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What Awareness? Consumer Perception of Bank Risk and Deposit Insurance

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Abstract

This paper provides unique survey evidence on consumer awareness about deposit insurance and on consumer perception of the stability of small and systemic banks. It turns out that systemic banks are perceived as less risky compared to non-systemic banks and that respondents' own bank is considered safer than other banks. We also find that knowledge on the eligibility for deposit insurance is limited, in particular when it concerns small banks. In addition, consumers generally expect an associated payback time that well exceeds the time it has taken to pay back depositors in the past, expecting a higher as well as faster payback for large, systemic banks. This confirms that households' awareness of the coverage and operations of deposit insurance are suboptimal. We also find that awareness about and trust in the deposit insurance system has only a marginal effect on deposit behavior in "normal" and "crisis" times. Thus while the evidence suggests that there is ample scope to improve awareness about deposit insurance, it is far from sure that such policies will affect household behavior.

JEL-codes: D83, D84, G21, G28

Key words: Information, trust, banking, deposit insurance, subjective expectations

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1 Introduction

In 1960, the US was the only developed country with deposit insurance. Since then almost 100 countries have introduced deposit insurance and the coverage of these schemes has risen steadily during the last decades (Alessandri and Haldane, 2009). Deposit insurance aims to improve financial stability by preventing bank runs (Hoelscher et al., 2006). In particular, deposit insurance is meant to influence depositor behavior by insuring them against the risk of bankruptcy. Consumers will not run on a bank that faces bankruptcy if they are convinced they will get their deposits back quickly. In addition, the scheme enhances stability because insured consumers will be less inclined to reallocate their savings from a risky to a safe bank in case of market unrest.⁴

Theoretically, Diamond and Dybvig (1983) in their seminal paper argue that bank runs can be prevented when deposits are fully and credibly insured. This finding is replicated in laboratory experiments (Madies, 2006; and Schotter and Yorulmazer, 2009), although these papers disagree on the extent of coverage that is necessary to fully prevent bank runs. However, the existing empirical evidence on the effectiveness of deposit insurance shows that in practice deposit insurance schemes might not be as effective as theory and laboratory settings predict.

Several empirical macro studies have tried to identify the effect of the existence of a deposit insurance scheme on between country differences in the occurrence of banking crises. Demirgüç-Kunt and Detragiache (2002) and Demirgüç-Kunt and Kane (2002) argue that banking crises have taken place more often in countries with explicit insurance of deposits. Studies examining micro-evidence concerning bank runs are scarce. A notable exception is a paper by Iyer and Puri (2010) who use a unique minute-by-minute depositor withdrawal dataset from an Indian bank that faced a run following the bankruptcy of another bank. They show that clients with deposits below the deposit insurance limit are less likely to run than those with deposits above this limit. However, their data also suggests that the effect of deposit insurance on withdrawals is small. Almost 90% of the clients who run are actually fully insured, while even for fully insured customers a higher account balance increases the probability to run. Anecdotal evidence on several bank runs in developed countries such as the United Kingdom, the Netherlands and Belgium during the recent financial crisis also suggests that high deposit insurance coverage does not prevent bank runs from occurring.

⁴ A second goal is to protect the wealth of small deposit holders in case of a bank failure. For example, in the Netherlands 'The DGS aims to protect small deposit holders, and to secure trust in the financial system, such that a bank run can be prevented' (Ministry of Finance, 2009).

Also, theory suggests that deposit insurance may undermine market discipline by depositors. Fully insured deposit holders choose those banks that provide the highest interest rates and do not take the trade-off between risk and returns into account. As a consequence, if banks are not charged appropriate risk-dependent insurance premia they will increase the riskiness of their portfolio in order to attract deposits. See Freixas and Rochet (2008) for an overview of the theoretical literature on the effects of incorrectly priced deposit insurance. In contrast to this prediction, Peria and Schmukler (2001) show - using bank data from Argentina, Chile and Mexico - that deposit insurance does not seem to undermine market discipline. In fact, they find that depositors discipline banks by withdrawing deposits and by requiring higher interest rates.

The empirical findings on bank runs and market discipline, at least in emerging markets, are thus at odds with the theoretical predictions from the literature. In this paper we explore one possible explanation for these puzzling facts: perhaps deposit holders are either not fully aware of or do not fully trust deposit insurance schemes. Indeed, if consumers think the insurance fund will be slow to pay out insured deposits or if they suspect their insured deposits may not be fully repaid, they will still be inclined to switch to a safer bank in case of financial turmoil. Hence, deposit insurance might not prevent a run on the bank, and banks remain subject to market discipline even in the presence of deposit insurance. As far as we know consumer perception of bank risk and deposit insurance has not yet received any attention in the literature. A recent working paper by Cruijssen et al (2011) investigates what the general public knows about banking supervision and what objectives it thinks bank supervisors should pursue. They conclude that a large share of the Dutch public is only poorly aware of the tasks and responsibilities of bank supervisors.

To investigate these issues, we have conducted a questionnaire in February 2011 on knowledge of the Dutch deposit insurance scheme, perception of payback time and coverage, perception of bank risk, and consumer preferences on deposit insurance coverage versus payback time. The questionnaire also included questions on the economic behavior of respondents such as the allocation of deposits over different banks, the amount of deposits held with these banks, and behavior in the wake of the financial crisis. The appendix contains a detailed description of the questionnaire.

First, we find that systemic banks are perceived as less risky compared to non-systemic banks. This effect is somewhat counteracted because consumers suffer from a home bias: they think their own bank is safer than other banks. On further analysis we find that this home bias is partly because of an unknown, unloved effect. Adding self-assessed knowledge to our regressions diminishes the difference between own and other banks. Moreover, some people indeed select banks they consider to be safe, while there is also a group of respondents who exhibit wishful thinking. While these respondents select a bank because it offers high interest rates, they believe the bank to be safer nonetheless.

Second, we find that a considerable fraction of consumers think the DI will not fully reimburse an account holder with 50.000 euro, while the official coverage rate in The Netherlands is currently 100.000 euro. Moreover, almost half of respondents think it takes half a year or longer before they have access to their savings again, while it took three months to repay deposit holders of two banks who went bankrupt recently. We conclude that consumers differ widely in their perception of what fraction of deposits they will actually get refunded and how long this will take. Thus, our paper provides important evidence showing that knowledge and trust in deposit insurance is limited even in more advanced economies.

Third, our results suggest that trust in the deposit insurance scheme is not highly correlated with behavior. Knowledge on the eligibility of certain banks for deposit insurance however seems to be correlated with a stronger tendency to spread savings over banks and with the probability to stay under the maximum guaranteed amount. In addition, individuals' subjective risk assessment of banks partly determines the number of banks wealth is spread over. We show furthermore that this risk assessment is associated with the 'flight to safety' during the past financial crisis and 'transactions' after the specific recent bankruptcies in The Netherlands. This suggests that differences in perceived banking risks may enhance the tendency to run on the bank.

Finally, depositors seem to prefer a deposit insurance scheme with a higher coverage rate over a scheme that has a shorter payback time. This preference is stronger for those with high levels of bank deposits, while trust in and knowledge of the deposit insurance scheme are also correlated with a preference for a high coverage level. Apparently, if people are convinced that the DI-scheme will operate as planned, they are willing to wait longer for their lost deposits.

The paper proceeds as follows. Section 2 explains the Dutch banking sector and the deposit insurance scheme in some detail. Our dataset is the subject of Section 3. What we have found out about perceived banking risks is written down in Section 4. Section 5 deals with knowledge of and trust in the Dutch deposit insurance scheme. Section 6 focuses on depositors' behavior, respectively on the allocation of deposits over multiple banks and on withdrawals in the wake of the 2008-2009 financial crisis. In Section 7, we discuss the preferences of consumers over two important characteristics of the deposit insurance scheme: the maximum guaranteed amount and the pay-back time. Section 8 concludes.

2 The Dutch deposit insurance scheme

The Dutch deposit insurance scheme was set-up after the failure of a small bank called *Teixeira de Mattos* in 1966. Initially, the scheme consisted of a system of collective guarantees, which evolved into law in 1978. The system of collective guarantees was first tested in the early 1980's, when two small banks went bankrupt, the *Amsterdam American Bank* in 1981 and the *Tilburgse Hypotheekbank* in 1982. After that, the Dutch deposit insurance scheme was more or less a dormant institution that fell under the responsibility of a single employee at the Dutch Central Bank (DNB).⁵

This changed when in 2005 a small bank based in Amsterdam, *Van der Hoop bankiers*, went bankrupt due to mismanagement.⁶ The 1400 account holders lost their deposits and their losses were initially repaid, 20 million euro in total, under the DI-scheme.⁷ In the aftermath of this bankruptcy, the DI-scheme was incorporated in a comprehensive overhaul of Dutch financial regulation. In the process, the level of insured deposits was raised from 20.000 to 40.000 euro, with the amount of savings over 20.000 euro being insured for 90 percent only.⁸ This co-payment aimed to incentivize consumers to take into account banking risks when allocating their savings.

During the height of the financial crisis, in October 2008, the DI-scheme again became the focus of attention. Right after the Lehman bankruptcy, the Dutch government temporarily increased the maximum insured amount from 40.000 to 100.000 euro, hoping that this would reduce volatility in the Dutch savings market. Coinciding with this increase in coverage, the Icelandic bank Landsbanki, that was active in The Netherlands under the brand name IceSave, became insolvent and was unable to pay out depositors. The bank officially fell under the Icelandic deposit insurance scheme for the first 20.887 euro per deposit holder, and under the Dutch deposit scheme up to 100.000 euro.⁹ DNB took care of initially paying back all deposits up to 100.000 euro. Within three months of Landsbanki's bankruptcy, 100.000 Dutch account holders owning 1.6 billion euro in total could access their deposits again.

One year later, in October 2009, another bank run occurred at the Dirk Scheringa Bank (DSB), after an activist had summoned accountholders to withdraw their money in a popular morning television show. Within 11 days deposit holders withdrew 622 million euro. DSB did not survive the bank run, and the DI-scheme was

⁵ De Nederlandsche Bank acts both as the Dutch central bank and as the prudential regulator of the Dutch financial sector.

⁶ The direct cause was a claim of the Dutch tax authority on the bank.

⁷ Eventually, all deposit holders were repaid.

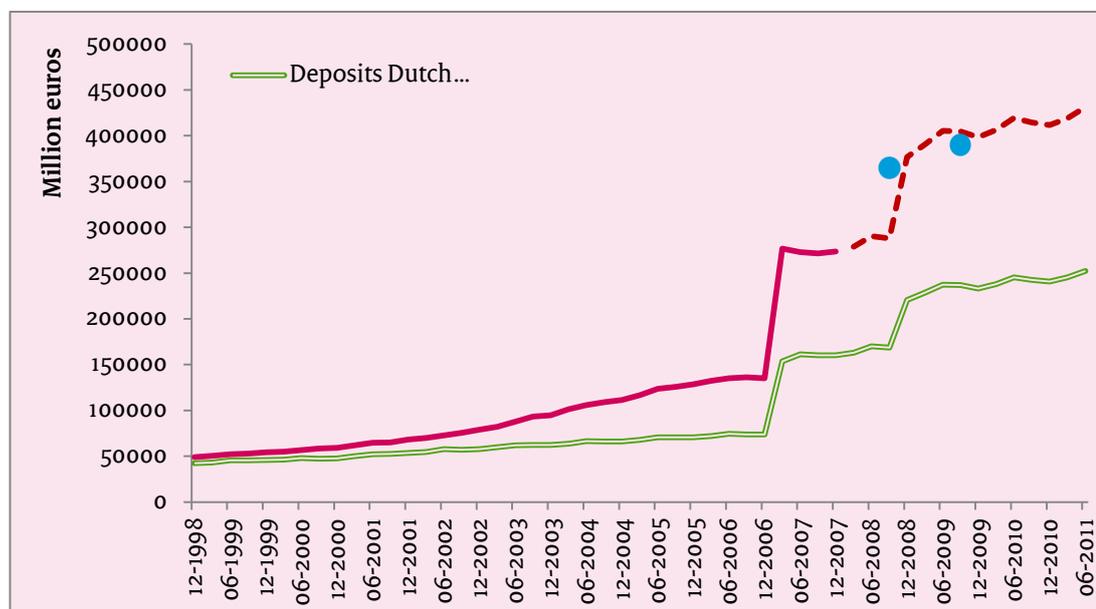
⁸ In case the DI scheme was called upon, the Dutch Central Bank would initially take up the bill, which would result in a claim of the central bank on the remaining banks in the scheme.

