ECONSTOR Make Your Publications Visible.

A Service of

ZBW

Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre for Economics

Felso, Flora; Soetevent, Adriaan R.

Working Paper How Consumers use Gift Certificates

Tinbergen Institute Discussion Paper, No. 12-002/1

Provided in Cooperation with: Tinbergen Institute, Amsterdam and Rotterdam

Suggested Citation: Felso, Flora; Soetevent, Adriaan R. (2012) : How Consumers use Gift Certificates, Tinbergen Institute Discussion Paper, No. 12-002/1, Tinbergen Institute, Amsterdam and Rotterdam

This Version is available at: https://hdl.handle.net/10419/87502

Standard-Nutzungsbedingungen:

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

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

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

Terms of use:

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

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

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



WWW.ECONSTOR.EU

TI 2012-002/1 Tinbergen Institute Discussion Paper



How Consumers use Gift Certificates

Flóra Felsö¹ Adriaan R. Soetevent²

¹ Delft University of Technology; ² Amsterdam School of Economics, University of Amsterdam, and Tinbergen Institute. Tinbergen Institute is the graduate school and research institute in economics of Erasmus University Rotterdam, the University of Amsterdam and VU University Amsterdam.

More TI discussion papers can be downloaded at http://www.tinbergen.nl

Tinbergen Institute has two locations:

Tinbergen Institute Amsterdam Gustav Mahlerplein 117 1082 MS Amsterdam The Netherlands Tel.: +31(0)20 525 1600

Tinbergen Institute Rotterdam Burg. Oudlaan 50 3062 PA Rotterdam The Netherlands Tel.: +31(0)10 408 8900 Fax: +31(0)10 408 9031

Duisenberg school of finance is a collaboration of the Dutch financial sector and universities, with the ambition to support innovative research and offer top quality academic education in core areas of finance.

DSF research papers can be downloaded at: http://www.dsf.nl/

Duisenberg school of finance Gustav Mahlerplein 117 1082 MS Amsterdam The Netherlands Tel.: +31(0)20 525 8579

How consumers use gift certificates

Flóra Felsö^{*} Adriaan R. Soetevent! Delft University of Technology University of Amsterdam Tinbergen Institute

January 2, 2012

Abstract

There are two important reasons for consumers to spend gift certificates differently than gifts in cash or non-gift income: a) they are forced to change their shopping pattern because of the conditions imposed by the issuer of the certificates, or b) they purposely separate gift certificates from other sources of income. The first reason implies a welfare loss, the second reason does not. We survey consumers who have just redeemed one or more gift certificates. For the gift certificate considered in our empirical application, we find that consumers are not constrained by the set of accepting merchants but that they do make some small changes in the timing of expenditures because of the certificate's no-refund policy. About 14 percent of recipients separate their gift certificates from other income sources in order to buy a product they really love to have. Males tend to spend the certificates on ordinary items, whereas females are more likely to treat themselves by buying more personalized items.

JEL classification: D11, D12, D31 Keywords: gift giving, labeling

1 Introduction

People like to give others physical gifts despite the fact that these acts of gift-giving induce a deadweight loss when gift recipients value the gift less than the amount paid by the giver. In these instances, cash gifts are preferable from an efficiency perspective. Survey evidence however indicates that cash gifts are often seen as inappropriate because they do not show that the giver has given thought and put in effort to find the right present.¹ Gift certificates and gift cards may therefore be a good intermediate option between the two alternatives of giving an in-kind gift and giving cash (Offenberg, 2007). They

^{*}Delft University of Technology; Technology, Policy & Management; Jaffalaan 5; 2628 BX Delft; The Netherlands, f.a.felso@tudelft.nl.

[†]Corresponding author: University of Amsterdam, Amsterdam School of Economics, Roetersstraat 11, 1018 WB Amsterdam, The Netherlands, a.r.soetevent@uva.nl. A large part of the work on this paper was done while Felsö was a PhD student at the University of Amsterdam. We thank Peter Kooreman and seminar participants at the University of Essex for useful comments. This research project was financially supported by VVV Netherlands

¹Webley, Lea and Portalska (1983) and Camerer (1988).

preserve to some extent the idea that the giver has put in some effort while at the same time allowing the recipient to choose herself what to buy. Not surprisingly from this point of view, surveys show that gift cards have been the top gift choice in the US holiday season since 2004, with 64 percent of respondents in 2009 expecting to buy at least one (Deloitte, 2009). Despite their popularity, in an analysis on resales of gift cards at eBay, Offenberg concludes that gift cards have a welfare loss of 15-20 percent, a number comparable to the welfare loss of 10-30 percent Waldfogel (1993) calculated for physical gifts.²

Standard microeconomic demand theory prescribes that a recipient should spend certificates in the same way as she would spend cash received from labor income.³ There are however two main reasons for why recipients may not value cash gifts and gift certificates (or cards) similarly in practice. First, gift certificates and cards can only be redeemed at a selected number of shops, limiting the recipient's choice set: if the card can only be redeemed at shops she normally does not visit, she is forced to change her shopping pattern. In these instances, the perceived value of the certificate is likely to be lower than the face value. Arguably, the potential deadweight loss caused by this mismatch is larger for closed loop cards than for so-called open loop cards. Open loop cards can be redeemed at (chain)stores or restaurants other than the issuing provider. In her study of closed loop cards, Offenberg (2007) indeed finds that the discount on the face value is lower for stores with a wider product range and for cards charged with a smaller amount. A second reason for a recipient to spend certificates differently than cash from labor income is because she labels this component of her income: Having received the certificate from a friend or family member on her birthday gives her the impression that she ought to use it to buy something she would not buy otherwise.⁴

Where previous studies (Waldfogel, 1993, 1996, 2005; Solnick and Hemenway, 1996; List and Shogren, 1998) have focused on obtaining a direct estimate of the deadweight loss associated with different types of gifts by asking survey respondents to place a value on received in-kind gifts or by studying the resale value of unused gift cards, the present paper studies how consumers actually *use* gift certificates. Does receiving one or more gift certificates change shopping patterns in the sense that consumers frequent shops they normally would not visit or buy products they would not have

 $^{^{2}}$ Consistent with deadweight loss of in-kind gift giving increasing with the social distance between giver and recipient, Waldfogel (1993) reports that cash gifts are more common for those givers whose noncash gifts have the lowest expected value to recipients.

³For this reason, Waldfogel (1993) does not distinguish between cash and gift certificates in his empirical analysis and discussion.

⁴Note that this argument not only holds for gift certificates but for all gifts, including cash. From a practical perspective, studying the labeling effects of cash gifts by a survey like ours is impossible because cashiers cannot observe whether customers pay with labor income or gift income.

bought otherwise? Moreover, we investigate how the answer to these questions depends on the social proximity between giver and recipient. Whereas Offenberg's (2007) sample consists only of consumers willing to part with their gift cards, our sample is censored in that we only observe consumers who spend their certificates.

We study these questions using unique survey data on the use of the *VVV Cadeaubon*. The VVV Cadeaubon is one of the most well-known and highly used transferable paper gift certificates in the Netherlands. The VVV, the Dutch Tourist Board, issues the certificates.⁵ A major reason for its enduring popularity is that the certificate can be redeemed at a wide range of more than 18,000 retailers in different branches, including Books&Music, Fashion&Personal Care, Home&Gardening and DIY-stores. The VVV Cadeaubon is an open loop certificate which makes them a close substitute to cash.

The main characteristic that distinguishes our approach from previous empirical studies on gift certificates and gift cards is that we focus on the use of these cards by surveying consumers right after they have redeemed one or more certificates. To accomplish this, we sent flyers to a stratified sample of about 800 retailers throughout the Netherlands. We asked the retailers to give a flyer to every client who paid (part of) their purchase with a VVV Cadeaubon. The flyer invited consumers to fill in an online survey using a unique login name/password combination. In the time period from August 27, 2010 to May 4, 2011, a total of 1,050 respondents at 196 different shops completed the survey. The survey contains questions about when and from whom the certificate was received; how and where it was spent, and asks respondents about their background characteristics including gender, age and income. In particular, respondents are asked to compare the actual situation of having received and spent the certificate with two counterfactual situations: They are asked how they would spend an equal amount of cash if they had been given an envelope with cash instead of the gift certificate; and they are asked whether they would have bought this product (or a comparable product) without the gift certificate.⁶

The main result of our empirical analysis is that, although a large group of respondents spends gift certificates in the same way as cash, we also identify a considerable number of consumers who does separate gift income from other income sources in order to buy a nice and personal item. About 10% of all respondents is found to label all gift income; an additional 4% labels gift certificate income

⁵The VVV Cadeaubon has been sold since the 1960s and is highly popular: In 2010, 8.1 million certificates with a total value of \in 125,9 million were sold. The number of households is 7.4 million, which means that each household receives on average annually slightly more than one VVV Cadeaubon. After the book certificate (*Boekenbon*, about 34 million sold in 2008), is the most used certificate in the Netherlands.

⁶See Appendix A for a list of all survey questions.

but not cash gifts. Two-thirds of all consumers in the latter group indicate that, would they have received cash instead of a certificate, they would have spent it on everyday purchases. We further find that males and females respond differently to receiving a gift certificate. Females are more likely to make changes to their shopping pattern: they are more likely than men to buy a more expensive version of a product, to buy a product sooner or to buy an item they really like to have because of the certificate. Men are more likely to spend the certificate on planned expenditures. Quite naturally, certificates do not induce changes in shopping when the face value is small. Interestingly, the occasion at which the certificates are received and the social relationship between giver and recipient do not have a discernable impact on how the certificates are spent. The only result that stands out here is that suggestions by the gift-giver on how to spend the certificate are more likely to be followed if the giver is a household member.

Questions similar to ours have been posed in the literature concerning child benefit and food stamps. Kooreman (2000) reports empirical evidence that the marginal propensity to consume child clothing out of exogenous child benefits is much larger than the marginal propensity to consume the same product category out of other income sources. Del Boca and Flinn (1994) find that mothers receiving child support (and alimony) spend more on child related goods than mothers not receiving child support, holding total income constant. These results suggest that parents somehow earmark child benefit on child related costs. Also related are studies on the effect a particular type of in-kind transfers, food stamps, has on food expenditures. The evidence is mixed. Devaney and Moffitt (1991) find that the marginal propensity to consume food is three to seven times higher out of food stamp benefit than cash income. Other studies also find significantly positive effects (Senauer and Young, 1986; Hoynes and Schanzenbach, 2009) but Moffit (1989) and Kaushal and Gao (2011) find no effect.

The paper proceeds as follows. Section 2 presents a theoretical framework on how consumers spend gift certificates. We identify three different reasons for why consumers may spend gift certificates differently than cash income. We spell out the implications of each of these reasons for observed behavior. This naturally leads us to the formulation of the research hypotheses that will guide our empirical analysis. Section 3 introduces the VVV Cadeaubon and discusses our survey design. Section 4 presents our data. Section 5 contains the empirical analysis. Section 6 concludes.

2 Theoretical framework

Consider an economy with two normal goods X and Y. A unit of X (Y) is sold at price p_x (p_y). Consumer utility can be described by the Cobb-Douglas utility function:

$$u(x,y) = a\ln(x) + (1-a)\ln(y),$$
(1)

with x and y denoting the units consumed of goods X and Y, respectively, and $a \in (0, 1)$. Consumers are endowed with labor income m and face the budget constraint:

$$p_x x + p_y y \le m. \tag{2}$$

Because of the normality of both goods, an increase of c in labor income will lead to an increase in the consumption of both goods (see (1) in Figure 1a). From a theoretical perspective, rational consumers who receive a gift certificate with face value c should spend this gift in the same way as non-gift income whenever possible. That is, they should increase the consumption of X and Y with Δx and Δy , respectively. However, for a number of reasons, consumers may exhibit different behavior when they redeem gift certificates rather than spend cash, not all of them pointing to irrational behavior.

