. Grüner u. S. Pielsticker	Der Einfluss begrenzter Rationalität auf die Verbreitung von Wetterindexversicherungen : Ergebnisse eines internetbasierten Experiments mit Landwirten
1410	Spiller, A. u. B. Goetzke	Zur Zukunft des Geschäftsmodells Markenartikel im Lebensmittelmarkt
1411	Wille, M.	„Manche haben es satt, andere werden nicht satt“ : Anmerkungen zur polarisierten Auseinandersetzung um Fragen des globalen Handels und der Welternährung
1412	Müller, J., J. Oehmen, I. Janssen u. L. Theuvsen	Sportlermarkt Galopprennsport : Zucht und Besitz des Englischen Vollbluts

2015

1501	Hartmann, L. u. A. Spiller	Luxusaffinität deutscher Reitsportler : Implikationen für das Marketing im Reitsportsegment
1502	Schneider, T., L. Hartmann u. A. Spiller	Luxusmarketing bei Lebensmitteln : eine empirische Studie zu Dimensionen des Luxuskonsums in der Bundesrepublik Deutschland
1503	Würriehausen, N. u. S. Lakner	Stand des ökologischen Strukturwandels in der ökologischen Landwirtschaft
1504	Emmann, C. H., D. Surmann u. L. Theuvsen	Charakterisierung und Bedeutung außerlandwirtschaftlicher Investoren : empirische Ergebnisse aus Sicht des landwirtschaftlichen Berufsstandes
1505	Buchholz, M., G. Host u. Oliver Mußhoff	Water and Irrigation Policy Impact Assessment Using Business Simulation Games : Evidence from Northern Germany
1506	Hermann, D., O. Mußhoff u. D. Rüter	Measuring farmers' time preference : A comparison of methods
1507	Riechers, M., J. Barkmann u. T. Tschardt	Bewertung kultureller Ökosystemleistungen von Berliner Stadtgrün entlang eines urbanen-periurbanen Gradienten
1508	Lakner, S., S. Kirchweber, D. Hopp, B. Brümmer u. J. Kantelhardt	Impact of Diversification on Technical Efficiency of Organic Farming in Switzerland, Austria and Southern Germany
1509	Sauthoff, S., F. Anastassiadis u. O. Mußhoff	Analyzing farmers' preferences for substrate supply contracts for sugar beets
1510	Feil, J.-H., F. Anastassiadis, O. Mußhoff u. P. Kasten	Analyzing farmers' preferences for collaborative arrangements : an experimental approach
1511	Weinrich, R., u. A. Spiller	Developing food labelling strategies with the help of extremeness aversion
1512	Weinrich, R., A. Franz u. A. Spiller	Multi-level labelling : too complex for consumers?
1513	Niens, C., R. Marggraf u. F. Hoffmeister	Ambulante Pflege im ländlichen Raum : Überlegungen zur effizienten Sicherstellung von Bedarfsgerechtigkeit
1514	Sauter, P., D. Hermann u. O. Mußhoff	Risk attitudes of foresters, farmers and students : An experimental multimethod comparison

2016

1601	Magrini, E., J. Balie u. C. Morales Opazo	Price signals and supply responses for stable food crops in SSAS countries
1602	Feil, J.-H.	Analyzing investment and disinvestment decisions under uncertainty, firm-heterogeneity and tradable output permits
1603	Sonntag, W. u. A. Spiller	Prozessqualitäten in der WTO : Ein Vorschlag für die reliable Messung von moralischen Bedenken
1604	Wiegand, K.	Marktorientierung von Reitschulen – zwischen Vereinsmanagement und Dienstleistungsmarketing
1605	Ikinger, C. M. u. A. Spiller	Tierwohlbewusstsein und –verhalten von Reitern : Die Entwicklung eines Modells für das Tierwohlbewusstsein und –verhalten im Reitsport
1606	Zinngrebe, Yves	Incorporating Biodiversity Conservation in Peruvian Development : A history with different episodes
1607	Balié, J., E. Magrini u. C. Morales Opazo	Cereal Price Shocks and Volatility in Sub-Saharan Africa : what does really matter for Farmers' Welfare?
1608	Spiller, A., M. von Meyer-Höfer u. W. Sonntag	Gibt es eine Zukunft für die moderne konventionelle Tierhaltung in Nordwesteuropa?
1609	Gollisch, S., B. Hedderich u. L. Theuvsen	Reference points and risky decision-making in agricultural trade firms : A case study in Germany
1610	Cárcamo, J. u. S. von Cramon-Taubadel	Assessing small-scale raspberry producers' risk and ambiguity preferences : evidence from field-experiment data in rural Chile
1611	García-Germán, S., A. Romeo, E. Magrini u. J. Balié	The impact of food price shocks on weight loss : Evidence from the adult population of Tanzania