⁹ The Dutch deposit insurance scheme is only applicable to deposits at those banks that DNB has the supervision over. The deposits at non-EU banks are not guaranteed, while those at EU-banks fall under the local agreement in the home country. However, whenever the national scheme in EU-countries (plus Iceland, Liechtenstein and Norway) is less generous than the Dutch scheme, the Dutch DI-system will guarantee the remaining difference.

activated on the 19th of October 2009. In total, 3.5 billion euro was paid out to depositors. This time, the bank fully fell under the Dutch DI. This implied that the DNB repaid depositors their insured saving and that other Dutch banks were liable for the amount paid out under the DI. DNB managed to repay 93% of the 225.000 depositors that filed a claim within three months, while 85% received their money back within several days.¹⁰

These changes, together with the increase in the amount of savings from 160 billion in 1998 to almost 340 billion in 2010, have increased the aggregate amount of deposits that fall under the scheme substantially. Figure 1 below shows how the total savings covered by the DI- scheme has increased from 50 billion euro in 1998 to more than 400 billion euro in 2011.¹¹ Note that a large fraction of the guarantee benefits either consumers from other countries or firms. In addition, also the probability of the DI-scheme being called upon has increased. Indicative of this higher probability is the huge increase in CDS spreads for large Dutch banks since the beginning of the crisis in 2007. Another indicator is the monthly amount of deposits being shifted between banks. Figure 2 below shows the aggregate of monthly withdrawals by Dutch households at Dutch banks. It went up rapidly in 2007, with a peak in October 2008, and has come down since then, although the level of volatility of private deposits is still higher than it used to be before the financial crisis.

Figure 1 Domestic deposits and total deposits (mln euro)



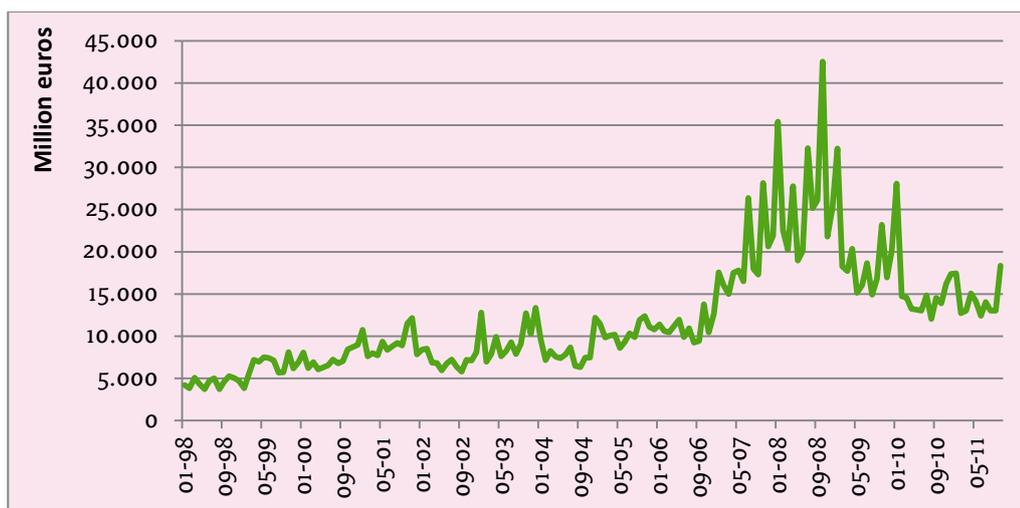
¹⁰ See <http://www.dnb.nl/nieuws/nieuwsoverzicht-en-archief/persberichten-2010/dnb228162.jsp>

¹¹ In 2008 the Ministry of Finance estimated this to be approximately 365 billion euros znc in 2010 at 390 billion euro's. These are shown as dots in the figure and are quite close to our estimates, which combines the distribution of savings over banks in our survey, as well as data on savings by Dutch households (Tabel 11.1 *Vermogenscomponenten van Nederlandse huishoudens, totaal deposito's*) and total savings held by banks (Tabel 5.6 *Balansen van geregistreerde kredietinstellingen (bedrijfseconomische opstelling), spaargelden*) from DNB. The dotted line is a rough estimate as DNB has no data for recent years. We impute it as a constant factor times total savings by Dutch households.

All this has restored the deposit insurance scheme back to the center of the policy arena and policymakers on the national as well as the European level are rethinking the design of deposit insurance. In June 2009 a joint report of DNB, the Dutch Association of Banks and the Ministry of Finance was published about the future of the DI-scheme. Other official bodies, such as the committee *Maas* and committee *De Wit*, have also recently suggested alterations, particularly to the financing structure of the Dutch scheme. The EU has issued a Directive on the 12th of July 2010 to harmonize the existing schemes within its member states. While the official maximum pay-back time used to be three months, EU guidelines have shortened this substantially to a maximum of 20 workdays.¹²

In March 2011, the Dutch minister of finance proposed to change the financing structure such that banks pay a risk-adjusted premium into a fund on a regular basis. The fund, a nonprofit organization of which the board is jointly appointed by DNB and the Finance Ministry, provides the funds to DNB to repay depositors of a failing bank. If the resources of the fund do not suffice, DNB will use its resources to repay the remainder, resulting in a claim of DNB on the remaining banks that fall under the DI-scheme. Of course, in case of bankruptcy of a large bank the state will ultimately have to bear most of the costs. The deposits of all individuals and small companies are covered up to 100.000 euro per person per bank.¹³ The scheme does not differentiate between large, systemically important banks and small banks, although the three large Dutch banks, Rabobank, ING and ABN Amro, have a combined market share of about 75%.¹⁴

Figure 2: Monthly withdrawals by households in The Netherlands (mln euro)



¹² See amending Directive 94/19/EC on deposit-guarantee schemes as regards the coverage level and the payout delay: 'The payout delay should therefore be reduced to a period of 20 working days. That period should be extended only under exceptional circumstances and after approval by the competent authorities.'

¹³ Small is defined here in a legal way. Companies fall under the scheme when they are allowed to publish a short balance sheet at the chamber of commerce. This holds for companies that own assets worth less than 4,4 million euro, that have revenues less than 8.8 million euro a year, and that have less than 50 employees.

¹⁴ Found both on the basis of DNB Household Savings Survey 2008 and our own collection of data in february 2011. The fourth largest bank, SNS Bank, has a market share in between 6-7%. The remaining 19% of deposits is shared by 122 other banks operating on the Dutch deposits market in 2010.

3 The data

In the weekend of February 18th 2011 we have conducted a survey on banking risks and the Dutch deposit insurance scheme. The survey was financed by the Ministry of Finance and was enumerated on a well-known internet panel owned by CentERdata, a commercial institute of the University of Tilburg. Other recent studies using the CentERpanel include Von Gaudecker et al. (2011) and Van Rooij et al. (2011). The panel constitutes a representative sample, selected from the Dutch municipal administration, and frequently answers questions about economic variables. In total 1,959 individuals answered our questions, out of the 2,740 individuals who were selected to participate, such that the response rate is 71.5 percent. The questionnaire revolves around questions concerning their assessment of various banking risks, such as the probability that certain banks will go bankrupt, and their knowledge of the Dutch deposit insurance scheme. In addition, CentER provided us with a series of useful background characteristics of those who answered our questions such as age, income and employment status. The appendix contains a table with full definitions of the variables used in the analysis. A full list of questions can also be found in de appendix.

Table 1 gives some insight into the characteristics of the respondents. Column I presents descriptive statistics for all respondents, while in Column II and III the sample is divided into those who only hold deposits at 'systemic' banks and those who (also) hold deposits at a minor bank. We consider ING, Rabobank and ABN Amro as large and systemic banks here. Of the respondents that filled in the deposit questions 68 percent has only deposits at systemic banks. Overall, the sample is relatively aged, with the mean age over 50. There is a remarkable difference in education levels between the different banking status groups. Of those who are customers only at systemic banks, 34 percent finished a bachelors or a master degree. This percentage is a lot higher for those who are customers at a minor bank as well, at 54 percent. The customers of minor banks are also relatively richer with the average amount of total deposits almost twice as high as the customers of systemic banks only. Additionally, this group is a customer at almost twice as many banks.

The appendix includes a full list of banks that respondents own deposits with. From Table 1 it can be seen that the majority of respondents owns an account at ING Bank. This can partly be explained by the fact that ING incorporated the former Postbank - a bank that used to operate an independent payment system. Almost half of respondents own deposits at the Rabobank, while an additional one third is a customer at ABN Amro. Although we do not have numbers representative of the Dutch population, it could be that account owners are oversampled in our data. Because we are especially interested in this group, we do not think this is a major problem here. It is interesting to see that the group of respondents with at least one minor bank is relatively overrepresented within ING but relatively underrepresented at the Rabobank. There are also remarkable differences between the knowledge the sample claims to possess for the different

systemic banks. Rabobank seems to be most well-known, while ABN Amro is least well-known. Almost five percent of our sample was recently hit by a bankruptcy: two percent of respondents was a customer at (Landsbanki) IceSave, while three percent of respondents was a customer at DSB bank.

Table 1: Descriptive statistics

Selection		(I) All respondents	(II) Respondents with only large banks	(III) Respondents with deposits at minor bank
Observations		1,959		
of which level of deposits known		1,773	68%	32%
Percentage men		44%	45%	43%
Percentage with partner		77%	76%	77%
Perc. low education (primary/ vmbo)		30%	35%	22%
Perc. tertiary education		41%	34%	54%
Age respondent	Mean	54.7	54.3	55.6
	SD	14.8	15.2	14.1
Net monthly household income	Mean	€ 2,938	€ 2,903	€ 3,006
	SD	4,494	5,410	1,453
Total deposits held at banks	Mean	€ 44,842	€ 35,911	€ 64,096
	SD	62,988	51,590	77,616
Respondents with more than 100.000 euro in total deposits		11%	10%	11%
Number of banks	Mean	1.8	1.4	2.7
	SD	1.1	0.5	1.3
Owens deposits at ING		59%	56%	66%
Owens deposits at Rabobank		49%	54%	38%
Owens deposits at ABN Amro		31%	32%	27%
Used to own deposits at IceSave		2%	0%	5%
Used to own deposits at DSB		3%	0%	10%
Self-assessed knowledge of ING (1-5)	Mean	3.03	2.95	3.17
	SD	0.91	0.88	0.91
Self-assessed knowledge of Rabobank	Mean	3.28	3.30	3.24
	SD	1.07	0.99	1.05
Self-assessed knowledge of ABN Amro	Mean	2.80	2.78	2.85
	SD	1.02	0.93	0.99

4 Perceived banking risks

One of the motivations for a deposit insurance scheme is that ordinary deposit holders are not capable of correctly assessing the risk they take when depositing their savings with a particular bank. Hence, losses due to bank failure should be compensated to some extent by an insurance scheme.

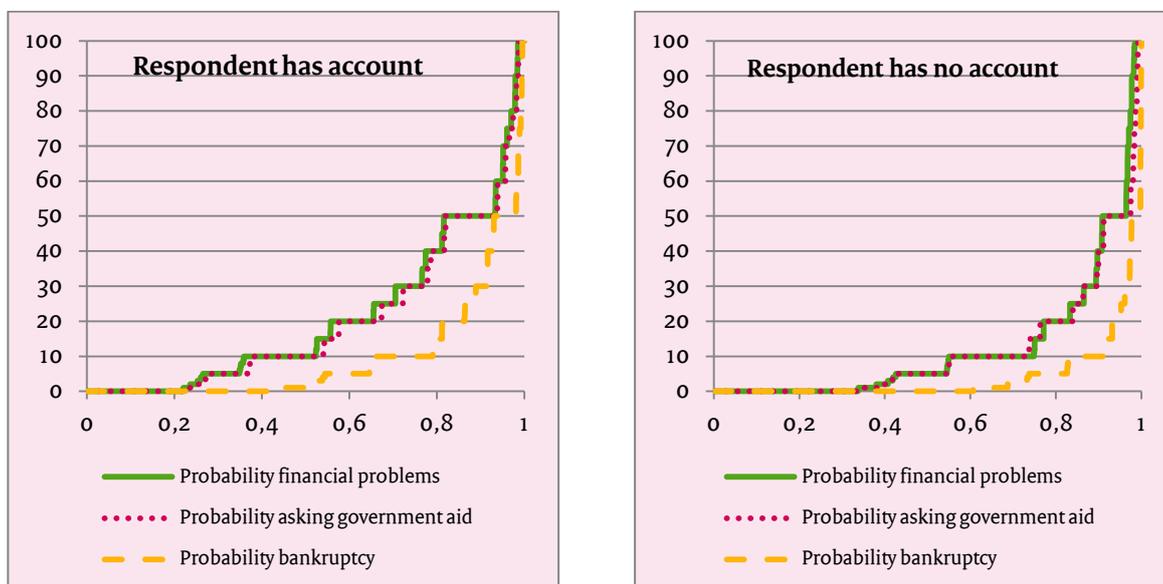
In this section we analyze the actual knowledge of respondents concerning the financial soundness of banks. What relative banking risks do people perceive? Do these risks match with 'objective' risk measures? In addition, we investigate whether people are aware of the quality of their own knowledge. Do people over- or underestimate this?

