Mortgage interest deductibility and homeownership in the Netherlands.

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Summary
This paper considers the growing amount of paid mortgage interest in the Netherlands against the background of its full deductibility, increasing homeownership rates, innovation in the mortgage market and changes in the Dutch income tax system. Its main conclusions are that arguments in favor of fiscal deductibility are weak. Since the deductibility puts pressure on the income tax base, it is likely that sooner or later the facility will be limited or abandoned.

1 Introduction

The Netherlands is one of a few countries in the world – the USA being the primary other example - where interest paid on mortgage loans is fully deductible from taxable income. Some of the surrounding countries have never had this tax facility, while others have abolished it or put substantial limitations on the fiscal deductibility. The continuation of this tax facility for owner occupiers is a hot issue in the national policy debate. This is somewhat surprising – at least at first sight – since this tax facility dates back from the beginning of the 20th century as has essentially remained unchanged. Moreover, marginal tax rates have decreased during the past 25 years and nominal mortgage interest rates are much lower now than they were in the 1980s.

In this contribution we take a closer look at the treatment of owner occupiers in the Dutch income tax system. We start with a brief discussion of the tax facility and the associated debate. Then we take a closer look at the arguments in favor of the measure and conclude that they are weak. We document the increasing use made of mortgage interest deductibility in section 5 and proceed with a discussion of the role of innovations on the mortgage market and the incentives provided by the current Dutch tax system. Section 8 concludes.

2 Mortgage interest deductibility in the Netherlands

The origins of the deductibility of mortgage interest paid from taxable income are to be found in the Dutch income tax system as it was constructed in the first quarter of the 20th century. One of the principles of that system was that costs made to realize income are exempt from income taxation. Mortgage interest paid was regarded as a cost that has to be made in order to realize income – in kind – of the home one owns. The deductibility of mortgage interest paid is therefore complemented by the taxation of the benefit an owner derives from his house should be taxed. In accordance with this principle, Dutch owner-occupiers have to add the rental value of their house to taxable income.

The current practice is as follows. A homeowner with a mortgage loan can deduct the interest paid on the outstanding amount of money from his taxable income. The net interest payment of the homeowner is the difference between gross interest payments and the tax payment that is avoided through the deductibility. This tax saving is equal to the product of the marginal tax rate and the gross interest payments. For most Dutch taxpayers the marginal rate equals 42% or 52%, implying that net mortgage interest payments are substantially lower than gross payments.

The imputed rent is proportional to the value of the house as estimated for the purposes of the real estate tax. Such estimates are made for every house in the Netherlands and are in general lower than the market price.[1] Moreover, the imputed rent is set equal to only 0.6% of this estimate.

The total effect of homeownership on the amount of income tax paid is equal to the difference between the tax savings that result from the deductibility of paid mortgage interest and the tax that has to be paid over the imputed rent. Given the above figures, it will come as no surprise that for the large majority of the household population homeownership decreases the total amount of income tax that has to be paid. Only for outright owners and those with a small mortgage can the net effect of the two tax measures be in increase in the total amount of income tax to be paid. However, a recent change in the tax system determines that in such cases the tax increase that would result from homeownership does not have to be paid. This excludes the possibility that homeownership will result in higher income tax payments.

The fact that the mortgage interest deductibility fits into a basic principle of the income tax system can be regarded as a justification of its existence. However, the description given above immediately reveals an important weakness in any defense of this tax facility based on this logic. Subtraction of the costs of homeownership from taxable income is justified because the associated benefits are taxed and the system only intends to tax the net benefits. However, for the purposes of the tax system the benefits are determined in such a way that they can never exceed the costs, which seems illogical. It is clear, therefore, that in the present circumstance mortgage interest deductibility cannot serve the purpose for which it was originally introduced, and must be defended by other motives. This complicates the position of the supporters of this tax facility.

3 Reasons behind the current debate

The main reason behind the current debate on mortgage interest deductibility in the Netherlands is the large and ever growing amount of paid interest that is deducted from the income tax. The tax savings for the homeowners are a *tax expenditure* of the government.

[1] In the Dutch Housing Needs Survey of 2002 the self reported value of the house is on average more than 50% higher than the estimated value for the real estate tax.