2017

1701	Vollmer, E. u. D. Hermann, O. Mußhoff	The disposition effect in farmers' selling behavior – an experimental investigation
1702	Römer, U., O. Mußhoff, R. Weber u. C. G. Turvey	Truth and consequences : Bogus pipeline experiment in informal small business lending
1703	Römer, U. u. O. Mußhoff	Can agricultural credit scoring for microfinance institutions be implemented and improved by weather data?
1704	Gauly, S., S. Kühl u. A. Spiller	Uncovering strategies of hidden intention in multi-stakeholder initiatives : the case of pasture-raised milk

1705	Gauly, S., A. Müller u. A. Spiller	New methods of increasing transparency : Does viewing webcam pictures change peoples‘ opinions towards modern pig farming?
1706	Bauermeister, G.-F. u. O. Mußhoff	Multiple switching behavior in different display formats of multiple price lists
1707	Sauthoff, S., M. Danne u. O. Mußhoff	To switch or not to switch? – Understanding German consumers‘ willingness to pay for green electricity tariff attributes
1708	Bilal, M., J. Barkmann u. T. Jamali Jaghdani	To analyse the suitability of a set of social and economic indicators that assesses the impact on SI enhancing advanced technological inputs by farming households in Punjab Pakistan
1709	Heyking, C.-A. von u. T. Jamali Jaghdani	Expansion of photovoltaic technology (PV) as a solution for water energy nexus in rural areas of Iran; comparative case study between Germany and Iran
1710	Schueler, S. u. E. M. Noack	Naturschutz und Erholung im Stadtwald Göttingen: Darstellung von Interessenskonflikten anhand des Konzeptes der Ökosystemleistungen
<u>2018</u>		
1801	Danne, M. u. O. Mußhoff	Producers‘ valuation of animal welfare practices: Does herd size matter?
1802	Danne, M., O. Mußhoff u. M. Schulte	Analysing the importance of glyphosate as part of agricultural strategies – a discrete choice experiment
1803	Fecke, W., M. Danne u. O. Mußhoff	E-commerce in agriculture – The case of crop protection product purchases in a discrete choice experiment
1804	Viergutz, Tim u. B. Schulze-Ehlers	The use of hybrid scientometric clustering for systematic literature reviews in business and economics
1805	Schulze Schwering, D. u. A. Spiller	Das Online-Einkaufsverhalten von Landwirten im Bereich landwirtschaftlicher Betriebsmittel
1806	Hänke, H. et al.	Socio-economic, land use and value chain perspectives on vanilla farming in the SAVA Region (north-eastern Madagascar) : The Diversity Turn Baseline Study (DTBS)
1807	Wille, S. C., B. Barklage, A. Spiller u. M. von Meyer-Höfer	Challenging Factors of Farmer-to-Consumer Direct Marketing : An Empirical Analysis of German Livestock Owners
1808	Wille, S. C., A. Spiller u. M. von Meyer-Höfer	Lage, Lage, Lage? : Welche Rolle spielt der Standort für die landwirtschaftliche Direktvermarktung?

