

Is the charitable deduction in the Netherlands treasury efficient?

René Bekkers

Elly Mariani

Department of Philanthropic Studies, VU University Amsterdam

September 25, 2009

DRAFT - COMMENTS WELCOME

Abstract

This paper investigates the effects of the charitable deduction in the income tax in the Netherlands on donations. The deduction was introduced in 1952 to ‘relieve the financial needs of charitable organizations’ and has remained essentially unchanged. Within certain boundaries, donations to registered charities can be deducted from taxable income. Because of the progressive tax system, the price of giving decreases with income. We seek to answer the question to what extent the tax deduction actually reaches the objective of stimulating donations. Using data from the Income Panel Study, we show trends in the use and the volume of the deduction between 1977 and 2005. Using data from the Giving in the Netherlands Panel Survey, we estimate the change in the amount donated in response to changes in the use of the deduction. We find that changes in the use of the deduction are followed by changes in the amount donated. However, we also find that changes in the use of the deduction are also preceded by changes in total giving. The endogeneity of the deduction combined with a lack of data on income before taxes makes it difficult to quantify the treasury efficiency of the deduction.

Acknowledgements

This paper used data from the Income Panel Study of Statistics Netherlands under Remote Access contract 6097. A previous version of this paper appeared as ‘Het gebruik van de giftenaftrek in Nederland, 1977-2007’ in: Schuyt, T.N.M., Gouwenberg, B.M. & Bekkers, R. (Eds.). In: *Geven in Nederland 2009: Giften, Sponsoring, Legaten en Vrijwilligerswerk*. Amsterdam: Reed Business (pp. 176-185) and was presented at the Giving & Volunteering Research Conference 2009, Amsterdam, July 9, 2009. We thank Mark Wilhelm, Woods Bowman and Adriaan Soetevent for useful ideas.

Introduction

While charitable giving is a widespread phenomenon in the Netherlands, awareness and use of the charitable gift deduction in the income tax are less ubiquitous. Research on charitable giving in the Netherlands has paid little attention to the deduction. With this paper, we seek to reduce these omissions. The paper is organized as follows. First we outline the legal history of the charitable gift deduction and current rules for donors and charitable organizations. Then we describe the use of the deduction among taxpayers from 1977 to 2005. Finally, we explore whether the deduction is treasury efficient, i.e., whether it promotes donations to charitable organizations more than it costs in terms of the taxes forgone by the state.

History of the charitable gift deduction in the Netherlands

In the Netherlands, donations to charitable organizations are deductible from the taxable income. From 1914 until 1941 deductibility of payments to charities was based upon an article written to prevent double taxation of maintenance payments to support relatives. A literal interpretation of this article made it possible to deduct payments made to charitable institutions as well. In the years after World War II taxes were high, the marginal income tax rate was 80%.¹ In this period charities received few gifts and were in dire straits. After long deliberation in 1952 a charitable gift deduction was introduced. The goal of the charitable gift deduction in the income tax was to incite taxpayers to give larger amounts to charity.

Qualifying receiving organizations

Qualifying for tax benefits are ecclesiastical, philosophical, charitable, cultural, scientific or public benefit institutions.² The definition in article 6.33 Income Tax Act uses the term institution and does not prescribe a specific legal form. A charitable institution should be an

¹ Tax rate 1952, the marginal income tax rate was 72%, together with the wealth tax this was 80%.

² Article 6.33 paragraph 1 subsection b Income Tax Act 2001.

organization, independent of its founders, with an own identity and without a profit motive.³ According to legal history the description of the charitable purpose as it is given in the law is intended to be broad and unrestricted. The mentioned categories are examples of qualifying sectors and further crystallization was explicitly left up to jurisprudence.⁴ Organizations seeking recognition of their charitable status must primarily have an ecclesiastical, philosophical, charitable, cultural, scientific or public benefit purpose.⁵ ‘Primarily’ in the Dutch fiscal context means $\geq 50\%$. Currently an organization can be considered a qualifying charity if the activities are $\geq 50\%$ aimed at the common good and $\leq 50\%$ for private benefit.⁶ The ‘common good’ means that potentially anyone can enjoy the activities. Minor private benefits are allowed but a predominantly private goal excludes charitable status. As a result of this restriction, associations promoting the private benefits of their members usually do not qualify as a charitable entity. Pursuing or supporting violence is not permitted.⁷ The territorial scope of the organization does not have to be limited to the Netherlands but can be worldwide.⁸

In the assessment of an organization’s purpose, the statutory and the actual activities are equally important.⁹ At the time of writing this paper, the new Inheritance Tax Law is being finalized. The proposed changes contain an adjustment of the definition of charitable institution in article 6.33 of the Income Tax Act 2001. The current minimum for charitable activities of $\geq 50\%$ will most probably be increased to $\geq 90\%$.

³ Hof ’s-Hertogenbosch, 5 February 1982, BNB 1983/161.

⁴ Parliamentary documents: *Kamerstukken II* 1951/52, 2492, nr. 5, p. 5 (MvA), likewise Hoge Raad (Dutch Supreme Court) 13 July 1994, BNB 1994/280 (Brassband).

⁵ Hoge Raad 13 juli 1994, BNB 1994/280.

⁶ Hoge Raad 17 december 1980, BNB 1981/82.

⁷ Hoge Raad 2 maart 1983, BNB 1983/176 (Stichting Bevrijdingsfonds Komitee Zuidelijk Afrika).

⁸ Wet van 22 mei 1991, Stb. 263, *Kamerstukken II* 1989/90, 21335, nr. 3 p. 6 & *Kamerstukken II* 1989-1990, 21 335 no. 5.

⁹ Article 41a, paragraph 1, subsection b Implementing regulations Income Tax Act 2001.

In addition to the limits with regards to the purpose of the institution, there are some other requirements as well.¹⁰ The institution should have an up to date policy plan. The institution should not have a profit motive. This rule is interpreted as not to ban profits envisaged to further the charitable cause of the organization.¹¹ The deduction is granted if the receiving institution is based in the European Union, the Netherlands Antilles, Aruba or any by ministerial regulation designated country.¹² Regarding the board, securing its independence, a minimum of three members is required, all of whom must have equal voting power. Only a minority of the board should be in an affectionate relationship with, or be living together with another board member.