According to the CPB the deductibility of paid mortgage interest decreased total revenues from income taxation in 200. by 11.75 billion euros, while the taxation of imputed rent resulted in 2 billion euros of revenues, implying a net tax expenditure of 9.75 billion euros.[2]

Moreover, the tax expenditure associated with mortgage interest deductibility increases over time. The lost income tax revenues from mortgage interest deductibility increased from less than 6 billion euros in 1995 to more than 11 billion in 2006. In the same period the revenues generated by taxation of the imputed rent remained more or less constant at 2 billion euros. In this period the mortgage interest rate decreased substantially, suggesting a decrease in mortgage interest payments, while house prices more than doubled, suggesting an increase in imputed rents. It must, of course be realized that these two effects counteract each other to some extent since higher house prices may lead to larger mortgage loans, which increase mortgage interest payments. However, even when this is taken into account, the increase in mortgage interest paid is surprisingly large. The absence of an increase in the revenues from taxing imputed rents was caused by changes in the system of determining this variable, which effectively implied a lower value. The substantial increase in tax expenditure and its current high level is an important reason for concern about the income tax base.

A second reason for the debate is that the tax savings are especially large for households with high incomes. These households are often homeowners and they usually live in large houses. The decisive fact is, of course, that they also have larger mortgage loans than households with lower incomes. Table 2 provides information about the relationship between homeownership and the income distribution. The second column of this table gives average net monthly income per decile. It confirms the well known regularity that homeownership increases with income (after the second decile). The monthly amount of mortgage interest paid is more or less constant between the second and fifthe decile, but increases strongly in the upper half of the income distribution. The last column of the table shows, somewhat surprisingly, that imputed monthly rent decreases slightly with income until the fifth decile and increases modestly until the last decile. Imputed rent is computed as .6% of the value of the value of the house as it has been estimated for the real estate tax, divided by 12. Since this estimate is also used in actual income taxation, it is probable that this feature of the data reflects the reality of Dutch income taxation.

[2] See Van Ewijk et al. (2006).

Table 1 Homeownership and income distribution

Decile	Av. net monthly Income	% homeowner	Monthly mortgage interest payment	Imputed monthly rent
1	405	49	456	89
2	876	28	354	79
3	1,163	32	367	77
4	1,439	38	349	70
5	1,733	46	360	71
6	2,061	57	388	73
7	2,439	66	429	74
8	2,879	76	482	77
9	3,470	83	546	83
10	5,497	88	709	105

Source: WBO 2002. The last two columns refer to homeowners only.

The figures in Table 1 show that in all deciles the average amount of mortgage interest paid is much larger than the average imputed rent. The difference between the two exceeds 250 euro per month in the lower half of the income distribution and it becomes as large as 600 euro per month in the tenth decile, where almost 90% of the households are homeowners. It is clear therefore that the households with the highest incomes realize the largest deductions from their taxable income because of their homeownership. Note, moreover, that these incomes have the highest marginal tax rates and therefore realize the largest tax savings.

The deterioration of the income tax base and the relatively large share of the associated benefits flowing to high income households are the main reasons for concern about mortgage interest deductibility. Some other considerations add to this concern. Surrounding countries have abandoned or limited this facility, which places the Netherlands in an exceptional position. It is sometimes also argued that mortgage interest deductibility is one of the reasons behind the currently high house prices in the Netherlands. However, it seems unclear how a tax facility that has been present for almost a century could be the reason for an increase in the price of housing in the last decade.

Abandonment of mortgage interest deductibility has important consequences for household incomes. The figures in Table 1 make clear that changes in net household income of 100 euro per month or more will be no exception. Partial abandonment by introducing substantial limitations on this facility can also have important effects. It is mainly for this reason that proposals to change the mortgage interest deductibility have potentially large electoral consequences and political parties – especially the largest ones - are strongly inclined to declare that they do not intend to change it, or at least that they will be very careful in introducing such changes. However, the weight of the two main arguments presented above is strong enough to keep the discussion alive and the general expectation is that sooner or later mortgage interest deductibility will be limited or perhaps completely abandoned.

4 Arguments in favor of mortgage interest deductibility

Section 2 noted that mortgage interest deductibility was – historically – the consequence of a basic principle taxation that holds that costs made to realize income can be subtracted from taxable income. The implied fiscal treatment of owner-occupation can be motivated in various ways. One possibility is to compare owner occupation with renting. In order to treat renting and owner-occupation similarly, one should distinguish two aspects of homeownership: on the one hand, the homeowner can be regarded as renting a house and on the other hand he is the owner who lets the same house. As an owner he earns the rent from the house, which gives him income. Also as an owner he has costs that can be subtracted from this income, before it is taxed. Equal treatment of the rental and owner occupied sector of the housing market therefore requires the taxation of imputed rent in combination with mortgage interest deductibility.