1809	Peth, D. u. O.. Mußhoff	Comparing Compliance Behaviour of Students and Farmers : Implications for Agricultural Policy Impact Analysis
1810	Lakner, S.	Integration von Ökosystemleistungen in die I. Säule der Gemeinsamen Agrarpolitik der EU (GAP) – die Wirkung der ökologischen Vorrangfläche als privates oder öffentliches Gut?
1811	Fecke, W.	Online-Einkauf von Pflanzenschutzmitteln: Ein Discrete Choice Experiment mit landwirtschaftlichen Unternehmern in Deutschland
1812	Schulze-Ehlers, B.	Schlussbericht des Projekts „TransKoll“ - „Transparenz und Transformation in der regionalen Ernährungswirtschaft. Kollaborative Ansätze für mehr Nachhaltigkeit vom Rohstoff bis zum Endkonsumenten
1813	Buchholz, M., D. Peth u. O. Mußhoff	Tax or Green Nudge? An Experimental Analysis of Pesticide Policies in Germany
<u>2019</u>		
1901	Schaak, H. u. O. Mußhoff	Public preferences for livestock presence in pasture landscapes – A Latent Class Analysis of a Discrete Choice Experiment in Germany
1902	Möllmann, J., M. Buchholz, W. Kölle u. O. Mußhoff	Do remotely-sensed vegetation health indices explain credit risk in agricultural microfinance?
1903	Schütz, A., W. Sonntag u. Achim Spiller	Environmental Enrichment in pig husbandry – Consumer comparative assessment of different housing elements based on a pictorial survey
1904	Vollmer, T. u. S. von Cramon-Taubadel	The influence of Brazilian exports on price transmission processes in the coffee sector: a Markov-switching approach
1905	Michels, M., V. Bonke u. O. Mußhoff	Understanding the adoption of crop protection smartphone apps - An application of the Unified Theory of Acceptance and Use of Technology
1906	Reithmayer, C., M. Danne u. O. Mußhoff	Societal attitudes towards in ovo gender determination as an alternative to chick culling
1907	Reithmayer, C., M. Danne u. O. Mußhoff	Look at that! – The effect pictures have on consumer preferences for in ovo gender determination as an alternative to culling male chicks

1908	Aragie, E., J. Balié u. E. Magrini	Does productivity level influence the economic impacts of price support policies in Ethiopia?
<u>2020</u>		
2001	Busch, G. u. A. Spiller	Warum wir eine Tierschutzsteuer brauchen - Die Bürger-Konsumenten-Lücke
2002	Huchtemann, J.-P.	Unternehmerische Neigung in der Landwirtschaft – Einstellungen von Studierenden der Agrarwissenschaften in Deutschland
2003	Busch, G., E. Bayer, A. Gunarathne et al.	Einkaufs- und Ernährungsverhalten sowie Resilienz des Ernährungssystems aus Sicht der Bevölkerung Ergebnisse einer Studie während der Corona-Pandemie im April 2020
2004	Busch, G., E. Bayer, S. Iweala, C. Mehlhose, C. Rubach, A. Schütz, K. Ullmann u. A. Spiller	Einkaufs- und Ernährungsverhalten sowie Resilienz des Ernährungssystems aus Sicht der Bevölkerung : Eine Studie während der Corona-Pandemie im Juni 2020 ; Ergebnisse der zweiten Befragung
2005	Lemken, D.	When do defaults stick and when are they ethical? – taxonomy, systematic review and design recommendations
<u>2021</u>		
2101	Graskemper, V., J.-H. Feil	Values of Farmers – Evidence from Germany
2102	Busch, G., E. Bayer, S. Iweala, C. Mehlhose, A. Risius, C. Rubach,, A. Schütz, K. Ullmann u. A. Spiller	Einkaufs- und Ernährungsverhalten sowie Resilienz des Ernährungssystems aus Sicht der Bevölkerung: Eine Studie während der Corona-Pandemie im
2103	Steinhübel, L., A. Wenzel, P. Hulamani, S. von Cramon-Taubadel u. N. M. Mason	The role of space and time in the interaction of farmers' management decisions and bee communities: Evidence from South India
2104	Purushotham, A., A. Aiyar u. S. von Cramon-Taubadel	Dietary transition and its relationship with socio-economic status and peri-urban obesity
2105	Berger, J., B. Brümmer, D.-D. Doe Fionka u. T. Kopp	Sugar Market Policies in the EU and International Sugar Trade
<u>2023</u>		



Georg-August-Universität Göttingen
Department für Agrarökonomie und RURALE ENTWICKLUNG

Diskussionspapiere

2000 bis 31. Mai 2006:

Institut für RURALE ENTWICKLUNG

Georg-August-Universität, Göttingen)