The assets of the institution may not be at the disposal of any person or organization as if they were their own. The organization should not keep more assets than necessary for the continuity of its operations.¹³ The costs of fundraising and management should be reasonable in proportion to the expenditures on operations. Remuneration of the board must be limited to a common expense allowance. The organizational documents must provide that upon dissolution of the institution the remaining assets must go to a charitable cause. The administration of the institution must be accurate and provide the necessary insight. All information concerning the constitution of the board and changes thereof should be shared with the tax authorities. Though not necessarily obliged to publish annual reports, the charitable institution should file these with the tax authorities. The tax authorities provide a website where the recognition of charitable status for individual institutions can be found (www.belastingdienst.nl/giften/anbi_zoeken/).

¹⁰ Article 41a, paragraph 1 Implementing regulations Income Tax Act 2001.

¹¹ Geschriften van de Vereniging voor Belastingwetenschap nr. 232, Rapport van de Commissie algemeen nut beogende instellingen, Deventer Kluwer 2007 p. 47.

¹² Article 6.33 paragraph 1 subsection b Income Tax Act 2001.

¹³ Article 41a, paragraph 1, subsection d and article 41b implementing regulations Income Tax Act 2001.

Deduction of gifts in the income tax

Title 6.9 of the Dutch Income Tax Act 2001 grants tax payers a deduction for charitable gifts made during the taxable year. A pre-emptive condition for deductibility is that the receiving charity is recognized as such by the tax authorities. In order to only reward donations that constitute a sacrifice a threshold was instituted. With regards to the deductibility the law distinguishes one-off gifts and commitments obliging to donate during 5 years or more.¹⁴ Both are tax-deductible, though for historical reasons the threshold and a maximum apply only for the first kind of gifts. Gifts exceeding this threshold of 1% of the taxable gross income with an absolute minimum of € 60 are deductible up to 10% of the taxable gross income.¹⁵

Deductible gifts are transfers of wealth either voluntarily made or arising from contractual obligations not giving right to a corresponding benefit.¹⁶ Deductible gifts can consist of donations in money, kind or unclaimed expenses. The last category will constitute a gift if a right of reimbursement exists but the donor voluntarily makes no claim to collect them or if no claim can be made but the expenses are to be compensated according to societal views. Deduction is granted only for donations of which written proof can be provided.¹⁷ This excludes donations made at door-to-door collections since these usually do not provide a receipt.

The peculiarity of the Dutch system lies in the periodic gifts which are deductible without a threshold and without limits. In the original system of the Income Tax Decree 1941 charitable gift annuities were deductible through the improper use of a general annuity deduction article. This use was officially tolerated if the gift consisted of at least three yearly

¹⁴ Article 6.32 Income Tax Act 2001.

¹⁵ Article 6.39 Income Tax Act 2001, more exact the taxable gross income without taking into account personal deductions.

¹⁶ Article 6.33 paragraph 1 subsection a Income Tax Act 2001.

¹⁷ Article 6.39 paragraph 1 Income Tax Act 2001.

payments and was drawn up in a deed by a civil-law notary.¹⁸ Any organization could benefit from this deduction, irrespective of the boundaries given for organizations benefiting from the formal gift deduction. In the early 1980s, the State Secretary of Finance was of the opinion that the charitable gift annuity deduction meant an evasion of the limits of the specific charitable gift deduction and was not in accordance with the current societal and juridical views. He proposed to revoke the resolution, discontinue the deduction and limit the provision to the regular charitable gift deduction.¹⁹ The Council of State criticized the proposal and pointed out that charities would face a substantial reduction of their income, although this was not quantified.²⁰ Members of parliament stressed the importance of the constant and foreseeable flow of income the annuities provided. Ultimately the title regulating charitable gift deduction was expanded and as of 1 January 1984 the law contains a paragraph specifically allowing the deduction of charitable gift annuities. Receiving organizations must be exempt from income tax to assure they do not have a profit motive.

To apply for the charitable annuity deduction the gift must be a pledge consisting of at least five yearly fixed and regular payments, promised in a deed executed before a civil-law notary.²¹ Fixed in this respect means the amount given is either invariable or, if it fluctuates, is determined according to an objective measure independent of the donor's influences. The periodical gift can benefit qualifying charitable organizations as well as associations with at least 25 members.²² Associations were included since the aim of the provision was to maintain the essence of the deduction as it was until the formalization thereof.²³ Foundations were not included since they were considered to meet the requirements for the regular

¹⁸ Resolutie (Resolution) van 14 April 1955, nr. 88, BNB 1955/217.

¹⁹ *Kamerstukken II* 1980-1981, 16 787 nrs. 1-3 p. 17 & *Kamerstukken II* 1983-1984, 16 787 C p. 7 and *Kamerstukken II* 1983-1984, 16 787 nr. 6 p. 42.

²⁰ *Kamerstukken II* 1980-1981 16 787 B p. 4.

²¹ Articles 6.34 and 6.38 Income Tax Act 2001.

²² Article 6.34 and article 6.33 paragraph 1 subsection c Income Tax Act 2001.

²³ *Handelingen II* 1983-1984, 8 december 1983 p. 1792.

charitable status. The deductibility of periodic gifts enables Dutch tax payers to give away their entire taxable income.

Should giving be subsidized via a tax credit or deduction from income?

Charitable donations may be subsidized via the income tax in various ways, according to the fiscal system and to the goal of the tax relief. In the Netherlands progressive taxation is used to come to a more equal distribution of income.²⁴ Granting the donor tax benefits can be done by a tax credit method and by the deduction of the taxable income. Alternatively the incentive is paid to the charity, which is done in the covenant system or could be done by a direct matching subsidy dependent on the amount given.²⁵ Hereafter only the tax relief for donors will be discussed.

A tax credit lowers the amount due. A tax credit depending solely on the amount given, which is equal for all income brackets, grants a relatively larger benefit to lower income groups. In the deduction method, however, the donation lowers the taxable income. In a progressive system the deduction method means higher income brackets can deduct against a higher marginal tax rate and so enjoy a relatively larger deduction.

A practical consequence of the choice between a tax credit or a deduction from income comes up if a donor has a negative income. A tax credit usually can not be carried forward and will evaporate whereas a deduction influences the taxable income and could be taken into consideration by means of a carry forward or carry backward.²⁶ Donors with a fluctuating income could therefore be better off in a deduction system.