Related to this reasoning is the argument that fiscal deductibility is necessary to ensure that debt and equity financing of houses are treated symmetrically. It has recently been stressed by Hendershott and Pryce (2006), who refer to Woodward and Weicher (1989) for a more elaborate defense. Briefly, the argument is that the opportunity costs of debt financing are the net returns on alternative uses of equity. If capital income is taxed in the same way as other income, the net returns are equal to the gross returns multiplied by one minus the marginal tax rate. If the gross returns are equal to the mortgage interest rate (possibly after a correction for exposure to risk) a homeowner should be indifferent between debt financing and equity financing if there is fiscal deductibility of paid mortgage interest. In the absence of such deductibility, there would be a bias against debt financing of housing.

The first argument is perfectly valid, but suffers from the fact that the proper taxation of the owner-occupier as a homeowner requires knowledge of the rent. Elementary economic logic suggests that households will only buy a house when the benefits are larger than the cost. A correct determination of the benefits in the form of imputed rents should therefore be expected to result – under normal circumstances – in a value for the imputed rent that is at least as high as the mortgage interest payments. The recipe for the large tax expenditure associated with the current fiscal treatment of owner occupied housing suggested by this reasoning is to increase the imputed rent substantially.

For various reasons, this option is extremely unrealistic. Naturally, the taxation of the imaginary rent a house occupied by its owner could pay is very unpopular among homeowners, who will dispute the imputed value whenever they can. One way to minimize disputes about these rental values, and associated political pressure from homeowners, is to take care that such estimates are conservative. Moreover, homeownership is generally regarded as the preferred tenure type and many politicians are inclined to conclude from this consideration that taxing imputed rent comes close to a taxing homeownership. This reasoning completely overlooks the motivation for introducing the combination of taxation of imputed rent and mortgage interest deductibility and undermines the strength of the first argument.

It may be added that other changes in the tax system made mortgage interest deductibility appear less self evident than it was originally. The principle according to which costs made by the taxpayer are exempt from taxation was originally taken to imply that (in principle) all interest received by the taxpayer should be taxed, while all interest paid by the tax payer was exempt from income taxation.[3] However, this rule has gradually been abandoned by the government. The deductibility of interest paid on consumer credit that did not have housing as collateral was abandoned first. This left homeowners the possibility to increase the size of the mortgage loan in order to finance the purchase of durable consumption goods at much lower effective interest rate than would otherwise be possible. The deductibility of mortgage interest paid was therefore restricted to loans for buying or improving a house. Recently, mortgage interest deductibility was

[3] It should, of course, be noticed that this reflects a very broad interpretation of the underlying rule, especially since there was no serious attempt to tax the benefits that justified the interpretation of interest payments as costs.

further restricted by excluding mortgage loans on second houses. As a result of this series of restrictions, mortgage interest deductibility for the main dwelling of a household came to be regarded naturally as an exception rather than as an application of a basic rule.

The second argument has also become invalid. The most recent tax reform in the Netherlands dates back to 2001 and introduced a separation between the taxation of income from capital (excluding the house) and that from other sources (notably labor income). The two types of income are placed in separate ‘boxes’. Capital income is imputed on the basis of imputed returns on capital of 4%, which are taxed at a 30% rate. Imputed rent and mortgage interest paid are dealt with in the box for labor income, and the associated marginal rates are always higher than 30%. This means that in the current Dutch income tax system the second argument can not be used to defend the practice of mortgage interest deductibility as it stands.

That leaves the proponents of mortgage interest deductibility with the argument that homeownership should be subsidized. The justification for such a subsidy must be the external effects associated with homeownership. Fort instance, homeowners could be regarded as acting more responsibly than other citizens because they have some property to take care of. It is in general difficult to evaluate such arguments. Glaeser and Shapiro (2002) provided an extensive analysis for the United States, which concluded that the argument has some merit, but that:

> *‘the home mortgage interest deduction is really not a pro-ownership policy in any meaningful sense. It subsidizes housing consumption, but its impact on the homeownership rate appear to be minimal.’* (Glaeser and Shapiro, 2002, p. 47)

Especially the fact the mortgage interest deductibility is targeted at the wealthy, who have higher housing consumption and higher marginal tax rates, makes it difficult to defend it as a policy measure to promote homeownership. The previous paragraphs made clear that the mortgage interest deductibility was present for a long time in the Netherlands before it came to be defended as a means to promote homeownership. Moreover, subsidies to the construction of rental housing which could be used as an argument in favor of similar subsidies for the owner-occupied sector have been abandoned in the 1990s. Also the tax expenditure involved in the housing allowance (that reduces tax payments for low-income households with a high rent-to-income ratio) is much smaller than that involved in mortgage interest deductibility.

