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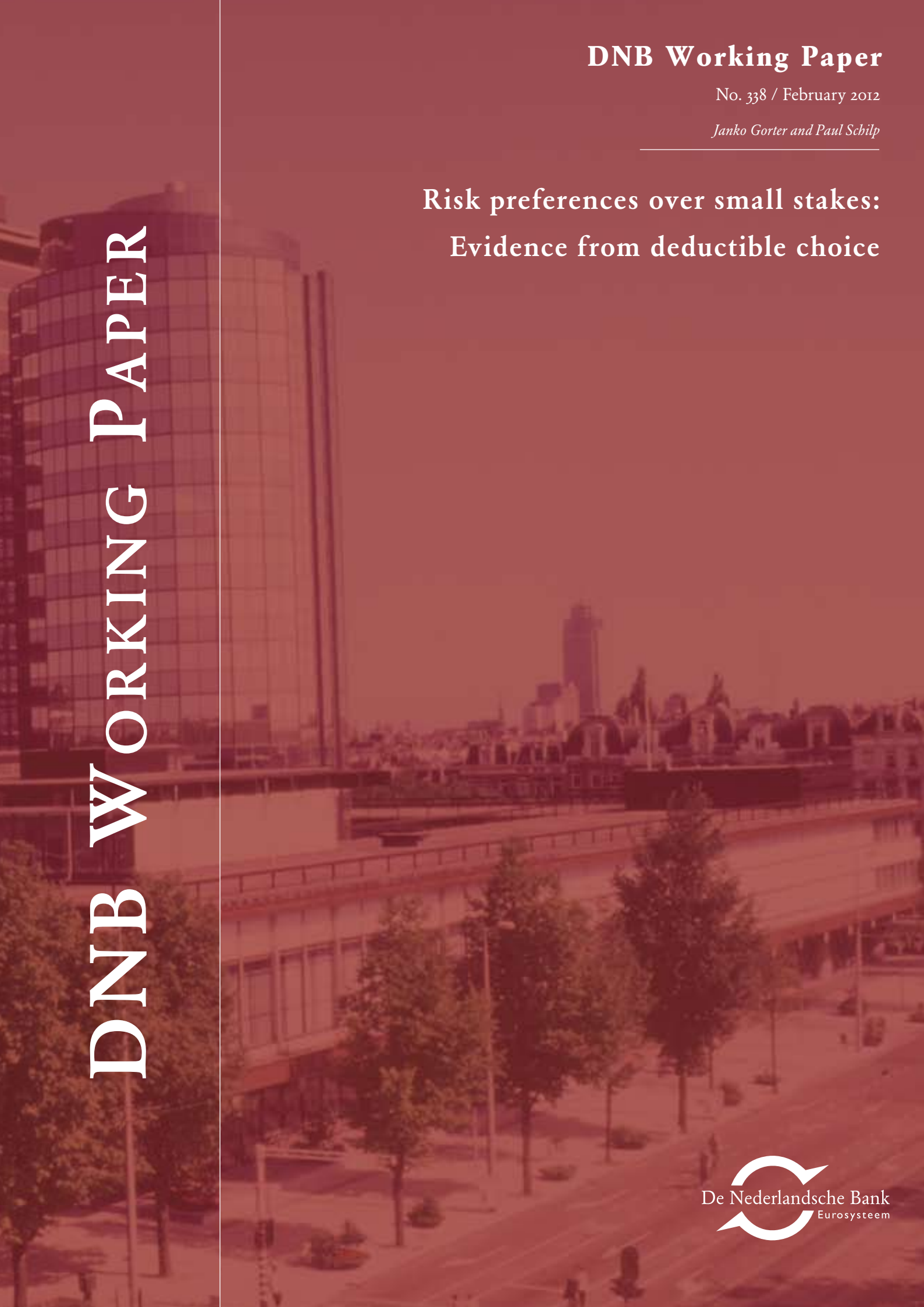

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* Views expressed are those of the authors and do not necessarily reflect official positions of De Nederlandsche Bank.

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Risk preferences over small stakes: Evidence from deductible choice

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Abstract

This paper provides new field evidence on risk preferences over small stakes. Using unique population and survey data on deductible choice in Dutch universal health insurance, we find that risk preferences are a dominant factor in decision making. In fact, our results indicate that risk preferences are both statistically and quantitatively more significant in explaining deductible choice behavior than risk type. This finding contrasts with classical expected utility theory, as it implies risk neutrality over small stakes. More recently developed reference-dependent utility models, however, can rationalize risk aversion over small stakes, on account of loss aversion and narrow framing.

JEL classification: D12, D81, G22

Key words: consumer preferences, insurance, deductible, decision making, loss aversion

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1 Introduction

The theory of choice under uncertainty has been at the core of economic research ever since the seminal work of Von Neumann and Morgenstern (1948) and Friedman and Savage (1948). Empirical evidence on actual choices is, however, still surprisingly scarce. Although there have been numerous analyses of laboratory experiments, game shows and hypothetical gambles, which have greatly enhanced our understanding of individual choice behavior, the same features that make such studies valuable actually limit their real-life applicability. As Loewenstein (1999) argues, experimental studies are vulnerable in terms of external validity, i.e. to what extent the results carry over to real-life. In that respect, analyses of actual choices have a clear advantage.[1]

In this paper we analyze a certain choice that adults in the Netherlands make on a yearly basis. Specifically, we investigate deductible choice behavior in Dutch universal health insurance with special focus on the significance of risk preferences. In insurance policies, the deductible is the amount a policyholder has to pay out-of-pocket before the insurance company will cover the remaining costs. Since deductibles are small-scale risks compared to lifetime wealth, expected utility theory predicts that individuals choose their deductible in a risk-neutral fashion. Under risk neutrality, expected value drives decision-making and differences in risk attitudes do not play a role. Arrow (1971) called this the local risk neutrality of expected utility theory. Rabin (2000) brought the issue of local risk neutrality to the fore again. He showed that if the only reason consumers are risk averse is diminishing marginal utility of wealth, which is what expected utility models assume, then consumers should be virtually risk neutral over stakes in the hundreds or even thousands of U.S. dollars.

Contrary to the prediction of expected utility theory, there is increasing empirical evidence that people can be significantly averse to small risks. The majority of this evidence comes from experiments that are conducted under controlled laboratory conditions (e.g. Holt and Laury 2002; Barberis, Huang, and

[1] List (2003) and Levitt and List (2007) discuss the issue of generalizability of experimental results outside the laboratory in greater detail.

Thaler 2006; Harrison and Rutström 2008). Evidence from real market settings is scarcer. There are a few existing field studies, however. Cichetti and Dubin (1994) study the demand for telephone wiring protection in the U.S, which is surely a small risk with own payments maximized to $55. Cohen and Einav (2007) estimate risk preferences from data on deductible choices in Israeli auto insurance contracts. Sydnor (2010) uses data on deductible choices in U.S. homeowner's insurance to calibrate a bound for the implied level of risk aversion. While each of these studies uses the expected utility framework to estimate risk preferences over modest risk, the results differ. Both Cichetti and Dubin (1994) and Cohen and Einav (2007) report relatively low levels of risk aversion, while Sydnor (2010) finds that under expected utility theory only extreme measures of risk aversion can rationalize the choice for costly low deductibles.