²⁴ R.E.C.M. Niessen & L.J.A. Pieters, *De Wet Inkomstenbelasting 2001 2.0.10 Het progressieve tarief*. NDFR Fiscale Geschriftenreeks.

²⁵ The covenant method is described by R. Steinberg in *Taxes and giving: new findings* Voluntas 1 (1990), p. 68/69. Several studies show that matching is more effective than offering a rebate as in the deduction: C.C. Eckel & P.J. Grossman in *Rebate vs Matching: Does how we subsidize Charitable Contributions Matter?* Journal of Public Economics, 87 (2003): 681-701; D. Karlan & J.A. List in *Does Price Matter in Charitable Giving? Evidence from a Large-Scale Natural Field Experiment* American Economic Review, 97 (2007):1774-1793.

²⁶ Article 8 paragraph 8 Income Tax Act 2001 & Article 3.152 and 3.153 Income Tax Act 2001.

In Dutch legal history we find the claim that high progressive taxes negatively influenced charitable giving. The experience was said to have learned that because of high taxes the willingness to give increased less than the expenditures of charities did due to inflation.²⁷

In the Income Tax Decree of 1941 the charitable deduction was literally a tax credit. The tax inspector had to take the deduction into account ‘by lowering the amount due’.²⁸ The method for doing so was not specified, which caused room for interpretation, especially since the Payroll tax Decree of 1941 took gifts into account by means of an income deduction. In practice the deduction in the income tax was to be granted using a double calculation. The tax calculation guidelines gave an arithmetic method whereby inspectors would first calculate the taxes due without taking the donations into account, would then recalculate, deducting the gifts from the taxable income and allow the difference to be set off against the tax payable or refundable.²⁹ This was a laborious way of literally applying a tax credit whilst materially granting a deduction. Jurisprudence considered the text of the original decree concerning the calculation ambiguous since it did not stipulate with what amount the tax inspector was to lower the payable amount. According to the Supreme Court it was customary to apply an income deduction. This method was deemed not to be unlawful. As it seems, it even was general practice.³⁰ A special commission instituted by the Tax Science Association to study extraordinary expenses and gifts argued that the accounting method proscribed in the tax calculation guidelines are unnecessarily complicated. The commission deemed the underlying rationale of the incentive to justify an income deduction.³¹ The 1964 Income Tax Law

²⁷ Geschriften van de Vereniging voor Belastingwetenschap nr. 100, Eerste rapport van de Commissie tot bestudering van de aftrek voor buitengewone lasten en giften, N. Samsom n.v. Alphen aan den Rijn 1959 p. 16.

²⁸ Article 51a paragraph 1 Income Tax Decree 1941, Staatsblad no. 376, 8 juli 1952.

²⁹ Guidelines Income Tax Decree 1941 § 52, subsection 1 described in Geschriften van de Vereniging voor Belastingwetenschap nr. 100, Eerste rapport van de Commissie tot bestudering van de aftrek voor buitengewone lasten en giften, N. Samsom n.v. Alphen aan den Rijn 1959 p. 18.

³⁰ Hoge Raad 5 March 1958, BNB 1958/151.

³¹ Geschriften van de Vereniging voor Belastingwetenschap nr. 100, Eerste rapport van de Commissie tot bestudering van de aftrek voor buitengewone lasten en giften, N. Samsom n.v. Alphen aan den Rijn 1959 p. 24.

rephrased the deduction paragraph stating income is gross income minus deductible gifts.³²

The way of deducting gifts has been unchanged ever since.

In the progressive Dutch tax system a charitable deduction results in granting a larger deduction for taxpayers with a higher income and hence a higher marginal tax rate. In legal history the gift was seen as a basic good influencing the ability to pay and therefore justifying a deduction lowering the tax base.³³ According to legal history, the application of the threshold was meant to take the ability to pay into account.³⁴ Van Dijk finds this motivation not sufficient. He criticises this because the charitable relief itself is not based on the ability to pay, more so the legislator keeps the threshold low not to annul the stimulating character of the incentive. According to him a tax incentive that is not based upon the ability to pay approach should be granted in the form of a tax credit.³⁵

Higher incomes not only spend more on food and housing, but also give more to charity.³⁶ This increase is limited though. Most studies on the relationship between income and giving reveal that charitable donations are a necessity good, such that the proportion of income donated decreases as income increases.³⁷ Apparently, the rich need a stronger stimulus to give. This result would justify a deduction from income rather than a tax credit.³⁸ Below we return to this issue.

Data and methods

In the remainder of this paper, we describe the use of the charitable deduction and the effect of the deduction on donations using data from two longitudinal data sources: the Income

³² Article 3 paragraph 3 subsection e Income Tax Act 1964.

³³ As was concluded in legal history; *Kamerstukken II* 1999/2000, 26727, nr. 7, p. 369.

³⁴ *Kamerstukken II* 1998/1999 26 727 nr. 3 (MvT) p. 269.

³⁵ J.E.A.M. van Dijk, *De giftenregeling in de Wet inkomstenbelasting 2001*, WFR 2000/839

³⁶ M.O. Wilhelm, E. Brown, P.M. Rooney and R.S. Steinberg, *The intergenerational transmission of generosity*, *Journal of Public Economics* 92 (2008): 2146-2156.

³⁷ A list of these studies is given in R. Bekkers & P. Wiepking, *Generosity and Philanthropy: A Literature Review*, (October 28, 2007). Available at SSRN: <http://ssrn.com/abstract=1015507>.

³⁸ P. Wiepking, *The Philanthropic Poor: In Search of Explanations for the Relative Generosity of Lower Income Households*, *Voluntas* 18 (2007): 339-358.

Panel Study (IPS) from Statistics Netherlands and the Giving in the Netherlands Panel Study (GINPS) from the Department of Philanthropic Studies at VU University Amsterdam.

The IPS contains full income tax data from a random sample of 0.61% of all tax payers in the Netherlands ($n \approx 120,000$) covering the period 1977-2005. The IPS is suited perfectly for a description of trends in the charitable deduction. We describe the use (the proportion of the population using the deduction) and the volume (the amount deducted). The sample was drawn by Statistics Netherlands from the official population register. We use a weight variable included in the IPS designed to obtain population estimates.

As the data contains personal information about taxpayers, they can be accessed only by special permission, and all output based on the data is screened before release of output files to researchers. Using a scrambled person ID code, the IPS data may be linked to other official data sources such as employment and time use surveys. We gained remote access to the data specifically for this study but did not link them to other data sources. Therefore, the present analyses include only variables that are included in the IPS.