First, if a no refund policy is in place, consumers are forced to spend the entire face value at once at one particular shop. They may decide to visit a shop that offers good Y but not X, and to spend the certificate to buy $\Delta \hat{y} \equiv c/p_y$ units of goods Y. This does not imply that receiving the certificate increases total consumption of good Y with more than Δy , a situation presented by (2a) in Figure 1: spending on Y using the certificate may partly substitute for expenditures on Y using non-gift income. The non-gift income $p_y(\Delta \hat{y} - \Delta y)$ saved this way is available for increasing the consumption of X with Δx (situation (2b)). In this case, the effect of receiving a gift certificate instead of cash is limited to some (intertemporal) substitution and the effect on total utility is likely to be small.

A second reason is that the certificate can be redeemed at a limited number of shops only. As a consequence, the set of goods consumers can buy with the certificate is limited as well. This forces consumers to spend their certificate differently than cash if they can only use the certificate to purchase goods they normally would not buy or in a smaller quantity.⁷ In our two-good economy, this situation arises when consumers can only spend a certificate with face value c on good Y (for example because shops that redeem the certificate do not sell good X) and consumers with income m+c would normally

⁷More precisely: this only holds in combination with a no refund policy. If refunds are granted, consumers might visit the shop, buy a small item in order to get most of the face value refunded. Of course, consumers are not literally 'forced' to buy the good: we implicitly assume that consumers strictly prefer using the certificate to not using it. In our data, we only observe consumers who redeemed one or more certificates.

not spend c on product Y. This is the situation depicted by (3) in panel b of Figure 1. In this case, receiving a gift certificate increases total utility with less than when the same amount is received in cash. In her empirical study, Offenberg (2007) finds that the estimated welfare loss is lower for stores with a wider product range and for cards charged with a smaller amount. Given that the VVV Cadeaubon is an open loop certificate with a very wide coverage across shops, branches and regions and that more than half of all redeemed certificates in our sample have a face value of $\in 10$ (\approx \$14,50) or less, we do not expect this to be a major factor in our empirical application.

Third, consumers may set apart cash they received on special occasions (e.g. birthdays) from their other sources of income by labeling it 'gift income'. We hypothesize that this labeling – the separation of gift income from other sources of income – is easier when the gift is received in the form of a certificate. That is, we expect that some consumers who use cash gifts to make everyday purchases will spend gift certificates on personal items they maybe would not buy otherwise. By means of illustration, consider the following two-person household.

The utility function of each individual household member i (i = m, f) is described by

$$u_i(x, y_i) = a \ln(x) + (1 - a) \ln(y_i), \tag{3}$$

with x denoting aggregate household consumption of the household good X and y_i , members *i*'s consumption of the personal item Y (say X is food and Y perfume). Assume that the household members have an implicit or explicit agreement that only gift-income (either in the form of cash or certificates) can be used for buying units of the personal item Y, labor income (m) can only be spend on the household good X. The budget set of this household equals

$$B = \{ (x, y_m, y_f) \text{ in } (X, Y, Y) : p_x x \le m + c_m + c_f \land p_y y_m \le c_m \land p_y y_f \le c_f \},$$
(4)

with c_i the amount of gift income received by household member *i*. Consider the situation where the female receives gift income $(c_f > 0 \text{ and } c_m = 0)$. The effect on her budget constraint is shown by arrow (4) in panel c of Figure 1. Note that as in Figure 1b, the observed effect of receiving the certificate is an increase in spending on good Y by c. However, in this case, this increase is not driven by the limited use of the certificate but by the purposeful decision to spend the certificate differently than cash. Thus, receiving the certificate *in lieu* of cash does not lead to a lower increase in total utility; in fact, it may increase the utility of the consumer who spends the certificate by more than a similar increase in non-gift income or a gift in cash would have done: the increase in utility in Figure 1c is larger than in Figure 1b.

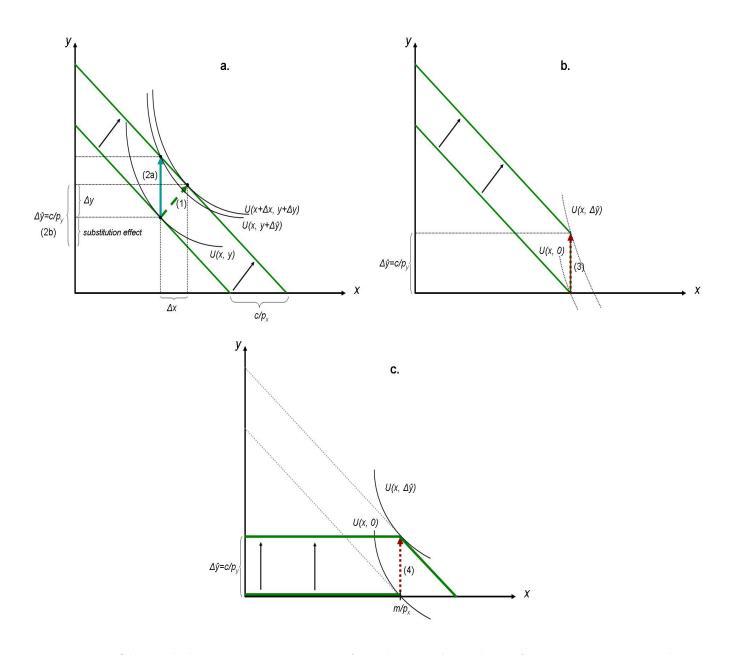


Figure 1: Observed changes in consumption of goods X and Y when gift income increases with c. **Panel a:** Rational consumers who can use the gift income to increase consumption of both X and Y. **Panel b:** The gift certificate forces consumers to buy more units of Y than they would buy when receiving the gift c in cash. **Panel c:** Consumers purposely separate gift income from their other sources of income.

In sum, we have considered why a consumer, who would use an increase of c in non-gift income to increase consumption of both goods X and Y (with Δx and Δy , respectively), might use a gift certificate of the same face value to buy $\Delta \hat{y}$ units of good Y. We have identified three different reasons:

1. No refund policy: consumers have to spend the face value of the certificate in one purchase so that they may be forced to buy a higher quantity of a good then they would have bought without the certificate. Nevertheless, goods bought with the certificates may substitute for goods otherwise bought with non-gift income;

- 2. Limits on the number of shops where the certificate can be redeemed: consumers may be forced to buy a higher quantity of a good than they would have bought without the certificate;
- 3. Labeling: consumers purposely separate gift-income from their other income sources to buy a specific item.

Our empirical analysis aims to sort out how important each of these three different motives is in spending gift certificates. More specific, we wish to separate the labeling effect from the other motives. We do so by asking a large sample of consumers who have just redeemed one or more certificates detailed questions about how they received and spent their certificate(s). In particular, we ask them to compare the situation of receiving a certificate to the alternative situations of: a not having received a certificate; b having received the same amount in cash. In a separate question, we asked them to indicate the reasons for why they used the certificate to buy the product they actually bought.

Based on the theory above, Table 1 summarizes our research hypotheses.

A consumer unconstrained by the restrictions in redeeming certificates (i.e. the no refund policy and the limited number of participating shops) and not susceptible to labeling effects, will report that she would also buy the product without the certificate. The certificate did not change her shopping pattern in the sense that she bought a more expensive version of the product, larger quantities, bought the product sooner or visited a shop she does not visit normally. When asked to compare receiving a gift certificate to receiving the same amount in cash, this unconstrained consumer will answer that she would spend the cash gift in exactly the same way. In particular, she would buy in the same shop at the same time. As a reason for why she bought a particular item with the certificate, she will indicate that she had already planned to buy the product. (Situation (1) in Figure 1a.)

A consumer constrained by the no-refund policy is likely to indicate that – because of the certificate – she bought larger quantities of the good or to have bought the item sooner than she would have done otherwise (anticipating future consumption, along the lines of (2b) in Figure 1a). Another possibility is that the absence of refunds has led her to buy a more expensive version of the product or to look for a product the price of which matched the face value of the certificate.

A consumer constrained by the fact that not all shops accept the certificate as a means of payment will report that because of the certificate, she has visited a shop she normally does not visit and that

| | | No labeli | ng | Labeling |
|---|------------|------------------------|---|----------|
| Constraints: | none | no refund policy | no refund policy & limited number of shops | |
| Alternative a: Bought similar product without certificate? If "YES": bought | Yes | Yes/No | Yes/No | Yes/No |
| more expensive version | | + | | |
| more in terms of quantity | | + | | |
| in shop normally not frequented | | | ++ | |
| product sooner | | + | | |
| Alternative b: Received cash gift instead of gift certificate How would you have spent the cash? Cash gift spent in exactly the same way | ++ | | | _ |
| Spent cash gift on different gift item | | | | |
| Spent cash gift on everyday purchases Spent cash gift in the same shop Spent the cash earlier | ++ | | | + |
| Reasons to spend gift certificate(s) on this product: I had already planned to buy this product I would love to buy something that I would not buy that easily otherwise The giver suggested I should use the gift certificate to buy this product The price of the product matched the value of the gift certificate | ++ | + | + | ++ + |
| Effect social proximity giver and recipient | No | No | No | Maybe |
| Effect occasion | No | No | No | Maybe |
| How many times did you visit this shop in past 12 months? | > 0 | | 0 | |
| Revisit shop in next 12 months? | Yes | | | |
| | | | | |

Table 1: Research hypotheses.

Notes: ++: the respondent agrees with this statement; +: the respondent is likely to agree with this statement; -: the respondent is likely not to agree with this statement; -: the respondent does not agree with this statement.

she would have spent a cash gift differently. (Situation (3) in Figure 1b.)

A consumer who labels gift certificate income by separating it consciously or unconsciously from other sources of income will report that she used the certificate to buy a product she would really like but would not have bought that easily without the certificate. (Situation (4) in Figure 1c.) We also hypothesize that, because of the distinct physical differences between certificates and cash, it is easier for consumers to separate gift certificates than cash gifts from their other income sources.⁸

We further hypothesize that whether or not consumers label their received certificates may depend on their relationship with the giver: if the giver and recipient are in close social proximity (friends, family), recipients may feel more pressed to use the certificate to buy a specific item than when the relationship is more impersonal (for example, employee-employer relationships). Your mother might ask you to show her what you bought with the certificate, you employer is less likely to do so. The fact that the giver made an explicit suggestion what to buy with the certificate may also positively affect the propensity to label. In our empirical analysis, the variable that identifies labeling is agreement with the statement that one bought a particular item out of a desire to buy something that one would not have been bought that easily without the certificate. To test for the effect of social proximity and a number of other characteristics on the tendency to label gift certificates, we regress whether or not consumers label on a number of variables, like the characteristics of the giver and the recipient and the occasion at which the certificate was received.

3 Survey design

In this section we describe and discuss the details of our survey design. As mentioned, we targeted consumers who had just redeemed one or more gift certificates at one of the shops in our sample. The VVV Cadeaubon has a number of features in common with the gift cards studied in previous papers (e.g. Offenberg, 2007). Like most Dutch gift cards, the VVV Cadeaubon is fully transferable, does not have an expiration date and both givers and recipients do not face any administrative fees.⁹ The VVV Cadeaubon however differs from gift cards in a number of other product dimensions. Unlike many gift cards, the VVV Cadeaubon is a paper certificate that cannot be reloaded and cannot be used multiple times: consumers have to spend the face value of the certificate in one purchase. As refunding is not

⁸Cash gifts are more likely to be stored between the other cash in one's wallet. But even when one separates it from other cash by putting in the cupboard, one is likely to forget from whom and on what occasion the cash was received, especially smaller amounts.

