Intra-household Tax Avoidance*

An Application to Swedish Household Data

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Abstract

This paper analyzes whether households use house interest deductions to minimize family tax payment. By applying a household model in which tax deductions are associated with a cost, we relate the likelihood of minimizing the tax payment to variables associated with the budget constraint and other household characteristics. The results show that 88 percent of the households follow an optimal (arbitrage free) avoidance strategy, and the likelihood of minimizing taxes is influenced by income, age and house ownership experience.

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JEL classification: H24; H29

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1 Introduction

One important, and often neglected, channel through which taxes affect economic behavior is the possibility of using different avoidance strategies. In fact, some empirical work suggests that tax avoidance is at least as important as the effects of taxation on real variables, such as labor supply and consumption.[1] Tax avoidance behavior also appears to interact with other forms of behavioral responses to taxation. Triest (1992) extends the traditional labor supply model to the case where individuals can use deductions to minimize tax payments, and finds that the effect of taxes on labor supply through the relative price of deductible consumption expenditures seems to be stronger than the effect of taxation via the net wage rate.

A question that deserves attention is who actually utilizes the existing possibilities to avoid taxes, and if it is important to distinguish among those who avoid taxes and those who do not. In the simplest models of tax avoidance, every household makes use of the possibilities open for avoiding taxes. In reality some families avoid taxes more than others, indicating that there are individual components to tax avoidance. However, the determinants characterizing these components are rarely discussed in empirical work.

The purpose of this paper is to study the determinants of one form of tax avoidance for which data is readily available; the choice of interest deductions on house loans among cohabiting couples. In an individually based tax system where deductions are made against ordinary income, such as the Swedish income tax system prior to 1991, shifting income and deductible expenses within the household provide one means of limiting the total tax payment. This form of tax avoidance is rarely addressed in the empirical literature. One exception is Stephens and Ward-Batt (2001). They consider how families in the U.K. reallocate assets within the household following the shift from joint taxation to individual taxation. Even though a large proportion of the households may not have exploited the possibility to avoid taxes, their results indicate that the U.K. tax reform was accompanied by a significant intra-household reallocation

[1] For example, when summarizing the experience of the U.S. Tax Reform Act of 1986, Slemrod (1990) refers to avoidance responses as number two and real responses as number three in a three-tier hierarchy of behavioral responses to taxation.

of assets.

Theoretical models using a so called avoidance technology typically assume that the cost of avoiding taxes depends on the amount of avoidance and the income earned,[2] which may constitute one set of explanations for tax avoidance behavior. In addition, there may be other factors important in explaining why some households do not exploit the opportunity to avoid taxes. It takes time and effort to learn how the tax system works, and it is reasonable that there is substantial variation in the effort required to learn how to avoid taxes. Maki (1996) presents results consistent with the idea that households differ in their financial sophistication regarding their ability to avoid taxes. To some extent, the differences in tax avoidance behavior following the U.S. tax reform appear to be driven by educational attainment and household income.

In this paper we relate male and female marginal tax rates and claimed deductions on house interest payments, for the purpose of distinguishing between those who follow an optimal (arbitrage free) avoidance strategy and those who do not. Using data from the Swedish HUS-surveys from 1984 and 1986, these two household groups are compared using a number of variables related to the household members. These variables are assumed to reflect the costs and benefits of tax avoidance. The study should be seen as a first attempt to empirically analyze intra-household tax avoidance behavior. The pre-1991 Swedish tax system is particularly interesting to study because high marginal tax rates together with a complex tax system created strong incentives for individuals to exploit different tax avoidance strategies. There is also some evidence that tax avoidance was extensive, particularly among high-income earners. (see e.g., Malmér and Persson, 1994). Similar observations have also been made in other countries.[3]

The results show that 88 percent of the households minimize tax payment according to our criterion. Thus, the possibilities for tax avoidance created by the tax system appear to be utilized to a large extent. We also present evidence consistent with the idea that tax avoidance may be related to experience in

[2] A review of existing models as well as empirical evidence on tax avoidance and tax evasion is given by Slemrod and Yitzhaki (2000).

[3] For example, in the U.S. context, Feldstein (1995) studies the effects of marginal tax rates on taxable incomes following the 1986 tax reform. The results are consistent with tax avoidance.

the sense that those who have been house owners for a long time are more likely to minimize tax payments than those who recently bought their houses. Finally, variables associated with the budget constraint are weakly related to tax minimization. The paper is organized as follows: Section 2 presents a theoretical framework with the prime purpose of defining a measure of tax minimizing behavior. In section 3 we present the data, the empirical model and the results. Section 4 contain conclusions and suggestions for future work.