Our study contributes to the existing literature on risk preferences over small stakes in a number of dimensions. First, while related studies investigate deductible choice of policyholders in a particular insurance market, we investigate a universal insurance market, which covers the majority of health risks of *all* Dutch residents. Hence, our results are generalizable to the overall Dutch population. Second, we combine unique population data with representative survey data, which allows us to give a relatively detailed evaluation of deductible choice behavior in the Dutch universal health insurance market. The population data include information on deductible choice, premium rebates and out-of-pocket expenditures. The survey data are from CentERpanel and have been used by others, including Van Rooij, Kool, and Prast (2007). An important feature of our survey dataset is that it includes good proxies of both risk type and risk preferences. This brings us to our third contribution, namely that we use direct measures of risk preferences to explain deductible choice. Related studies infer risk tolerance parameters by assuming expected utility of wealth maximization and a specific utility function. Hence, this paper also fits within a growing stream of research that measures risk preferences from survey data and relates these direct measures of risk tolerance to actual consumer behavior (e.g. Barsky et al. 1997; Guiso and Paiella 2005, 2008; Cutler, Finkelstein, and McGarry 2008).

As the Dutch universal health insurance market is highly regulated, it is ideal for studying the role of risk preferences in the domain of small risks. The so-called basic health insurance policy is mandatory to all Dutch residents. As a result, consumer choice is restricted to choosing a health insurer and a deductible-rebate package with that insurer. Individuals that opt for a higher deductible have the same health plan as everybody else, yet they voluntarily expose themselves to a small amount of financial risk. In 2008, the year which we study, residents could choose a voluntary deductible from six alternatives, ranging from €0 till €500 (roughly $650) in stages of €100. For a nonzero voluntary deductible policyholders receive a premium rebate that is independent of health status and risk (Van Kleef et al. 2008). Consequently, asymmetric information is effectively guaranteed and the analysis can focus on the demand-side. Nonetheless, in the empirical work we verify that rebate differences between insurers do not influence our results.

The rest of the paper is organized as follows. Section 2 provides an overview of the basic health insurance market in the Netherlands and discusses deductible choice and expenditure patterns that emerge from population data. These data show that people by and large choose the lowest deductible, though young men have low expected out-of-pocket expenditures and would benefit, in expected value terms, from higher levels of deductibility. Section 3 outlines our empirical approach and provides underpinning for our proxies of risk type and risk preferences. Section 4 describes the survey dataset and gives first indications of a relationship between attitudes towards risk and deductible choice in our sample of Dutch adults. Section 5 presents the empirical result. By way of preview, we find that risk preferences are both statistically and quantitatively more significant in explaining deductible choice behavior than risk characteristics, which contrasts with standard expected utility of wealth theory. Potential explanations outside the canonical utility model are discussed. Section 6 concludes the paper.

2 Market description and choice patterns in the population

The implementation of the Health Insurance Act in 2006 significantly changed the Dutch market for health insurance. After decades of price and capacity control by government, the Dutch healthcare system shifted from supply-side regulation to managed competition (Van de Ven and Schut 2008). The aim of this shift was to make healthcare more cost efficient and improve quality. However, to guarantee that every Dutch citizen has equal access to essential good quality care, the government introduced specific limitations to market functioning. As a result, the Dutch healthcare system has both public and private aspects (Okma 2009).

Since 2006, residents in the Netherlands have been obliged to purchase a specific health insurance plan, the basic health insurance policy, from a private insurance company. Each year, the exact composition of this basic package is determined by the government. Generally, it includes care provided in hospitals or by general practitioners and specialists, prescription drugs, maternity care, obstetrics, technical aids and dental care for children (Van Kleef et al. 2008). Though insurers are free to offer preferred provider policies, the large majority of insurers cover all healthcare suppliers. As a consequence, the basic health insurance plan is fairly close to being a homogeneous product.

To curtail redundant healthcare consumption arising from moral hazard, the Dutch government initially arranged for both a no-claim refund and a voluntary deductible. The no-claim refund was applicable to adult residents in 2007. If total personal claims were between €0 and € 255, the individual would get the no-claim refund minus the actual claims.[2] On top of this, residents could choose a deductible from six alternatives, ranging from €0 till €500 in stages of €100. Choosing higher levels of deductibility leads to more financial risk, for which consumers are compensated via premium rebates. In 2008, the no-claim refund was replaced by a mandatory deductible of €150. The six voluntary deductible alternatives remained the same.

[2] This applies to all medical benefits in the basic package except for care provided by general practitioners, obstetrics and maternity care.

While insurers are free to set their premiums and premium rebates, price differentiation by risk type is strictly prohibited. Both premiums and premium rebates are community-rated, i.e. all policyholders of insurer *x* pay the same premiums and are offered the same deductible-rebate packages. Hence, premiums and premium rebates are independent of health status and risk. Note that health insurers are obliged to accept all Dutch residents since they are all eligible applicants that are in fact obliged to buy basic health insurance. To compensate health insurers for unhealthy and therefore costly pools of policyholders, a Risk Equalization Fund (REF) was set up.[3] On average, this fund finances 50% of total healthcare expenditures through income-related contributions. Using information on residents' age, gender, region, source of income, pharmacy-based cost groups and diagnostic-based cost groups, an insurer receives equalization payments from this fund (Van Kleef et al. 2008). For instance, an insurer with an above average fraction of elderly people in its portfolio is compensated accordingly. About 45% of total health care costs are financed through insurance premiums. Note that children up to the age of 18 are exempted from paying premiums and do not have a deductible, neither mandatory nor voluntary. Medical care of children is financed by the Dutch government and constitutes about 5% of total health care costs.

Table 1 gives information on the deductible rebate menus offered in 2008. We consider the weighted mean rebate data most informative, given that these are adjusted for the number of policyholders that were actually offered these deductible rebate alternatives by their respective health insurers. On average, policyholders could reduce their annual premiums with €211 by opting for a voluntary deductible of €500. The total deductible, i.e. mandatory plus voluntary, in that case would be €650 (€150 plus €500). The 10th and 90th percentile of the rebates offered show that rebates differ between health insurers. Since risk selection by insurers is strictly prohibited, it is unlikely that heterogeneity of rebates influences the results. It is not impossible though. Therefore, in the empirical analysis, we will also explore the effect of rebate differences between insurers. The last column of Table 1 shows

[3] Switzerland has a similar health insurance system, including voluntary deductibles with community-rated premiums and a risk equalization scheme. Van Kleef et al. (2008) provide a detailed discussion of the Dutch and the Swiss basic health insurance schemes.

that in 2008 only 5% of Dutch adults aged 20 and over held a voluntary deductible of €100 or more. In 2007 this percentage was even lower (4%).

Table 1 Deductible-rebate menus offered and deductible choices made

Voluntary deductible (€)	Offered community-rated rebates (€)			Population distribution (adults)	
	Weighted mean*	10th percentile	90th percentile	Number (thousands)	Percentage
0	-	-	-	11,386	94.9
100	47	30	50	182	1.5
200	90	71	104	102	0.9
300	132	100	150	59	0.5
400	172	139	203	17	0.1
500	211	180	250	253	2.1
Total				*12,000*	*100*

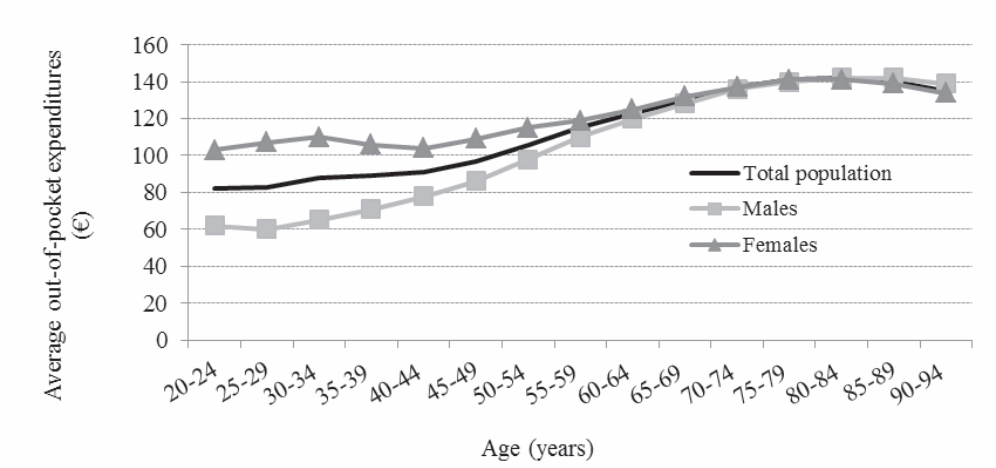
Notes: Deductible-rebate menus offered are from the Dutch healthcare authority. The distribution of voluntary deductible choice is from Vektis, the healthcare information centre established by Dutch health insurers. *Rebates are weighted by the number of policyholders of the relevant health insurer.