The IPS contains all information provided by taxpayers to the tax authorities in their income tax returns. The key variable that we analyze in the present paper is the amount taxpayers claim as a charitable deduction. Observations that had missing values on this variable were considered as households that did not use the deduction. Among households that claimed positive amounts, we log transformed the amount claimed to obtain an approximately normal variable. Other variables that we analyze are age (birth year subtracted from year of survey) and income from various sources. Unless noted otherwise, all income measures are log-transformed.

The main disadvantage of the IPS is the lack of data on donations that are not deducted from the income tax. Donations in years in which the deduction was not yet used or not used any more are not observed. As a result, we cannot observe changes in total giving in response

to changes in the use of the deduction. In addition, the IPS contains little information on socio-demographic determinants of giving such as education and religion. While the IPS data may be linked to other official data sources containing these variables, the chances of finding individuals from the IPS are negligible. The sample of households included in the IPS was taken independent of other official survey samples.

Therefore we also use data from all waves of the GINPS, covering the period 2001-2007 ($n \approx 1,400$). GINPS includes data on total charitable donations, use of the deduction, as well as socio-demographics, social values and attitudes. Each GINPS wave included a question on the charitable deduction, simply asking: 'Did you use the charitable deduction in the past calendar year?' Response categories were 'No, I do not exceed the threshold', 'No, I am not familiar with the deduction', 'No, I don't find it necessary', 'No, I do not declare at all' and 'Yes'. If 'Yes', respondents reported the amount they deducted. Respondents reporting that they did not find it necessary to use the deduction were asked why.

Charitable giving data in the GINPS are gathered using a 'Method+Area' module, that first asks questions about methods of donating followed by questions about donations to different charitable subsectors.³⁹ The module first listed 29 different methods asking respondents for each of these methods whether their household donated money to charity using any of these methods. Then 10 different areas were listed asking if for each of these sectors in the past calendar year the respondent or any other member of the household donated money or goods to organizations in that sector. In addition, respondents could also report donations to 'other causes'. We constructed a variable total amount donated adding all the amounts mentioned in the 10+1 sectors.

³⁹ P.M. Rooney, K. Steinberg, P.G. Schervish, *A Methodological Comparison of Giving Surveys: Indiana As a Test Case*. *Nonprofit and Voluntary Sector Quarterly* 30 (2001): 551-68.

Results

Trends in the use of the charitable deduction

The IPS shows that the use of the charitable deduction increased slightly from 1977 to 2005 (see figure 1). In 1977, 3.2% of the Dutch population used the deduction. From 1977 onwards, we see an oscillating pattern in the use of the deduction: first an increase to 4.6% in 1989, then a slight decrease (to 4.2%) in 1995, followed by an increase to almost 4.8% in 1998, another decrease in 2001 (to 3.9%) and then the final increase to 4.7% in 2005. Though the charitable deduction has become more popular since 1977, the proportion using it is substantially smaller than the proportion of households that is entitled to use the deduction.

[FIGURE 1 ABOUT HERE]

The GINPS data reveal that in any given year about 90% of the households donate to charitable causes. Some of these households may not qualify for the deduction because they donate only small amounts in door-to-door collections that are troublesome to get a receipt for. However, in 2007 49% of households report total donations exceeding the threshold of €60. 15% reports donations exceeding 1% of gross household income. These households certainly qualify for the deduction. In addition, donations registered in a deed passed by a civil law notary may also be deducted regardless of the amount. In GINPS07, 38% of the households that report donations exceeding 1% of gross household income report that they do not use the deduction. Of these households not using the deduction, 63% thinks they do not qualify. If the amounts reported are true, this is not the case. 14% does not know about the procedure for charitable deductions and 17% does not find it necessary.

In the IPS data, the total volume of the amounts deducted increased from €219 million in 1977 to €698 million in 2005 (see figure 2). We see backdrops and increases – though less sizeable – in the same periods as in figure 1. Adjusted for inflation, using the official

Consumer Price Index published by Statistics Netherlands, the increase in the amounts deducted is less dramatic, but still substantial. Thus, the amounts donated claimed by the minority of households that use the deduction have increased, both in absolute as well as in relative terms.

[FIGURE 2 ABOUT HERE]

We think it is unlikely that the increase in the amounts deducted is a result of the deduction. Requirements for the deduction have not changed in the period 1985-2005. It may be possible that awareness of the existence of the deduction among donors has increased. Several large fundraising organizations have promoted the deduction – especially the charitable annuity deduction – to their donors. Another explanation of the increase in the volume of charitable deductions is that it reflects changes in determinants of giving, such as income and wealth. We consider these factors now in more detail.

Income, wealth and giving

Previous studies on the effect of income on charitable giving in the Netherlands using the GINPS⁴⁰ have concluded that income is not a very important factor in charitable giving in the Netherlands. In these studies, income elasticities of amounts donated usually hover around .30. A potential bias in these studies using survey data is the lack of a sufficient number of high income households to accurately estimate income effects the top percentile. Because the IPS is a large and truly random sample of all taxpayers, this dataset enables us to explore income elasticities much better.

Using the IPS data, we also find income elasticities hovering around .30, depending on the year and type of income variable used. Among households using the deduction, total

⁴⁰ R. Bekkers, *Traditional and Health-Related Philanthropy: The Role of Resources and Personality*, Social Psychology Quarterly, 68 (2006): 349-366; R. Bekkers & P. Wiepking, *To Give or Not to Give... That's the Question*, Nonprofit & Voluntary Sector Quarterly, 35 (2006): 533-540; P. Wiepking & I. Maas, *Resources that Make you Generous: Effects of Social and Human Resources on Charitable Giving*, Social Forces, 87(2009): 1973-1996.

household income before taxes in 2005 had a correlation of .333 with the amount deducted. Correlations of the amount deducted with primary income hardly differ between types of employment: they are .167 for CEOs, .177 for government employees, .177 for the self-employed, and .184 for employees of for-profit firms.