2 A simple model of intra-household tax minimizing behavior

The purpose of this section is to develop a method by which we can measure whether families exploit the existing possibilities for avoiding taxes by shifting interest deductions between the household members. Let $u(c, h_m, h_f, X)$ be the family's utility function, where subindexes m and f denote male and female, c denotes consumption, h_i, $i = m, f$, labor supply, and X is a durable consumption good (housing). We assume that X is given, reflecting the assumption that the housing decision has already been made prior to the labor supply and consumption decisions. The budget constraint of the household is given by

$$c = \sum_i \left[w_i^g h_i - T_i\left(w_i^g h_i - a_i R\right) + \overline{y}_i\right] - R$$

where w_i^g is the gross wage rate of i, $\overline{y}_i$ denotes income from other sources, and R the interest payment on the deductible good X. The tax payment is denoted by T_i, and a_i is the share of the deductions made by i ($a_m + a_f = 1$).

The tax system is piecewise linear. There are J brackets in the income tax system. Let τ^j be the marginal tax rate associated with segment j, and H^j be the upper limit (kink point) in terms of hours corresponding to bracket j. The tax payment of individual i located at segment j is given by $T_i^j = \tau^j(w_i^g h_i - a_i R) - w_i^g \sum_{k=2}^{j} \left(\tau^k - \tau^{k-1}\right) H_i^{k-1}$. Substituting the tax payments into the budget constraint yields

$$c = \sum_i \left[w_i^g h_i \left(1 - \tau_i^j\right) + y_i^j\right], \tag{1}$$

where

$$y_i^j = w_i^g \sum_{k=2}^{j} \left(\tau^k - \tau^{k-1}\right) H_i^{k-1} - \left(1 - \tau_i^j\right) a_i R + \overline{y}_i \tag{2}$$

is the virtual income corresponding to segment j. The household maximizes utility by choosing labor supplies, consumption, and the share of deductions for each household member.

The conditions reflecting labor supply and consumption are standard, and we concentrate on the choice of how to share the total deductions between the spouses. Note that, as long as the deductions only affect the budget constraint as represented by equation (1), shifting of deductions among the household members is only a matter of minimizing the tax burden of the household.

The choice of deduction shares can either result in an interior solution, where both spouses make deductions, or a corner solution. To characterize the interior solution, suppose that both spouses are located at the interior of two different tax brackets. It is then possible to shift deductions toward the member with the highest marginal tax rate, which decreases the tax burden of the household. Therefore, the interior solution must have both household members facing the same marginal tax rate, or one of the members being located at a kink point immediately above or below the other member. Notice also that, because of the piecewise linearity of the tax system, a_i is not uniquely determined. One can only specify a bound within which a_i can be located. The corner solution implies that only one of the household members make deductions. In this case, it is easy to show that the member making the deductions cannot have a marginal tax rate lower than that of the spouse. If it is, it would be possible to shift some deductions toward the spouse in order to decrease the family tax payment.

Suppose now that we have access to information regarding the share of deductions made by each household member and their marginal tax rates. If we assume that households make the total deductions allowed, it is possible to state conditions under which the observed tax rates and deductions minimize the tax payment of the household. These conditions follow directly from the solutions given in the theoretical model above. Denote by A (avoiders), the set of households choosing deductions to minimize the tax payment, and by NA (non-avoiders) those who do not fully exploit the possibility to avoid

taxes. Table 1 classifies the empirical observations of marginal tax rates and deduction shares according to this criterion.

Table 1. Classification of empirical data

	$\tau_m > \tau_f$	$\tau_m = \tau_f$	$\tau_m < \tau_f$
$a_m = 1$	A	A	NA
$0 < a_m < 1$	NA	A	NA
$a_m = 0$	NA	A	A

To classify each observation correctly, it is necessary to complement the classification scheme with a check for kink-point solutions. Finally, note that the criterion used only tells whether the distribution of deductions between the spouses is optimal, not whether the household exploits the maximum deduction allowed.