Summarizing, it may be said that a number of developments in the tax system and in Dutch housing policy have undermined most of the arguments in favor of the mortgage interest deductibility in its present form.

At the same time, it is obvious that abolition of the measure is potentially very harmful to owner-occupiers receiving large benefits from this rule.[4] In the next section we take a closer look at the reasons behind the large and still growing popularity of the measure.

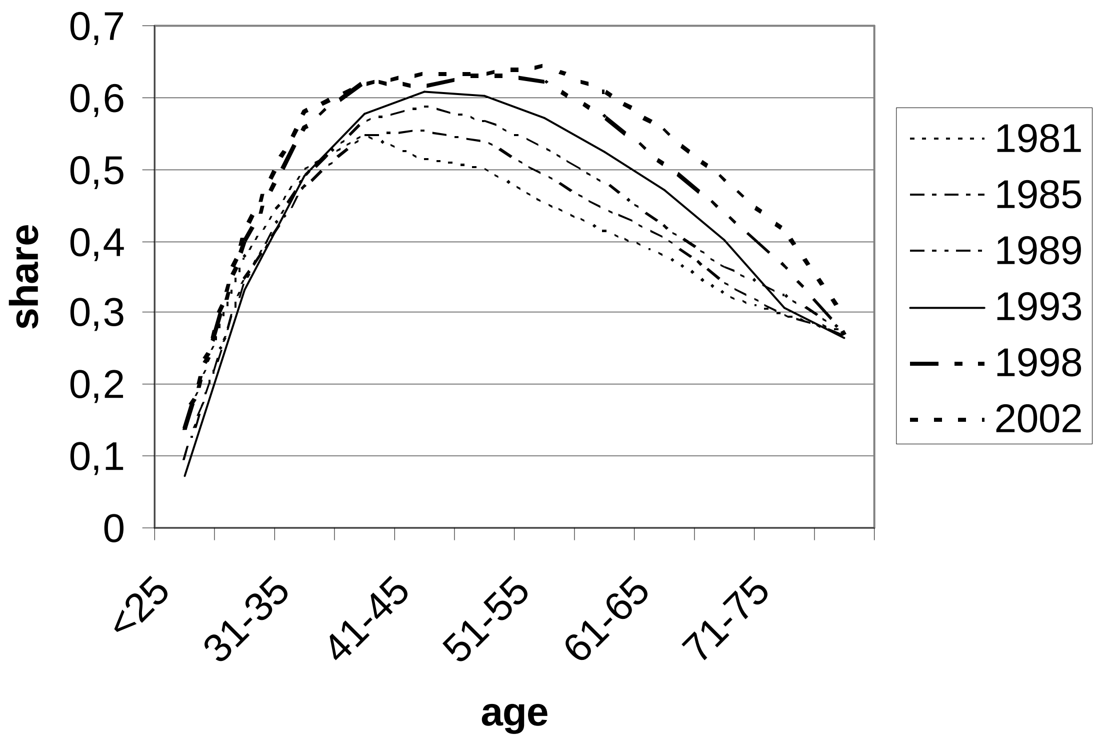

Figure 1 The development of homeownership in the Netherlands

Source: Housing needs Surveys, various years.

5 What causes the increase in paid mortgage interest?

In the present and next section we investigate the backgrounds of the – at first sight – somewhat paradoxical observation that the tax expenditure associated with mortgage interest deductibility has increased substantially in a decade when the marginal tax rate was lowered and mortgage interest rates were declining. We will first consider the development of

[4] Koning et al. (2006) provides an analysis of the effects of restricting or abolishing m,ortgage interest deductibility on the Dutch housing market.

homeownership, next that of the share of homeowners with a mortgage loan and finally the average amount of mortgage interest paid by these homeowners.