⁹Accepting retailers do pay a fee to the VVV. This fee consists of a variable 4.5% commission over the sales paid with certificates plus occasionally a fixed annual membership fee to the local branch of the Tourist Board. The level of this fixed fee differs across regions.

allowed, consumers are induced to purchase goods with at least the value of the certificate.

Throughout the Netherlands about 18,000 retailers accept the certificate as a means of payment, among which most of the major retail chains. Due to its wide acceptance, the VVV Cadeaubon arguably is a closer substitute for cash than the gift cards and gift certificates that were the object of previous studies. The transferability of open loop gift certificates and their use not being tied to any particular retail chain makes it difficult to find users and survey them just after they have redeemed one or more certificates.¹⁰ In general, the greater the length of the period between the purchase and the survey, the greater the expected response bias due to respondent retrieval and reporting error (Bound *et al.*, 2001).

To overcome the two challenges of identifying certificate users and minimizing recall bias, we received from the VVV a list of all accepting retailers in the Netherlands. We requested a selected number of these retailers to hand out a flyer to consumers who paid (part of) their purchase with the VVV Cadeaubon.¹¹ These retailers received a package containing flyers and stickers. The flyer contained a unique login name and password and invited consumers to fill out an online questionnaire.¹² Respondents were rewarded with a \in 5 VVV Cadeaubon when they completed the survey.¹³ The sticker could be attached to the counter to remind cashiers to hand out flyers.

We sent flyers to a total number of 796 shops selected from the list of shops that accept the VVV cadeaubon as a means of payment. We oversampled shops in non-urban areas because we expected the response per shop to be lower in non-urban areas because of lower numbers of visitors: Whereas of all accepting shops about 40 percent are located in non-urban areas, 75 percent of the shops approached is located in non-urban areas. The questionnaire was online between August 27, 2010 and May 4, 2011. During this period, 1,426 consumers who had redeemed one or more gift certificates filled out the survey. In total, we discarded 376 observations for our analysis for different reasons. The majority of the discarded observations, 193, were dropped because respondents, when asked to name the shop where they redeemed the certificate, mentioned a different shop than the one from which they received the flyer,¹⁴ 113 observations were dropped because the ip-address from where the questionnaire was

¹⁰The information VVV Netherlands collects is limited to the number and value of certificates used (at the shop level), they do not have any information on the identity of users.

¹¹As we are only interested in retailers, we exclude non-shops that accept the VVV Cadeaubon from our analysis. Examples of such non-shops are: hotels and restaurants, travel agencies, libraries, museums, amusement parks, rentals, charity and postorder shops.

 $^{^{12}}$ Appendix A lists the questions in the survey. The questionnaire and stickers can also be found at the project's web site, www.tinyurl.com/vvvcertificate.

¹³Only one survey could be filled out per address, preventing a loop the same respondent filling out the survey multiple times. The reward was paid for and sent by VVV Netherlands.

¹⁴The unique login names allows us to relate respondents to the shop where they received the flyer. In theory, it is possible that respondents received more than one flyers if they redeemed certificates in multiple shops. However, this

filled in and/or the home address (postal code and house number) was non-unique or because the given home address of the respondent matched with the address of the retailer.¹⁵ 62 observations were dropped because respondents did not complete the survey. Eight further observations were dropped because these certificates were redeemed in grocery stores or gasoline stations. This leave us with a final sample of 1,050 observations, which is considerably more than in previous studies.

196 different shops were responsible for all completed surveys, which implies that 25% (= 196/796) of the selected shops successfully distributed flyers. Reasons for the other selected shops not generating positive response are that some shops no longer existed or did no longer accept the VVV Cadeaubon (most frequently due to change of ownership or change of shop profile) or because they were not visited by consumers redeeming one or more certificates during the period of data collection.¹⁶ A potential worry is that the non-response of some shops causes the sample to be non-representative. Figure 2 compares the geographical distribution of the shops approached (left panel) with the distribution of shops from which we received one or more completed surveys (right panel). This comparison does not reveal that a particular region is under- or over-represented.¹⁷

4 Data description

Table 2 offers summary statistics about the respondents. About 75% of all respondents is female, which is line with other studies that also report that the majority of gift certificates is redeemed by females (GfK, 2006 and The Choice, 2007). The average respondent is 44 years old and member of a household of size three (the Dutch average is 2.2). 30 percent of all respondents live in urban areas, this low number reflects our oversampling of shops in rural areas. The average income of those households in our sample willing to report their income (approximately half of the respondents) corresponds well with the average net income of \in 32,900 of Dutch households in 2010 as reported by Statistics Netherlands (CBS). Respondents redeemed on average two certificates with a total value of

is unlikely given that in a given village, only a very selected number of shops participates in the survey. From personal communications with shop representatives, we know that in a number of cases mismatches have occurred because shops did not adhere to the instructions and gave flyers to all customers instead of only to those who redeemed a certificate. These respondents answered the questions for visits to other shops or hypothetical visits. We consider these observations as less reliable because the answers might be fake or be biased by loss of memory.

¹⁵The majority of these observations probably concerns a shop owner or an employee tempted to fill out the questionnaire and to collect the reward, and to a lesser extent respondents trying to fill out the questionnaire multiple times.

¹⁶Other reasons for not participating are busy cash registers (grocery stores), too much promotion material at the cash register (cosmetics) or permission needed from franchiser (among which a number of shops in household appliances, a chain in drugstores, a book store, a gardening shop and a music store). Three shops refused to hand out flyers because they did not want to promote the VVV Cadeaubon: they preferred their clients not to use the VVV Cadeaubon as method of payment to avoid the commission fee of 4.5% participating shops have to pay to VVV Netherlands.

¹⁷More details on the sample design are presented in Section A of the online Appendix.



Figure 2: Geographical distribution of selected shops (left panel) and shops with positive response (right panel)

about $\in 30$. The average time between receiving and spending the certificate is 2.7 months.¹⁸ The average respondent traveled approximately 7 km to the shop.

The most popular occasions to give a gift certificate are birthdays (39%), Christmas (25%) or (voluntarily) work related occasions (17%). Respondents frequently received the gift certificate from their employer (32%), from friends (27%) or from distant family (21%). Similar to Waldfogel (1993), we find that it is less common for partners and close family members to give each other gift certificates. The giver is on average 4 years older than the recipient.¹⁹

Table 2 provides some indication that the limited set of shops at which the VVV Cadeaubon can be redeemed does not impose restrictions on the shopping behavior of the majority of consumers: 91.9 % of respondents visited the shop where they redeemed the certificate before in the past twelve months; 98.7 per cent of respondents visited at least one of the 10 major accepting chain stores in the past 12 months. In total, 98.8 % plans to return, among the respondents who did not visit the

¹⁸This is considerably less than the 9 months documented by VVV Netherlands. There may be four reasons for this: (1) In their calculation, VVV Netherlands takes the issuance of the certificate as the starting date; this date is earlier than the date that the recipient receives the certificate; (2) some respondents could not recall the date of receiving the certificate and the probability that one recalls this date is likely to be negatively correlated with the time since receiving the certificate; (3) our period of data collection includes the four months after Christmas and the VVV certificate is a popular Christmas gift; (4) the VVV certificate may be transferred to another consumer, who subsequently answers the time since she received the certificate.

¹⁹The number of observations on this variable is much less than the sample size because it is impossible to give an estimate of giver's age in cases where respondents received the gift certificate from a firm or an institution (e.g. Christmas gifts to employees, certificates used as lottery prizes etc.) or from multiple givers of varying age.

shop in the last twelve months, this number is 67.6%. Considering the changes in consumption due to receiving the certificate, Table 2 reveals that 80% of respondents reported that they would have bought the main product also without the gift certificate. Among these respondents, we do however observe some shifts in the timing and place of purchase: 19% bought the product sooner, 15% bought a more expensive version, 12% a higher quantity. These changes may be caused by the circumstance that no refund is given in case the total value of the transaction is lower than the face value of the certificate. 12% buys in a different shop than they would normally buy that particular item. About half of the respondents indicate that they would have spent a cash gift in an identical way.

Table 3 gives the characteristics of the average respondent at the branch level.²⁰ While in every branch considered the majority of respondents is female, their share is – perhaps not surprisingly – significantly lower in the branches "DIY" and "Electronics". The latter branch is also the one with the highest average value of redeemed certificates (\in 58.80). The highest average transaction values are observed in the branches "Bicycles, sport & leisure" and "Electronics" (\in 175.88 and \in 140.48, respectively). Respondents in the branch "Toys & Games" have the lowest average age (35.99 years). Together with "HEMA", this branch has the lowest average transaction values (\in 38.21 and \in 35.04, respectively). The fraction of respondents who report that they would also have bought the item without the certificate is largest in the branches "DIY" (0.889) "Bicycles, sport & leisure" (0.882) and "Garden, flowers and animals" (0.870) and by far lowest in the branch "Jewelery" (0.500). "Jewelery" is also the branch in which respondents have the lowest average reported income.

 $^{^{20}}$ Classification according to VVV Netherlands. Table C.12 in the online appendix gives similar information at the more detailed shop level.

| | (00 0110 | rooponia | | | |
|--|----------|----------|--------------|----------------|-------|
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| | I | Respond | ent charac | teristi | cs |
| female | 1050 | 0.747 | 0.435 | 0 | 1 |
| age (recipient) | 1050 | 43.998 | 14.477 | 13 | 80 |
| age (giver) | 649 | 47.072 | 14.205 | 0 | 90 |
| household size | 1050 | 3.020 | 1.384 | 1 | 10 |
| income [cat. $1-8$] | 513 | 4.446 | 1.803 | 1 | 8 |
| urban (recipient) | 1050 | 0.305 | 0.461 | 0 | 1 |
| | | Cer | tificates sp | \mathbf{ent} | |
| urban (shop) | 1050 | 0.279 | 0.449 | 0 | 1 |
| total face value | 1050 | 30.493 | 37.991 | 5 | 742.5 |
| number of certificates | 1050 | 2.079 | 2.766 | 1 | 67 |
| time lag receiving and spending (months) | 1006 | 2.666 | 3.323 | 0 | 32 |
| distance recipient to shop | 1043 | 6.918 | 18.842 | 0 | 192.6 |
| | R | elation | recipient a | nd giv | ver |
| age (giver-recipient) | 643 | 4.157 | 16.284 | -41 | 60 |
| Partner/household member | 1050 | 0.053 | 0.225 | 0 | 1 |
| Family | 1050 | 0.210 | 0.408 | 0 | 1 |
| Friends | 1050 | 0.265 | 0.441 | 0 | 1 |
| Colleagues | 1050 | 0.101 | 0.301 | 0 | 1 |
| Employer | 1050 | 0.317 | 0.466 | 0 | 1 |
| | | | Occasion | | |
| Birthday | 1050 | 0.390 | 0.488 | 0 | 1 |
| Christmas/St. Nicholas Day | 1050 | 0.251 | 0.434 | 0 | 1 |
| Volunteering | 1050 | 0.170 | 0.375 | 0 | 1 |
| Farewell | 1050 | 0.065 | 0.246 | 0 | 1 |
| Employer | 1050 | 0.051 | 0.221 | 0 | 1 |
| Jubilee | 1050 | 0.051 | 0.221 | 0 | 1 |
| | | Change | s in consur | nptior | 1 |
| Cash gift spent identical | 1050 | 0.510 | 0.500 | 0 | 1 |
| Bought similar product without certificate | 1050 | 0.794 | 0.404 | 0 | 1 |
| if "YES": bought | | | | | |
| more expensive version | 834 | 0.140 | 0.347 | 0 | 1 |
| more in terms of quantity | 834 | 0.120 | 0.325 | 0 | 1 |
| in shop normally not frequented | 834 | 0.115 | 0.319 | 0 | 1 |
| product sooner | 834 | 0.187 | 0.390 | 0 | 1 |
| Visited shop in past 12 months | 1050 | 0.919 | 0.273 | 0 | 1 |
| Revisit shop in next 12 months | 897 | 0.975 | 0.155 | 0 | 1 |
| visited in past 12 months and revisit | 860 | 0.988 | 0.107 | 0 | 1 |
| not visited in past 12 months but revisit | 37 | 0.676 | 0.475 | 0 | 1 |
| Visited at least one chain in past 12 months | 1050 | 0.987 | 0.115 | 0 | 1 |
| | | | | | |