3 Empirical analysis

3.1 Data Description

The empirical analysis is based on data from the 1984 and 1986 Swedish Survey of Household and Non-market Activities (HUS).[4] The 1984 (1986) HUS-survey consists of 2619 (2963) randomly selected individuals aged 18 to 74. The 1986 survey includes both a panel study (1949 individuals) and a supplementary sample. All data refer to these years except the tax return information which refers to the years prior to the surveys (1983 and 1985). One important characteristic of HUS is that both spouses have been interviewed. The sample consists of two-adult households which reported an income loss with respect to family property, and were both spouses are between 20 and 60 years of age. Households where at least one member has been given doubtful or inconsistent tax-return values, or where information is missing, are excluded from the sample. This leaves 450 and 304 two-adult households for 1984 and 1986, respectively. Descriptive statistics are presented in Tables A1 and A2 in the Appendix.

[4] For a more detailed description of HUS, see Klevmarken and Olovsson (1993) and Flood et al. (1997).

During the pre-1991 tax reform period, total taxes could be reduced by shifting capital income from the high income earner of the household to the low income earner; while the high income earner claimed the deductible expenses against taxable income. Prior to 1983, household members could deduct house interest payments against taxable income. In 1983 the government limited the deductions allowed. A two-part national income taxation scheme, consisting of a basic tax scheme and an additional tax scheme, was introduced. Deductions could be made against the basic marginal tax rates, implying that deductions made by individuals paying the additional tax was limited.[5] In applying the classification given in Table 1, the basic tax rates are used. We calculate price and income information from the original data. Marginal taxes are measured using the national tax schemes and by applying the national average of local tax rates for each year. The household's virtual income is calculated according to equation (2), where the non-labor incomes are defined as the sum of interest income, interest subsidies, dividends, net capital gains, debt interests (other than house interest payments), and administrative expenses.

Table 2. The distribution of tax avoiders among tax and deduction regimes

Household group	Number of observations	Share of avoiders
Overall sample	754	0.88
Deductions		
Male ($a_m = 1$)	631	0.94
Female ($a_m = 0$)	36	0.58
Both ($0 < a_m < 1$)	87	0.57
Marginal tax rates		
Male higher ($\tau_m > \tau_f$)	493	0.92
Female higher ($\tau_m < \tau_f$)	60	0.22
Equal ($\tau_m = \tau_f$)	201	1

Note: The marginal tax rates refer to the basic tax schedule.

Looking at the data (see Table A1), the average interest deduction on house loans is approximately nine and seven times larger for men than for women in

[5] The tax reform of 1991 and the preceeding tax systems are described in Agell et al. (1998).

1984 and 1986, respectively. According to the avoidance criterion developed in Section 2, 88 percent of the households divide their interest deductions to minimize tax payments. Table 2 displays in more detail how the proportions of tax payment minimizers are distributed among deduction regimes and (basic) marginal tax rate regimes. In a large majority of the households, the male claims all interest deductions, and the male has a higher marginal tax rate than the female. In these groups, most households are considered avoiders.[6]

However, when the female claims at least some of the deductions, a smaller share of the households is considered avoiders, since many males have higher marginal tax rates than their spouses. Notice that, of the families that are located at the interior deduction regime, only 57 percent are considered avoiders. Similarly, if the female has a higher marginal tax rate than the male, a large proportion of households have the male claim a too large part of the deductions (78 percent). Even though the number of observations is small in this portion of the data it is, nevertheless, tempting to interpret this finding as related to a historical component, perhaps tied to formal male house ownership.

3.2 Empirical model

To model the decision to avoid taxes by distributing the deductions optimally, suppose that the indirect utility of a household choosing to avoid taxes is given by $v(w_m^A, w_f^A, y^A, \mathbf{z}_1) - \Gamma(\mathbf{z}_2)$, where w_i^A is the marginal wage rate of spouse i, y^A the (household) virtual income, $\mathbf{z}_1$ a vector of characteristics independent of the choice of deductions, and $\Gamma(\mathbf{z}_2)$ the household's cost associated with making the deductions with $\mathbf{z}_2$ being the set of characteristics affecting this cost. This means that the cost function may vary between the households, although it does not depend upon the amount of avoidance made, which appears reasonable in the present context. In case a household chooses not to utilize the tax arbitrage opportunities, we assume that the indirect utility is given

[6] Looking at the differences between avoiders and non-avoiders regarding the variables used (see Table A2), the most marked difference concerns the hourly wage. The average male-female wage difference is approximately 16 SEK for avoiders, while for non-avoiders it is below 5 SEK. Thus, if the allowed deduction is not too high, we should expect that a relatively high proportion of households where the male has a higher marginal tax rate than the female to be avoiders.