Using data from 2000 to 2005, we have estimated income elasticities of the amounts deducted in two ways. Firstly, we estimated the elasticity of the amount deducted with respect to total income before taxes among individuals who used the deduction throughout the period 2000-2005. In this random effects log-log specification, with 53,199 observations from 17,708 individuals, we find an elasticity of .707. In a fixed effects specification, the elasticity is .735. In absolute terms, the relationship of total income with amounts deducted is .0120995 in the random effects specification and .0113172 in the fixed effects model. These figures imply that a 1,000 euro increase in gross income is associated with a 11 or 12 euro increase in the amount deducted. Secondly, we have estimated these income elasticities among all taxpayers, including the non-deducting individuals in the analysis. Following convention, the non-deducting individuals were included as deducting zero and we log-transformed the amounts deducted after adding 1 euro to avoid the impossibility of taking the log of zero. In this analysis, we have 822,131 observations from 205,161 taxpayers. Now we find radically different results. The elasticity of amounts deducted with respect to total income before taxes in the random effects log-log specification is only .103. In the fixed effects specification, it is even lower: .061. Using the absolute amounts as the dependent variable, a 1,000 increase in income is associated with a 0.00185 increase in the amount deducted in the random effects model and a 0.00095 increase in the fixed effects model.

The fact that the first set of estimates among deducting individuals is much higher than the second set of estimates among all taxpayers implies that changes in income among the general population are much less consequential for donations than changes in income among

active donors. For fundraisers, it is much more important to know how established donors are doing financially than it is to know how total wealth in the population is developing. A further interesting observation is that in 2005, literally none of the households in the IPS with gross incomes exceeding 1.2 million used the deduction. Apparently, the charitable deduction has not found its way to the most wealthy in the Netherlands.

In the 2005 cross-section, correlations with secondary sources of income differ more strongly, ranging from .025 (with income from real estate), via .112 (income from interest), to .216 (income from dividends and stocks) and .253 (income from other assets). These sources of income are less well measured in the GINPS, with only few households reporting earning income from wealth (5.8% in 2007). Of these households, 40% refused to report the level of income earned from wealth. The IPS data reveal a much stronger impact of wealth than the GINPS data. In the IPS 2005, the value of bank accounts and savings correlates .41 with the amount deducted; the correlation with the value of stocks is .49.

Strong correlations of charitable donations and wealth also emerge from a recent study analyzing time series data from 1965 to 2005.⁴¹ The correlation between the total amount received by fundraising organizations that reported their income to the Central Bureau of Fundraising in this period and the total value of savings in the Netherlands is 0,98. The correlation with the AEX, the Amsterdam stock market index, is 0,90.

While the estimates of income elasticities that we obtained above diverge strongly, they are all below 1.0. This implies that charitable donations are a necessity good rather than a luxury good, and confirms results of an earlier study using GINPS data on the proportion of income donated (Wiepking, 2007). The IPS data from 1985 (the most recent year for which we have these figures available) show a similar pattern. The proportion of households using the deduction increased strongly from 1.12% in the bottom decile to 8.55% in the top decile

⁴¹ R. Bekkers, *Fondsenwerving in tijden van crises*, in: Schuyt, T.N.M., Gouwenberg, B.M. & Bekkers, R. (Eds.), *Geven in Nederland 2009: Giften, Sponsoring, Legaten en Vrijwilligerswerk*. Amsterdam: Reed Business, pp. 186-195.

(see figure 3). The proportion net income deducted declines strongly from 10.8% in the bottom decile to 5.2% in the second decile, remains essentially the same from the third to the ninth decile (4.5%) and then increases a little in the top decile (5.1%). These figures may be used to support the argument that subsidizing donations should be done with a tax credit rather than a deduction.

[FIGURE 3 ABOUT HERE]

The charitable deduction and total giving

How does total giving change in response to changes in the use of the deduction? Do households that start using the deduction increase their total giving? And how large is this increase?

We answer these questions first using data from the GINPS waves 2003 to 2007. Specifically, we examine the donations of households that used the deduction in 2003 but did not do so in 2005 (households that stopped using the deduction, 2% of the longitudinal sample, n=10) and households that did not use the deduction in 2003 but did use it in 2005 (households that started using the deduction, 3%, n=15). We compare donations by these households in 2003, 2005 and 2007 with households that did not use the deduction at all in these years (85% of the sample). Households that used the deduction in all these years (the remaining 10%) are omitted from the analysis.

[FIGURE 5 ABOUT HERE]

The results of the analysis show that total amounts donated by households are responsive to changes in the use of the deduction (see figure 5). Specifically, households that stopped using the deduction in 2005 gave 50% less in that year than in 2003. Surprisingly, donations by these households increased again by 14% in 2007. This may be the result of some of these households returning to using the deduction again in 2007.

Households that started using the deduction in 2005 gave 25% more in that year than in 2003. Their giving went up further in 2007 by another 11%. These changes may be the result of changes in the use of the deduction.

However, it may be doubted to what extent changes in the use of the deduction actually have an influence on the total amount donated. The GINPS data suggest that in many cases changes in the use of the deduction are a consequence rather than a cause of changes in donations. We see this when we look at the changes in household giving between 2003 and 2005 for households that would stop or start using the deduction in 2007 (see figure 6).

[FIGURE 6 ABOUT HERE]

We find that households that stopped using the deduction in 2007 had already lowered their donations between 2003 and 2005 by 7%. The subsequent decrease between 2005 and 2007 amounted to 28%. These households first lowered their giving, may then have discovered that they were no longer entitled to use the deduction, and then lowered their giving further. Conversely, households that only started using the deduction in 2007 had already increased their giving from 2003 by 116%. The subsequent increase between 2005 and 2007 – which may be driven by the deduction – is only 10%. These households first increased their giving, and may then have discovered that they could use the deduction. For these households, the additional effect of the deduction is small.

Unfortunately, a crucial piece of information required for an evaluation of these figures is lacking in the 2003 and 2005 waves of the GINPS: household income before taxes. We do know from the 2007 wave that most households that deduct donations (54%) have a marginal tax rate of 52%. As a result, most households that stop using the deduction face an increase in the price of giving by 52% for the proportion of their donations that is tax deductible. Note that because of the threshold, the price change does not affect the total amount donated. If the amount donated does not change, the amount of taxes that the

household is required to pay more if not using the deduction depends on the amount donated exceeding the threshold. In the absence of data on income before taxes, a quantitative evaluation of the treasury efficiency of the deduction is very difficult, if not impossible.