In our survey we collected data on respondents' assessment of the failure probabilities of Dutch banks. Every respondent was confronted with three questions: 1) what is the probability that within now and five years this bank will get into financial problems, 2) what is the probability that within now and five years this bank will appeal to the Dutch government for help and 3) what is the probability this bank goes bankrupt. All respondents answered these questions for the three largest Dutch banks: ING, Rabobank and ABN Amro. Additionally, all respondents answered these questions for three additional banks, which differed across respondents. Respondents who have deposits at a bank other than the 'big three' were asked to answer the questions for this bank. The other banks were randomly drawn from a large set of minor banks. In this way, we obtain probabilities for a wide variety of banks. Moreover, we can compare the expectations of account holders to the expectations of those who do not hold an account at a certain bank. In total, we thus have 11,308 observations for each of the three questions by 1,959 individuals (this number reduces to 10,487 observations for 1,750 individuals in the regressions in Table 2 because of missing values in total deposits). Of these observations 28% are for banks individuals hold deposits with. In total 39 banks feature in our sample (of which 37 banks are included in the regressions in Table 2).

To obtain a first impression, we have plotted the cumulative distribution of answers to the three questions in figure 3 for those who hold an account at the bank under consideration as well as for those who do not. The graphs show that a respondent judges a bank's financial position to be more sound if he holds an account at this bank. In other words, there seems to be a 'home advantage' in assessing banking risks. This seems to be the case for all three questions, but less so for question three on bankruptcy probability. Indeed, the difference in average probability for questions one, two and three is respectively 0.083 (s.d. 0.005), 0.080 (s.d. 0.004) and 0.054 (s.d. 0.003) in favour of non-account holders. For both graphs, the lines for the questions on financial problems and requesting government aid more or less overlap, suggesting that individuals do not distinguish between these events. Although the average probabilities for the entire

sample are indeed almost similar - 0.185 (s.d. 0.22) for getting into financial problems within the next five years, and 0.177 (s.d. 0.21) for requesting government aid - a t-test indicates that people consider financial problems more likely than requesting government aid. Respondents are convinced that a bankruptcy within five years is less likely than the other two events: the average probability for all respondents is 0.080 (s.d. 0.15). Figure 1 shows some clustering of answers around round numbers such as 10 and 50 (probabilities of 0.1 and 0.5). The modal answer in all six cases is 0. A large group of respondents - for accountholders considering a bankruptcy this is even 61 percent - does not believe that banks will get into any sort of difficulties.

Figure 3: Quantiles of banking risk probabilities for accountholders and ‘strangers’



As all respondents have answered the risk questions for six different banks, we can filter out individual specific components of the perceived risk by including an individual-specific error term. Table 2 presents coefficients of individual random effects tobit regressions for only the bankruptcy probability questions.¹⁵ A tobit regression method is necessary as 48 percent of respondents answer a zero probability. The bankruptcy probability was chosen as results did not differ much between the three probabilities and because a bankruptcy is a very adverse event.

Model 1 includes controls for several socio-economic characteristics and a dummy for whether the individual owns deposits at a bank and dummies for characteristics of the bank. In model 1 the coefficient for those who hold assets at a bank is significantly negative. It thus seems as if there is a ‘home bias’ in the subjective

¹⁵ A Hausman test for the consistency of a random effects OLS model did not reject the null-hypothesis of consistency of a random effect.

bankruptcy probability for all respondents that have an account at a certain bank. The full model in Column 3 will teach us more on this home bias. From model 1 it furthermore becomes clear that systemic banks are considered a lot safer than smaller banks, and that banks that are of foreign origin are considered more volatile. Especially banks with a parent bank in a non-EU country (particularly Turkish banks) are not much trusted. The difference in bankruptcy probability between a Dutch systemic bank and a non-EU bank is even 19 percentage points. Interestingly, whether a bank actually is a 'member' of the Dutch deposit insurance scheme doesn't matter for its perceived financial position. An explanation for this could be the lack of knowledge on the formal position of banks of foreign origin in the DI-scheme.

This advantage of banks where respondents hold deposits with could occur for multiple reasons: 1) respondents have less knowledge of banks that they do not have an account with, generating an unknown, unloved bias towards other banks, 2) respondents might select those banks that they consider safest, 3) once respondents have an account, wishful thinking generates a positive bias towards one's own bank. By including the individual's self-assessed knowledge of banks, we can disentangle the unknown, unloved bias from the other two optimism mechanisms. This is what we do in Model 2.

Model 2 is similar as Model 1, but self-assessed knowledge of a bank is also included. Looking at Model 2 in Table 2 we find that self-assessed knowledge explains a large share of differences in the perceived bankruptcy risks. Unknown indeed makes unloved. The better is a respondent's stated knowledge of a bank the more he or she trusts the bank. The difference in probability between banks a respondent doesn't know at all and banks that a respondent knows very well is more than 17 percentage points. Adding information on the self-assessed knowledge of banks diminishes the importance of the 'home-account' coefficient by 4 percentage points. Omitting the self-assessed knowledge variable overestimates the difference in bankruptcy probability between systemic banks and non-EU banks by 8 percentage points - in Model 2 this probability is 11 percentage points lower for systemic banks.

Table 2: Regression results explaining subjective probability for bank to go bankrupt

	1. Model without knowledge b/se	2. Model with knowledge b/se	3. Full model b/se
Respondent holds deposits at bank	-5.917*** (0.43)	-1.919*** (0.50)	-3.987 (5.13)
Systemic bank	-9.270*** (0.38)	-6.501*** (0.41)	-6.591*** (0.42)
Bank falls under DI-scheme	-0.839 (1.30)	-1.639 (1.28)	-1.695 (1.28)
(Daughter of) foreign bank	4.214*** (1.10)	1.422 (1.09)	1.379 (1.09)
Daughter of bank outside EU	5.384*** (1.19)	4.571*** (1.17)	4.573*** (1.16)
<i>Self assessed knowledge of bank</i>			
Not well at all		9.610*** (0.65)	9.630*** (0.65)
Not so well		2.132*** (0.54)	2.120*** (0.54)
Average (reference)			
Good		-3.908*** (0.63)	-3.515*** (0.64)
Very good		-7.245*** (1.13)	-6.520*** (1.15)
<i>Holding deposits at a bank</i>			
Reason: No particular reason (reference)			
Reason: The bank offers a good interest rates			-2.545* (1.23)
Reason: The bank offers good service and products			-1.341 (0.92)
Reason: The bank has a stable financial position			-5.229*** (1.07)
<i>Other strongly significant individual characteristics</i>			
Female respondent	4.237*** (1.06)	3.547** (1.08)	3.569*** (1.08)
Low income category (vs. lower middle)	9.988*** (2.51)	10.804*** (2.54)	10.826*** (2.54)
Method	RE TOBIT	RE TOBIT	RE TOBIT
Observations	10487	10487	10487
Individuals	1750	1750	1750
Total number of banks present in sample	37	37	37
Other controls include a dummy for having a partner, the log of total deposits, number of banks, whether respondent has an account at a minor bank, income categories, age categories, education categories			
* p<0.05, ** p<0.01, *** p<0.001			

The two other mechanisms for more optimistic accountholders - selection into perceived safe banks and wishful thinking - are harder to pin down than the knowledge component. We make an attempt at decomposing these effects by including the reason a respondent has an account at a particular bank in Model 3. Our respondents could indicate why they hold deposits at a bank and could choose between 1) no particular reason, 2) the interest rates offered are high, 3) I like the service and products, 4) the bank has a stable financial position or 5) other. 31% of our sample has no particular reason for being a customer, 10% has an interest-motive, 27% like the service and products offered and 19% picks a bank for its stable financial position. We argue here that if wishful thinking is very important this would be reflected in a lower bankruptcy probability for all given reasons, including those who have an account for no particular reason or for the service provided. We argue furthermore that if selection is the more important mechanism behind a 'home bias' there would be different signs to the different reason coefficients. We then expect a strong negative coefficient for those who chose a bank for its stable financial position and a positive coefficient for those who chose a bank for its high interest rates. Model 3 in Column 3 tells us a story in between the wishful thinking and selection mechanisms. For the respondents who own an account for no particular reason we cannot find evidence for wishful thinking. This group serves as the reference category and therefore its bias is reflected in the dummy for owning an account. This dummy loses its significance in Model 3. We also do not find a significant wishful thinking effect for the individuals that chose a bank for its service and products. However, we do find significantly lower bankruptcy probabilities for the group of respondents that chose a bank for its high interest rates. This must be because of wishful thinking or some other bias as in practice higher interest rates are likely to be associated with more risk-taking by the bank and hence a higher bankruptcy probability. For the group of respondents who chose their bank for its financial stability there is clear evidence of a selection effect. This group gives the lowest (and most significant) bankruptcy probabilities. So we find evidence for a selection effect, and some evidence for wishful thinking for the group of people that are interested in high interest rates. This is suggestive and not conclusive evidence however, as there is obviously a correlation between the bank somebody chose and the motivation for this choice.

It is difficult to assess the correctness of the absolute level of probabilities. Even if it turns out that none of the banks will have gone bankrupt within five years, do we know what should have been the right ex-ante odds? The financial crisis has proven that even for the most sophisticated players in the market it was hard to correctly perceive risks. To somehow assess the 'correctness' of answers we will however compare probabilities across banks assigned by the same individual. This enables us to check the perception of relative banking risks. To do so, we define two correct 'objective' relationships between the relative financial risks at Dutch banks. First, the probability of bankruptcy should be strictly smaller at the three largest banks (which we will refer to as systemic banks from now on as they are generally considered too-big-too-fail) than at smaller banks. 39 percent of our respondents provides probabilities that match this notion. Second, the

probability in facing difficulties with paying back depositors should be smaller at banks that are rated higher by official credit rating agencies. We rank the financial soundness of the systemic banks according to the long term Standard & Poor's rating that was applicable on the 18th of Februari 2011. This rating states that Rabobank (AAA) is considered the safest bank, followed by ING Bank (A+) and ABN Amro (A). For two reasons we leave out the relative position of ABN Amro in this comparison. First, the ratings of the ABN Amro and ING concerns are fairly similar. Second, given than all stocks of ABN Amro are currently owned by the Dutch state, people might not have the same expectations about ABN Amro than about the other two systemic banks. About 33 percent of respondents assesses the Rabobank to be less likely to get into financial problems than ING, while 61 percent believes that both banks have an equal probability of financial problems. In the remainder of this paper we consider the strictly larger variable.

Table 3 displays the results of a probit regression analysis on the correctness of relative bankruptcy probabilities. Individual characteristics do not explain a large part of the variance in the correctness of answers. The pseudo R² is respectively 3 and 8 percent in the two columns, and only 8 out of 36 included coefficients are significantly different from zero (of these insignificant coefficients many are excluded from the table). In general, the two different 'correct probabilities'-dummies seem to be rather similar in their determinants. Self-assessed knowledge of (systemic) banks is the most important determinant of being 'correct'. After having computed marginal effects at the mean, we find that one additional knowledge point (on a five-point scale) increases the probability of assessing relative risks correctly by 5-6 percent. Other variables that do explain something considering the systemic vs. minor banks are the age dummies, with those under 45 being less likely to be correct on the matter. Moreover, whether the respondent owns deposits at the ING bank and/or Rabobank is of importance too. The 'home-bias' plays a role here. Surprisingly, education does not have a significant effect, although the signs of the coefficients are as expected. Also, in the first column we find a significant effect that states that those individuals with a low income are more likely to be right on the ordering of systemic vs. minor banks. We do not have an explanation for this finding.

Table 3: Regression results on correct ranking banking risks

	(I) Correct ranking bankruptcy probability systemic vs. small banks b/se	(II) Correct ranking problems probability ING vs. Rabobank b/se
Mean self-assessed knowledge of systemic banks	0.133** (0.05)	0.179*** (0.05)
Age category 15-24	0.144 (0.19)	-0.397 (0.21)
Age category 25-34	-0.280* (0.14)	-0.149 (0.14)
Age category 35-44	-0.216* (0.10)	-0.043 (0.11)
Age category 45-54	-0.088 (0.09)	-0.079 (0.10)
Age category 55-64	-0.112 (0.08)	-0.02 (0.09)
Age category >64 (reference)		
Customer at ING Bank	0.157* (0.07)	-0.315*** (0.08)
Customer at Rabobank	0.091 (0.07)	0.570*** (0.07)
Low education	0.110 (0.08)	-0.089 (0.09)
Middle education (reference)		
High education	0.089 (0.08)	0.143 (0.08)
Low income	0.365* (0.15)	0.011 (0.16)
Middle low income (reference)		
Middle high income	0.027 (0.10)	0.060 (0.11)
High income	0.139 (0.10)	0.087 (0.11)
Method	Probit	Probit
Other controls include a dummy for having a partner, a gender dummy, the log of total deposits, number of banks and whether respondent has an account at a minor bank		
Observations	1,750	1,750
* p<0.05, ** p<0.01, *** p<0.001		

5 Knowledge of and trust in the DI-scheme

In this section we explore to what extent respondents understand the rules and regulations of the Dutch deposit insurance scheme as well as to what extent individuals believe these rules will indeed be implemented in case of hypothetical future bankruptcies.

5.1 Knowledge of the DI-scheme

Knowledge of the existence of and eligibility for deposit insurance seems to be a prerequisite for the proper functioning of it. That is, up to certain degree, deposit holders should be aware that their claims are guaranteed. Obviously, there is no need for deposit holders to know every detail of the system for every bank, as long as they know enough about their own situation. Our questionnaire included several questions to gather information about the respondents' knowledge.