by $v(w_m^{NA}, w_f^{NA}, y^{NA}, \mathbf{z}_1)$, where w_i^{NA} is the marginal wage rate of i, and y^{NA} the virtual income. The household chooses to use deductions to avoid taxes if and only if

$$v(w_m^A, w_f^A, y^A, \mathbf{z}_1) - \Gamma(\mathbf{z}_2) \geq v(w_m^{NA}, w_f^{NA}, y^{NA}, \mathbf{z}_1). \tag{3}$$

To operationalize this model, we assume that the indirect utility function is linear, e.g. $v(w_m^A, w_f^A, y^A, \mathbf{z}_1) = \alpha w_m^A + \beta w_f^A + \gamma y^A + z_1$, and the cost of deductions is given by $\Gamma(\mathbf{z}_2) = \boldsymbol{\delta}'\mathbf{z}_2$. Substituting these expressions into equation (3), the underlying latent response is given by

$$I_n^* = \alpha\left(w_{m,n}^A - w_{m,n}^{NA}\right) + \beta\left(w_{f,n}^A - w_{f,n}^{NA}\right) + \gamma\left(y_n^A - y_n^{NA}\right) - \boldsymbol{\delta}'\mathbf{z}_{2,n} + \mu_n \tag{4}$$

where $n = 1, ..., N$ denotes household, μ_n is a normally distributed error term, while $\boldsymbol{\delta}$, α, β, and γ are parameters to be estimated. Households choose to 'invest' to optimize deductions if $I_n^* \geq 0$, and choose not to utilize arbitrage opportunities if $I_n^* < 0$. Define an indicator variable such that $I_n = 1$ if $I_n^* \geq 0$, and $I_n = 0$ otherwise.

The marginal wage rates and virtual income are only available in the observed regime. This means that the parameters in equation (4) cannot be estimated directly. Therefore, we need to obtain an estimate of the marginal wage rates and virtual incomes in the state where the households are not observed. Note also that, since the decision to supply labor and the decision to deduct are likely to be determined simultaneously, marginal wage rates and virtual incomes cannot safely be regarded as exogenous. For these purposes, we pre-estimate reduced forms equations for the marginal wage rates and virtual incomes. Suppose that the marginal wage rates and virtual incomes corresponding to the two regimes are given by

$$w_{i,n}^s = \boldsymbol{\rho}_i^{s\prime}\mathbf{x}_n^s + \epsilon_{i,n}^s \qquad i = m, f \qquad s = A, NA \tag{5}$$

$$y_n^s = \boldsymbol{\theta}^{s\prime}\mathbf{x}_n^s + \nu_n^s \qquad s = A, NA \tag{6}$$

where $\boldsymbol{\rho}_i^s$, and $\boldsymbol{\theta}^s$ are parameter vectors, $\mathbf{x}^s$ denote variables, and ϵ_i^s, and ν_n^s are error terms. We assume that the explanatory variables are the same in equations (5) and (6), which is the correct procedure given that they originate from the same decision problem. As a first step equations (5) and (6) are

estimated. We then predict $\widehat{w}^s_{i,n} = \widehat{\boldsymbol{\rho}}^{s\prime}_i \mathbf{x}_{i,n}$, and $\widehat{y}^s_n = \widehat{\boldsymbol{\theta}}^{s\prime} \mathbf{x}_n$ in order to obtain marginal wage rates and virtual incomes for both states. Then, in the second step of the estimation procedure, $w^s_{i,n}$ and y^s_n are replaced with their predicted values in order to estimate equation (4).

3.3 Results

We consider a number of explanatory variables that may affect the likelihood of minimizing the household's tax payments. The following sets of variables are central in this analysis: (i) *economic variables* as measured by the differences in marginal wage rates for the male and female and the differences in virtual incomes as described above, (ii) *educational attainment*, we distinguish between the male and female number of years of education, (iii) *house ownership experience* as measured by the number of years of current ownership, and (iv) *other individual and household characteristics*, measured by male and female age, and a dummy variable indicating the presence of children in the household. In addition, a period specific effect is included.

The results from the estimation of the marginal wage rates and virtual incomes are presented in Table A3 in the Appendix. The results from the estimation of the avoidance equation is presented in Table 3.

Table 3. The determinants of intra-household tax avoidance behavior.