Exogenous price changes

The fact that changes in the use of the deduction depend on prior changes in the amount donated shows that changes in the use of the deduction are not exogenous. In other words, changes in the amount donated cannot be attributed solely to price changes as a result of changes in the use of the deduction, but also depend on other factors. These other factors may include changes in income. If household income increases, the household is able to donate more, and using the deduction may become more attractive when the household reaches a higher income bracket. Another factor is change in the amount donated itself. If the amount donated declines to a level below the threshold, donations may no longer be deducted. If the amount increases, using the deduction may become worth while. This endogeneity in the use of the deduction biases the estimate of the effect of changes in the price of giving.

Thus it is important to identify factors that change the price of giving but are not related to changes in the amount donated. One such factor may be age. When citizens reach the age of 65, the marginal tax rate in the lower two income brackets declines and the price of giving becomes higher (see table 1). If citizens are responsive to price changes, the amount deducted should decrease when citizens reach the age of 65, and some citizens may stop using the deduction at all. Table 2 shows changes in the use of the deduction between 2004 and 2005 among citizens who would become 65 in 2005 and among older and younger citizens. We see that very few individuals start or stop using the deduction in 2005. Among those who turn 65 in 2005 the proportion that starts using the deduction is higher than the proportion that stops using the deduction. This is a pattern that we also see in younger and older age groups.

The use of the deduction increases strongly with age, and there is no sudden decline among those who turn 65 in 2005.

[TABLE 2 ABOUT HERE]

In table 3 we examine the change in the amount deducted between 2002 and 2005 among those who continued using the deduction. In this table we find evidence of a negative price effect. Those who turn 65 in 2005 deduct a lower amount in 2005 than in 2004, while the amount deducted by younger and older individuals increased. The decrease among 65 year olds is 2.4%, while the increase among younger citizens is 5.6% and among older citizens the increase is 4.6%.

Obviously, many other things than the marginal tax rate change in the lives of people when they reach the age of 65. However, these changes are likely to lead to an upward rather than a downward bias in the estimates of the price effect. In the Netherlands most people retire at the age of 65. This reduces their income and leaves them more leisure time to volunteer. The decrease in income may lead to a decrease in the amount donated (and deducted). The increase in leisure time may also lead to a decrease in the amount donated if time and money are substitutes.

Discussion

Only a minute part of the Dutch taxpayers gives sufficiently to overcome the threshold and be eligible for the deduction. An easy solution would be to just lower the threshold or change it into a tax free threshold, granting the relief for the entire donation. Another alternative is to change the subsidy into a tax credit. Such a change may be based on the argument that the income elasticity of charitable giving is (far) below 1, such that there is little effect of the progressive income tax in this case. However, it may also be argued that the threshold itself contributes to the low income elasticity. As figure 1 shows, within income brackets, rational

donors reduce their donations as their income increases. Without the threshold of 1% of income this situation would be avoided. More radical alternatives are to give a tax credit or to introduce covenants or matching grant schemes. Tax lawyers are not keen on changing the system since the Netherlands have a unique possibility to deduct pledged gifts, without a threshold or a maximum which is truly advantageous.

As noted earlier, several pieces of data required to evaluate the treasury efficiency of the charitable deduction accurately are lacking. The IPS data lack information on donations that are not deducted; the GINPS data lack information on income before taxes. Unfortunately, it is not possible to merge the two datasets into one perfect dataset.

We plan to conduct further analyses using the IPS to track changes in the amount deducted over time. First of all, we wonder whether we can replicate the GINPS finding that changes in the use of the deduction follow changes in total giving. In the IPS we should find that households that stop using the deduction in a given year have lowered the amount deducted in the years before. Second, we plan regression analyses of amounts deducted including both the tax price and various sources of income to evaluate the magnitude of price effects on giving. Also the GINPS can be used to quantify price effects looking more closely at the changes in giving around the retirement age, taking changes in volunteering into account.

In this paper we have contributed to the debate on the design of fiscal incentives for charitable donations. This is a first step towards understanding if and how fiscal incentives do entice taxpayers to be more generous. Before we can draw firm conclusions, a much more elaborate analysis is required.

Finally, we would like to note that treasury efficiency is but one argument in the debate on how donations should be subsidized. Even if the deduction is not treasury efficient, indirect subsidies (in whatever form) may send a positive signal to private donors that

charitable organizations are worthy of support. In addition, indirect subsidies to charitable organizations facilitate the provision of public goods that the state is not willing or able to provide itself. Removal of these subsidies may put these organizations back into the dire straits that they were in before the charitable deduction was instated.

Figure 1. Charitable donation resulting from the willingness to spend 1,000 euros and the rational use of the deduction