Ed. Winfried Manig (ISSN 1433-2868)

32	Dirks, Jörg J.	Einflüsse auf die Beschäftigung in nahrungsmittelverarbeitenden ländlichen Kleinindustrien in West-Java/Indonesien, 2000
33	Keil, Alwin	Adoption of Leguminous Tree Fallows in Zambia, 2001
34	Schott, Johanna	Women's Savings and Credit Co-operatives in Madagascar, 2001
35	Seeberg-Elberfeldt, Christina	Production Systems and Livelihood Strategies in Southern Bolivia, 2002
36	Molua, Ernest L.	Rural Development and Agricultural Progress: Challenges, Strategies and the Cameroonian Experience, 2002
37	Demeke, Abera Birhanu	Factors Influencing the Adoption of Soil Conservation Practices in Northwestern Ethiopia, 2003
38	Zeller, Manfred u. Julia Johannsen	Entwicklungshemmnisse im afrikanischen Agrarsektor: Erklärungsansätze und empirische Ergebnisse, 2004
39	Yustika, Ahmad Erani	Institutional Arrangements of Sugar Cane Farmers in East Java – Indonesia: Preliminary Results, 2004

40	Manig, Winfried	Lehre und Forschung in der Sozialökonomie der Ruralen Entwicklung, 2004
41	Hebel, Jutta	Transformation des chinesischen Arbeitsmarktes: gesellschaftliche Herausforderungen des Beschäftigungswandels, 2004
42	Khan, Mohammad Asif	Patterns of Rural Non-Farm Activities and Household Access to Informal Economy in Northwest Pakistan, 2005
43	Yustika, Ahmad Erani	Transaction Costs and Corporate Governance of Sugar Mills in East Java, Indonesia, 2005
44	Feulefack, Joseph Florent, Manfred Zeller u. Stefan Schwarze	Accuracy Analysis of Participatory Wealth Ranking (PWR) in Socio-economic Poverty Comparisons, 2006



Die Wurzeln der **Fakultät für Agrarwissenschaften** reichen in das 19. Jahrhundert zurück. Mit Ausgang des Wintersemesters 1951/52 wurde sie als siebente Fakultät an der Georgia-Augusta-Universität durch Ausgliederung bereits existierender landwirtschaftlicher Disziplinen aus der Mathematisch-Naturwissenschaftlichen Fakultät etabliert.

1969/70 wurde durch Zusammenschluss mehrerer bis dahin selbständiger Institute das **Institut für Agrarökonomie** gegründet. Im Jahr 2006 wurden das Institut für Agrarökonomie und das Institut für RURALE ENTWICKLUNG zum heutigen **Department für Agrarökonomie und RURALE ENTWICKLUNG** zusammengeführt.

Das Department für Agrarökonomie und RURALE ENTWICKLUNG besteht aus insgesamt neun Lehrstühlen zu den folgenden Themenschwerpunkten:

- Agrarpolitik
- Betriebswirtschaftslehre des Agribusiness
- Internationale Agrarökonomie
- Landwirtschaftliche Betriebslehre
- Landwirtschaftliche Marktlehre
- Marketing für Lebensmittel und Agrarprodukte
- Soziologie Ländlicher Räume
- Umwelt- und Ressourcenökonomik
- Welternährung und rurale Entwicklung

In der Lehre ist das Department für Agrarökonomie und RURALE ENTWICKLUNG führend für die Studienrichtung Wirtschafts- und Sozialwissenschaften des Landbaus sowie maßgeblich eingebunden in die Studienrichtungen Agribusiness und Ressourcenmanagement. Das Forschungsspektrum des Departments ist breit gefächert. Schwerpunkte liegen sowohl in der Grundlagenforschung als auch in angewandten Forschungsbereichen. Das Department bildet heute eine schlagkräftige Einheit mit international beachteten Forschungsleistungen.

Georg-August-Universität Göttingen
Department für Agrarökonomie und RURALE ENTWICKLUNG
Platz der Göttinger Sieben 5
37073 Göttingen
Tel. 0551-39-4819
Fax. 0551-39-12398
Mail: bibliol@gwdg.de
Homepage : <http://www.uni-goettingen.de/de/18500.html>