Variables	Estimate	t-value
Constant	0.62	1.04
Male wage difference	-0.001	-0.11
Female wage difference	0.22	1.24
Virtual income difference	0.10	1.13
Male age	0.11	1.81
Female age	-0.12	-1.86
Male years of education	-0.04	-0.47
Female years of education	0.04	0.56
Ownership experience	0.02	1.74
Child dummy	-0.52	-1.40
Year dummy (1986=1)	0.58	2.66
R^2 (Kullback-Liebler)	0.09	

Within the framework presented above, the economic variables are assumed to measure the benefits of utilizing the arbitrage opportunities, and the parameters should reflect the preferences of the household. As a consequence, we expect α, β, and γ to be positive. According to Table 3, the parameters associated with the female marginal wage and virtual income are positive, while the male marginal wage effect is close to zero. However, none of these parameters are significantly determined at conventional levels of significance.

The cost of utilizing the opportunities for tax arbitrage is assumed to be reflected by the other characteristics. It is likely that education reduces the cost of utilizing tax avoidance. However, we find no strong evidence that tax avoidance is affected by education. The probability of minimizing household tax payment is positively correlated with the age of the male and negatively correlated with the age of the female.

There are no particular reasons to believe that the cost of utilizing tax avoidance should depend negatively on the female age. If age reflects experience in household management/administration activities, we would expect both age variables to be non-negatively related to the probability of minimizing tax payments. In the present case, the sum of the male and female age

has no effect, while a larger male-female age difference has a positive effect. Therefore, we believe that age may reflect other characteristics not present in the empirical analysis, or that the age effects may be preference related. The age of the adult household members also correlate with the presence of children. The presence of children is, in turn, negatively correlated with the probability of utilizing tax avoidance.

Experience with house ownership increases the probability of utilizing the tax arbitrage opportunities. This is likely to be the case if it takes time to learn how to make the deductions. The 1986 period specific effect is positive, reflecting a larger proportion of the households classified as tax avoiders in the 1986 data. One possible explanation is learning. Finally, the overall explanatory power of the model is rather weak. We are not able to explain the relatively large differences in the observed proportions among tax and deduction regimes (see Table 2).

4 Concluding remarks

In this paper we have developed a method that can be used to infer whether households utilize the existing possibilities to distribute house loan deductions in a way that exhausts avoidance opportunities. We apply a measure of avoidance versus no avoidance to a sample of Swedish cohabiting couples for the years 1984 and 1986. The study should be seen as a first attempt to analyze intra-household tax avoidance behavior empirically. The main results are that a large portion of the observations appear to utilize the opportunities available. Tax avoidance behavior is related to house ownership experience, income variables, and the age distribution.

The analysis indicates that, while we can motivate reasonably well the benefits of utilizing avoidance opportunities (in terms of utility gains), the costs of utilizing arbitrage opportunities are not so easily understood. There are a number of reasons why the 'costs' of tax avoidance may be difficult to capture. First, as illustrated by Maki (1996), the abilities required to make correct judgements may not be captured by simple measures such as educational attainment and age. In his study financial sophistication, as measured from a questionnaire, has a separate effect. In the present study, this means

that there may be a large component of heterogeneity also within educational and age groups. It may also be the case that decisions to divide deductions may be driven by sex-related customs, rather than active choices. On the contrary, as argued by Nyman (2001), most households in Sweden appear to pool their resources. Thus, avoidance behavior is not likely to be explained by the lack of intra-household transfer systems.

Second, the analysis presupposes that the household as such utilizes all the deductions available. Thus, we can only measure one of the two dimensions that are interesting if we want to capture tax minimizing behavior. It is possible that measures considering both dimensions better are explained by personal characteristics. A third point, related to the second, is that the measure considered does not take into consideration how far off the household is from the tax minimizing deductions, which may obscure the effects of personal characteristics.

One issue in future work would be to construct a distance measure of optimality. Such a measure can be constructed quite easily, if we are willing to assume that deductions are made independent of labor supply choices. Also, if data on the allowed deductions is available, both dimensions of intra-household tax avoidance can be taken into account. Another interesting possibility is to consider panel data on deductions. This would make it possible to identify if households change their deductions over time, which is important if one would like to consider whether households make optimal choices repeatedly.

Appendix

Table A1: Sample statistics, 1984 and 1986.