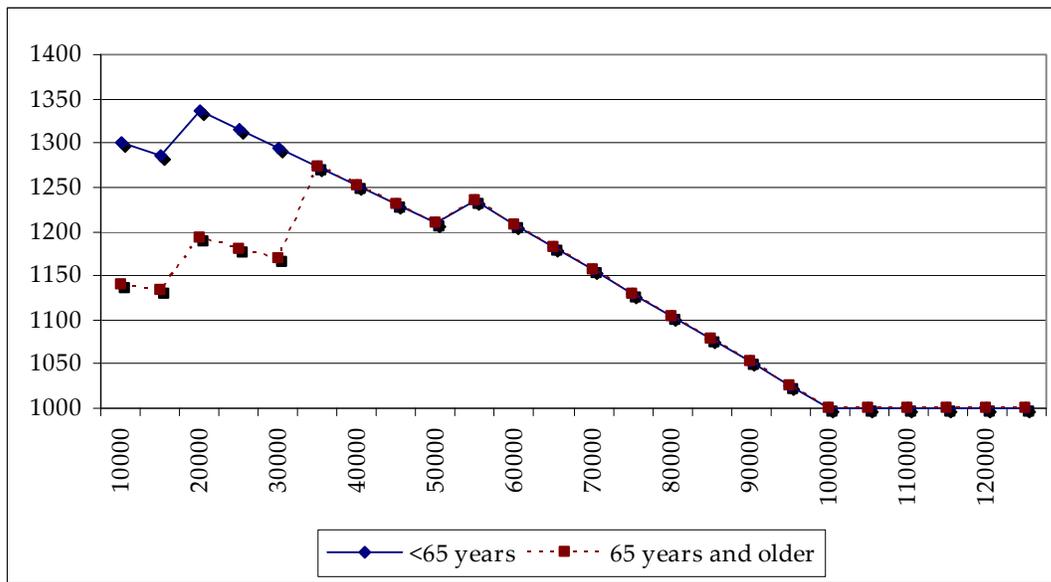
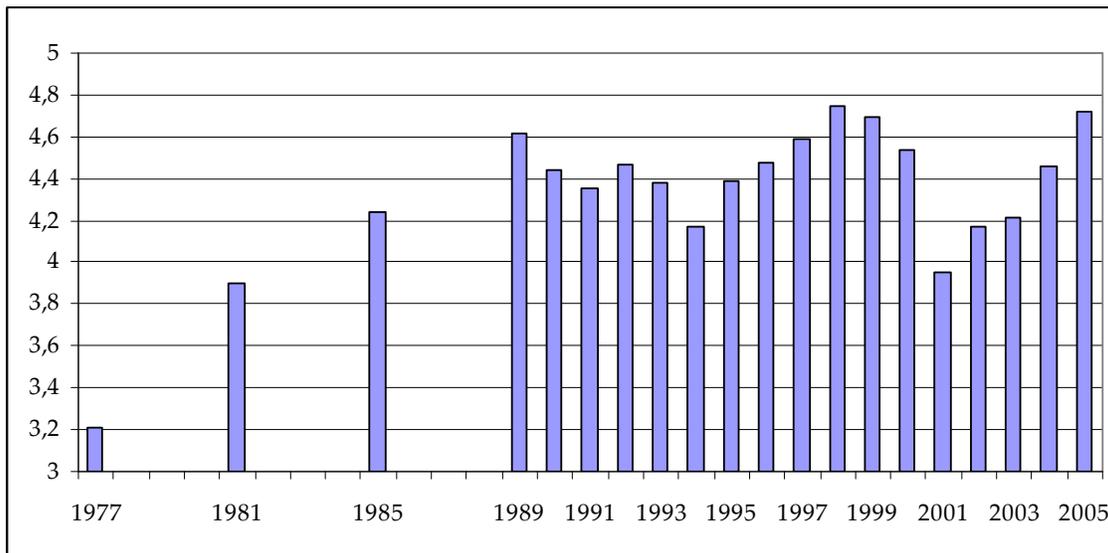


Figure 2. Proportion of the Dutch population using the charitable deduction in the income tax, 1977-2005 (Source: IPO/CBS, author's calculation)



Data on the years 1978-1980, 1982-1984 and 1986-1988 are not available.

Figure 3. Total volume of amounts deduced, 1977-2005 (Source: IPO/CBS, author's calculation)

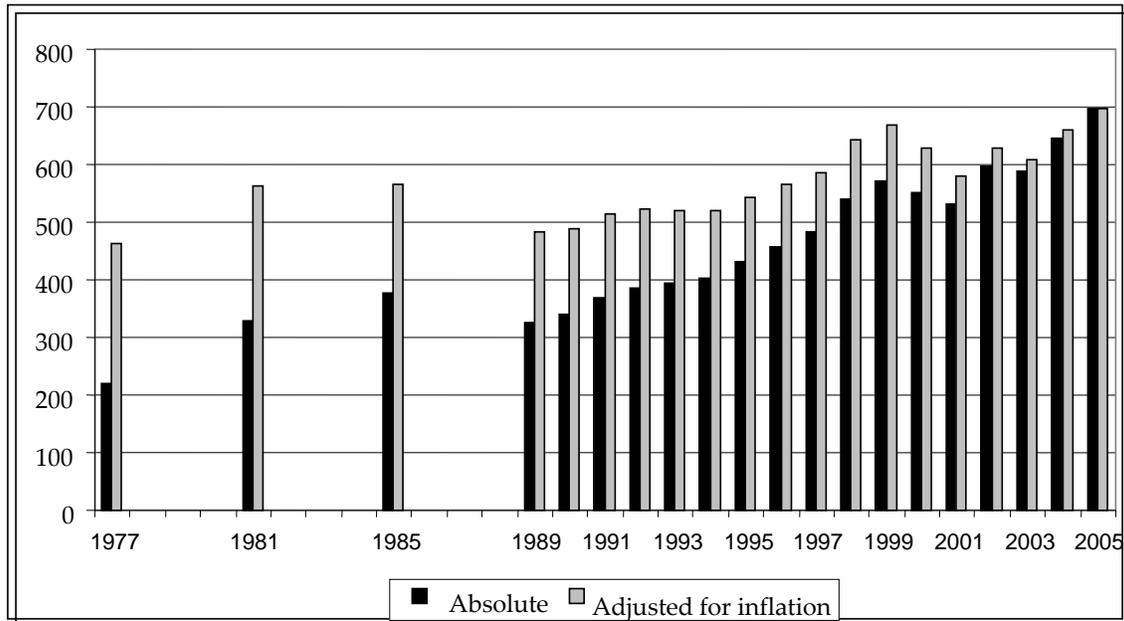


Figure 4. Use of deduction and proportion of income deducted among deducing households, by income decile (Source: IPO/CBS, author's calculation)

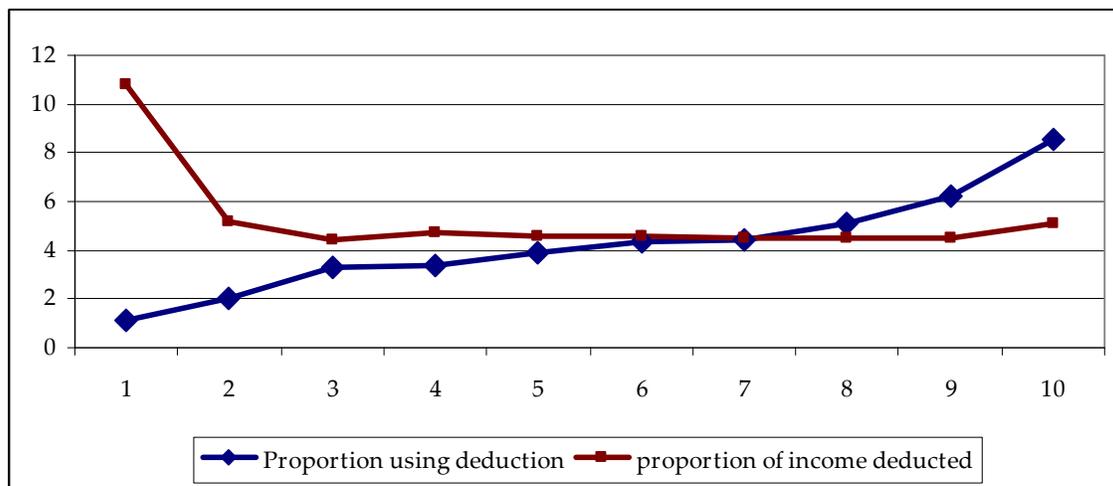


Figure 5. Changes in the use of the charitable deduction between 2003 and 2005 and total household giving in 2003, 2005 en 2007