The first set of questions involve those about the funding and coverage offered by the DI-scheme in the course of the recent bankruptcies of two Dutch banks, Icesave and DSB. To keep things simple, we asked respondents two true/false questions concerning the maximum guaranteed amount: a) "A deposit holder with a normal savings account at IceSave/ DSB - owned by him alone - held 120.000 euro in this account. He did not receive all his deposits back." and b) "A deposit holder with a normal savings account at IceSave/ DSB - owned by him and his wife - held 120,000 euro in this account. He did not receive all his deposits back." As the maximum covered amount is 100,000 euro per individual the correct answer to the a) question is true, while the correct answer to the b) question is false. Table 4 reports on the answers given. The first question was answered correctly by 87% of respondents. The second question, on the guaranteed amount for a joint account, was answered correctly by 26% of respondents. There is more knowledge about the coverage of the DI-scheme among those with deposits at a minor bank.

We also asked "Who eventually paid the largest part of the bill after DSB went bankrupt?". The same question was also raised for IceSave, but because the correct answer to this question is still unclear, we omit it here. Table 4 summarizes the answers to this question. In the case of DSB the other Dutch banks eventually paid for the insurance paid to DSB depositors, because it operated under the Dutch DI. The correct answer was chosen by 34 percent of respondents, while 25 percent indicated they do not have a clue who paid the deposit holders in the end. Again, it turns out that respondents who own some deposits at a minor bank are more 'sophisticated': they are better informed about the rules and regulations of the DI-scheme. This question should be interpreted as an indicator for knowledge on the scheme. Obviously, depositors do not have to be aware of who pays in order for the DI-scheme to work as intended.

Table 4: Percentage of respondents answering DI-knowledge questions

Selection	(I) All respondents	(II) Respondents with only large banks	(III) Respondents with deposits at minor bank
Correct on coverage 'single' account	87%	85%	89%
Correct on coverage joint account	26%	25%	30%
Who paid eventually for DSB's bankruptcy?			
The Dutch Central Bank	16%	16%	16%
The other banks in The Netherlands	34%	30%	43%
The Dutch central government	23%	25%	19%
The European Central Bank	1%	1%	2%
I don't have a clue	25%	28%	20%

In addition, we asked respondents what would happen to the deposit holders if a particular bank would hypothetically go bankrupt within the next five years. Respondents were divided into six groups and each group had to answer questions about the hypothetical bankruptcy of either ING, Rabobank, ABN Amro, Triodos Bank (a small bank but relatively well-known Dutch bank with a green image), Bank of Scotland (a foreign bank with a license in the UK that does a lot of marketing in The Netherlands) or AnadoluBank (a relatively unknown bank with Turkish origins that has a license from the Dutch Central Bank). Table 5 shows the percentage of respondents who believe that a particular deposit insurance scheme would come into play. The bold italic numbers represent correct answers. For Dutch systemic banks, more than 80 percent of respondents are correct concerning the DI-situation. This percentage drops for the smaller banks under review: 64% thinks that Triodos Bank fall under the Dutch DI scheme. When considering the Bank of Scotland and AnadoluBank, respectively 31% and 37% provide the correct answer concerning DI coverage.

Although the correct percentages for the minor banks are low, it is to be expected that accountholders at these specific banks are better aware of the particular coverage offered. Unfortunately we cannot test this presumption directly, as there are only a handful of depositors at these banks in our dataset. What we have done however, is split the sample into those who only own deposits at systemic banks and those who (also) own deposits at a minor bank, like in Tables 1 and 4. The last two rows in Table 5 depict the results. Here, we do see that knowledge about the eligibility for the DI-scheme for large banks is greater among the 'minor bankers'. Contrary to our prediction however, knowledge about the eligibility for the DI-scheme for the Bank of Scotland and Anadolu Bank is not better in the group who is a customer at a small bank. This suggests that even accountholders at minor banks do not know whether their deposits are covered or not.

Table 5: Percentage of respondents answering which DI-scheme applies

What will happen to deposits if bank A will go bankrupt?	ING	Rabobank	ABN AMRO	Triodos Bank	Bank of Scotland	Anadolu Bank
This bank does not fall under the Dutch DI-scheme. The deposit holders will lose their assets.	2%	2%	2%	16%	15%	41%
This bank does not fall under the Dutch DI-scheme, but does fall under a scheme in another country. The deposit holders will get (a part of) their deposits back.	1%	0%	4%	12%	31%	19%
This bank falls under the Dutch DI-scheme. The deposit holders will receive their deposits back up to a certain maximum per person.	83%	83%	80%	64%	48%	37%
This bank falls under the Dutch DI-scheme. The deposit holders will always receive all of their deposits back.	13%	15%	15%	8%	6%	2%
Percentage with correct answer						
of respondents with only large banks	82%	79%	77%	58%	31%	38%
of respondents with deposits at minor bank	86%	93%	87%	75%	32%	36%

To look in more detail into the determinants of knowledge, Table 6 presents coefficient results from probit regressions of four different variables that represent some knowledge of the deposit insurance scheme. The regressions relate several the variables with numerous covariates such as gender, total deposits, income category, education level, age category and whether one had an account at one of the banks that did go bankrupt.

Column I looks at knowledge of the actual situation during DSB's bankruptcy. The dependent variable here equals one when a respondent was aware of the fact that other banks in The Netherlands had to eventually pay the depositors of the bankrupt DSB.¹⁶ Both the log of total deposits and self-assessed knowledge of banks explain existing knowledge of the DI-scheme. In addition, high income individuals and men are more probable to know who repaid depositors after DSB failed. Columns II and III examine knowledge of the maximum coverage. The dependent variable in column II equals one when an individual knew that a deposit holder is not covered for 150.000 euro in a single account and the dependent variable in column III equals one when an individual knew that he would be covered if it was a joint account (as the maximum coverage is 100.000 euro per individual). Wealthy individuals are more likely to know simple details of DI-coverage, while individuals with a low education level are less likely to know such details. Self-assessed knowledge has a positive impact on involved details. However, none of the other included variables is significantly associated with whether someone is aware of the double coverage rate for joint accounts.

¹⁶ Only half of the respondents answered this question. The other half were asked about the situation after Icesave's bankruptcy.

Column IV depicts the results for the correct knowledge on the eligibility of a certain bank for deposit insurance in hypothetical future bankruptcies. First, it matters a lot for which banks individuals answer the question: from table 5 we already knew that respondents were much less likely to know the correct situation for small banks. It also appears that those who used to have an account at the bankrupt DSB have learned from their experience: they were better at choosing the correct scheme. Also, a high level of income enhances the probability to be correct on the matter, while low level of education seems detrimental to correctly assessing which DI-scheme a bank falls under.

Table 6: Regression results on knowledge about the DI-scheme

	(I) Correct on who paid depositors DSB	(II) Correct coverage easy true/false	(III) Correct coverage difficult true/false	(IV) Correct on DI- scheme future bankruptcies
	b/se	b/se	b/se	b/se
Mean self-assessed knowledge of systemic banks	0.228** (0.07)	0.087 (0.06)	0.102* (0.05)	0.063 (0.05)
Logarithm of total deposits	0.174** (0.06)	0.146** (0.05)	0.063 (0.04)	0.043 (0.04)
Total deposits above 100.000 euro	-0.234 (0.18)	0.006 (0.18)	0.121 (0.13)	0.156 (0.15)
Total number of banks	-0.078 (0.07)	0.009 (0.06)	0.063 (0.05)	-0.011 (0.05)
At least one account at minor bank	0.196 (0.13)	0.052 (0.11)	-0.035 (0.09)	0.106 (0.10)
Used to have an account at DSB/IceSave	0.417 (0.24)	0.186 (0.24)	0.21 (0.17)	0.449* (0.20)
Female respondent	-0.636*** (0.10)	-0.059 (0.08)	-0.06 (0.07)	-0.091 (0.07)
High income (vs. low middle income)	0.579*** (0.17)	-0.205 (0.13)	0.086 (0.11)	0.324** (0.11)
Low education (vs. middle education)	-0.238 (0.13)	-0.230* (0.10)	0.09 (0.09)	-0.269** (0.09)
Systemic bank				0.641*** (0.10)
Bank of Scotland				-0.930*** (0.11)
Anadolu Bank				-0.737*** (0.11)
Method	Probit	Probit	Probit	Probit
Other controls	Dummies for being customer at ING, dummy for being a customer at Rabobank, gender dummy, partner dummy and age category			
N	890	1,750	1,750	1,750

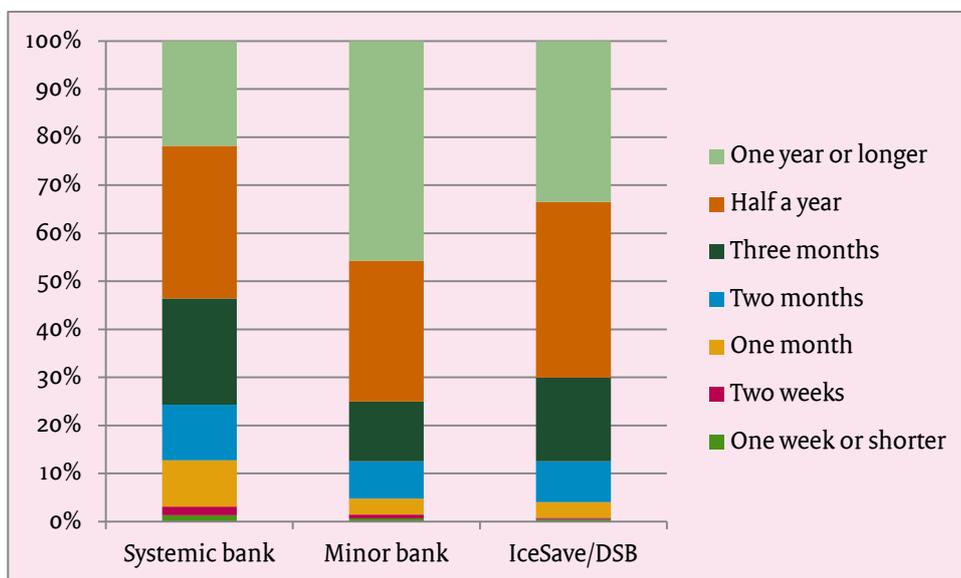
* p<0.05, ** p<0.01, *** p<0.001

5.2 Trust in the DI-scheme

This section presents some evidence of the confidence of deposit holders in the Dutch deposit insurance scheme. First we focus on the perceived pay-out time of the DI-scheme, both in recent bankruptcies and in the hypothetical future bankruptcies. At the time of the survey, the Dutch Central Bank aimed at paying deposit holders their money back within three months (90 working days) after a bankruptcy and achieved to do so after the two most recent events.

Figure 4 suggests that our respondents are not aware of the speed of DNB’s recent operations. Two thirds of respondents (72% in case of IceSave and 68% in case of DSB) estimate the realized pay-back time to be half a year or longer. The perceived payback time for the hypothetical bankruptcies is even longer for small banks such as Triodos, Bank of Scotland, and AnadoluBank. Only 25% of individuals thought it would take three months or less to get your deposits refunded under the DI-scheme. Although respondents still overestimate the payback time, they are the most optimistic about the period of time it takes to payout deposits of a bankrupt systemic bank. In this case, a little over half of them believe payback will occur in six months or even later.

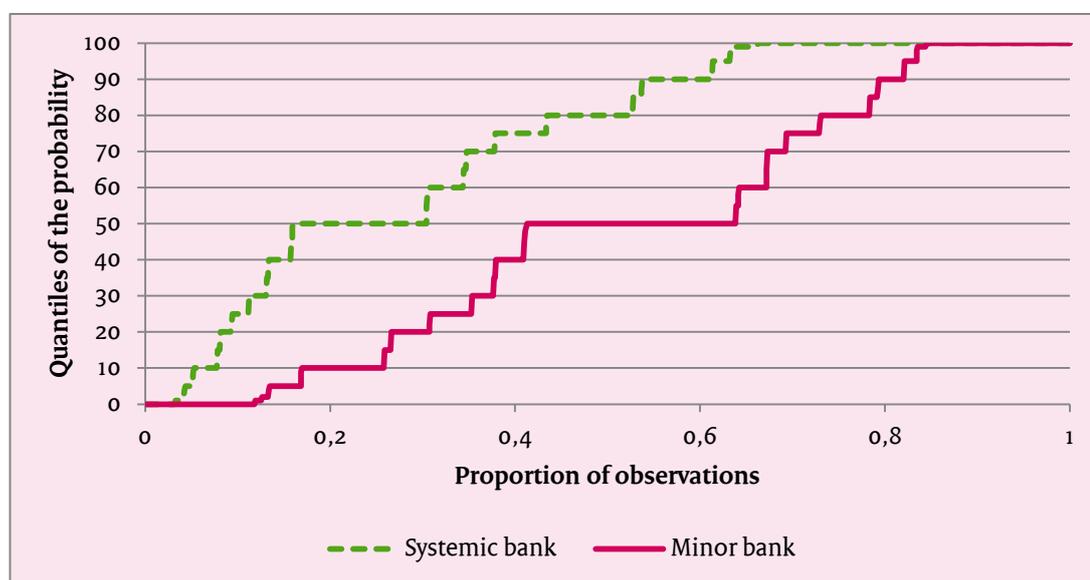
Figure 4: Respondents on payback time by the DI-scheme



Our survey on banking risks and the deposit insurance scheme also contains direct information on the perceived credibility of the deposit insurance scheme. To measure respondents’ trust in the DI-scheme we have asked them the probability that in case of a bankruptcy a deposit holder owning 50.000 euro will in

reality receive this entire amount back.¹⁷ Figure 5 shows the cumulative distribution of answers. Clearly, individuals believe that payout is more likely when a large bank goes bankrupt. The average probability amounts to 73%, while 34% of individuals is absolutely certain the deposit holder will get her money back. The average probability for small banks is a lot lower at 48%, with only 16% of respondents fully trusting the DI-scheme. Note that in both cases a relatively large group entered a probability of 50%. At face value, respondents apparently do not identify a potential problem of sustainability of the DI when one of the three large Dutch banks would go bankrupt. On the contrary, they worry about small banks instead.