Table 2: Summary statistics (at the respondent level)

| shop | urban | 0.261 | (0.038) | 134 | 0.092 | (0.024) | 141 | 0.891 | (0.046) | 46 | 0.043 | (0.016) | 162 | 0.208 | (0.034) | 144 | 0.655 | (0.063) | 58 | 0.319 | (0.055) | 72 | 0.431 | (0.062) | 65 | 0.565 | (0.060) | 69 | 0.426 | (0.060) | 68 | 0.200 | (0.060) | 45 | 0.022 | (0.022) | 46 | 0.279 | (0.014) 1050 |
|---------------|------------|--------|---------|------|-----------|------------|------|-------------|----------|------|---------|--------------|---------|---------|---------|------|----------------|------------|------|--------|---------|------|---------------|---------|------|-----------|---------|------|----------|----------|-----------|----------|----------------|-----------|----------|---------|------|--------|-----------------|
| income | (cat. 1-8) | 4.238 | (0.241) | 63 | 4.213 | (0.203) | 75 | 4.519 | (0.326) | 27 | 4.457 | (0.187) | 81 | 4.754 | (0.238) | 69 | 4.300 | (0.349) | 20 | 4.892 | (0.265) | 37 | 4.233 | (0.317) | 30 | 4.636 | (0.319) | 33 | 4.971 | (0.347) | 35 | 4.136 | (0.350) | 22 | 3.571 | (0.362) | 21 | 4.446 | (0.080) 513 |
| | employer | 0.381 | (0.042) | 134 | 0.348 | (0.040) | 141 | 0.500 | (0.075) | 46 | 0.247 | (0.034) | 162 | 0.257 | (0.037) | 144 | 0.190 | (0.052) | 58 | 0.306 | (0.055) | 72 | 0.308 | (0.058) | 65 | 0.362 | (0.058) | 69 | 0.324 | (0.057) | 68 | 0.378 | (0.073) | 45 | 0.348 | (0.071) | 46 | 0.317 | (0.014) 1050 |
| mo | colleagues | 0.090 | (0.025) | 134 | 0.071 | (0.022) | 141 | 0.130 | (0.050) | 46 | 0.086 | (0.022) | 162 | 0.104 | (0.026) | 144 | 0.190 | (0.052) | 58 | 0.139 | (0.041) | 72 | 0.108 | (0.039) | 65 | 0.101 | (0.037) | 69 | 0.088 | (0.035) | 68 | 0.111 | (0.047) | 45 | 0.065 | (0.037) | 46 | 0.101 | (0.009) 1050 |
| Received from | friends | 0.224 | (0.036) | 134 | 0.255 | (0.037) | 141 | 0.239 | (0.064) | 46 | 0.302 | (0.036) | 162 | 0.271 | (0.037) | 144 | 0.276 | (0.059) | 58 | 0.264 | (0.052) | 72 | 0.277 | (0.056) | 65 | 0.275 | (0.054) | 69 | 0.235 | (0.052) | 68 | 0.289 | (0.068) | 45 | 0.261 | (0.065) | 46 | 0.265 | (0.014) 1050 |
| | family | 0.164 | (0.032) | 134 | 0.199 | (0.034) | 141 | 0.087 | (0.042) | 46 | 0.278 | (0.035) | 162 | 0.194 | (0.033) | 144 | 0.241 | (0.057) | 58 | 0.181 | (0.046) | 72 | 0.246 | (0.054) | 65 | 0.159 | (0.044) | 69 | 0.279 | (0.055) | 68 | 0.311 | (0.070) | 45 | 0.152 | (0.054) | 46 | 0.210 | (0.013) 1050 |
| | partner | 0.067 | (0.022) | 134 | 0.071 | (0.022) | 141 | 0.022 | (0.022) | 46 | 0.037 | (0.015) | 162 | 0.028 | (0.014) | 144 | 0.138 | (0.046) | 58 | 0.069 | (0.030) | 72 | 0.077 | (0.033) | 65 | 0.014 | (0.014) | 69 | 0.059 | (0.029) | 68 | 0.044 | (0.031) | 45 | 0.022 | (0.022) | 46 | 0.053 | (0.007) 1050 |
| cash | same | 0.500 | (0.043) | 134 | 0.511 | (0.042) | 141 | 0.565 | (0.074) | 46 | 0.463 | (0.039) | 162 | 0.507 | (0.042) | 144 | 0.414 | (0.065) | 58 | 0.625 | (0.057) | 72 | 0.508 | (0.062) | 65 | 0.507 | (0.061) | 69 | 0.485 | (0.061) | 68 | 0.556 | (0.075) | 45 | 0.587 | (0.073) | 46 | 0.510 | (0.015) 1050 |
| bought | without | 0.851 | (0.031) | 134 | 0.794 | (0.034) | 141 | 0.804 | (0.059) | 46 | 0.870 | (0.026) | 162 | 0.736 | (0.037) | 144 | 0.707 | (0.060) | 58 | 0.889 | (0.037) | 72 | 0.831 | (0.047) | 65 | 0.754 | (0.052) | 69 | 0.882 | (0.039) | 68 | 0.667 | (0.071) | 45 | 0.500 | (0.075) | 46 | 0.794 | (0.012) 1050 |
| month | ago | 2.124 | (0.248) | 129 | 3.008 | (0.282) | 133 | 2.689 | (0.407) | 45 | 3.134 | (0.291) | 157 | 2.903 | (0.345) | 134 | 2.589 | (0.437) | 56 | 2.275 | (0.285) | 69 | 2.581 | (0.437) | 62 | 2.484 | (0.463) | 64 | 2.441 | (0.405) | 68 | 2.568 | (0.421) | 44 | 2.356 | (0.450) | 45 | 2.666 | (0.105) 1006 |
| value | spent | 35.044 | (2.683) | 134 | 43.535 | (3.031) | 141 | 140.483 | (33.262) | 46 | 49.559 | (5.450) | 162 | 40.789 | (5.249) | 144 | 47.498 | (5.850) | 58 | 53.934 | (6.056) | 72 | 94.724 | (8.833) | 65 | 38.219 | (3.437) | 69 | 175.881 | (68.588) | 68 | 52.343 | (5.572) | 45 | 73.379 | (9.284) | 46 | 61.259 | (5.027) 1050 |
| total value | cert. | 24.440 | (1.482) | 134 | 27.021 | (1.683) | 141 | 58.804 | (11.573) | 46 | 31.898 | (4.839) | 162 | 25.556 | (2.135) | 144 | 26.810 | (4.074) | 58 | 32.118 | (4.140) | 72 | 35.038 | (3.746) | 65 | 25.761 | (3.010) | 69 | 36.544 | (4.049) | 68 | 24.889 | (2.243) | 45 | 40.272 | (4.895) | 46 | 30.493 | (1.172) 1050 |
| | giver | 45.118 | (1.471) | 26 | 45.565 | (1.504) | 85 | 45.789 | (2.633) | 19 | 48.532 | (1.341) | 111 | 49.963 | (1.722) | 80 | 49.500 | (2.405) | 42 | 48.319 | (2.159) | 47 | 47.649 | (2.439) | 37 | 41.349 | (2.064) | 43 | 45.444 | (2.029) | 45 | 50.441 | (2.259) | 34 | 44.767 | (2.588) | 30 | 47.072 | (0.558) 649 |
| age | recipient | 39.552 | (1.153) | 134 | 46.241 | (1.239) | 141 | 46.130 | (2.009) | 46 | 46.747 | (1.110) | 162 | 48.333 | (1.151) | 144 | 42.897 | (1.967) | 58 | 45.958 | (1.491) | 72 | 44.246 | (2.033) | 65 | 35.986 | (1.418) | 69 | 40.368 | (1.524) | 68 | 41.933 | (2.438) | 45 | 42.065 | (2.351) | 46 | 43.998 | (0.447) 1050 |
| | female | 0.828 | (0.033) | 134 | 0.766 | (0.036) | 141 | 0.609 | (0.073) | 46 | 0.759 | (0.034) | 162 | 0.681 | (0.039) | 144 | 0.828 | (0.050) | 58 | 0.583 | (0.059) | 72 | 0.785 | (0.051) | 65 | 0.797 | (0.049) | 69 | 0.632 | (0.059) | 68 | 0.822 | (0.058) | 45 | 0.870 | (0.050) | 46 | 0.747 | (0.013) 1050 |
| | | mean | s.e. | obs. | mean | s.e. | obs. | mean | s.e. | obs. | mean | s.e. | obs. | mean | s.e. | obs. | mean | s.e. | obs. | mean | s.e. | obs. | mean | s.e. | obs. | mean | s.e. | obs. | mean | s.e. | obs. | mean | s.e. | obs. | mean | s.e. | obs. | mean | s.e. obs. |
| | Branch | HEMA | | | Household | appliances | | Electronics | | | Garden, | flowers $\&$ | animals | Books & | music | | Cosmetics $\&$ | drugstores | | DIY | | | Clothing $\&$ | shoes | | Toys $\&$ | games | | Cycling, | sport | & leisure | Interior | furniture $\&$ | ornaments | Jewelery | | | Total | |

Table 3: Summary statistics (at the branch level)

5 Analysis

In Section 2, we have identified three reasons for why consumers might spend gift certificates differently than non-gift income. A first reason is that, other than cash, the certificate can only be redeemed at a limited number of shops. The information in Table 2 already showed that for most consumers, this is not a real impediment: almost all of them have visited one or more of the accepting major chains and 91.9% redeem the certificate at a shop they visited before in the preceding 12-month period. In order to separate the other two reasons, we asked respondents to evaluate two hypothetical situations:

- **Question A:** Would you have bought this product (or a comparable product) without the gift certificate?
- **Question B:** Suppose that you received an envelope with cash of an equal amount instead of the gift certificate. How would you have spent the cash?

Question A needed to be answered with either yes or no. In answering Question B, respondents could select one or more pre-printed options but they could as well add their own answer by selecting "other". One of the pre-printed answers was "I would have spent cash in exactly the same way." In Table 4, we categorize respondents into four groups, based on their answer to Question A (rows) and on whether or not they checked the box next to the statement "I would have spent the cash in the exact same way" (columns).²¹

We observe that almost half of our respondents (group I, 43.7%) says that they also would have bought the product without the certificate and that the circumstance that they received a gift certificate instead of direct money did not affect the way they spent the gift. In a number of cases, receiving the certificate did lead these respondents to buy: a more expensive version of the product (11.8%); to buy in terms of quantity (9.4%); to buy in a shop normally not frequented (10.2%) or to buy the product sooner than they would have done otherwise (16.8%). These consumers probably react to the fact that no refund is given which presses them to spend they entire face value at once.