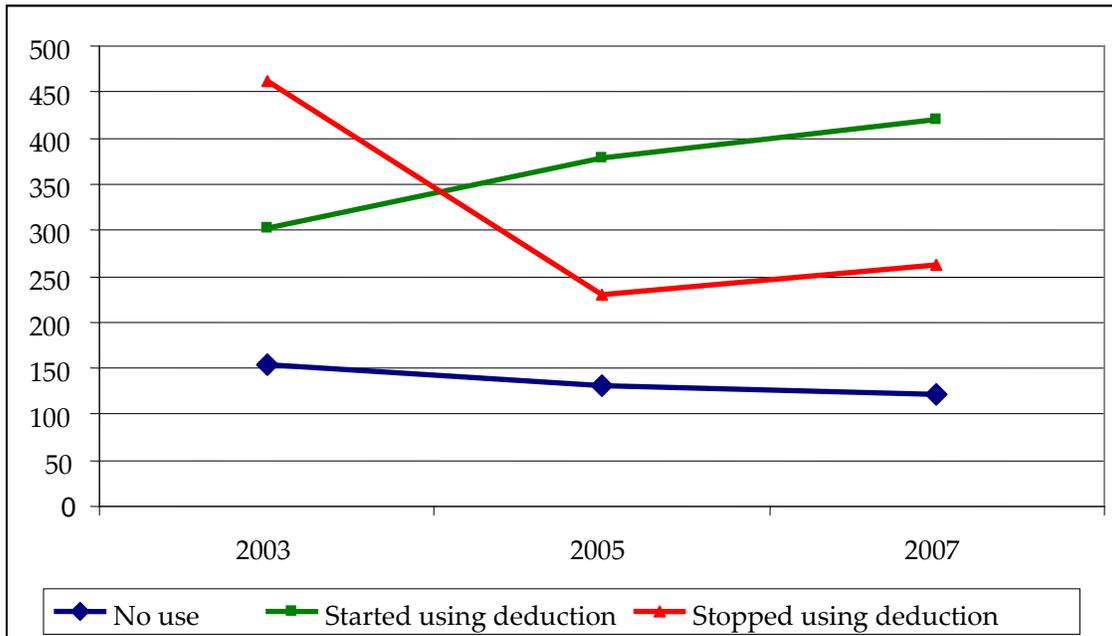


Figure 6. Changes in the use of the charitable deduction between 2005 and 2007 and total household giving in 2003, 2005 en 2007

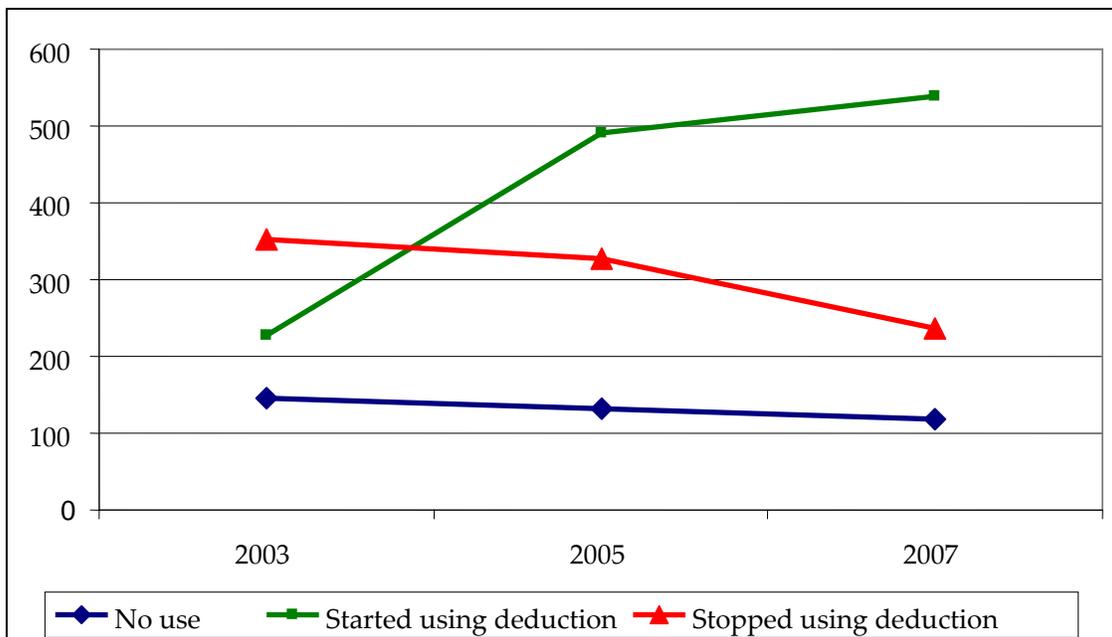


Table 1. Marginal tax rates in the income tax in the Netherlands

Income bracket	<65 tax rate	>65 tax rate
1. <17,319	.3365	.1575
2. 17,319 < 31,122	.4140	.2350
3. 31,122 < 53,064	.4200	.4200
4. >53,065	.5200	.5200

Table 2. Changes in the use of the deduction between 2004 and 2005 in various age categories

Age in 2005	No use in 2004 or 2005	Started using in 2005	Stopped using in 2005	Used in 2004 and 2005	N
<65	96.4	0.8	0.6	2.2	215,594
65	89.7	2.2	1.5	6.6	1,793
>65	85.2	2.5	1.6	10.7	21,702
n	227,914	2,286	1,625	7,264	239,089

Table 3. Amounts deducted between 2002 and 2005 in various age categories

Age in 2005	2002	2003	2004	2005	N
<65	969	983	966	1,020	4,817
65	1,060	1,022	1,061	1,035	119
>65	1,035	953	930	973	2,328
n	994	974	956	1,005	7,264