Figure 5: Probability the deposit insurance scheme will pay out 50.000 euro as promised



It is interesting to investigate the determinants of trust in the deposit insurance scheme. Knowledge of the scheme and whether the respondent thinks a bank falls under the DI might be important. The self-assessed knowledge of the bank under review and whether the respondent has an account with the bank could also bias the respondent's answer. In addition, their assessment might be affected if they have experienced the DI in practice because they held an account with either IceSave or DSB. Table 7 depicts regression coefficients of the two trust-indicators, i.e. the perceived payback time in column I and the probability of payback in column II.¹⁸

The effects of the control variables are mostly as anticipated. Respondents think that in case of bankruptcy of a systemic bank payout will be faster compared to smaller banks and that the payback time will be faster. Consumers that have experience with a bankruptcy and consumers that assess themselves as knowledgeable

¹⁷ It is true that this question can be interpreted as capturing both trust in the DI-scheme and knowledge. If people do not know that the coverage rate is as high as 100.000 euro, but instead believe it is say 40.000 euro, the probability of full payback equals zero. The low frequency of zeros in the answers however suggests that few people reasoned this way.

¹⁸ There are twice as many observations in the first column as individuals answered the question both for either DSB or IceSave and one other hypothetically bankrupt bank.

have more trust in the DI. Respondents that think systemic banks are more likely to fail have also less trust in the Dutch DI scheme. Knowledge is very important. If individuals believe that their assigned bank falls under a foreign DI-scheme or under no DI-scheme at all, their trust in the scheme is significantly lower.

Demographic characteristics play a minor role. Women are a lot more skeptical about the trustworthiness of the DI-scheme, while individuals with more deposits at banks are much more optimistic. Furthermore, only whether one has a partner is positively correlated with trust in the deposit insurance institution.

Table 7: Regressions of trust in Dutch DI-scheme

	(I) Payback time (days)	(II) Probability payback
	b/se	b/se
Account at bank that (hypothetically) goes bankrupt	-21.762** (6.89)	3.039 (1.86)
Systemic bank	-30.202*** (8.69)	7.738*** (2.21)
Triodos bank	reference	reference
IceSave or DSB	-5.709 (6.98)	
Bank of Scotland	1.825 (9.98)	6.729** (2.40)
Anadolu Bank	42.318*** (9.73)	-5.411* (2.33)
Used to have an account at DSB/IceSave	-50.130*** (13.45)	12.338*** (3.66)
Mean self-assessed knowledge of bank (1-5)	-16.829*** (3.52)	3.123** (1.01)
Mean self-assessed probability systemic bank goes bankrupt	0.805** (0.28)	-0.299*** (0.08)
Respondent believes bank does not fall under any DI-scheme	43.218*** (9.94)	-39.131*** (2.69)
Respondent believes bank falls under foreign DI-scheme	30.351*** (8.08)	-21.766*** (2.40)
Respondent believes bank falls under Dutch DI-scheme	reference	reference
Respondent believes DI-scheme has full coverage	6.514 (11.07)	4.348 (3.13)
Respondent has correct beliefs DI-scheme	-3.886 (7.53)	7.588** (2.33)
Logarithm of total deposits	-5.495* (2.41)	3.094*** (0.66)
Female respondent	20.385*** (5.07)	-7.634*** (1.38)
Respondent has a partner	-15.370* (6.51)	-1.333 (1.74)
Method	OLS with clustered errors	OLS
N	3486	1745

Other controls include total number of banks, having an account at a minor bank, age categories, income categories and education categories.
* p<0.05, ** p<0.01, *** p<0.001

6 Depositors behavior

This section focuses on the behavior of deposit holders, in relationship to their perception of banking risks and their knowledge of and trust in deposit insurance. In absence of reliable information about what the respondents would do while fearing for the safety of their deposits, we analyze how consumers allocate their savings over banks and how they responded to the financial crisis.

6.1 Allocation over banks

The existence of a DI-scheme can also influence the allocation of deposits over the different banks in the market. In the absence of insurance, deposit holders can reduce their exposure to a potential bank failure by distributing their savings over multiple banks. As long as failures are not fully correlated, this reduces the risk of being exposed to a bank failure. In the presence of fully trusted insurance, however, this incentive is absent for consumers with deposits below the DI's maximum insurance threshold, but consumers with savings exceeding the maximum covered amount can still benefit from spreading their deposits. Thus, we expect that consumers with wealth above the DI threshold will hold more accounts with different banks. In this section we therefore analyze how many different banks depositors hold accounts with and whether this choice is influenced by their trust in the DI-scheme and their bankruptcy expectations.

In table 8 we present regression coefficients of the total number of banks a respondent holds his savings with (Column I) as well as the extent to which respondents concentrate their savings at one bank (Columns II and III). From Column I we learn that total deposits are an important determinant of the number of banks consumers have: respondents with more savings hold those savings with more banks. They may benefit more from hedging against bank failure by spreading their savings over multiple banks. The dependent variable in Columns II and III is the ratio of an individual's deposits at the bank where the individual owns most deposits over her total deposits at all banks. The columns show that wealthier deposit holders are also more prone to concentrate their deposits at one bank, among the banks they are a customer with. Wealthier consumers have more to gain from looking for a high interest rate. Perhaps they hold more accounts in order to easily transfer money when interest rates go up elsewhere or when the perceived bankruptcy probability of their main bank increases.

Also, respondents that assess their own knowledge of systemic banks as relatively high are more likely to hold accounts with multiple banks. This same holds for respondents that assign relatively high bankruptcy probabilities. It makes sense to hedge more whenever you feel bankruptcies are more likely. In addition, those who used to have an account with DSB or IceSave turn out to be consumers holding deposits with a relatively large number of banks and they also tend to concentrate their savings more with one bank. This

suggests that these consumers are particularly prone to look for the highest interest rate. One last significant coefficient in Columns II and III is the dummy for those who hold more than 100.000 euro in total. These individuals spread their savings more evenly across banks, perhaps in order to remain well under the maximum covered amount.

In Column IV we focus on the sample of individuals who own more than 100.000 euro in total deposits at banks. Using data on each bank they hold deposits, we have estimated a probit regression on whether the deposits at a particular bank cross the virtual 100.000 euro threshold. Since most of these rich individuals are a customer at more than one bank, this means we use multiple observations per individual in this regression. Some interesting coefficients emerge. First, as expected, wealthier individuals are more likely to exceed the DI-coverage threshold at any particular bank. Also as expected, the more banks, the less likely it is that a respondent's deposits at one bank will exceed 100.000 euro. Moreover, It turns out that correct knowledge of which deposit insurance scheme is appropriate is negatively associated with crossing the threshold. Here, knowledge seems important for behavior. Computing the marginal effect at the mean however indicates that the effect is small: an informed individual is 7% more likely to stay under the threshold. Another significant coefficient is the one for the self-assessed knowledge of each bank. The more respondents know about a bank, the more likely they are to entrust uninsured deposits to the bank. Here the marginal effect is large: one point more knowledge (on a five-point scale) increases the probability of crossing the threshold with 10%.

Table 8: The number of banks consumers hold accounts with

Dependent variable	(I) Total number of banks	(II) Concentration of deposits at most important bank	(III) Concentration of deposits at most important bank	(IV) Holding more than 100.000 euro at a bank
Sample	All	Those with 2 banks	Those with 3 banks	Those with total deposits above 100.000
	b/se	b/se	b/se	b/se
Logarithm of total deposits	0.444*** (0.03)	0.087*** (0.01)	0.127*** (0.02)	3.017*** (0.28)
Total deposits above 100.000 euro	-0.143 (0.11)	-0.053* (0.03)	-0.139** (0.04)	
Correct on what DI-scheme would apply	-0.083 (0.06)	-0.012 (0.01)	-0.019 (0.03)	-0.399* (0.19)
Probability that DI-scheme will pay out as promised	0.001 (0.00)	0.000 (0.00)	0.000 (0.00)	-0.002 (0.00)
Expected payback time	-0.012 (0.02)	-0.010 (0.01)	-0.003 (0.01)	-0.063 (0.06)
Mean self-assessed knowledge of systemic banks (or knowledge of bank in column IV)	0.136** (0.04)	0.002 (0.01)	0.000 (0.02)	0.545*** (0.11)
Mean probability of bankruptcy systemic banks	0.007* (0.00)	0.000 (0.00)	-0.002 (0.00)	-0.001 (0.01)
Used to have an account at DSB/IceSave	1.650*** (0.13)	0.184*** (0.04)	0.173*** (0.04)	1.155** (0.44)
Systemic bank				0.265 (0.24)
Total number of banks				-0.857*** (0.11)
N	1,750	623	204	426
Method	Ordered probit	OLS	OLS	Probit with clustered standard errors
Other controls gender dummy, partner dummy, education level, income category and age category				
* p<0.05, ** p<0.01, *** p<0.001				

6.2 Withdrawals in the wake of the financial crisis

In this section, we investigate observed behavior of respondents during the 2007-2008 financial crisis. In the end, a deposit insurance scheme is also meant to pacify deposit holders in times of distress, and we would like to know whether knowledge of and trust in the scheme are in line with the behavior of depositors in the most recent financial crisis. In our survey, we have confronted our respondents with some recall questions relating to the financial crisis. We realize recall questions three/four years after an event are far from perfect. However, the answers are the only piece of information we have to analyze this relationship.

First, we've asked respondents whether they decided during the 2007-2008 financial crisis to transfer their savings to 'a safer place' - without specifying what we would mean by safer. About 6% of respondents answered yes to this question. The vast majority of these respondents stated that they transferred their money to another bank. Column I in Table 9 reports probit regression coefficients for this yes/no variable. Correspondents with more deposits were more likely to put their savings in a safer place. This is intuitive, as people with more wealth have more to lose as their wealth increases. Also intuitively, people who assign high average bankruptcy probabilities were more likely to put their savings in a safer place. We use the mean bankruptcy probabilities given by an individual for systemic banks here as each respondent answered these questions for the same banks. Finally, respondents with bankruptcy experience at IceSave and DSB were more likely to put their savings in a safer place. This might just be because these consumers were forced to do so precisely by the bankruptcy.

We have also asked "What consequences did the recent bankruptcy of IceSave/ DSB have for you?" (randomizing between IceSave and DSB). This question was raised in order to focus on the response to a specific event. 32% of respondents answered that they were now more aware of the risks associated with banking, while another 6% of respondents answered that not only were they more aware of risks, but that they also either changed banks or that they had spread their deposits over more accounts. Column II in Table 9 presents the results of a multinomial logit regression for this variable. We find that those respondents who answered that they were more aware of the risks of banking were those with more wealth, but also those with more knowledge. Again, we use the knowledge variable for systemic banks here as this variable is comparable across respondents. Those who were correct on which DI-scheme applied, those who knew more about banks and highly educated individuals were all more likely to have 'learned' from the previous bankruptcies. Also female respondents belonged to this group. Considering transactions, a somewhat different picture emerges. Obviously, the most important coefficient here is whether an individual used to have deposits at either IceSave or DSB: Again, individuals with more deposits are more likely to have experienced 'consequences' of the bankruptcies. But the other significant coefficients for 'actions' do not

overlap those for 'no actions'. Those who assign high bankruptcy probabilities, those with more banks and those who own at least some deposits at a minor bank were more likely to act upon the recent bankruptcies.