Another large group of respondents (group II, 35.7%) indicates that they would have bought a similar product without the certificate, but that they would have spent a cash gift differently than they have spent the gift certificate. The question is whether the limited number of accepting merchants forced these consumers to visit a shop they usually not visit and to buy an item they normally would

²¹Table 4 shows that a minority respondents who checked this box selected multiple answers. In half of these cases ((33+6) = 39 out of 79), the other answer that is selected is "I would have spent the cash in the same shop" which is consistent with the answer "I would have spent the cash in the exact same way".

| | | Qu | estion | B: |
|---|-----------|----------------------------------|------------|--|
| | Spen | t cash gift i | in exact | the same way |
| | | Ι | | II |
| | | Yes | | No |
| Yes | 459 | 43.7% | 375 | 35.7% |
| $Bought^1 \dots$ | | | | |
| more expensive version | 54 | 11.8% | 63 | $16.8\%^{\dagger\dagger}$ |
| more in terms of quantity | 43 | 9.4% | 57 | $15.2\%^{\dagger\dagger\dagger}$ |
| in shop normally not frequented | 47 | 10.2% | 49 | 13.1% |
| product sooner | 77 | 16.8% | 79 | 21.1% |
| $Cash \ spent^2 \ \dots$ | | | | |
| to buy different gift item | 9 | 2.0% | 34 | $9.1\%^{\dagger\dagger\dagger}$ |
| to buy everyday purchases | 20 | 4.4% | 240 | $64.0\%^{\dagger\dagger\dagger}$ |
| in the same shop | 33 | 7.2% | 17 | 4.5% |
| earlier | 8 | 1.7% | 101 | $26.9\%^{\dagger\dagger\dagger}$ |
| Reasons to spend gift certificate(s) on this product: | | | | |
| already planned to buy this product | 386 | 84.1% | 263 | $70.1\%^{\dagger\dagger\dagger}$ |
| love to buy something not easily bought otherwise | 35 | 7.6% | 32 | 8.5% |
| giver suggested to buy this item | 14 | 3.1% | 12 | 3.2% |
| price matched value certificate | 48 | 10.5% | 70 | $18.7\%^{\dagger\dagger\dagger}$ |
| | | III | | IV |
| No | 76 | 7.2% | 140 | 13.3% |
| $Cash \ spent^2 \ \dots$ | | | | |
| to buy different gift item | 2 | 2.6% | 14 | $10.0\%^{**}$ |
| to buy everyday purchases | 1 | 1.3% | 93 | $66.4\%^{***}$ |
| \dots in the same shop | 6 | 7.9% | 8 | 5.7% |
| earlier | 0 | 0.0% | 27 | $19.3\%^{\ddagger,***}$ |
| Reasons to spend gift certificate(s) on this product: | | | | |
| already planned to buy this product | 24 | $31.6\%^{\dagger\dagger\dagger}$ | 13 | $9.3\%^{\ddagger\ddagger\ddagger,***}$ |
| love to buy something not easily bought otherwise | 45 | $59.2\%^{\dagger\dagger\dagger}$ | 106 | $75.7\%^{\ddagger\ddagger,**}$ |
| giver suggested to buy this item | 6 | $7.9\%^{\dagger\dagger}$ | 8 | 5.7% |
| price matched value certificate | 4 | 5.3% | 21 | $15.0\%^{**}$ |

Table 4: How consumers spend gift certificates, comparison with two alternative situations

¹: Only asked to respondents who answered NO to Question A;

²: The remaining category, "Cash spent... in exact the same way" is omitted here because it is used to distinguish

between groups I and II (groups III and IV).

 $^\dagger/^{\dagger\dagger}/^{\dagger\dagger\dagger}:$ denotes a significant difference with group I at the 10%/5%/1% level.

 $^{\ddagger}/^{\ddagger\ddagger}/^{\ddagger\ddagger}$: denotes a significant difference with group II at the 10%/5%/1% level.

 $^*/^{**}/^{***}$: denotes a significant difference with group III at the 10%/5%/1% level.

All significance levels based on two-sided *t*-tests.

not buy. If so, giving these consumers a gift certificate would increase their utility with less than if they would receive the same amount in cash instead. However, this appears not to be the case: 70 % of respondents in this group says that they already planned to buy the product. Though significantly lower compared to group I, this is still a high percentage. 18.7% of all respondents answer that they did buy a particular item because its price matched the value of the certificate. With 13.1%, the percentage of respondents in this group who visits a shop normally not frequented is comparable to group I. The majority of the respondents in this group indicate that they would have spent cash on day-to-day purchases (64%) or that the certificate induced them to buy the product earlier (26.9%).

Table 5: Probit estimation of changes in consumption patterns due to gift certificate spending. Standard errors in parentheses.

| | (1 | | (2 | | | 3) | (4 | | |
|--------------------------------|--------------------|----------|---------------------|-------------|---------------------|-------------|----------------------------|----------|--|
| Dependent variable | More ex | pensive | Hig | | | in shop | Bought 1 | product | |
| | vers | ion | quar | ntity | | not visited | SOOI | ner | |
| | coeff. | s.e. | coeff. | s.e | coeff. | s.e | coeff. | s.e | |
| | | | V | alue of th | e certifica | te | | | |
| total face value $\leq \in 10$ | -0.0869** | (0.0252) | -0.0620* | (0.0243) | -0.0508^{\dagger} | (0.0244) | -0.0708* | (0.0322) | |
| total face value $\in 10-20$ | -0.0227 | (0.0270) | -0.0433^{\dagger} | (0.0240) | -0.0357 | (0.0235) | -0.0283 | (0.031 | |
| total face value $\geq \in 50$ | 0.0128 | (0.0418) | 0.0057 | (0.0378) | 0.0673^\dagger | (0.0440) | 0.0618 | (0.052 | |
| | | | | · · · · · | characteri | · · · · · | | ` | |
| male | -0.0664* | (0.0242) | -0.0144 | (0.0248) | -0.0089 | (0.0240) | $\textbf{-0.0546}^\dagger$ | (0.029) | |
| Urban (recipient) | 0.0202 | (0.0265) | 0.0013 | (0.0240) | 0.0546^{*} | (0.0254) | 0.0409 | (0.030 | |
| age < 25 | 0.0852^{\dagger} | (0.0544) | -0.0428 | (0.0335) | 0.0373 | (0.0459) | 0.0314 | (0.051 | |
| age 25-34 | -0.0372 | (0.0322) | 0.0054 | (0.0347) | -0.0224 | (0.0297) | -0.0122 | (0.039) | |
| age 35-44 | -0.0358 | (0.0306) | -0.0178 | (0.0304) | -0.0295 | (0.0277) | -0.1017** | (0.031) | |
| age 55-64 | -0.0141 | (0.0345) | 0.0123 | (0.0352) | 0.0234 | (0.0354) | -0.0635 | (0.035 | |
| age > 65 | -0.0298 | (0.0444) | 0.0059 | (0.0485) | -0.0449 | (0.0348) | -0.0626 | (0.046 | |
| | | | Rela | ation recip | pient and | giver | | | |
| Partner/houshold member | 0.0962 | (0.0683) | 0.0071 | (0.0515) | -0.0625 | (0.0305) | -0.0250 | (0.055) | |
| Friends | 0.0269 | (0.0314) | -0.0305 | (0.0254) | -0.0239 | (0.0249) | -0.0237 | (0.033) | |
| Colleagues | 0.0371 | (0.0481) | 0.0279 | (0.0441) | -0.0501 | (0.0298) | 0.0362 | (0.053) | |
| Employer | -0.0001 | (0.0334) | 0.0026 | (0.0310) | -0.0354 | (0.0256) | -0.0060 | (0.037) | |
| | | | | Occ | asion | | | | |
| Christmas/St. Nicholas Day | 0.0030 | (0.0360) | -0.0170 | (0.0315) | 0.0825^{*} | (0.0381) | 0.0677 | (0.044) | |
| Volunteering | -0.0387 | (0.0319) | -0.0267 | (0.0305) | -0.0221 | (0.0299) | -0.0429 | (0.037) | |
| Farewell | 0.0473 | (0.0606) | 0.0595 | (0.0607) | 0.0722 | (0.0678) | 0.0790 | (0.071) | |
| Jubilee | 0.0439 | (0.0620) | 0.0017 | (0.0502) | 0.0664 | (0.0646) | -0.0652 | (0.053) | |
| Other | 0.0023 | (0.0402) | 0.0594 | (0.0438) | 0.0018 | (0.0374) | 0.0244 | (0.048) | |
| | | | | ross inco | me recipie | | | | |
| < €1500 | 0.0236 | (0.0670) | 0.2059^{**} | (0.0911) | 0.0216 | (0.0563) | 0.0679 | (0.075) | |
| €1500-2000 | 0.0642 | (0.0710) | 0.0003 | (0.0548) | -0.0226 | (0.0445) | 0.1240^{\dagger} | (0.077) | |
| €2000-2500 | 0.1241^{\dagger} | (0.0774) | 0.0400 | (0.0619) | 0.0500 | (0.0593) | 0.0042 | (0.062) | |
| €3000-4000 | 0.0751 | (0.0690) | 0.0900 | (0.0679) | 0.0138 | (0.0493) | -0.0159 | (0.056) | |
| >€4000 | 0.0338 | (0.0737) | -0.0290 | (0.0516) | 0.0231 | (0.0582) | -0.0512 | (0.060) | |
| loglikelihood | -319 | .41 | -289 | 9.96 | -27 | 7.84 | -376 | .35 | |
| pseudo R^2 | 0.05 | | 0.0 | | | 670 | 0.01 | | |
| Obs. | 83 | '4 | 83 | 34 | 8 | 34 | 83 | 834 | |

Notes: Columns give estimated marginal effects (for variables denoted in the first column). The sample includes only the respondents who answered "YES" to the question: "Would you have bought a similar product without certificate?" A control for missing income is included. $\frac{1}{*}$ *: significant at the 10%/5%/1% level.

For these two groups, we estimate a probit model. A latent variable (D_i^*) is related as follows to observed yes/no answers (D_i) to questions concerning changes in shopping pattern:

$$\left\{ \begin{array}{ll} D_i^* = X_i \beta + \epsilon_i \\ D_i = 1 & \text{if} \quad D_i^* > 0 \\ D_i = 0 & \text{if} \quad D_i^* \leq 0 \end{array} \right.$$

In this equation, X_i is a vector of explanatory variables including: the value of the certificate, respondent characteristics, details about the occasion at with the certificate was received, and variables describing the relationship between giver and recipient. ϵ_i is a white noise disturbance. Table 5 presents probit estimates for the changes in spending patterns that may result from the no-refund condition on a number of explanatory variables.²² In interpreting the estimates, one needs to keep in mind that only consumers are included who have indicated that they would also have bought a similar item without the certificate. That is, the estimates are about changes in when and how much of a particular product is bought because of the certificate, conditional on the products also being bought without the certificate. With regard to face value, we obtain the plausible result that certificates with low face values are less likely to lead people to change their shopping pattern in any of the dimensions studied. We also observe that women are more likely to upgrade to a more expensive version or to buy the product sooner than men. Living in an urban area seems to be positively correlated with buying the product in a shop that one would not visit otherwise. The relationship between giver and recipient and the occasion at which the certificate was received does not seem to have any effect.