	1984 (N=450)		1986 (N=304)	
Variables	Men	Women	Men	Women
Age	40.23 (9.30)	42.62 (9.23)	42.76 (7.98)	40.47 (7.96)
Years of education	11.30 (3.73)	10.79 (3.25)	11.96 (3.50)	11.63 (3.06)
Gross wage rate	62.86 (26.49)	49.13 (18.42)	68.06 (53.42)	51.80 (26.07)
Marginal wage rate	26.72 (10.28)	28.26 (9.42)	30.31 (22.43)	28.60 (13.25)
Marginal tax rate	54.90 (12.34)	41.11 (10.22)	52.64 (10.86)	43.60 (9.04)
Taxable income	92053 (41746)	53237 (28701)	115849 (53403)	77405 (34360)
Non labor income	458.8 (11558)	2203 (6335)	-1176 (19068)	1434 (15149)
Housing deductions	17762 (13050)	1962 (6159)	22842 (15450)	3274 (9352)
Virtual inc./household	16864 (27740)		10749 (41110)	
House loans/household	231868 (163671)		248630 (174067)	
Ownership experience	9.72 (6.54)		9.38 (6.30)	
Children/household	1.37 (1.07)		1.94 (1.31)	

Note: Standard deviations are reported in parentheses. All economic variables are measured in 1986 prices.

Table A2: Sample statistics, avoiders and non-avoiders

	Avoiders (N=666)		Non-avoiders (N=88)	
Variables	Men	Women	Men	Women
Age	41.14 (8.90)	41.54 (8.78)	42.11 (8.71)	43.39 (8.81)
Years of education	11.68 (3.66)	11.09 (3.20)	10.69 (3.50)	11.41 (3.23)
Gross wage rate	66.06 (40.76)	49.98 (22.39)	56.59 (28.94)	51.93 (17.27)
Marginal wage rate	28.12 (16.88)	28.57 (11.42)	28.53 (12.12)	27.07 (8.361)
Marginal tax rate	54.87 (11.55)	41.50 (9.67)	47.32 (11.76)	46.76 (9.86)
Taxable income	104815 (48299)	61776 (33641)	77670 (40225)	72102 (28899)
Non labor income	103.5 (14780)	1801 (10848)	-2499 (16897)	2594 (10367)
Housing deductions	20097 (13844)	1656 (6486)	17643 (17138)	8815 (11690)
Virtual inc./household	15578 (34052)		5469 (31316)	
Houseloans/household	231907 (156434)		289476 (233128)	
Year house/household	9.87 (6.40)		7.42 (6.37)	
Children/household	1.64 (1.22)		1.32 (1.08)	

Note: Standard deviations are reported in parentheses. All economic variables are measured in 1986 prices.

Table A3: Marginal wage and virtual income estimations.

	Male marg. wage		Female marg. wage		Virtual income	
Variable	Estimate	t-value	Estimate	t-value	Estimate	t-value
Avoiders						
Constant	8.65	4.52	9.79	8.15	-2.74	-0.72
Male gross wage	0.38	48.61	0.006	1.22	0.11	7.11
Female gross wage	-0.02	-1.47	0.47	52.50	0.12	4.13
Male age	0.04	0.54	0.01	0.21	0.03	0.19
Female age	0.04	0.47	0.001	0.02	-0.18	-1.06
Male years of educ.	-0.88	-8.18	-0.06	-0.92	1.52	7.13
Female years of educ.	-0.08	-0.69	-0.47	-6.15	1.03	4.29
Child dummy	1.48	2.00	1.66	3.59	-6.20	-4.22
Househ. non-labor inc.	-0.12	-8.92	-0.04	-5.25	1.17	43.93
Houseloan	0.002	0.78	0.0003	0.16	-0.001	-0.10
Housing deductions	0.003	1.21	0.001	0.39	-0.06	-10.50
Year dummy	2.49	3.39	-0.70	-1.53	-5.83	-4.00
R^2	0.79		0.82		0.79	
Non-avoiders						
Constant	6.72	1.44	4.32	1.10	7.77	0.69
Male gross wage	0.39	15.93	-0.02	-0.83	0.12	1.99
Female gross wage	-0.03	-0.70	0.42	11.66	0.23	2.17
Male age	-0.52	-2.50	-0.12	0.70	1.28	2.52
Female age	0.65	3.23	0.17	0.99	-1.59	-3.27
Male years of educ.	-0.31	-1.26	0.16	0.76	-0.04	-0.07
Female years of educ.	-0.30	-1.07	-0.41	-1.73	1.90	2.83
Child dummy	5.04	3.10	2.52	1.84	-14.18	-3.59
Househ. non-labor inc.	-0.03	-0.72	-0.003	-0.09	1.01	11.45
Houseloan	-0.006	-1.90	0.001	-0.21	0.005	0.62
Housing deductions	-0.003	-0.86	0.001	0.46	-0.06	-6.15
Year dummy	2.82	1.44	0.55	0.39	-6.93	-1.68
R^2	0.79		0.68		0.81	

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