Table 9: did respondent decide whether or not to put savings in safer place

	(I)	(II)	
	Flight to safety	More aware of risks, no actions	More aware of risks, transactions
	b/se	b/se	b/se
Logarithm of total deposits	0.268*** (0.05)	0.166** (0.06)	0.327** (0.12)
Correct on what DI-scheme would apply	-0.048 (0.12)	0.299* (0.12)	-0.041 (0.26)
Probability that DI-scheme will pay out as promised	0.000 (0.00)	-0.001 (0.00)	0.004 (0.00)
Expected payback time	0.008 (0.05)	0.065 (0.05)	0.050 (0.10)
Mean self-assessed knowledge of systemic banks	0.115 (0.08)	0.207* (0.08)	0.222 (0.17)
Mean probability of bankruptcy systemic banks	0.014* (0.01)	-0.001 (0.01)	0.026* (0.01)
Used to have an account at DSB/IceSave	0.708*** (0.19)	0.473 (0.30)	1.088** (0.37)
Total number of banks	0.082 (0.05)	-0.094 (0.07)	0.229* (0.10)
Respondent has an account at a minor bank	0.254* (0.13)	0.103 (0.14)	0.729** (0.28)
Female respondent	-0.09 (0.12)	0.248* (0.11)	0.063 (0.24)
Low education category	-0.089 (0.16)	0.129 (0.15)	-0.011 (0.33)
Middle education category			
High education category	-0.013 (0.14)	0.421** (0.14)	0.199 (0.28)
Method	Probit	Multinomial logit	
Observations	1690	1719	
Other controls include a dummy for having a partner, the log of total deposits, number of banks, whether respondent has an account at a minor bank, income categories, age categories, education categories			
* p<0.05, ** p<0.01, *** p<0.001			

7 Preferences on the DI-scheme: timeliness versus coverage

A final section in our questionnaire on banking risks and the deposit insurance scheme aims to uncover preferences of deposit holders concerning the set-up of the scheme. All respondents were asked to choose which of three future policy options they preferred most. The three options were combinations of the maximum amount covered by the deposit insurance scheme and the number of days it would take to pay back deposits. The options were structured such that the option with the highest guaranteed amount also pertained the longest pay-back time and vice versa. In this way, in choosing a particular option the respondents were forced to make a trade-off between a shorter pay-back time and a lower coverage. This allows us to determine how much coverage respondents are willing to give up in return for a shorter pay-back period. Although every respondent was only presented with one set of options, in total six different option sets were presented, differing only in their suggested pay-back time. In short, all respondents could choose between a maximum coverage of 20.000, 40.000 or 100.000 euro, but the associated pay-back times differed (between 1 day, 7 days, 14 days, 30 days and 100 days).

The majority of deposit holders, namely 75%, chose a deposit insurance in which the guaranteed amount was highest. Only 7% of them preferred the shortest pay-back time, associated with a coverage of 20.000 euro. The moderate policy option (coverage at 40.000 euro, moderate pay-back time) was preferred by 18% of respondents. This choice is heavily influenced by the wealth level of individuals, as table 10 indicates. Those who can afford a short payback time - as they have assets below the lowest coverage option - choose this option more often. Even in these groups however the highest coverage alternative is preferred.

Table 10: Percentage of respondents preferring policy option deposit insurance

Preferred option	€20.000 early	€40.000	€100.000 late
Total deposits NA	8%	20%	72%
Total deposits around €5.000	14%	21%	66%
Total deposits around €10.000	9%	26%	66%
Total deposits around €20.000	9%	19%	72%
Total deposits around €50.000	1%	16%	83%
Total deposits around €140.000	0%	10%	90%

We have investigated the demographic origins of the coverage preferences in more detail in Table 11. The table reports coefficients of ordinal probit regressions of the chosen coverage and the chosen pay-back time on various characteristics, including knowledge of and trust in the current DI-scheme.

Table 11: Regression coefficients for DI-preferences

	(I) Preferred coverage level	(II) Preferred pay-back time
	b/se	b/se
Logarithm of total deposits	5.284*** (0.68)	3.589*** (0.91)
Correct on what DI-scheme would apply	2.024 (1.50)	1.607 (1.99)
Probability that DI-scheme will pay out as promised	0.100*** (0.02)	0.066* (0.03)
Expected payback time	1.798*** (0.54)	1.419 (0.72)
Mean self-assessed knowledge of systemic banks	1.050 (0.99)	2.251 (1.31)
Mean probability of bankruptcy systemic banks	-0.203** (0.08)	-0.166 (0.10)
Used to have an account at DSB/IceSave	2.453 (3.50)	-1.577 (4.64)
Total number of banks	-2.085* (0.85)	-1.568 (1.13)
Respondent has an account at a minor bank	0.988 (1.74)	1.831 (2.31)
Low income category	5.536 (3.28)	10.461* (4.36)
Low middle income category (reference)		
High middle income category	7.555*** (2.15)	6.467* (2.86)
High income category	5.688** (2.19)	3.977 (2.92)
Method	Ordinal probit	Ordinal probit
Other controls	gender, level of education, income category, wealth category, age category, knowledge dummies	
Observations	1741	1741
* p<0.05, ** p<0.01, *** p<0.001		

It becomes clear that not only wealthier individuals are more in favor of a high guaranteed amount. Also those with a higher income (and perhaps therefore higher future wealth) prefer a high coverage level (and a long pay-back time). Interestingly, individuals with more banks were more likely to choose a policy option with a lower coverage level and a shorter pay-back time.

This could be related to the lower amounts they have at risk at any particular bank. Furthermore, those who assign high bankruptcy probabilities were more likely to prefer lower coverage rates. Although the coefficient for a shorter payback time is not significant, the explanation could be that the more likely is a bankruptcy the more respondents value liquidity. Finally, both trust in and knowledge of the deposit insurance scheme are correlated with a preference for a high coverage level (and a long payback time). Apparently, if people are convinced that the DI-scheme will operate as planned, they are willing to wait longer for their lost deposits.

8 Conclusion

In response to the 2007-2008 financial crisis, deposit insurance schemes in the European union have undergone a major overhaul. Coverage has been extended and unified, while the maximum refund period has been shortened substantially. Empirical research that may shed light on the effectiveness of these measures is relatively scarce however. In particular, no research exists into consumers' knowledge and perception of such schemes. Important aspects include consumer perception of bank risk (with what probability do consumers think they will need insurance), consumer knowledge of DI terms (do consumers know whether they are insured), and their assessment of payback times and how much they expect to receive (how effective do consumers think the execution of the scheme is).

Based on a survey, we find that deposit holders believe systemic banks are safer than minor banks, with non-EU banks being considered the most unsafe. Moreover, consumers tend to underestimate the riskiness of banks they have a bank account with. Part of this can be explained by a combination of the selection of safe banks and wishful thinking. Their risk assessment also exhibits a major an unknown, unloved bias.

We find that particularly knowledge of the eligibility of minor banks to deposit insurance is limited, even by accountholders at minor banks. Consumers differ widely in their perception of what fraction of deposit they will actually get refunded in case of a bank failure and how long this will take. They vastly overestimate the number of days it has taken in the recent past to pay back deposits.

Our results indicate that trust in the deposit insurance scheme is not highly correlated with behavior. Knowledge on the eligibility of certain banks for deposit insurance however seems to be correlated with a stronger tendency to spread savings over banks and with the probability to stay under the maximum guaranteed amount at a particular bank. In addition, individuals' subjective risk assessment of banks partly determines the number of banks wealth is spread over. We show furthermore that this risk assessment is associated with the 'flight to safety' during the past financial crisis and 'transactions' after the specific recent bankruptcies in The Netherlands. This suggests indeed that differences in perceived banking risks enhance the tendency to run on the bank.

Finally, depositors seem to prefer a deposit insurance scheme with a higher coverage rate over a scheme that has a shorter payback time. This preference is stronger for those with high levels of bank deposits, while trust in and knowledge of the deposit insurance scheme are also correlated with a preference for a high coverage level. Apparently, if people are convinced that the DI-scheme will operate as planned, they are willing to wait longer for their lost deposits.

The policy implications of our work are twofold. First, we conclude that consumers do not seem to be able to accurately assess a bank's riskiness. This justifies the existence of a DI from a fairness point of view. Second, consumers generally lack knowledge of the more detailed workings of the DI, while they have overly pessimistic expectations of the way the scheme will be executed. This casts doubt on the effectiveness of DI as a means to prevent bank runs and at the same time points to the potential for government policies focusing on educating the public to contribute to the effectiveness of DI.

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Bank description

Tabel 1: Respondent had a checkings and/or savings account at bank X somewhere in the period after 1-1-2007 until 1-1-2010.

Bank	Respondents
ING/ Postbank	1,090
Rabobank	930
ABN AMRO/ Fortis	548
SNS Bank + RegioBank	233
ASN Bank	141
Aegon Bank	87
Dirk Scheringa Bank	59
Robeco Direct	55
MoneYou	39
Triodos Bank	37
IceSave	33
Friesland Bank	32
Argenta	27
CreditEurope Bank	22
OHRA Bank	20
Van Lanschot Bankiers	19
Amsterdam Trade Bank	18
NIB Capital	18
AKBank	16
Allianz	7
Centraal Beheer	7
YapiCredi Bank	7
AnadoluBank	5
Bank of Scotland	4
GarantiBank	4
DHB Bank	3
Westland Utrecht Bank	3
ASR Bank	2
Binck bank	2
KASBANK	2
Leaseplan Bank	2
The Economy bank	2
Bank of America	1
BNP Paribas	1
Directbank	1
Duitse Postbank	1
Jyske Bank	1
Lloyds TSB	1
OTP	1

Variables used

Account at bank that (hypothetically) goes bankrupt	Respondent is a client of bank X that hypothetically goes bankrupt in the questionnaire.
Age category	Age of respondent in six categories: 1) age 15-24, 2) age 25-34, 3) age 35-44, 4) age 45-54, 5) age 55-64, 6) age 65 and over.
Bank	Respondent had a checkings and/or savings account at bank X somewhere in the period after 1-1-2007 until 1-1-2010. Both individual and joint accounts should be reported.
Bank falls under DI-scheme	Bank in question falls under the supervision of the Dutch Central Bank and its deposits are therefore eligible for the Dutch DI-scheme. In our sample and not eligible for Dutch DI: Bank of Scotland, Argenta, BNP Paribas, Bank of America, Directbank, Duitse Postbank, Jyske Bank, Lloyds TSB.
Bankruptcy consequences	Recode of question v20: what did the bankruptcy of DSB/IceSave (randomly assigned) meant to you personally? 1) Nothing, 2) More aware of the risks of banking, no actions, 3) More aware of the risks of banking and I actually transferred deposits.
Choice of policy option deposit insurance	Imagine the government decides to implement a new deposit insurance scheme. Which of the following policy options has your preference? 1) Deposits at Dutch banks will be insured up to 20.000 EUR. When a bank goes bankrupt, it will take 1 day/ 7 days (options randomly drawn), before the deposits will be repaid. 2) Deposits at Dutch banks will be insured up to 40.000 EUR. When a bank goes bankrupt, it will take 14 days/ 30 days (options randomly drawn), before the deposits will be repaid. 3) Deposits at Dutch banks will be insured up to 100.000 EUR. When a bank goes bankrupt, it will take 30 days/ 100 days (options randomly drawn), before the deposits will be repaid. 3 Spaartegoeden bij Nederlandse banken worden tot een maximum van 100.000 euro vergoed. Het duurt 30 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan
Concentration of deposits at most important bank	The ratio of an individual's deposits at the bank where the individual owns most deposits over her total deposits at all banks.
Correct coverage difficult true/false	Respondent answered true to the statement that an individual owning 150.000 EUR in a joint account would get their deposits back entirely, when the bank would go bankrupt.
Correct coverage easy true/false	Respondent answered false to the statement that an individual owning 150.000 EUR in an individual account would get their deposits back entirely, when the bank would go bankrupt.
Correct on DI-scheme future bankruptcies	The respondent answered the following question correctly on bank X. Imagine bank X goes bankrupt. According to the rules, what will than happen to the deposits of regular

	deposit holders? 1 This bank is not covered by the Dutch deposit insurance scheme. The accountholders will have lost their deposits. 2 This bank is not covered by the Dutch deposit insurance scheme, but is covered by the DI-scheme in another country. The deposits will be paid back (up to a certain maximum). 3 This bank falls under the Dutch deposit insurance scheme. The deposits will be paid back up to a certain maximum per person. 4 This bank falls under the Dutch deposit guarantee scheme. All depositholders will be fully refunded at all times.
Correct on who paid depositors DSB	Respondent was correct on the question which institution(s) eventually paid back the deposits of accountholders at DSB/ IceSave (randomly drawn).
Correct ranking bankruptcy probability systemic vs. minor banks	Dummy is one when respondent believes that the average bankruptcy probability of systemic banks is lower than the average bankruptcy probability of other banks.
Correct ranking problems probability ING vs. Rabobank	Dummy is one when respondent believes that the probability that a bank might face problems paying back deposits is larger at the ING than at the Rabobank (which rating agencies agree with).
Daughter of bank outside EU	AKBank, DHB Bank, GarantiBank, AnadoluBank, CreditEurope Bank, Amsterdam Trade Bank, YapiCredi Bank.
Dummy for account holder	Variable equals one when respondent own a checking and/or savings account at this bank.
Education level	Highest diploma received in three categories: 1) lower level (primary education or vocational secondary education), 2) middle level (general secondary education or lower-level vocational training), 2) higher level (tertiary education).
Expected payback time	How long do you think it will last - approximately - until an accountholder at bank X with deposits of EUR 50.000 gets her deposits back, when bank X would go bankrupt?: 1) One week, 2) Two weeks, 3) One month, 4) Two months, 5) Three months, 5) Half a year, 6) One year.
Female respondent	Respondent is female, not male.
Flight to safety	Respondent answered yes to the question: During the financial crisis in 2007/2008, did you decide to keep your money in a safer place?
(Daughter of) foreign bank	Bank of Scotland, Allianz, AKBank, DHB Bank, GarantiBank, AnadoluBank, CreditEurope Bank, Argenta, Amsterdam Trade Bank, YapiCredi Bank, BNP Paribas, Bank of America, Directbank, Duitse Postbank, Jyske Bank, Lloyds TSB, OTP, The Economy bank.
Holding more than 100.000 euro at a bank	Respondent holds more than 100.000 euro at a single bank. The coverage rate of the DI-scheme implies that the respondent will lose money whenever the bank will go bankrupt.
Household income categories	Net monthly household income in four categories: 1) low income: EUR 1150 or less, 2) low middle-income: EUR 1151-1800, 3) high middle-income: EUR 1801-2600, 4) high income: EUR 2601 or higher.
Mean probability of bankruptcy	Average per respondent of bankruptcy probability for