Figure 1 documents the increase in homeownership rates on the basis of a series of Housing Needs Surveys. It shows that in the early 1980s about 50% of the middle aged were homeowners, whereas most of the younger and older households were renters. In the years that followed, homeownership rates among the middle aged increased. Moreover, those that had become homeowners remained so when they were ageing. In 2002, more than 60% of the households between 30 and 60 years of age were owner-occupiers and the figure suggests that homeownership rates among the elderly will also increase to that level in the near future.

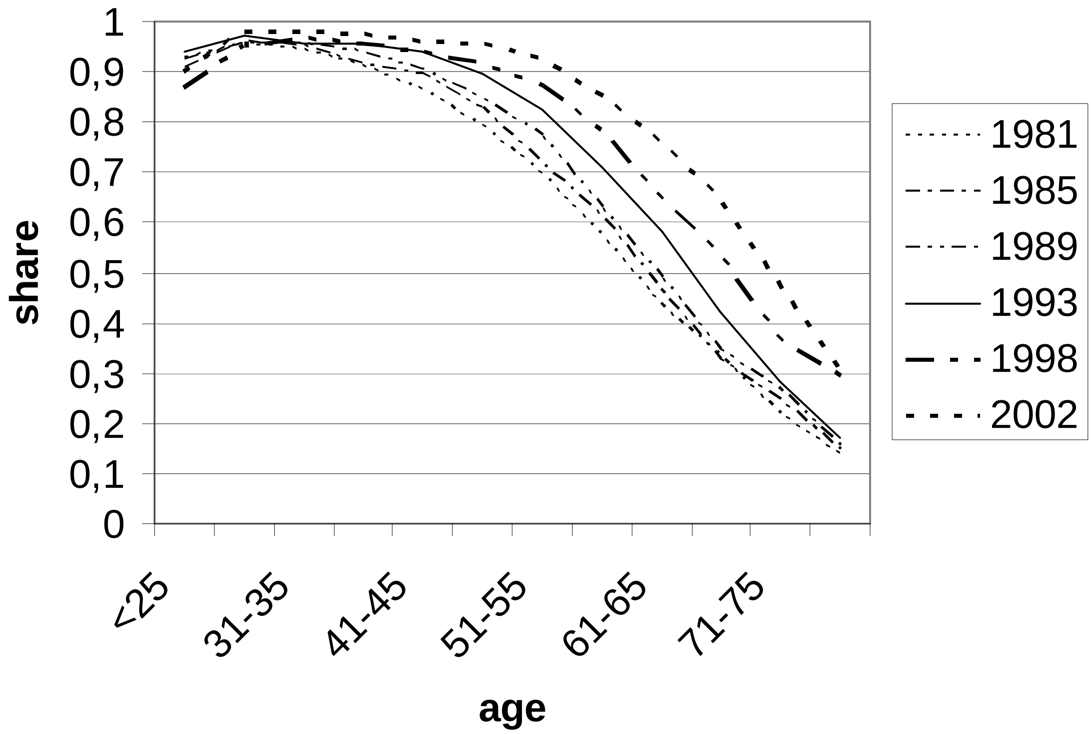

Figure 2 The development of the share of homeowners with a mortgage in the Netherlands

Source: Housing needs Surveys, various years.

The increasing share of homeowners does not necessarily lead to an increased amount of paid mortgage interest. However, this will certainly be the case if the share of homeowners with a mortgage and their interest payments remain constant. Figure 2 shows that in fact the share of homeowners with a mortgage loan has increased in all age groups, but especially among the older groups. It shows a gradual decrease in the share of outright owners among all age groups, but in particular among the elderly households.

Figure 3 shows the average monthly mortgage interest payments of households with a mortgage in 1993, 1998 and 2002.[5] Especially in the last period mortgage payments increased considerably for all age classes.