5.1 Labeling

The remaining respondents, in groups III and IV (7.2% and 13.3%, respectively) answered 'No' to the question whether they would have bought the product hadn't they received the certificate. The most important and highly significant difference when compared to the previous two groups is that respondents in groups III and IV en masse report (59.2% and 75.7%) that they bought a particular product because they 'loved to buy something that they would not buy that easily otherwise'. It thus turns out that a large number of the respondents in these two groups label gift-income. We hypothesized that, because of their distinct physical form, it is easier for consumers to separate gift

²²Given that respondents could select multiple answers to the question how they changed the timing of the expenditure, one may prefer estimating a multivariate probit model. Such a model involves simultaneous modeling of the different changes and allows the unobserved disturbances to be freely correlated. We did this and results are given in the online Appendix (Table B.8, the estimates should be compared with the probit estimates in Table B.9). All but one correlation coefficients are statistically significant and the null of independent disturbances is rejected. However, the estimated coefficients are very similar such that we decided to report the marginal effects of univariate probit estimation in the main text.

certificates from their other income sources than cash gifts. The testable implication of this is that we should find relatively more labeling consumers among the group of consumers who indicate that they would have spent the given sum of money differently when given in cash. If it is only the gift-dimension of income that induces people to label, the fraction of labeling consumers should be similar in groups *III* and *IV*. Table 4 shows that, as hypothesized, the fraction of labeling consumers is significantly higher in group *IV*, at the 5%-level. The fact that the majority (66.4%) of respondents in group *IV* says that they would have spent a cash gift instead to buy everyday purchases lends further support to our idea that they seize the opportunity given by the certificate to separate the gift from other income.²³ A rough estimate is that about 10 percent ($\approx (45 + 106 \cdot 0.592)/1050$) of our respondents labels all gift income (certificates and cash gifts) and about 4 percent ($\approx 106 \cdot (1 - 0.592)/1050$) only labels gift income in the form of certificates.

Table 6 gives the estimates of four separate probit regressions that relate the four different reasons to spend the certificate on a certain item to respondent background characteristics, certificate characteristics and information on when and from whom the certificate(s) was (were) received. In line with our previous results, we see that being a male and having certificates with a total face value of less than $\in 10$ is positively correlated with using the certificate for a purchase that was already planned. Column (2) relates the different characteristics to the tendency for consumers to use the certificate to buy something special. We have two main effects. First, labeling gift certificate income is less likely if the total face value is small. Second, males are about 8.3 percentage points less likely to use the certificates to buy something they would not have bought otherwise. There is some indication that using certificates to buy something nice is more common among higher income households. Recipients are more likely to buy an item on instigation of the giver if the giver is your partner or another person in your household. This seems plausible because household members are more likely to inform whether you followed their suggestion than for example a colleague or employer. Following a suggestion made by the giver is less likely when the certificates are received for Christmas or Saint Nicholas Day, which may reflect the circumstance that at these occasions, presents are often given anonymously, or when the certificate is given as a reward for volunteer work. In the latter instance, the recipient may feel entitled to use the certificate for whatever purpose she pleases. Finally, the estimates in column (4) show that the higher the value of the certificates received, the less likely it is that recipients will choose an item because its value matches the value of the certificates. Having received the certificates as a

 $^{^{23}}$ In group *III*, only 1 consumer answers that she would spend a cash gift to buy everyday purchases. This is consistent with our labeling hypothesis because the labeling consumers in group *III* are those that label gift certificates and cash gifts alike.

| | (1 | | | 2) | | 3) | | 4) | |
|--|--------------------|------------------------------|------------------|-------------|--------------|----------|---------------------|-----------|--|
| Dependent variable | Already | | | y something | | uggested | Price n | | |
| | to buy thi | s product | | t otherwise | | item | value ce | rtificate | |
| | coeff. | s.e. | coeff. | s.e | coeff. | s.e | coeff. | s.e | |
| | | | v | alue of the | certificate | 9 | | | |
| total face value $\leq \in 10$ | 0.0732^{\dagger} | (0.0398) | -0.1353** | (0.0271) | 0.0136 | (0.0165) | 0.0029 | (0.0289) | |
| total face value $\in 10-20$ | 0.0302 | (0.0367) | -0.0440 | (0.0288) | 0.0108 | (0.0142) | 0.0373 | (0.0264 | |
| total face value $\geq \in 50$ | -0.0707 | (0.0540) | 0.0535 | (0.0458) | 0.0311 | (0.0280) | -0.0750* | (0.0252) | |
| | | · · · · | \mathbf{Res} | pondent ch | aracterist | | | , | |
| male | 0.0606^\dagger | (0.0346) | -0.0828** | (0.0269) | 0.0077 | (0.0126) | 0.0157 | (0.0249) | |
| Urban (recipient) | -0.0189 | (0.0328) | -0.0018 | (0.0273) | -0.0013 | (0.0105) | 0.0478^{*} | (0.0236) | |
| age < 25 | 0.0303 | (0.0534) | 0.0700 | (0.0512) | -0.0048 | (0.0170) | -0.0774* | (0.0242) | |
| age 25-34 | 0.0143 | (0.0467) | -0.0521 | (0.0358) | 0.0103 | (0.0194) | -0.0182 | (0.0290) | |
| age 35-44 | 0.0492 | (0.0418) | -0.0214 | (0.0347) | 0.0147 | (0.0181) | -0.0444 | (0.0252) | |
| age 55-64 | 0.0394 | (0.0455) | -0.0178 | (0.0378) | 0.0244 | (0.0223) | -0.0049 | (0.0303) | |
| age > 65 | 0.0239 | (0.0631) | -0.0255 | (0.0514) | 0.0271 | (0.0321) | 0.0526 | (0.0505) | |
| | | Relation recipient and giver | | | | | | | |
| Partner/houshold member | -0.0226 | (0.0704) | -0.0521 | (0.0527) | 0.0724^{*} | (0.0444) | -0.0672 | (0.0322) | |
| Friends | -0.0273 | (0.0386) | 0.0514 | (0.0341) | -0.0090 | (0.0103) | -0.0414^{\dagger} | (0.0230) | |
| Colleagues | -0.0296 | (0.0568) | 0.0389 | (0.0505) | -0.0028 | (0.0174) | -0.0224 | (0.0340) | |
| Employer | -0.0478 | (0.0423) | 0.0526 | (0.0366) | -0.0058 | (0.0142) | -0.0245 | (0.0265) | |
| | | | | Occas | ion | | | | |
| Christmas/St. Nicholas Day | 0.0454 | (0.0435) | 0.0060 | (0.0379) | -0.0251* | (0.0102) | 0.0306 | (0.0329) | |
| Volunteering | -0.0360 | (0.0458) | 0.0491 | (0.0407) | -0.0290* | (0.0083) | 0.0226 | (0.0331) | |
| Farewell | -0.0082 | (0.0693) | -0.0160 | (0.0560) | -0.0247 | (0.0084) | 0.1798^{**} | (0.0722) | |
| Jubilee | 0.0420 | (0.0680) | -0.0201 | (0.0557) | -0.0110 | (0.0146) | 0.0803 | (0.0626) | |
| Other | -0.0149 | (0.0515) | 0.0555 | (0.0473) | -0.0252* | (0.0076) | -0.0144 | (0.0336) | |
| | | | G | ross incom | e recipien | t | | | |
| < €1500 | -0.0697 | (0.0791) | 0.0466 | (0.0718) | -0.0112 | (0.0173) | 0.0151 | (0.0531) | |
| €1500-2000 | -0.0418 | (0.0752) | 0.0911 | (0.0733) | -0.0224 | (0.0104) | -0.1056* | (0.0232) | |
| €2000-2500 | -0.1495^{*} | (0.0749) | 0.1613^{*} | (0.0751) | -0.0192 | (0.0123) | -0.0065 | (0.0456) | |
| €3000-4000 | -0.0210 | (0.0719) | 0.0128 | (0.0628) | -0.0122 | (0.0162) | 0.0222 | (0.0502) | |
| >€4000 | -0.0793 | (0.0832) | 0.1381^\dagger | (0.0838) | $^{-1}$ | (-) | -0.0255 | (0.0462) | |
| loglikelihood | -666 | 5.68 | -50 | 9.08 | -14 | 7.86 | -389 | 9.87 | |
| pseudo R^2 | 0.01 | | | 508 | | 168 | 0.0 | 670 | |
| Obs. <i>Totes:</i> Columns give estimated n | 10 | | - | 050 | | 87^{1} | - | 50 | |

Table 6: Probit estimation of reasons to spend the certificate on a particular item. Standard errors in parentheses.

Notes: Columns give estimated marginal effects (for variables denoted in the first column). The sample includes all respondents. A control for missing income is included.

¹: None of the 63 respondents with income $\geq \in 4000$ indicated that the giver suggested which product to buy. Due to the absence of variation in this variable, these observations have been dropped.

 $\dagger/*/**$: significant at the 10%/5%/1% level.

farewell gift on the other hand increases this likelihood.

5.2 Where are the certificates spent?

So far, we have considered how receiving gift certificates changed consumption patterns and the importance of different motives to spend the certificates on a particular item. We did however not yet consider what products consumers tend to buy with their certificates. In this subsection we will relate the changes in consumption pattern to the branches in which the certificates were spent.

Table 7: Probit estimation of changes in consumption patterns due to gift certificate spending. Standard errors in parentheses.

| | (| 1) | (2 |) | (: | 3) | (4 |) | |
|-------------------------|---------|----------|---------------------|----------|---------------|-------------|-----------|----------|--|
| Dependent variable | More e | xpensive | Hig | her | Bought | in shop | Bought 1 | product | |
| | ver | sion | quan | tity | normally 1 | not visited | soor | ner | |
| | coeff. | s.e. | coeff. | s.e | coeff. | s.e | coeff. | s.e | |
| Household appliances | 0.0024 | (0.0472) | -0.0858** | (0.0214) | -0.0234 | (0.0374) | -0.0116 | (0.0470) | |
| Electronics | 0.0699 | (0.0789) | -0.0786^{\dagger} | (0.0260) | 0.2126^{**} | (0.0904) | -0.0175 | (0.0655 | |
| Garden, fl. & animals | 0.0559 | (0.0500) | -0.0481 | (0.0263) | -0.0441 | (0.0331) | -0.0578 | (0.0404 | |
| Books & music | -0.0535 | (0.0402) | -0.0360 | (0.0291) | -0.0272 | (0.0373) | -0.0576 | (0.0426) | |
| Cosm. & drugstores | 0.0759 | (0.0767) | -0.0702^{\dagger} | (0.0280) | -0.0708 | (0.0367) | -0.0353 | (0.0600) | |
| DIY | -0.0146 | (0.0527) | -0.1210** | (0.0142) | 0.0165 | (0.0509) | -0.1357** | (0.0342) | |
| Clothing & shoes | 0.0269 | (0.0627) | -0.0840* | (0.0226) | -0.0110 | (0.0484) | -0.0749 | (0.0478) | |
| Toys & games | -0.0080 | (0.0576) | -0.0717^{\dagger} | (0.0260) | -0.0435 | (0.0416) | -0.0052 | (0.0599) | |
| Cycling, sports & leis. | 0.0634 | (0.0656) | -0.0701* | (0.0256) | 0.0710 | (0.0607) | -0.0595 | (0.0489) | |
| Interior, furn. & orn. | 0.0113 | (0.0748) | -0.1016^{*} | (0.0181) | $-^1$ | (-) | -0.1406* | (0.0394) | |
| Jewelery | 0.0995 | (0.0999) | -0.0012 | (0.0583) | 0.0477 | (0.0822) | 0.1365 | (0.1038) | |
| loglikelihood | -33 | 2.84 | -290 | .85 | -281 | 1.73 | -392 | .11 | |
| pseudo R^2 | 0.0 | 158 | 0.04 | 191 | 0.04 | 419 | 0.0244 | | |
| Obs. | 8 | 34 | 85 | 84 | 80 | 04 | 834 | | |

Notes: Columns give estimated marginal effects (for variables denoted in the first column). The sample includes only the respondents who answered "YES" to the question: "Would you have bought a similar product without certificate?" A control for missing income is included. "HEMA" is the omitted branch.

¹: None of the 30 respondents who spent the certificate in the branch "Interior, furniture & ornaments" indicated that the giver suggested which product to buy. Due to the absence of variation in this variable, these observations have been dropped. $\frac{1}{*}$ significant at the 10%/5%/1% level.