Figure 1 presents average out-of-pocket expenditures in 2008, for different age categories and by gender.[4] These data are from Vektis, the healthcare information centre established by Dutch health insurers. The plotted average out-of-pocket expenditures are for the entire Dutch population and thus include individuals with both zero and nonzero voluntary deductibles. However, as the lion's share of Dutch adults chose a voluntary deductible of €0 in 2008, and thus had a total deductible of €150, average out-of-pocket expenditures are fairly low (below €150). The figure shows that for both males and females, out-of-pocket payments increase with age. Moreover, males generally have lower expenditures than females, yet this gender difference decreases with age. Young women have significantly higher health expenditures than young men, primarily because of pregnancy costs. While visits to general practitioners (GP), obstetrics and maternity care are not subject to out-of-pocket payments, other pregnancy-related healthcare costs are. Up to the deductible amount, pregnant women themselves must pay for laboratory research, medicines and ambulance transport to hospital. Another

[4] It should be noted that out-of-pocket expense data may underestimate actual expenditures since people may decide to pay themselves, for example for medications, without notifying their health insurer. This underestimation of out-of-pocket expenditures is not likely to be substantial, since many healthcare suppliers send their bills directly to health insurers. Moreover, people have an incentive to claim, since it reduces that year's remaining amount of potential out-of-pocket expenditures. Note that we also have 2007 data on out-of-pocket expenditures, and the relationships with age and gender are qualitatively the same.

factor that influences out-of-pocket payments by young women is the contraceptive pill, which was subject to out-of-pocket expenses in 2008 (not in 2007).

Figure 1 Average out-of-pocket basic health expenditures Dutch population in 2008



Notes: Out-of-pocket expense data are from Vektis, the healthcare information centre established by Dutch health insurers. Averages are calculated for all residents, including all possible voluntary deductible levels. 95% of the adult population has a voluntary deductible of €0, however.

Based on the average expenditure patterns in Figure 1, one would expect that young people in general and young males in particular are more inclined to choose a nonzero voluntary deductible. Table 2 shows that this is indeed the case, though the differences are relatively small.

To assess the attractiveness of choosing a nonzero deductible in expected value terms, average out-of-pocket expenditures are of little use. Fortunately we do not only have averages of the out-of-pocket expenditure distributions but also deciles, which can be used to this end. Table A1 in the Appendix gives the out-of-pocket expenditure data we use in this counterfactual exercise. These data describe the expenditure patterns of Dutch adults with a €0 voluntary deducible, i.e. 95% of the adult population.

Table 2 Voluntary deductible choice distribution in 2008, by gender and age

Gender	Age (years)	Percentage with voluntary deductible €0	Percentage with voluntary deductible > €0
male	20-29	92	8
male	30-39	91	9
male	40-49	92	8
male	50-59	93	7
male	60-69	96	4
male	70-79	99	1
male	80-89	99	1
female	20-29	95	5
female	30-39	95	5
female	40-49	95	5
female	50-59	96	4
female	60-69	98	2
female	70-79	99	1
female	80-89	99	1

Notes: data are from Vektis, the healthcare information centre established by Dutch health insurers.

In this paragraph we explain how deciles of the out-of-pocket expenditure distributions can be used to determine an upper bound of the expected additional costs of increasing the voluntary deductible from €0 to €500. Note that we speak of *additional* expenditures, since these expenditures come on top of the out-of-pocket expenses under the mandatory deductible of €150. Define decile number x as the lowest decile of a certain age-gender expenditure distribution for which actual out-of-pocket expenditures equal the total deductible of €150. For individuals in this age-gender group, an upper bound of the expected additional costs from choosing the maximum deductible is then €500*(1.1-0.1x). This method leads to an upper bound of expected out-of-pocket expenditures for two reasons. First, it assumes that the (10-x)*10% of the age-gender group that had out-of-pocket expenses equal to the actual deductible of €150 would have had the maximum out-of-pocket expenses of €650 with a voluntary deductible of €500. Second, it assumes that the mass of the expenditures distribution between deciles x-1 and x is concentrated infinitely close to decile x. While there is no reason to believe that these assumptions strictly hold, making these assumptions enables us to identify groups in the Dutch population for which a voluntary deductible of €500 would be attractive in expected value terms, even if the expected additional expenditures are overestimated.

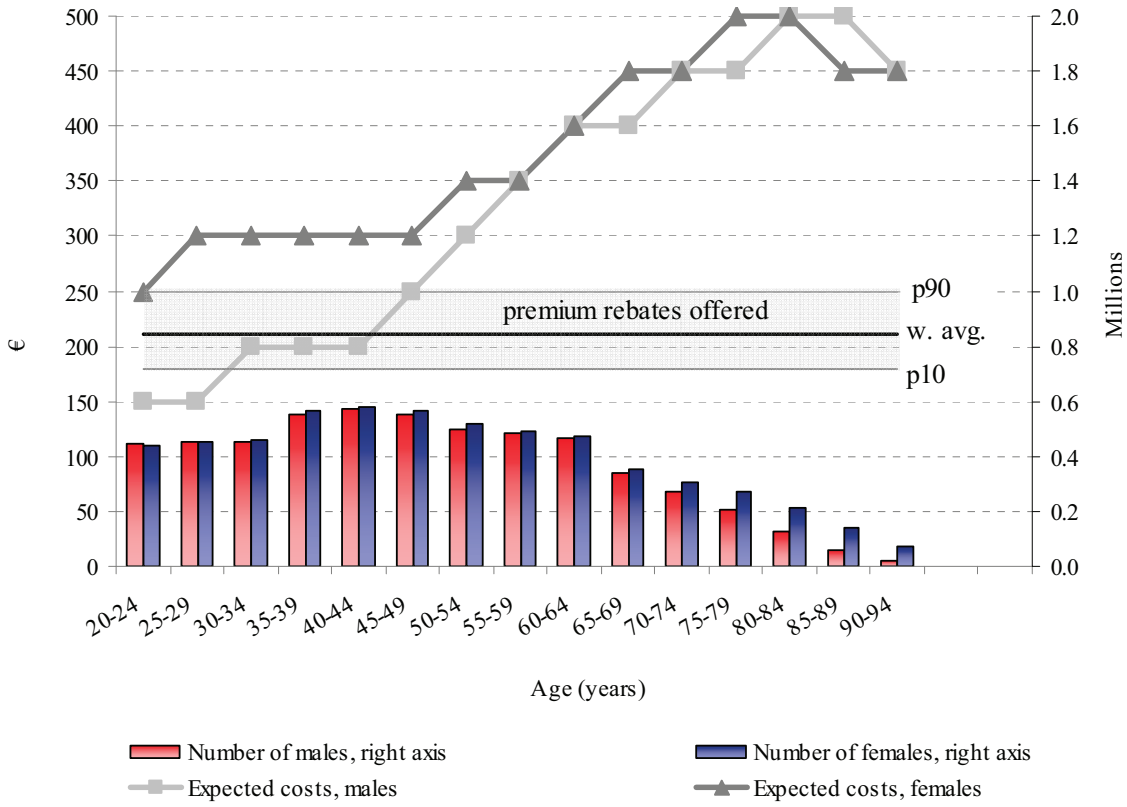
An example may further clarify our procedure. For males aged 40-44 years with an actual voluntary deductible of €0, the 7th decile is the lowest decile for which out-of-pocket expenses are €150 (see