systemic banks	ABN Amro, ING and Rabobank.
Mean self-assessed knowledge of systemic banks	Average per respondent of self-assessed knowledge for ABN Amro, ING and Rabobank.
Preferred coverage level	The coverage level individuals prefer when asked to chose between different policy options.
Preferred pay-back time	The pay-back time individuals prefer when asked to chose between different policy options.
Probability that DI-scheme will pay out as promised	How would you estimate the probability that an accountholder at bank X with deposits of EUR 50.000 would fully get her deposits back, when bank X would go bankrupt?
Reason to have an account at bank X	Recoding of question r[n]r3 1) No account 2) For no particular reason 3) The interest is attractive 4) The products and service are attractive 5) The financial position of the bank is stable 6) Different reason.
Respondent has a partner	Respondent has a partner and is thus not single.
Respondent has an account at a minor bank	Respondent has an account at a bank that is not considered systemic.
Self-assessed knowledge of bank	How much do you know about bank X? Provide an answer between 1 (no knowledge) to 5 (a lot of knowledge).
Subjective bankruptcy probability	How would you assess the probability that bank X will go bankrupt within the next five years? Give an answer between 0 (no chance) and 100 (this will certainly happen).
Systemic bank	ABN Amro, ING and Rabobank.
(Logarithm of) total deposits	(Logarithm of) total deposits (in checking and savings accounts) at banks.
Total number of banks	Total number of banks a respondent has accounts with.
Used to have an account at DSB/IceSave	Respondent had an account at DSB or IceSave somewhere in the period after 1-1-2007 until 1-1-2010.

Codeboek

Dit codeboek bevat de vragenlijst zoals deze in het CentERpanel is afgenomen. De variabelennamen worden **vet** weergegeven en corresponderen met de namen in de dataset. De routing van de vragenlijst wordt bij de desbetreffende variabele *cursief* weergegeven.

- De variabelennamen worden **vet** weergegeven en corresponderen met de namen in de dataset.
- De routing van de vragenlijst wordt bij de desbetreffende variabele *cursief* weergegeven.
- *open*: antwoordvak; geen limiet aan lengte van het antwoord
- *string*: antwoordvak waarbij een maximum aantal karakters kan worden ingevoerd (standaard 255)
- De range waarbinnen de respondent een antwoord kon geven bij numerieke variabelen is cursief afgebeeld in het codeboek wanneer deze niet zichtbaar was voor de respondent. Wanneer geen grenzen waren gesteld aan de range waarbinnen een antwoord kon vallen, staat dit in het codeboek weergegeven als '*integer*'.
- De zogenoemde 'fills' (variabele tekst) worden tussen rechte haken [] weergegeven.
- Variabelen tussen accolades maken geen deel uit van de dataset, maar de bijbehorende vragen of teksten waren wel onderdeel van de vragenlijst.

nohold

Nummer van huishouden versleuteld.

nomem

Nummer binnen het huishouden.

weeknr

Week waarin vragenlijst is ingevuld.

```
bank[1]='ING/ Postbank'  
bank[2]='Rabobank'  
bank[3]='ABN AMRO/ Fortis'  
bank[4]='SNS Bank + RegioBank'  
bank[5]='Van Lanschot Bankiers'  
bank[6]='Robeco Direct'  
bank[7]='ASN Bank'  
bank[8]='Aegon Bank'  
bank[9]='Friesland Bank'  
bank[10]='Triodos Bank'  
bank[11]='Bank of Scotland'  
bank[12]='IceSave'  
bank[13]='Dirk Scheringa Bank (DSB)'  
bank[14]='MoneYou'  
bank[15]='Leaseplan Bank'  
bank[16]='Westland Utrecht Bank'  
bank[17]='NIB Capital'  
bank[18]='Allianz'  
bank[19]='AKBank'  
bank[20]='DHB Bank'  
bank[21]='GarantiBank'  
bank[22]='AnadoluBank'  
bank[23]='CreditEurope Bank'  
bank[24]='Argenta'  
bank[25]='Amsterdam Trade Bank (AT bank)'
```

```
bank[26]:='YapiCredi Bank'  
bank[27]:=vo1and
```

```
if Drandom=1 then nedbank: =bank[1] endif  
if Drandom=2 then nedbank: =bank[2] endif  
if Drandom=3 then nedbank: =bank[3] endif  
if Drandom=4 then nedbank: =bank[10] endif  
if Drandom=5 then nedbank: =bank[11] endif  
if Drandom=6 then nedbank: =bank[22] endif
```

```
if Erandom=1 then icedirk: =bank[12] endif  
if Erandom=2 then icedirk: =bank[13] endif
```

eigbank = random gekozen bank uit de volgende banken waar mensen een rekening bij hebben (bank[4], bank[9], bank[16], bank[17], bank[20], bank[23], bank[26], bank[27])

als er geen rekening is bij deze banken dan wordt

```
eigbank = bank[4]
```

klbank = random gekozen bank uit de volgende kleine banken waar mensen een rekening bij hebben (bank[5], bank[6], bank[7], bank[8], bank[10], bank[14], bank[15])

als er geen rekening is bij deze banken dan wordt een random kleine bank gekozen

```
if count=0 then  
  if Arandom=1 then klbank: =bank[5] endif  
  if Arandom=2 then klbank: =bank[6] endif  
  if Arandom=3 then klbank: =bank[7] endif  
  if Arandom=4 then klbank: =bank[8] endif  
  if Arandom=5 then klbank: =bank[10] endif  
  if Arandom=6 then klbank: =bank[14] endif  
  if Arandom=7 then klbank: =bank[15] endif  
endif
```

buibank = random gekozen bank uit de volgende buitenlandse banken waar mensen een rekening bij hebben (bank[11], bank[18], bank[19], bank[21], bank[22], bank[24], bank[25])

als er geen rekening is bij deze banken dan wordt een random buitenlandse bank gekozen:

```
if cuenta=0 then  
  if Brandom=1 then buibank: =bank[11] endif  
  if Brandom=2 then buibank: =bank[18] endif  
  if Brandom=3 then buibank: =bank[19] endif  
  if Brandom=4 then buibank: =bank[21] endif  
  if Brandom=5 then buibank: =bank[22] endif  
  if Brandom=6 then buibank: =bank[24] endif  
  if Brandom=7 then buibank: =bank[25] endif  
endif
```

random variabelen:

```
arandom  
brandom  
crandom  
drandom  
erandom
```

{intro1}

Deze vragenlijst gaat over bankieren en over banken in Nederland. Wij zijn geïnteresseerd in uw relatie in het heden en recente verleden met verschillende banken die zaken doen in Nederland.

Wilt u eerst aangeven bij welke banken u in de periode 1-1-2007 tot 1-1-2010 een betaal- en/of een spaarrekening had. Hierbij gaat het om uw persoonlijke rekeningen, maar ook om de rekeningen die u eventueel deelt met uw partner (ook wel en/of rekeningen genoemd). Depositerekeningen met een vaste looptijd vallen hier ook onder, als het maar geen achtergestelde deposito's zijn.

vo101_dummy_1 ING/ Postbank
vo101_dummy_2 Rabobank
vo101_dummy_3 ABN AMRO/ Fortis
vo101_dummy_4 SNS Bank + RegioBank
vo101_dummy_5 Van Lanschot Bankiers
vo101_dummy_6 Robeco Direct
vo101_dummy_7 ASN Bank
vo101_dummy_8 Aegon Bank
vo101_dummy_9 Friesland Bank
vo101_dummy_10 Triodos Bank
vo101_dummy_11 Bank of Scotland
vo101_dummy_12 IceSave
vo101_dummy_13 Dirk Scheringa Bank (DSB)
vo101_dummy_14 MoneYou
vo101_dummy_15 Leaseplan Bank
vo101_dummy_16 Westland Utrecht Bank
vo101_dummy_17 NIB Capital
vo101_dummy_18 Allianz
vo101_dummy_19 AKBank
vo101_dummy_20 DHB Bank
vo101_dummy_21 GarantiBank
vo101_dummy_22 AnadoluBank
vo101_dummy_23 CreditEurope Bank
vo101_dummy_24 Argenta
vo101_dummy_25 Amsterdam Trade Bank (AT bank)
vo101_dummy_26 YapiCredi Bank
vo101_dummy_27 andere bank
o nee
1 ja

if (vo101_dummy_27)=1

vo1and

Welke andere bank bedoelt u?

if (vo101_dummy_n=1) >1

Indien u bij meerdere banken een rekening aanhoudt, wat zijn dan de belangrijkste redenen hiervoor?
Meerdere antwoorden mogelijk.

vo21_dummy_1 Daar heb ik niet bewust voor gekozen. Zo is het gewoon gelopen
vo21_dummy_2 Mijn partner had een rekening bij een andere bank, en die hebben we aangehouden
vo21_dummy_3 De verschillende rekeningen hebben ieder een specifieke bestemming (bijvoorbeeld uitgaven aan het huis of vakantiegeld)
vo21_dummy_4 Om te profiteren van zowel een hogere rente bij de ene bank als een goede betaalservice bij de andere

vo21_dummy_5 Om bij iedere bank beneden het maximumbedrag dat onder het depositogarantiestelsel valt te blijven

vo21_dummy_6 Zo spreid ik mijn risico. Als de éne bank failliet gaat, heb ik in ieder geval de andere nog

vo21_dummy_7 Anders

0 nee

1 ja

if(vo21_dummy_7)=1

vo2and

Welke andere reden bedoelt u?

{**rointro2**}

Nu stellen we u voor iedere bank waar u een rekening hebt (gehad) een paar vragen.

LOOP voor de 27 banken (n=1 t/m 27)

r[n]r1

In welk jaar ongeveer opende u uw eerste (gezamenlijke) rekening bij [naam bank] (of bij een voorganger van deze bank)?

1 voor 2007

2 in 2007

3 in 2008

4 in 2009

5 in of na 2010

r[n]r2a

Wat was toen de belangrijkste reden dat u klant werd?

1 Mijn familieleden en/of mijn partner hadden ook een rekening bij deze bank

2 Het was de bank met een filiaal bij mij in de buurt

3 De service bij deze bank had een goede reputatie

4 Deze bank betaalde een aantrekkelijke rente op spaartegoeden

5 Ik kreeg een leuke attentie als ik een rekening opende

6 Ik had veel vertrouwen in de financiële positie van deze bank

7 Ik werd verplicht klant (vanwege bijvoorbeeld mijn hypotheek of werkgever)

8 Anders

if(r01r2a=8)=1

r[n]zaand

Wat is dan de belangrijkste reden dat u klant werd?

r[n]r2

Hoeveel geld hebt u op dit moment in totaal bij [naam bank]aan tegoeden op de betaal- en/of spaarrekeningen?

1 Niets (de rekening is inmiddels gesloten)

2 Minder dan 5.000 euro

3 Tussen de 5.000 en 10.000 euro

4 Tussen de 10.000 en 25.000 euro

5 Tussen de 25.000 en 50.000 euro

6 Tussen de 50.000 en 75.000 euro

7 Tussen de 75.000 en 100.000 euro

8 Tussen de 100.000 en 150.000 euro

9 Meer dan 150.000 euro

10 Ik weet het echt niet

r[n]r3

Wat is op dit moment de belangrijkste reden om een rekening te hebben bij [naam bank]?

- 1 Ik heb nooit de moeite genomen om mijn rekening hier op te zeggen
- 2 Deze bank betaalt een aantrekkelijke rente op spaartegoeden
- 3 De service en producten bij deze bank bevallen me goed
- 4 Ik heb vertrouwen in de financiële positie van deze bank
- 5 Ik ben verplicht klant (vanwege bijvoorbeeld mijn hypotheek of werkgever)
- 6 Dit is niet van toepassing. Ik ben geen klant meer bij deze bank
- 7 Anders

r[n]r3and

Welke andere reden bedoelt u?

vo3

De volgende vragen gaan over de wereldwijde financiële crisis van 2007-2008.

Hebt u tijdens de crisis de beslissing genomen om uw spaargeld op een veiliger plek te stallen?

- 1 ja
- 2 nee

if vo3=ja

vo4

Wat hebt u toen precies met uw geld gedaan?