To this end, we present in Tables 7 and 8 estimates of probit regressions with the changes and motives as dependent variables, but now with branch dummies as right-hand side variables. In both tables "HEMA" is the omitted branch: a popular chain selling a wide variety of goods, including household appliances, clothing, food, bicycle equipment and office supplies. Compared with consumers who visit the "HEMA", we see that especially visitors of DIY-stores are less likely to change their consumption in any of the four given directions because of the certificate. People who spend their certificates in Electronics stores are relatively more likely not to be ordinary visitors of this store. This may be explained by the circumstance that in the Electronics branch, the total value of certificates spent is much higher than in other branches (see Table 3) combined with our finding that the higher

| n parenneses. | | | | | | | | | |
|-------------------------|--------------------|-----------|---------------|-------------|---------------|----------|---------------------|----------|--|
| | (1 |) | (| 2) | (3 | 5) | (4 |) | |
| Dependent variable | Already | planned | Love to bu | y something | Giver su | ggested | Price m | atched | |
| | to buy thi | s product | not bough | t otherwise | this i | tem^1 | value certificate | | |
| | coeff. | s.e. | coeff. | s.e | coeff. | s.e | coeff. | s.e | |
| TT 1 11 1. | 0.0040 | (0.0500) | 0.0040 | (0.0504) | | (0.0550) | 0.0554 | (0.0071) | |
| Household appliances | -0.0249 | (0.0580) | 0.0848 | (0.0564) | 0.8957** | (0.0572) | -0.0554^{\dagger} | (0.0271) | |
| Electronics | 0.0245 | (0.0794) | 0.0197 | (0.0740) | 0.9598^{**} | (0.0322) | -0.1121** | (0.0194) | |
| Garden, fl. & animals | 0.0608 | (0.0530) | 0.0043 | (0.0492) | 0.8705^{**} | (0.0654) | -0.0472 | (0.0276) | |
| Books & music | -0.0377 | (0.0580) | 0.1157^{*} | (0.0577) | 0.9462^{**} | (0.0306) | -0.0152 | (0.0321) | |
| Cosm. & drugstores | -0.0454 | (0.0765) | 0.0565 | (0.0717) | 0.9628^{**} | (0.0276) | -0.0452 | (0.0355) | |
| DIY | 0.1149^{\dagger} | (0.0617) | -0.1267^{*} | (0.0431) | 0.9742^{**} | (0.0177) | -0.1267^{**} | (0.0157) | |
| Clothing & shoes | 0.0891 | (0.0659) | 0.0488 | (0.0682) | 0.9570^{**} | (0.0314) | -0.1132** | (0.0187) | |
| Toys & games | -0.0545 | (0.0724) | 0.0992 | (0.0708) | 0.8965^{**} | (0.0816) | -0.0611 | (0.0304) | |
| Cycling, sports & leis. | 0.1156^{\dagger} | (0.0627) | -0.0641 | (0.0542) | 0.9544^{**} | (0.0330) | -0.0691^{\dagger} | (0.0288) | |
| Interior, furn. & orn. | -0.0929 | (0.0855) | 0.2371^{**} | (0.0891) | — | (-) | -0.0854* | (0.0278) | |
| Jewelery | -0.1915^{*} | (0.0857) | 0.3376^{**} | (0.0887) | 0.9598^{**} | (0.0322) | -0.1121** | (0.0194) | |
| loglikelihood | -664 | -664.98 | | 0.99 | -160 | 0.04 | -398.47 | | |
| pseudo R^2 | 0.0 | 187 | 0.0 | 474 | 0.05 | 582 | 0.0465 | | |
| Obs. | 10 | 50 | 10 | 050 | 10 | 50 | 1050 | | |

Table 8: Probit estimation of reasons to spend the certificate on a particular item. Standard errors in parentheses.

Notes: Columns give estimated marginal effects (for variables denoted in the first column). The sample includes all respondents. A control for missing income is included. "HEMA" is the omitted branch.

¹: The highly significant estimates in column (3) only signal that none of the respondents visited the HEMA because the giver suggested the item. $\frac{1}{*}$ significant at the $\frac{10\%}{5\%}$ level.

the face value of the certificates, the higher the probability that they are redeemed in a shop not normally visited by the recipient (see Table 5).

The first column in Table 8 shows that the fraction of consumers that already planned to buy the product bought with the certificate is about the same in almost all branches considered. The exceptions are, on the one hand, the DIY and "Cycling, sports & leisure" branches which welcome relatively more consumers with unaltered plans, and on the other hand shops selling jewelery, which have relatively more certificate redeeming clients who would not have bought the product without the certificate. Column (2) clearly shows that, among gift certificate recipients, labeling consumers (those who use their certificate to buy an item they love to buy but that they probably would not have bought without the certificate) are more likely to visit the branches "Books & music", "Interior, furniture & ornaments" and "Jewelery" and less likely to visit Do-It-Yourself stores. Shops in the former category mainly sell personal items whereas DIY stores almost exclusively sell useful basic products. This lends further support to our hypothesis that consumers who buy "something not bought otherwise" indeed label their certificates and buy personal items to treat oneself. All estimates in column (4) are negative and more than half of them significant at the p = 0.10 level. This foremost implies that consumers in other branches to buy an item the price of which matches with the value of their certificates. For different reasons, this is less likely in the branches Electronics and Jewelery (high average face value certificates) and in the DIY branch (certificates used for ordinary expenditures).

6 Summary and conclusions

This study set out to investigate whether there are important differences in how consumers spend gift certificates compared to how they spend non-gift, labor income or cash that was received as a present. One reason for why people spend certificates in a different way than cash is because the certificate can only be redeemed at a limited number of shops. A second reason is that recipients purposely separate gift (certificate) income from their other income sources in order to buy something nice one would not buy that easily otherwise. For many cards and certificates – for example those issued by a specific branch or retail chain – the first reason is very real. However, our main interest is in the labeling effects of gift certificates. Therefore, we study the use of VVV Cadeaubon, the most flexible and best known gift certificate in the Netherlands, by surveying consumers all across the country just after they have redeemed one or more certificates. The VVV Cadeaubon can be redeemed at more than 18,000 retailers in various branches. Our data indicate that, at least for the consumers surveyed, the scope of the certificate is wide enough and the number accepting merchants large enough not to impose any important restraints on how consumers spend their certificates. In terms of flexibility, they perceive the VVV Cadeaubon as a very close substitute for cash. In line with this, we find in our empirical analysis that a large group of respondents spends gift certificates in the same way as cash.

However, we also identify a considerable number of consumers who does separate gift income from other income sources in order to treat oneself. About 10% of all respondents label all gift income; an additional 4% labels gift certificate income but not cash gifts. Two-thirds of all consumers in the latter group indicate that, would they have received cash instead of a certificate, they would have spent it on everyday purchases.

Respondent characteristics or characteristics of the received certificate explain part of the observed differences in how consumers respond to receiving a certificate. Overall, the shopping pattern of females reacts more strongly: women are more likely than men to buy a more expensive version of a product, to buy a product sooner or to buy an item one really likes to have because of the certificate. Men are more likely to spend the certificate on planned expenditures. Certificates do not induce changes in shopping when the face value is small (less than $\in 10$). Interestingly, the occasion at which the certificates are received and the social relationship between giver and recipient do not have a distinguished impact on how the certificates are spent. We only find that suggestions by the giver on how to spend the

certificate are more likely to be followed if the giver is household member.

Previous studies have pointed out that gift cards and gift certificates serve gift-givers in situations where cash gifts are considered inappropriate. This study shows that recipients may value gift certificates because they offer them an easy way to separate gift income from other sources of income in order to buy something nice and personal. This result puts previous evidence on the monetary loss associated with the non-use of gift cards in perspective.

References

- Bound, John, Charles Brown, and Nancy Mathiowetz, "Measurement Error in Survey Data," in J.J. Heckman and E. Leamer, eds., *Handbook of Econometrics*, Vol. 5, North-Holland, 2001, pp. 3705–3843.
- Camerer, Colin, "Gifts as Economic Signals and Social Symbols," American Journal of Sociology, 1988, 94, S180–S214. Supplement: Organizations and Institutions: Sociological and Economic Approaches to the Analysis of Social Structure.
- Choice, The, "Basisrapport Nationale Geschenkbonnen Monitor 2007," Technical Report, The Choice January 10 2008.
- **Del Boca, Daniela and Christopher J. Flinn**, "Expenditure Decisions of Divorced Mothers and Income Composition," *Journal of Human Resources*, 1994, *29* (3), 742–761.
- Deloitte., "Deloitte 2009 Annual Holiday Survey: Gift Card Trends," http://www.deloitte.com/view/en_US/us/Industries/Retail-Distribution/ab7e19a3ea0bb210VgnVCM3000001c56f00aRCRD.htm 2009.
- Devaney, Barbara and Robert Moffitt, "Dietary Effects of the Food Stamp Program," American Journal of Agricultural Economics, February 1991, 73 (1), 202–211.

GfK, "Cadeau Monitor: Q4 2006," Technical Report, GfK 2006. Commissioned by VVV Netherlands.

Hoynes, Hilary W. and Diane Whitmore Schanzenbach, "Consumption Responses to In-Kind Transfers: Evidence from the Introduction of the Food Stamp Program," American Economic Journal: Applied Economics, October 2009, 1 (4), 109–139.

- Kaushal, Neeraj and Qin Gao, "Food stamp program and consumption choices," in Michael Grossman and Naci H. Mocan, eds., *Economic Aspects of Obesity*, National Bureau of Economic Research Inc 2011, pp. 223–247.
- Kooreman, Peter, "The Labeling Effect of a Child Benefit System," American Economic Review, 2000, 90 (3), 571–583.
- List, John A. and Jason F. Shogren, "The Deadweight Loss of Christmas: Comment," American Economic Review, December 1998, 88 (5), 1350–1355.
- Moffitt, Robert, "Estimating the Value of an In-Kind Transfer: The Case of Food Stamps," *Econometrica*, March 1989, 57 (2), 385–409.
- Offenberg, Jennifer Pate, "Markets: Gift Cards," Journal of Economic Perspectives, Spring 2007, 21 (2), 227–238.
- Senauer, Ben and Nathan Young, "The Impact of Food Stamps on Food Expenditures: Rejection of the Traditional Model," American Journal of Agricultural Economics, February 1986, 68 (1), 37–43.
- Solnick, Sara J. and David Hemenway, "The Deadweight Loss of Christmas: Comment," American Economic Review, December 1996, 86 (5), 1299–1305.
- Waldfogel, Joel, "The Deadweight Loss of Christmas," American Economic Review, December 1993, 83 (5), 1328–1336.
- _____, "The Deadweight Loss of Christmas: Reply," American Economic Review, December 1996, 86 (5), 1306–1308.
- _____, "Does Consumer Irrationality Trump Consumer Sovereignty?," *Review of Economics and Statistics*, November 2005, 87 (4), 691–696.
- Webley, P., S.E.G. Lea, and R. Portalska, "The Unacceptability of Money as a Gift," Journal of Economic Psychology, 1983, 4, 223–238.

Appendix

A Questionnaire

VVV Netherlands and the University of Amsterdam do joint research on the use of the VVV Cadeaubon. You have just spent one or more VVV Cadeaubons*. In this questionnaire, you will be asked how you received the gift certificate(s) and about how you spent these.

The questionnaire takes approximately 10 minutes. Your answers will remain anonymous and will be treated confidentially. For questions or comments, please contact f.a.felso@uva.nl.

Your reward for filling in the questionnaire (a \in 5,- VVV Cadaeubon) will be sent to your home address. You may only fill in the questionnaire once. No more than 1 certificate will be sent to any home address.

You may sign in below. Your login name and password is printed on the voucher that you received in the shop upon paying with a gift certificate. You do not have to fill in the questionnaire at once. You may stop and continue later. Your answers are saved so that you may continue where you stopped earlier.