Table A1 in the Appendix). Consequently, we know that at least 60% of the males in this age group had actual out-of-pocket expenditures that were lower than the mandatory deductible of €150. An upper bound of the expected additional expenditures from choosing a voluntary deductible of €500 is then €200 for this population group. The expected additional costs are lower than the average premium rebate of €211 (see Table 1), making a voluntary deductible attractive with risk neutral preferences.

Using the procedure described above, we have calculated upper bounds of the expected additional expenditures from increasing the voluntary deductible from €0 to €500 for different age-gender groups. Figure 2 presents the results. For comparison reasons, we have also included in Figure 2 information on the range of premium rebates that were offered for a voluntary deductible of €500 as well as the population distribution of males and females over these age cohorts.

From Figure 2 we infer that for the majority of the population, premium rebates were probably too low to make a voluntary deductible of €500 attractive with standard preferences. Hence, a potential explanation for the low appetite for nonzero voluntary deductibles in Dutch basic health insurance is the level of the premium rebates. That being so, a €500 deductible does seem attractive for relatively young men (aged 44 and under). Their expected additional costs from raising their voluntary deductible with €500 are certainly lower (since we calculated upper bounds) than the average premium rebate of €211. In practice, however, only 8% of the 2.7 million men aged 20-44 years chose a voluntary deductible higher than €0 in 2008 (2007 figures are similar). Note that for male adults of 29 years and younger, the calculated upper bound of expected additional expenditures is even lower (€150), which makes a voluntary deductible of €500 even more attractive. Still just 8% of the nearly 1 million men aged 20-29 years held a nonzero voluntary deductible (see Table 2). Hence, the population data on out-of-pocket expenditures indicate that risk aversion holds young men back to choose a nonzero voluntary deductible.

Figure 2 Expected additional expenditures from increasing the voluntary deductible from €0 to €500, premium rebates offered and population distribution



Note: Out-of-pocket expenditure data are from Vektis, the healthcare information centre established by Dutch health insurers. Data on premium rebates offered are from the Dutch healthcare authority (see also Table 1). Upper bounds of the expected additional expenditures are calculated as described in the text.

3 Empirical approach

Modeling deductible choice in an empirical setting can be quite challenging. It requires a detailed understanding of the risks that are insured, the features of the contracts traded and the exact distribution of information between buyers and sellers (Chiappori and Salanié 2008). If insurers have information on their (would-be) policyholders and they are allowed to use this information in their pricing, the estimation methodology should correct for that. While early studies such as Dahlby (1983, 1992) and Puelz and Snow (1994) did not have full access to insurers' information, recent works such as Cohen (2005) and Saito (2006) are based on all data from the relevant insurance company.

Thanks to the institutional features of universal health insurance in the Netherlands, our empirical approach can be relatively straightforward. As health insurers are obliged to accept every eligible applicant at community-rated premiums, asymmetric information is effectively guaranteed. When information is asymmetrically distributed between insurers and policyholders, risk type is an important potential driver of deductible choice. Indeed, with community-rated premium rebates, both theory and available empirical evidence predict adverse selection, which means that high risk individuals choose a low deductible, and vice versa (literature reviews are provided by Cutler and Zeckhauser 2000; and Cohen and Siegelmann 2010).[5]

While risk selection on the demand side is an important topic in itself, our primary interest is in the importance of risk preferences in deductible choice behavior. Although expected utility theory predicts risk neutrality over modest stakes, actual choice behavior suggests differently. As we have shown in Section 2, few individuals choose a high voluntary deductible, even if it is profitable in expected value terms for certain (large) groups of people, in particular young men. To investigate the importance of risk preference in modest scale risk taking, we estimate the following model of deductible choice:

$$D_{i,t}^{\oplus} = f(Risk_{i,t\text{-}1},\ Risk\ preference_{i,t\text{-}1}, X_{i,t\text{-}1}, \beta) + \varepsilon_{i,t}, \qquad (1)$$

where the dependent variable $D_{i,t}^{\oplus}$ is a latent variable measuring consumer i's desired level of deductibility for year t (t=2008). $D_{i,t}^{\oplus}$ is assumed to be a linear function $f(\cdot)$ of the variables in vectors $Risk_{i,t\text{-}1}$, $Risk\ preference_{i,t\text{-}1}$ and $X_{i,t\text{-}1}$, and the parameters in vector β. Since $D_{i,t}^{\oplus}$ is unobserved, we use actual voluntary deductible choice, $D_{i,t}$, instead. Equation (1) is estimated both as

[5] It is worth noting that adverse selection, or a positive correlation between insurance coverage and risk, is not an empirical regularity across insurance markets. Cohen and Siegelmann (2010) review the empirical literature on adverse selection in insurance markets and conclude that "a risk-coverage correlation appears to be a feature of some insurance markets […] but not of others".

a probit model, where the dependent is 1 for individuals with a nonzero voluntary deductible, and as an ordered probit model, where the dependent can take one of the six voluntary deductible values. Disturbance term $\varepsilon_{i,t}$ is (thus) assumed to follow a normal distribution.

We will now describe the explanatory variables in Equation (1), which are all lagged one year as deductibles are chosen ex-ante. $Risk_{i,t\text{-}1}$ is a vector of risk variables, two of which are age and gender. In Section 2 we have shown that there are distinct expenditure differences between males and females, and that out-of-pocket expenditures by and large increase with age. As the gender expenditure difference is most pronounced at young ages, a dummy for young men (which is 1 for men aged 44 and under, and 0 otherwise) is also included. As a group, young men have the lowest out-of-pocket expenditures and are therefore expected to be more inclined to choose a nonzero voluntary deductible. Note that gender is also a potential explanatory variable for heterogeneity in risk tolerance levels. Indeed, Barsky et al. (1997) and Hartog, Ferrer-i-Carbonell, and Jonker (2002) find that women are significantly more risk averse than men. Although we control for differences in risk aversion in our regression analyses, it is possible that, to some extent, risk preferences are still picked up by the gender dummy.

Besides age and gender, we use self-assessed health status (SAHS) and number of GP visits as risk proxies. SAHS is a subjective risk measure and is generally regarded to be a good predictor of future health conditions (e.g. Gerdtham et al. 1997; Wagstaff and van Doorslaer 1994). Moreover, like all subjective measures, SAHS has the advantage of strictly reflecting information known to the consumer. Consequently, unknown aspects of one's health condition – which by definition cannot play a role in deductible choice – are rightly ignored. The question providing information on SAHS is formulated as follows: 'What is your health like in general?,' with five response categories ranging from 'excellent' to 'poor'. A potential drawback of SAHS is that survey respondents may implicitly assess their health relative to their age category (Buchmueller et al. 2009; Doiron, Jones and Savage 2008). To address this concern, we also have SAHS interact with age. GP visits are included as a risk

measure, although they are not subject to out-of-pocket payments. The rationale for including this variable is that a visit to the GP increases the probability of other healthcare use and thus out-of-pocket payments. For example, GPs give prescriptions for medications and refer patients to specialists, both leading to out-of-pocket expenses up to the deductible amount.