- 1 De tegoeden zijn overgeboekt naar een andere rekening bij dezelfde bank
- 2 De tegoeden zijn overgeboekt naar een andere bank
- 3 Het geld is uitgegeven aan alledaagse dingen (zoals huur, eten, vakanties)
- 4 Het geld is uitgegeven aan dingen die lang meegaan (zoals meubilair, auto, caravan)
- 5 Het geld is in een kluis gelegd
- 6 Ik heb het geld in aandelen belegd
- 7 Ik heb het geld in andere zaken belegd zoals obligaties, goud of durfkapitaal
- 8 Anders

if vo4=8

vo4and

Wat hebt u dan met uw geld gedaan?

{intro3}

De volgende vragen gaan over de kans dat banken in Nederland op verschillende manieren in de financiële problemen komen: de kans dat banken problemen krijgen hun tegoeden terug te betalen, de kans dat banken een beroep moeten doen op overheidssteun, en de kans dat banken failliet gaan. We stellen deze vragen over een aantal banken tegelijkertijd.

Hoe groot schat u de kans dat deze banken **binnen nu en vijf jaar problemen krijgen om tegoeden terug te betalen?**

Geeft u bij elke bank een antwoord tussen de 0 (geen enkele kans) en 100 (dat gaat zeker gebeuren).

vo9t1fi ING/ Postbank

vo9t2fi Rabobank

vo9t3fi ABN AMRO/ Fortis

vo9t4fi [^eigbank]

vo9t5fi [^klbank]

vo9t6fi [^buibank]

0..100

Hoe groot schat u de kans dat deze banken binnen nu en vijf jaar **een beroep doen op financiële steun van de Nederlandse overheid?**

Geeft u bij elke bank een antwoord tussen de 0 (geen enkele kans) en 100 (dat gaat zeker gebeuren)

v10t1fi ING/ Postbank

v10t2fi Rabobank

v10t3fi ABN AMRO/ Fortis

v10t4fi [^eigbank]

v10t5fi [^klbank]

v10t6fi [^buibank]

0..100

Hoe groot schat u de kans in dat deze banken binnen nu en vijf jaar **failliet gaan?**

Geeft u bij elke bank een antwoord tussen de 0 (geen enkele kans) en 100 (dat gaat zeker gebeuren).

v11t1fi ING/ Postbank

v11t2fi Rabobank

v11t3fi ABN AMRO/ Fortis

v11t4fi [^eigbank]

v11t5fi [^klbank]

v11t6fi [^buibank]

0..100

v11a

Hoeveel weet u over ING/Postbank? Geeft u een antwoord tussen de 1 en 5

1 ik ken deze bank helemaal niet 1

2 2

3 3

4 4

5 ik weet heel veel over deze bank 5

v11b

Hoeveel weet u over de Rabobank? Geeft u een antwoord tussen de 1 en 5

1 ik ken deze bank helemaal niet 1

2 2

3 3

4 4

5 ik weet heel veel over deze bank 5

v11c

Hoeveel weet u over ABN AMRO/Fortis? Geeft u een antwoord tussen de 1 en 5

1 ik ken deze bank helemaal niet 1

2 2

3 3

4 4

5 ik weet heel veel over deze bank 5

v11d

Hoeveel weet u over ^eigbank? Geeft u een antwoord tussen de 1 en 5

1 ik ken deze bank helemaal niet 1

2 2

3 3

4 4

5 ik weet heel veel over deze bank 5

v11e

Hoeveel weet u over ^klbank? Geef u een antwoord tussen de 1 en 5

1 ik ken deze bank helemaal niet 1

2 2

3 3

4 4

5 ik weet heel veel over deze bank 5

v11f

Hoeveel weet u over ^buibank? Geef u een antwoord tussen de 1 en 5

1 ik ken deze bank helemaal niet 1

2 2

3 3

4 4

5 ik weet heel veel over deze bank 5

v12

De volgende vragen gaan over de regeling die in werking treedt als een bank in Nederland failliet zou gaan. Die regeling noemen we het depositogarantiestelsel.

Stel ^nedbank gaat op 1-7-2011 failliet. Wat zal dan volgens de regels met de tegoeden van gewone spaarrekeninghouders van deze bank gebeuren? Neem aan dat de bank zelf de rekeninghouders niks meer kan betalen.

1 Deze bank valt niet onder het Nederlandse depositogarantiestelsel. De rekeninghouders zijn hun tegoeden kwijt

2 Deze bank valt niet onder het Nederlandse depositogarantiestelsel, maar wel onder het stelsel in een ander land. De rekeninghouders krijgen (een deel van) hun spaartegoeden terug

3 Deze bank valt onder het Nederlandse depositogarantiestelsel. De rekeninghouders kunnen hun spaartegoeden tot een bepaald maximum per persoon terugkrijgen

4 Deze bank valt onder het Nederlandse depositogarantiestelsel. De rekeninghouders krijgen altijd hun volledige tegoed terug

v13

Hoe zeker weet u dat dit het juiste antwoord is? Geef u een antwoord tussen de 1 en 5

1 absoluut niet zeker 1

2 2

3 3

4 4

5 absoluut zeker 5

v14

Hoe lang denkt u dat het ongeveer zal duren voordat een spaarrekeninghouder met een tegoed van 50.000 euro zijn geld terugkrijgt als ^nedbank failliet is?

1 Een week of korter

2 Twee weken

3 Een maand

4 Twee maanden

5 Drie maanden

6 Een half jaar

7 Een jaar of langer

v15

Hoe groot acht u de kans dat een spaarrekeninghouder met een tegoed van 50.000 euro haar tegoed in de werkelijkheid volledig zal terugkrijgen als ^nedbank failliet is?
Geef u een antwoord tussen de 0 (geen enkele kans) en 100 (dat gaat zeker gebeuren).

v16a

De volgende vragen gaan over het faillissement van ^IceDirk in oktober 2008.

De rekeninghouders van deze bank ontvingen na het faillissement in eerste instantie hun spaartegoeden (gedeeltelijk) terug van De Nederlandsche Bank. Wie betaalde er uiteindelijk (het grootste deel van) de rekening?

- 1 De Nederlandsche Bank zelf
- 2 De andere banken in Nederland
- 3 De Nederlandse overheid
- 4 De IJslandse overheid.
- 5 De andere banken in IJsland.
- 6 De Europese Centrale Bank
- 7 Ik zou het niet weten

v16b

De volgende vragen gaan over het faillissement van ^IceDirk in oktober 2009.

De rekeninghouders van deze bank ontvingen na het faillissement in eerste instantie hun spaartegoeden (gedeeltelijk) terug van De Nederlandsche Bank. Wie betaalde er uiteindelijk (het grootste deel van) de rekening?

- 1 De Nederlandsche Bank zelf
- 2 De andere banken in Nederland
- 3 De Nederlandse overheid
- 4 De Europese Centrale Bank
- 5 Ik zou het niet weten

v17

Waar of niet waar: Een rekeninghouder met een normale spaarrekening op zijn eigen naam had 120.000 euro op deze rekening bij ^IceDirk staan. Hij kreeg niet al zijn tegoeden terug.

- 1 waar
- 2 niet waar

v18

Waar of niet waar: Een rekeninghouder met een normale spaarrekening op zowel zijn eigen naam als op de naam van zijn vrouw had 150.000 euro op deze rekening bij ^IceDirk staan. Hij kreeg niet al zijn tegoeden terug.

- 1 waar
- 2 niet waar

v19

Hoe lang heeft het volgens u gemiddeld genomen geduurd voordat een spaarrekeninghouder met een tegoed van 50.000 euro zijn geld terugkreeg na het faillissement van ^IceDirk?

- 1 Een week of korter
- 2 Twee weken
- 3 Een maand
- 4 Twee maanden
- 5 Drie maanden
- 6 Een half jaar
- 7 Een jaar of langer

v20

Wat betekende het faillissement van ^IceDirk voor u?

- 1 Niets. Ik heb er zelf niets van gemerkt en ik heb daarna ook niets veranderd
- 2 Ik ben mij sindsdien meer bewust van de risico's van bankieren, maar ik heb niets veranderd
- 3 Ik ben mij sindsdien meer bewust van de risico's van bankieren en ik ben naar een veiligere bank overgestapt
- 4 Ik ben mij sindsdien meer bewust van de risico's van bankieren en ik ben mijn geld meer gaan spreiden over verschillende banken
- 5 Anders

if v20=5

v20and

Wat betekende het dan voor u?

if CRandom=1 then v211 endif
if CRandom=2 then v212 endif
if CRandom=3 then v213 endif
if CRandom=4 then v214 endif
if CRandom=5 then v215 endif
if CRandom=6 then v216 endif

v211

Stel dat er een nieuw depositogarantiestelsel wordt ingevoerd. Welke van de volgende drie beleidsopties heeft dan uw voorkeur?

- 1 Spaartegoeden bij Nederlandse banken worden tot een maximum van 20.000 euro vergoed. Het duurt 1 dag voordat, bij een faillissement, tot terugbetaling wordt overgegaan
- 2 Spaartegoeden bij Nederlandse banken worden tot een maximum van 40.000 euro vergoed. Het duurt 7 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan
- 3 Spaartegoeden bij Nederlandse banken worden tot een maximum van 100.000 euro vergoed. Het duurt 30 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan

v212

Stel dat er een nieuw depositogarantiestelsel wordt ingevoerd. Welke van de volgende drie beleidsopties heeft dan uw voorkeur?

- 1 Spaartegoeden bij Nederlandse banken worden tot een maximum van 20.000 euro vergoed. Het duurt 1 dag voordat, bij een faillissement, tot terugbetaling wordt overgegaan

- 2 Spaartegoeden bij Nederlandse banken worden tot een maximum van 40.000 euro vergoed. Het duurt 30 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan
- 3 Spaartegoeden bij Nederlandse banken worden tot een maximum van 100.000 euro vergoed. Het duurt 100 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan

v213

Stel dat er een nieuw depositogarantiestelsel wordt ingevoerd. Welke van de volgende drie beleidsopties heeft dan uw voorkeur?

- 1 Spaartegoeden bij Nederlandse banken worden tot een maximum van 20.000 euro vergoed. Het duurt 7 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan
- 2 Spaartegoeden bij Nederlandse banken worden tot een maximum van 40.000 euro vergoed. Het duurt 30 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan
- 3 Spaartegoeden bij Nederlandse banken worden tot een maximum van 100.000 euro vergoed. Het duurt 100 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan

v214

Stel dat er een nieuw depositogarantiestelsel wordt ingevoerd. Welke van de volgende drie beleidsopties heeft dan uw voorkeur?

- 1 Spaartegoeden bij Nederlandse banken worden tot een maximum van 20.000 euro vergoed. Het duurt 7 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan
- 2 Spaartegoeden bij Nederlandse banken worden tot een maximum van 40.000 euro vergoed. Het duurt 14 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan
- 3 Spaartegoeden bij Nederlandse banken worden tot een maximum van 100.000 euro vergoed. Het duurt 100 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan

v215

Stel dat er een nieuw depositogarantiestelsel wordt ingevoerd. Welke van de volgende drie beleidsopties heeft dan uw voorkeur?

- 1 Spaartegoeden bij Nederlandse banken worden tot een maximum van 20.000 euro vergoed. Het duurt 7 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan
- 2 Spaartegoeden bij Nederlandse banken worden tot een maximum van 40.000 euro vergoed. Het duurt 14 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan
- 3 Spaartegoeden bij Nederlandse banken worden tot een maximum van 100.000 euro vergoed. Het duurt 30 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan

v216

Stel dat er een nieuw depositogarantiestelsel wordt ingevoerd. Welke van de volgende drie beleidsopties heeft dan uw voorkeur?

- 1 Spaartegoeden bij Nederlandse banken worden tot een maximum van 20.000 euro vergoed. Het duurt 1 dag voordat, bij een faillissement, tot terugbetaling wordt overgegaan
- 2 Spaartegoeden bij Nederlandse banken worden tot een maximum van 40.000 euro vergoed. Het duurt 14 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan
- 3 Spaartegoeden bij Nederlandse banken worden tot een maximum van 100.000 euro vergoed. Het duurt 30 dagen voordat, bij een faillissement, tot terugbetaling wordt overgegaan

ev2t1 - ev2t5

NB: Maakt u alstublieft de vragenlijst af totdat u weer bij het beginscherm komt.

Pas dan registreert het systeem de vragenlijst als **volledig** ingevuld. Tot slot. Wat vond u van deze vragenlijst:

1 = beslist niet

5 = beslist wel

ev2t1 Vond u het moeilijk om de vragen te beantwoorden?

ev2t2 Vond u de vragen duidelijk?

ev2t3 Heeft de vragenlijst u aan het denken gezet?

eva2t4 Vond u het onderwerp interessant?

eva2t5 Vond u het plezierig om de vragen in te vullen?

1 beslist niet

2 2

3 3

4 4

5 beslist wel

opm

Hebt u nog opmerkingen over deze vragenlijst?

1 ja

2 nee

if (opm=1)

evaopm

U kunt uw opmerking hieronder invullen.

string

datumb

Datum begin vragenlijst

tijdb

Tijd begin vragenlijst

datume

Datum einde vragenlijst

tijde

Tijd einde vragenlijst



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