Login name:

Password:

*The VVV Cadeaubon is the new brand name of the VVV irischeque. You may read VVV irischeque instead of VVV Cadeaubon.

1. On what occasion did you receive the gift certificate(s)?

- [] Birthday²⁴
- [] Christmas/Saint Nicholas' eve²⁵
- [] Farewell
- [] Jubilee, if yes, what kind (e.g. 25 years employed)_____
- [] Remuneration for (volunteer) work
- [] Mothers day/Fathers day
- [] Other, namely _____
- [] Do not know

 When did you receive the VVV Gift certificate(s)? If you received the gift certificate in this month, please fill in 0.

_____ months ago () I cannot remember

 $^{^{24}}$ In questions where respondents are allowed to give multiple answers, we mark the possible answers with []. In questions where respondent is only allowed to select a single category, the possibilities are marked with ().

 $^{^{25}}$ Saint Nicholas' eve is celebrated annually on December, 5 and is an important occasion for gift-giving during the Christmas season.

- 3. Who did you receive the gift certificate from?
 - [] Your partner/ close family member
 - [] Family member
 - [] Friend and acquaintances
 - [] Colleagues
 - [] Employer
 - [] Other, namely _____
 - [] Do not know <SKIP QUESTION 4>
- The giver is (approximately) ---- years old. You may skip this question if you received the gift certificate(s) from an organization or from several givers of considerably different age.
- 5. Where did you spend your gift certificate? Name of shop: _____ Town: _____
- 6. How many times have you visited this shop during the previous 12 months? Do not count your shop visit in which you redeemed the gift certificate.
 - () I have not been in this shop the previous 12 months <GO TO QUESTION $8\!>$
 - () 1-5 times
 - () 6-12 times
 - () > 12 times
 - () Do not know
- 7. How much have you spent in this shop in the previous 12 months?
 - Do not count the amount you spent during the shop visit in which you redeemed the gift certificate.
 - () Less than $\in 20$
 - () Between $\in 20$ and $\in 100$
 - () Between $\in 100$ and $\in 500$
 - () Between $\in 500$ and $\in 1000$
 - () More than $\in 1000$
 - () Do not know
 - () Do not want to answer
- 8. Would you have bought something in this shop on that day (or around that day) if you had not been in the possession of the gift certificate?
 - () Yes
 - () No
- 9. Please report the number of gift certificates that you redeemed from a certain face value.
 - €5: ____ pieces spent €7.50: ____ pieces spent €10: ____ pieces spent €12.50: ____ pieces spent €15: ____ pieces spent €20: ____ pieces spent €25: ____ pieces spent €50: ____ pieces spent

10. What was the total amount on your receipt when you redeemed the gift certificate?

If you had to pay extra besides your gift certificate(s), than this amount is indeed higher than the \in SUM VALUE GIFT CERTIFICATES> that you paid with your gift certificate. You may give an estimate if you do not recollect the exact amount.

€_---

IF SUM VALUE GIFT CERTIFICATE = TOTAL SPENDING, THEN GO TO QUESTION 13

IF SUM VALUE GIFT CERTIFICATE > TOTAL SPENDING, THEN DISPLAY:

The total amount on the receipt you reported is lower than the total value of the gift certificate(s). Are you sure that you did not fully utilize the value of your gift certificated? If yes, you may continue the questionnaire. If not, you may go back and adjust the amount you reported. GO TO QUESTION 13

IF SUM VALUE GIFT CERTIFICATE < TOTAL SPENDING, THEN CONTINUE

11. The total amount on the receipt you reported is higher than the value of the gift certificate(s) you redeemed. How did you pay the extra amount?

[] Cash

- [] Chip-, pin- or credit card
- [] Gift certificate (other than the VVV Cadeaubon) IF NO, THEN SKIP QUESTION 13
- [] Other, namely _____
- 12. For this purchase, I used (an)other gift certificate(s) than the VVV Cadeaubon, namely the _____ gift certificate with a total value of \in_{--} .
- 13. Report the most important items you bought (partly) with the gift certificate. Give an estimate of the price you paid for each item. Indicate whether you were planning to purchase this item before you entered the shop. Broad product categories like book, clothes or cosmetics will suffice.

You may report at most 3 items. If you bought more than 3 items, please report the products that are most important to you.

| | Product | Price in \in (estimate) | Planned purchase |
|----|---------|---------------------------|------------------|
| 1. | | | () |
| 2. | | | 0 |
| 3. | | | () |
| | | | |

14. Have you bought items during your shop visit that you **did not pay with the gift certificate**? If yes, please report the 3 most important items, their price and whether it concerns a planned purchase.

| | Product | Price in €(estimate) | Planned purchase |
|----|---------|----------------------|------------------|
| 1. | | | () |
| 2. | | | () |
| 3. | | | () |

Answer the following questions for the (most important) product that you bought with your gift certificate.

- 15. Would you have bought this product (or a comparable product) without the gift certificate?
 - () Yes
 - () No <GO TO QUESTION 21>

16. Did the gift certificate make you buy a cheaper or more expensive version than you would have done without?

- () Because of the gift certificate, a cheaper version
- () Not more expensive, but also not cheaper
- () Because of the gift certificate, bought a more expensive version
- () Do not know

17. Did the gift certificate make you buy more of the same product than you would have done without?

() Yes

- () No
- () Not applicable
- () Do not know

- 18. Would you have bought this product in a different shop if you had not received the gift certificate?
 - () Yes
 - () No <SKIP QUESTION 19>
- In which other shop would you have most likely bought this product if you did not have the gift certificate? Shop name: _____ Town: _____
- 20. Did the gift certificate make you buy the product earlier (or later) than you would have done without?
 - () Because of the gift certificate bought earlier
 - () Not earlier and also not later
 - () Because of the gift certificate, bought later
 - () Do not know
- 21. Do you think you will **go back** to the same shop the coming 12 months (and do purchases)?
 - () Yes
 - () No
 - () Do not know
- 22. What were your reasons to spend your gift certificate(s) on this product? You may select more than 1 answer
 - [] I was already planning to buy this product
 - [] I would love to buy something that I would not buy that easily otherwise
 - [] The giver suggested I should use the gift certificate to buy this product
 - [] The price of the product matched the value of the gift certificate
 - [] Other, namely _____
- 23. Suppose that, instead of the gift certificate, you received an envelope with an equal amount of cash. How would you have spent the cash? You may select more than 1 answer
 - [] I would have spent the cash in the exact same way
 - [] I would have spent the cash on a different gift item
 - [] I would have spent the cash on everyday purchases
 - [] I would have spent the cash in the same shop
 - [] I would have spent the cash earlier
 - [] Other, namely _____
- 24. Suppose that the giver bought you a gift for an equal amount, instead of giving you a gift certificate. What is the probability that the giver bought you a present in the same shop (or another shop of the same chain)? ____%
- 25. Which of the following chains has a shop in the shopping area(s) you normally shop? You may ignore the chains you do not know.
 - [] De Bijenkorf
 - [] Blokker
 - [] Dixons
 - [] Gamma
 - [] Hema
 - [] Intratuin
 - [] Ici Paris XL
 - [] Kruidvat
 - [] Praxis
 - [] V&D
 - [] V&L

- 26. In which of the following chains have you bought something the previous 12 months? ONLY THE CHAINS MARKED IN QUESTION 25 ARE LISTED
 - [] De Bijenkorf
 - [] Blokker
 - [] Dixons
 - [] Gamma
 - [] Hema
 - [] Intratuin
 - [] Ici Paris XL
 - [] Kruidvat
 - [] Praxis
 - [] V&D

The questions on the following three pages are optional. If you do not want to (or if you are unable to) answer these questions, you may click through until the final page of the questionnaire.

27. Please score the following gift certificates in terms of **brand awareness** on a scale of 0 to 100.

Interpret the score as a percentage. A score of 0 indicates that nobody in The Netherlands knows this gift certificate while 100% means that that everybody in The Netherlands knows this gift certificate. You may ignore the gift certificates you do not know.

| | Brand awareness |
|---|-----------------|
| VVV Cadeaubon/VVV Irischeque | % |
| Bijenkorf cadeaucard | % |
| Bloemenbon | % |
| Boncadeau | % |
| Bongo | % |
| Hotelbon | % |
| Kruidvat bon | % |
| Nationale Bioscoopbon | % |
| Nationale Dinercheque | % |
| Nationale EntertainmentCard (or Nat.EntertainmentBon) | % |
| Nationale Parfumbon | % |
| Nationale Tijdschriftenbon | % |
| Nederlandse Boekenbon | % |
| Pluimen | % |
| Slijtersbon | % |
| Theater- en Concertbon | % |
| YourGift Card | % |

28. Below you see a number of different brands of gift certificates. Please indicate if you ever give any of these gift certificates as a present.

You may ignore the gift certificates that you do not know.

| | Never | Occasionally | Regularly | Often |
|------------------------------|-------|--------------|-----------|-------|
| VVV Cadeaubon/VVV irischeque | () | () | () | () |
| Bijenkorf cadeaucard | Ŏ | Ő | Ő | Ŏ |
| Bloemenbon | Ŏ | Ő | Ő | Ŏ |
| Boncadeau | Ő | Ŏ | Ŏ | Ő |
| Bongo | Ŏ | Ŏ | Ŏ | Ŏ |
| Hotelbon | Ő | Ŏ | Ŏ | Ő |
| Kruidvat bon | Ő | Ő | Ő | Ő |
| Nationale Bioscoopbon | Ő | Ő | Ŏ | Ŏ |
| Nationale Dinercheque | Ŏ | Ő | Ő | Ŏ |
| Nationale EntertainmentCard | Ŏ | Ő | Ő | Ŏ |
| Nationale Parfumbon | Ŏ | Ő | Ő | Ŏ |
| Nationale Tijdschriftenbon | 0 | 0 | 0 | 0 |
| Nederlandse Boekenbon | Ŏ | Ő | Ő | Ŏ |
| Pluimen | Ŏ | Ő | Ő | Ŏ |
| Slijtersbon | Ő | Ő | Ő | Ő |
| Theater- en Concertbon | Ő | Ő | Ő | Ő |
| YourGift Card | Ŏ | Ő | Ő | Ő |

- 29. It may be so that you miss a number of gift certificates that you occasionally receive or give as a gift. You may report the 3 most well-known gift certificate that are **missing** from the above list.
 - 1. _____
 - 2. _____
 - 3. _____

Thank you for answering the questions on the circumstances around spending your VVV gift certificate.

At last, five questions about yourself. On the next page you may report your name and address so that we can send you the VVV gift certificate of $\in 5$.

30. What is your age? ___years

- 31. What is your sex?
 - () Male
 - () Female
- 32. What are the 4 digits of your postal code?

33. How many people does your household consist of?

- 34. What is the net income of your household per month? Net income is the amount you receive, that is after deducting taxes and social contributions. Add the income of yourself and all other members of your household.
 - () Less than $\in 1,000$
 - () Between $\in 1,000$ and $\in 1,500$
 - () Between $\in 1,500$ and $\in 2,000$
 - () Between $\in 2,000$ and $\in 2,500$
 - () Between $\in 2,500$ and $\in 3,000$
 - () Between €3,000 and €4,000
 - () Between ${\in}4{,}000$ and ${\in}5{,}000$
 - () €5,000 or more
 - () Do not know
 - () Do not want to report

Thank you kindly for your cooperation!

We need the following information for sending the VVV gift certificate:

Name: _____ Address: _____ Postal code: ____ __ Town: _____

In case you would like to subscribe for the newsletter of the VVV, please fill in your e-mail address: ____

Please feel free to add notes, comments or clarification on your answers in the field below. You may also comment on the questionnaire.

END OF QUESTIONNAIRE Thank you!