The second vector of explanatory variables in Equation (1), $Risk\ preference_{i,t\text{-}1}$, is that of risk preference variables. The first one is a direct measure of financial risk tolerance, that is, we use answers to the following statements: 'I am willing to run the risk of losing money if there is also a chance that I will make money.' Respondents can answer this question on a seven point scale, where one means 'completely disagree' and seven means 'completely agree.' This measure of financial risk tolerance is quite fitting, as higher levels of deductibility only involve more financial risk. Another potentially relevant risk preference variable is wealth. Either with decreasing absolute risk aversion (DARA) preferences or with constant relative risk aversion (CRRA) preferences, the willingness to take risk increases with lifetime wealth. While wealth would be irrelevant under constant absolute risk aversion (CARA) preferences, there is increasing evidence suggesting that absolute risk aversion decreases with wealth. (e.g., Guiso and Paiella 2008). Lifetime wealth can be seen as the sum of accumulated wealth and human capital. We use accumulated financial wealth and annual income – the latter as a measure of human capital – as proxies of lifetime wealth.

In addition to our proxies of financial risk tolerance and lifetime wealth, we use four indicators of risky behavior. These behavioral variables relate to the smoking and drinking behavior of respondents, their job risk and their holdings of risky financial assets. Smoking and drinking have frequently been used as indicators of risky behavior (e.g. Barsky et al. 1997; Cutler, Finkelstein and McGarry 2008; Doiron et al. 2008). Dummy variable smoking is one for daily smokers; dummy variable drinking is one for individuals with daily alcoholic consumptions in excess of four. One could argue that smokers and drinkers have higher out-of-pocket expenses, and that, therefore, these dummy variables are also relevant risk proxies. Although we are unaware of any formal evidence of this, we believe that such measurement bias in these risk preference proxies, if any, would lead to an

underestimation of the effect of risk preferences on deductible choice. Job risk is measured by a self-employment dummy variable. Self-employed individuals typically have a riskier income stream than employees (e.g. Friedman 1957; Carroll 1994). Our last risk preference variable measures the ownership of risky financial assets by the portfolio share of stocks (cf. Guiso and Paiella 2006, 2008).

The final vector of explanatory variables in Equation (1) is $X_{i,t\text{-}1}$, which controls heterogeneity in, for instance, education and number of children. These and other variables are described in the next section.

4 Survey data

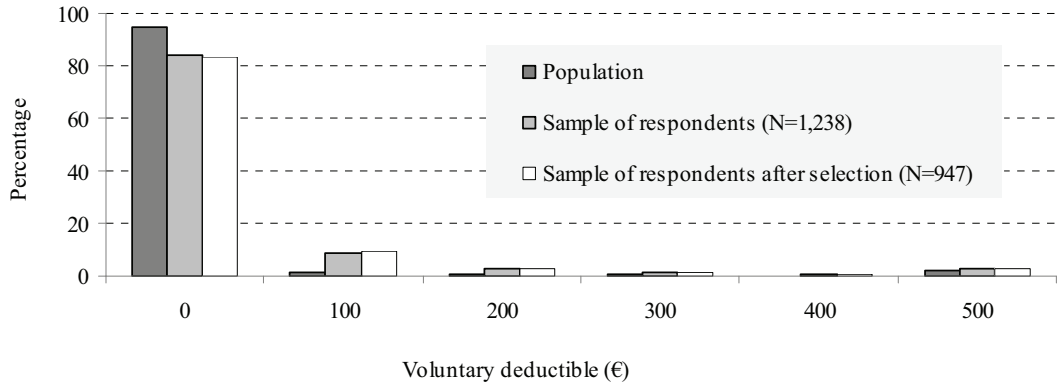
We use individual level data on CentERpanel members that have been collected through internet surveys of CentERdata.[6] The CentERpanel was established in 1991 and consists of over 2,000 households.[7] The panel is an appropriate representation of the Dutch-speaking population in the Netherlands and has been used before by Van Rooij et al. (2007). The questionnaires are answered at home, so participants do not feel rushed to give an answer and are fully anonymous when answering the questions. Chiang and Krosnick (2010) argue that when compared to telephone interviewing, internet surveys exhibit higher validity and less social desirability response bias. Participants do not receive payment for their participation.

Our survey on deductible choice in basic health insurance was sent to 1,826 panel members that have indicated to be the principal financial decision maker of their respective households. We asked them to specify their basic health insurer (from a list of 30 companies) in 2008, as well as their voluntary deductible in that year. The survey was taken in October 2008 and the response rate was 68% (1,238 individuals). Figure 3 presents the sample distribution of voluntary deductible choice. For comparison reasons, we have also included the population distribution. The sample fraction of people choosing

[6] CentERdata forms part of the CentER Group at Tilburg University. See also http://www.uvt.nl/centerdata/en.
[7] The RAND American Life Panel is modelled after the CentERpanel in the Netherlands.

the lowest voluntary deductible is high (84%), yet lower than in the population (95%). This difference in choice patterns between the sample and the population is significant at the 99% confidence level. Since our sample consists of financial decision makers, who by definition have greater interest in financial issues such as deductible choice in health insurance, a higher fraction of nonzero voluntary deductibles seems logical. Note that non-response is another potential explanation for the differences between the sample and population distribution of deductible choice.[8] We go further into the issue of non-response below.

Figure 3 Distribution of voluntary deductible choice in 2008



The individual level deductible choice data from our October 2008 survey were merged with existing DNB Household Survey (DHS) data, covering the same individuals. The DHS data include the discussed risk and risk preference proxies, as well as several other personal characteristics that are used as explanatory variables in the estimations. These other characteristics include number of children, whether the respondent has a partner (yes=1), living area (major urban=1) and highest education (1-6 scale, 6=university). After dropping observations with missing values for one or more of the explanatory variables, our dataset consists of 947 observations for 2008. Though selection leads to a reduction in the sample size of 291 observations (24%), Figure 3 shows that the sample distribution of deductible choice is not markedly affected.

[8] Non-response cannot fully explain the differences. If all non-respondents would in fact have the lowest voluntary deductible (€0), the sample share of zero voluntary deductibles would have been 88%, which is still lower than the population share of 95%.

Table 3 gives sample averages of the explanatory variables, both for the group of respondents and for the total sample of 1,826 individuals (i.e. including non-respondents). Columns I, II, IV and V present sample averages after selection, i.e. dropping observations with missing values for one or more of the explanatory variables. Columns VI and VII provide sample average before selection. As a result of missing values, sample averages for several important regressors are not shown in Columns VI and VII. Focusing first on the averages after selection, we observe significant differences between those who chose a voluntary deductible larger than €0 (Column II) and those that did not (Column I). Consumers with a nonzero voluntary deductible are younger (though not significantly so), are more likely to be (young) males, bring fewer visits to the GP and typically regard themselves healthier than those with the lowest voluntary deductible. Hence, adverse selection appears relevant. The insignificance of the age difference is somewhat odd though, since out-of-pocket health expenses clearly increase over the years. Consumers with above average deductibles are significantly more risk tolerant: not only towards financial risk but also towards health risk and job risk. Among those with a voluntary deductible, the proportion of daily smokers and self-employed is significantly higher. However, the proportion of daily drinkers does not vary by deductible choice, nor does the portfolio share of stocks. Wealth and income appear quite important to deductible choice, even though the size of the deductibles is very small compared to the size of these variables.

Columns IV and V of Table 3 show the sample means (after selection) of respondents and surveyed panelists (including non-respondents), respectively. Since there is not much divergence between the two groups, it seems that non-response bias does not appear to be a problem here. Importantly, the level of education of respondents is not significantly different from that of non-respondents. Accordingly, cognitive ability does not seem to drive the willingness to respond. Columns VI and VII indicate for the full sample, thus before selection, that respondents are significantly older than non-respondents. In line with this, the share of young men is significantly lower among respondents. Since we account for age in the regression analysis, an age difference between respondents and non-

respondents does not introduce nonresponse bias by itself.[9] Note finally that the fraction of males among our panelists (before selection, Column VII) is considerably higher than in the population (69% versus 49%). Apparently, males take household financial decisions more often than females do.

Table 3 Sample means for different samples, before and after selection, 2008

	I	II	III	IV	V	VI	VII
	After selection					Before selection	
	Respondents				All	Respondents	All
	Voluntary deductible						
Variable	€0	> €0	t-test	All			
Age (years)	54.53	52.46		54.19	53.08	53.09	50.76
Gender (1=male)	0.70	0.83	**	0.72	0.70	0.70	0.69
Young men (1=male & age<45 yrs)	0.16	0.24	*	0.17	0.19	0.18	0.24
Health status (1-5, 5=poor)	2.17	2.07	*	2.16	2.17		
GP visits (number)	2.24	1.63	**	2.14	2.11		
Risk tolerance (1-7, 7= v. tolerant)	2.40	3.18	**	2.53	2.54		
Smoking (1=smoker)	0.16	0.25	**	0.16	0.18		
Drinking (1=drinker)	0.07	0.07		0.07	0.07		
Self-employed (1=yes)	0.07	0.13	**	0.05	0.08		
Portfolio share of stocks	0.03	0.04		0.03	0.02		
Financial assets (€10,000)	3.68	6.20	**	4.09	3.76		
Annual income (€10,000)	3.43	4.18	**	3.55	3.48	3.49	3.44
Partner (1=yes)	0.73	0.70		0.72	0.70	0.72	0.72
Children (number)	0.60	0.49		0.58	0.63	0.66	0.75
Region (1=major urban)	0.16	0.23	*	0.17	0.17		
Education (1-6, 6=university)	3.82	4.06	*	3.86	3.87	3.86	3.89
Number of observations	*792*	*155*		*947*	*1,190*	*1,238*	*1,826*

Notes: Column III summarizes the two-sided t-test results of a comparison of the sample means of respondents with a voluntary deductible of €0 (shown in Column I) and individuals with a voluntary deductible higher than €0 (shown in Column II). ** and * indicate that the null of equal sample means is rejected at the 99% and 95% confidence level, respectively.

5 Results and discussion

We estimate both probit and ordered probit specifications of Equation (1). The results are presented in Table 4. The first four columns show the probit results; the last four columns give the ordered probit results. As there are only minor differences between the probit and ordered probit results, for example in terms of statistical significance, we discuss them jointly.

[9] We have verified that selection does not bias our results by estimating a Heckman selection model, with variables age, partner, number of children and education explaining the willingness to respond to the survey. These estimation results are available from the authors upon request.

Starting with the risk variables, we find that these variables mostly have the expected signs, yet are not statistically significant or only marginally significant. In the probit specifications only gender seems a relevant risk driver. The null hypothesis that all risk proxies are irrelevant to deductible choice cannot be rejected at conventional confidence levels for the probit specifications.[10] In the ordered probit estimations, the number of GP visits is also statistically significant. Columns III and VII show that the young men dummy is insignificant in both the probit and the order probit specification. This result is hard to reconcile with expected utility theory, since the expected out-of-pocket expenditures of young men are clearly below average. It is, however, consistent with the population data described in Section 2. In the population, the percentage of young men with a nonzero voluntary deductible is just slightly higher than the corresponding fraction in the overall population (8% versus 5%).

Turning to the risk preference variables, we observe that on the whole these variables have the expected sign (positive) and are highly significant. The null hypothesis that all risk preference proxies are statistically irrelevant to deductible choice is clearly rejected for all specifications.[11] Financial risk tolerance and wealth are both significant at the 1% level. Interestingly, job risk and smoking behavior are also found to be significant determinants of deductible choice, even though self-employed individuals face greater background risk and despite increasing public awareness of the negative health effects and associated costs of smoking. The importance of our risk preference proxies in the regression results is especially noteworthy since these proxies have also been found to be relevant in decision making when the stakes are much larger (e.g., Barsky et al. 1997; Guiso and Paiella 2008). We will return to this point below. Note that in all specifications the background variables are insignificant and thus appear unimportant to deductible choice.

[10] A Wald test that the coefficients of the risk type proxies are all zero cannot be rejected at the 10% level.
[11] The null that the coefficients of the risk preference proxies are zero is rejected at the 1% level for all four specifications.

Table 4 Deductible choice regressions, probit and ordered probit results

	I	II	III	IV	V	VI	VII	VIII
	Probit				Ordered probit			
	Coeff.	s.e.	Coeff.	s.e.	Coeff.	s.e.	Coeff.	s.e.
Risk								
Age	-0.00	(0.00)			-0.01	(0.00)		
Gender	0.27 *	(0.14)			0.26 *	(0.14)		
Young men (<45 years)			0.19	(0.14)			0.16	(0.14)
Self-assessed health status (SAHS)	-0.03	(0.09)	-0.00	(0.08)	-0.05	(0.08)	-0.03	(0.08)
SAHS*Age[a]	0.01	(0.01)			0.01	(0.01)		
GP visits	-0.03	(0.03)	-0.04	(0.03)	-0.05 *	(0.03)	-0.06 **	(0.03)
Risk preferences								
Financial risk tolerance	0.14 ***	(0.03)	0.14 ***	(0.03)	0.14 ***	(0.03)	0.15 ***	(0.03)
Financial assets + annual income	0.08 ***	(0.03)	0.09 ***	(0.02)	0.07 ***	(0.02)	0.08 ***	(0.02)
Smoking	0.31 **	(0.13)	0.31 **	(0.13)	0.26 **	(0.13)	0.27 **	(0.13)
Drinking	-0.18	(0.20)	-0.16	(0.20)	-0.19	(0.20)	-0.18	(0.19)
Job Risk	0.30 *	(0.17)	0.32 *	(0.17)	0.39 **	(0.16)	0.40 **	(0.16)
Portfolio share of stocks	-0.35	(0.44)	-0.40	(0.44)	-0.35	(0.42)	-0.41	(0.41)
Background								
Partner	-0.17	(0.13)	-0.10	(0.13)	-0.19	(0.12)	-0.14	(0.12)
Number of children	-0.04	(0.06)	-0.03	(0.06)	-0.06	(0.06)	-0.05	(0.05)
Major urban	0.19	(0.13)	0.20	(0.13)	0.15	(0.13)	0.17	(0.13)
Education	-0.01	(0.04)	-0.01	(0.04)	-0.01	(0.04)	-0.01	(0.04)
Constant	-1.48	(0.35)	-1.65	(0.28)				
Log likelihood	-387		-389		-567		-570	
No. Obs	947		947		947		947	
Pseudo-R^2	0.08		0.08		0.07		0.06	

[a] For ease of interpretation, both variables in this interaction term deviate from their sample means.

Notes: In the probit specifications, the dependent is 1 for individuals with a voluntary deductible higher than €0, and 0 otherwise. In the ordered probit specifications the dependent is voluntary deductible choice, which ranges from to €0 to €500. Estimated cut points of the ordered probit specification are not shown. Standard errors are in parentheses. ***, ** and * indicate significantly different from zero at the 99%, 95% and 90% confidence level, respectively.

To gauge the economic importance of risk preferences and risk type in decision making about deductibles, Table 5 gives predicted probabilities for the average individual, for relative low risk individuals, and for relatively risk tolerant individuals. These predicted probabilities are based on the estimation results shown in Columns I and V in Table 4. The average individual and the low risk type (risk tolerant type) differ only with respect to the stated risk type proxies (risk tolerance proxies). Compared to the average individual, a young man of 30 years old has – ceteris paribus - a slightly higher probability of choosing a nonzero voluntary deductible (18.3% versus 14.5%). The probability that a self-employed, smoking individual chooses a nonzero voluntary deductible is estimated at about 30%, which is more than twice that of the average adult. This probability increases further with

financial risk tolerance and wealth, to above 50%. Hence risk preferences have a significantly greater impact on deductible choice than risk type, both statistically and quantitatively.

Table 5 Predicted probabilities using the probit and ordered probit regressions

	probit	ordered probit				
	$D>$ €0	$D=$ €100	$D=$ €200	$D=$ €300	$D=$ €400	$D=$ €500
Average individual (all covariates at mean values)	14.5%	9.1%	2.3%	1.1%	0.0%	1.7%
Below average risk						
Young man, 30 years	18.3%	11.5%	3.1%	1.5%	0.5%	2.8%
with self-assessed health status very good (10th percentile)	19.2%	11.9%	3.3%	1.6%	0.5%	3.0%
with SAHS very good and zero GP visits (10th percentiles)	21.3%	13.3%	3.8%	1.9%	0.6%	3.8%
Above average risk tolerance						
Smoking, self-employed individual	29.9%	16.2%	5.1%	2.7%	0.9%	6.1%
with high financial risk tolerance (90th percentile)	42.3%	19.8%	7.2%	4.1%	1.5%	11.4%
with high wealth and risk tolerance (90th percentiles)	50.6%	21.1%	8.3%	5.0%	1.8%	15.8%

Note: The probabilities are predicted using the probit and ordered probit regression results given in Columns I and V of Table 4, respectively. The predictions for the average individual (shown in row 1) deviate from the sample proportions in each deductible choice category because (ordered) probit models are nonlinear.

Since premium rebates differ between health insurers, we use information on the rebates offered by the different health insurers to verify the robustness of our findings. Specifically, we construct a dummy variable which is 1 if the rebate offered for a voluntary deductible of €500 is higher than the expected costs, and 0 otherwise. The expected costs of a voluntary deductible of €500 are as shown in Figure 2. As not all panelists specified their basic health insurer, we lose 136 observations. Table 6 shows the results of this robustness exercise. For brevity's sake, only the estimated coefficients for the risk and risk preference variables are shown. The newly constructed dummy has the right sign, yet is statistically insignificant. The risk preference variables keep their significance and thus this robustness exercise further underpins our results.

The above findings contrast with the standard expected utility of wealth model in two respects. First, we find, at the most, modest evidence of adverse selection, while in the classical model, risk type is the only eligible driver of deductible choice. Exemplarily, in this respect, is the deductible choice behavior of young men. From the population data we know that for the average young man it is clearly beneficial in expected value terms to choose a high voluntary deductible. In practice, however, very few young men choose to do so, both in the population and in our sample. Indeed, we find that

statistically, young men do not have a significantly higher probability of choosing a nonzero voluntary deductible than average. Our regression analyses suggest that this is caused by risk preference, or more specifically, risk aversion. This brings us to our second contrasting finding, namely that risk preferences are a key determinant of deductible choice. This finding contrasts with the classical theory's prediction of local risk neutrality.

Table 6 Deductible choice regressions, probit and ordered probit results, robustness exercise

	Probit		Ordered probit	
	Coeff.	s.e.	Coeff.	s.e.
Risk				
Rebate > expected costs	0.07	(0.20)	0.18	(0.19)
Self-assessed health status (SAHS)	-0.01	(0.09)	-0.03	(0.08)
GP visits	-0.04	(0.03)	-0.06 **	(0.03)
Risk preferences				
Financial risk tolerance	0.15 ***	(0.04)	0.15 ***	(0.03)
Financial assets + annual income	0.08 ***	(0.03)	0.08 ***	(0.02)
Smoking	0.33 **	(0.14)	0.30 **	(0.13)
Drinking	-0.17	(0.21)	-0.21	(0.21)
Job Risk	0.37 *	(0.19)	0.44 **	(0.18)
Portfolio share of stocks	-0.35	(0.44)	-0.35	(0.42)
Log likelihood	-328.59		-483.84	
No. Obs	811		811	
Pseudo-R^2	0.08		0.06	

Notes: see *Notes* to Table 4.

How then can we explain deductible choice behavior in the current context? Sydnor (2010) provides a number of potential explanations of why people tend to over-insure modest risks. Among them are risk misperception, consumption commitments and reference-dependent preferences.[12] Risk misperception may (partly) explain why people in general and young men in particular are reluctant to

[12] Sydnor (2010) discusses three other potential explanations of deductible choice behavior: borrowing constraints, role of sales agents and menu effects. With respect to borrowing constraints, Sydnor argues that it is not completely obvious how borrowing constraints would affect deductible choice. Indeed, extreme liquidity constraints may give an incentive to choose a high deductible, namely to save money up front, yet they may also give an incentive to choose a low deductible, as a liquidity-constrained individual would immediately run into trouble if an adverse scenario occurs. The remaining two explanations, role of sales agents and menu effects, do not seem very plausible in the current context. Most consumers (about 60%) contract their insurer via their employer, or another organization that negotiates certain collective benefits (ranging from sport clubs to internet groups), ruling out an influential role for sales agents. Menu effects would lead consumers to avoid extreme options, yet actual choice patterns show the opposite: Dutch adults typically choose the lowest voluntary deductible offered.

choose high deductibles. Indeed, anecdotal evidence suggests that, on the whole, people are not fully knowledgeable about which healthcare services are subject to out-of-pocket expenses, and which are not. What further complicates decision making is that it is not reasonable to assume that out-of-pocket healthcare expenses are dichotomously distributed, i.e. individuals have either no costs or costs that exceed the deductible under consideration. The distribution of out-of-pocket expenses clearly shows this (see once more Table A1 in the Appendix). By contrast, in studies of home insurance policies (Sydnor 2010) and auto insurance contracts (Cohen and Einav 2007), this assumption is explicitly made and indeed seems reasonable. As this simplification is not feasible here, risk misperception is presumably greater. Though risk misperception is likely to be relatively important, it does not convincingly explain the predictive power of direct measures of risk preferences on deductible choice.

Chetty and Szeidl (2007) argue that even in the expected utility model, individuals can be significantly averse to moderate risks, namely when consumption commitments are taken into account. People tend to have consumption commitments, such as housing and durable goods, which are costly to adjust when adverse shocks occur. The authors show that these commitments raise the local curvature of the utility function, generating risk aversion to moderate risks. However, as Chetty and Szeidl's (2007) calibrations show, even with consumption commitments individuals are expected to be approximately risk neutral to stakes in the order of $500. Accordingly, the existence of consumption commitments cannot satisfactorily explain the low demand for voluntary deductibles in the Netherlands. Corrected for average premium rebates, stakes in 2008 typically ranged from €150 (mandatory deductible, approximately $200) to below €450 (approximately $600).

While classical expected utility of wealth models, either with or without consumption commitments, fail to fully rationalize risk aversion over small stakes, so-called reference-dependent utility models actually predict such preferences (Kőszegi and Rabin 2006, 2007). In reference-dependent models, which build from prospect theory (Kahneman and Tversky 1979, 1992), risky prospects are evaluated in isolation. Such decision-making has been labeled narrow framing, narrow bracketing, or myopia (Rabin and Thaler 2001). If small stake gambles are indeed evaluated in isolation and around a

specific reference point, decision-making is dominated by gain-loss utility instead of the classical notion of outcome-based utility. The reference point is typically the status quo, which is being insured and having a €0 voluntary deductible in the current context, given the mandatory nature of basic health insurance and the low demand for nonzero voluntary deductibles. With this reference point, the payment of health insurance premium is planned and therefore not evaluated as a loss. Out-of-pocket expenses are, however, evaluated as losses. This brings us to a final important ingredient of reference-dependent utility models: loss aversion, i.e. agents are more sensitive to losses than they are to equivalent gains (e.g. Diecidue and Wakker 2001). In such a set-up, people are expected to be significantly risk averse over modest stakes.

An appealing aspect of the Kőszegi and Rabin (2007) model is that it simultaneously allows for risk aversion over small and large stakes. This is because a person's utility is assumed to be the sum of outcome-based utility and gain-loss utility. Indeed, with wealth level w and reference wealth level r, a person's reference-dependent utility $u(w|r)$ equals

$$u(w \mid r) = m(w) + \mu(m(w) - m(r)), \tag{2}$$

where $m(\cdot)$ is classical outcome-based utility, and $\mu(\cdot)$ represents gain-loss utility. Since outcome-based utility is approximately linear over small stakes, gain-loss utility dominates decision-making in the small. Over material stakes, however, decision-making is determined by the outcome-based part of a person's utility. Consequently, over large stakes risk aversion is driven by the traditional mechanism of diminishing marginal utility of wealth, while over small stakes risk aversion is the result of loss aversion.

Combining our results with existing empirical results, it appears that risk attitudes over small and large stakes are closely related, or manifestations of the same preferences in different domains. This is because the risk preference proxies we use to explain deductible choice have been found, by others, to

be relevant determinants of choice behavior over much larger stakes. For example, Guiso and Paiella (2006) find that lifetime wealth (i.e. the sum of financial wealth and income) and job risk are positively related to risk tolerance over stakes in the order of €5000 (approximately a factor 10 of the stakes in deductible choice). Bertaut (1998) and Alessie, Hochguertal, and Van Soest (2004) show that equity ownership increases with wealth. Cutler, Finkelstein, and McGarry (2008) find that smokers are less likely to buy acute health insurance, leaving them more exposed to substantial financial risk. Hence, it seems that individuals that are more risk tolerant to large stakes are also more risk tolerant to small stakes, and vice versa. Establishing the importance of the relationship between risk taking in the small and in the large is an interesting topic for future research.

6 Conclusion

We use population and survey data on deductible choice in Dutch universal health insurance to analyze risk preferences over small stakes. The unique institutional characteristics of this insurance market enable us to investigate small stakes risk taking in a real life setting. Health insurers in the Netherlands are obliged to accept *all* residents at community-rated premiums, and Dutch residents are obliged to buy the basic health insurance policy. Consequently, risk selection by health insurers is impossible and consumer choice is restricted to choosing a health insurer and a deductible-rebate package with that insurer.

According to standard expected utility theory, people are approximately risk neutral over small stakes. In this paper we provide new field evidence that contrasts with this implication of the classical model of choice under uncertainty. Corrected for risk type, we find that more risk tolerant individuals are significantly more likely to opt for a nonzero voluntary deductible, and vice versa. Our results also indicate that a significant part of the population tends to over-insure. Exemplarily in this respect is the choice behavior of young men (under 44 years old). From the population data we know that for the average young man it is clearly beneficial in expected value terms to choose the highest voluntary

deductible (€500). In practice, however, very few choose to do so. Indeed, we find that young men do not have a significantly higher probability of choosing a nonzero voluntary deductible than men in general. The regression results strongly suggest that this is caused by risk aversion.

Risk aversion over small stakes can be rationalized by reference-dependent utility models, where narrow framing and loss aversion play a pivotal role. The results of this paper suggest that there is value in exploring such utility models further.

Appendix 1

Table A1. Out-of-pocket basic health expenditures with voluntary deductible €0 in 2008

			Out-of-pocket expenditures (€)										
Age (years)	Gender	# of people	Avg.	p10	p20	p30	p40	p50	p60	p70	p80	p90	p100
20-24	male	443,892	62	0	0	0	9	21	61	146	150	150	150
25-29	male	448,516	61	0	0	0	8	19	57	145	150	150	150
30-34	male	448,767	65	0	0	0	11	29	79	150	150	150	150
35-39	male	549,672	70	0	0	0	19	43	108	150	150	150	150
40-44	male	569,307	77	0	0	9	23	64	149	150	150	150	150
45-49	male	549,289	85	0	0	15	41	108	150	150	150	150	150
50-54	male	499,984	96	0	0	29	93	150	150	150	150	150	150
55-59	male	482,804	108	0	19	81	150	150	150	150	150	150	150
60-64	male	462,043	118	0	52	150	150	150	150	150	150	150	150
65-69	male	337,467	127	18	131	150	150	150	150	150	150	150	150
70-74	male	269,236	135	67	150	150	150	150	150	150	150	150	150
75-79	male	204,183	139	145	150	150	150	150	150	150	150	150	150
80-84	male	127,210	141	150	150	150	150	150	150	150	150	150	150
85-89	male	61,991	140	150	150	150	150	150	150	150	150	150	150
90-94	male	20,288	138	123	150	150	150	150	150	150	150	150	150
20-24	female	441,833	102	14	36	57	88	148	150	150	150	150	150
25-29	female	453,296	106	12	38	63	109	150	150	150	150	150	150
30-34	female	461,038	108	9	38	69	135	150	150	150	150	150	150
35-39	female	565,176	104	0	30	60	113	150	150	150	150	150	150
40-44	female	575,383	103	0	26	56	110	150	150	150	150	150	150
45-49	female	564,953	107	0	29	70	143	150	150	150	150	150	150
50-54	female	519,402	113	0	38	106	150	150	150	150	150	150	150
55-59	female	493,903	118	0	54	147	150	150	150	150	150	150	150
60-64	female	473,590	123	12	94	150	150	150	150	150	150	150	150
65-69	female	355,351	131	34	150	150	150	150	150	150	150	150	150
70-74	female	308,546	137	94	150	150	150	150	150	150	150	150	150
75-79	female	272,499	140	150	150	150	150	150	150	150	150	150	150
80-84	female	215,405	141	150	150	150	150	150	150	150	150	150	150
85-89	female	139,512	138	147	150	150	150	150	150	150	150	150	150
90-94	female	71,071	133	35	150	150	150	150	150	150	150	150	150

Note: the data in this table are from Vektis. Column "Avg." shows the average expenditures; columns denoted "p10", "p20", etc. show the respective percentiles of the expenditure distributions. Total out-of-pocket expenditures of people with a €0 voluntary deductible are bound by the mandatory deductible of €150. Note that similar data are available for the other voluntary deductible categories (€100, €200, …, €500).

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