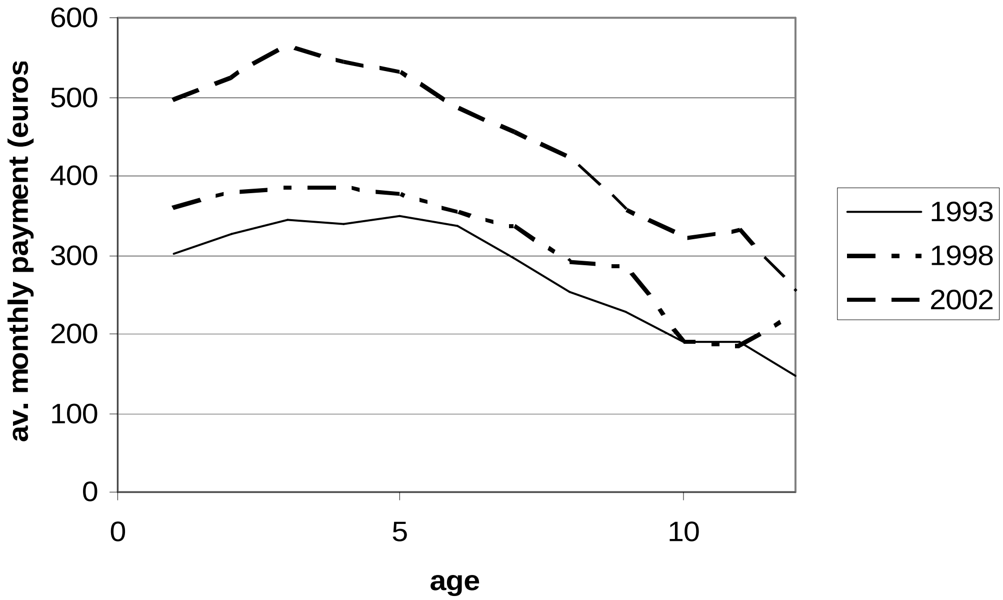

Figure 3 The development of average monthly mortgage payments

Source: Housing needs Surveys, various years.

One may, of course, ask the further question what explains these developments. A complete answer is outside the scope of this paper, but we will discuss some relevant factors. We should certainly mention the combination of high house prices and rising incomes. House prices have increased considerably over the last 25 years and especially during the nineties. This development coincided with a decreasing trend in the mortgage interest rates, and it has been documented repeatedly that affordability of housing did not change substantially in the course of this period. To measure affordability, a recent study (Renes et al., 2006) considers the situation in which the average house is financed completely by a mortgage loan. The ratio between the

[5] The Housing Needs Surveys of 1981, 1985 and 1989 suggest that average mortgage payments were so much lower during these earlier years that the conjecture that these data are not comparable with those of later years comes naturally to mind. This issue has to be investigated further.

implied interest payments and the income of the average household is then taken as an indicator of affordability. If household income would have remained unchanged, a constant affordability index would imply constant interest payments. However, the combination of increasing household incomes and constant affordability can explain the developments shown in Figure 3. Economic growth was strong during the 1990s and an increasing share of two earner households caused household incomes to grow faster than per capita income.

A second development that is related to the increasing house prices is the increasing popularity of a second mortgage, which has been documented, for instance, in Van Rooij and Stokman (2000). The rapidly increasing house prices created a large amount of illiquid wealth for existing homeowners and taking a second mortgage loan is a possibility to release some of it. Most of these loans seem to have been used to fiancé improvements in the house, since this was the only way to make the associated interest payments deductible from taxable income. From the Housing Needs Surveys it appears that the share of homeowners with two or more mortgages increased from 5 % in 1993 to 10% in 1998 to 13% in 2002.

A third relevant development will be discussed in the next section.

6 Financial innovation and mortgage interest deductibility

The mortgage market in the Netherlands is well developed and over the years a number of new mortgage types have been introduced into the market. It will be argued in this section that this development has contributed significantly to the increased amount of mortgage interest that is deducted from taxable income.

Until the 1980s the linear (or serial) mortgage loan was the most popular type. In every period the homeowner repaid a fixed share of the original loan. The outstanding amount of the loan decreases linearly over time and so do interest payments and the associated tax savings. In the1980s the annuity mortgage became the most popular mortgage type. For this mortgage type the repayment and the (gross) interest payments remains constant over time. Repayment of the mortgage loan proceeds at a slower rate than with the serial mortgage loan and over the whole term of the loan more interest is paid, and deducted from taxable income.

Perhaps the most important innovation on the mortgage market that occurred over the last two decades in the Netherlands was the development of a combination of a life insurance and a mortgage loan into an endowment type of mortgage loan. This type of mortgage loan is not repaid until the end of its term. To make sure that enough money is available to repay the loan at that time, the homeowner saves on a different account. This combination becomes especially attractive if this saving takes the form of a premium for a life insurance that pays out at the end of the term of the mortgage loan if the homeowner is still alive. If the homeowner dies before that time, the loan will be redeemed earlier (it is really a life insurance). When this construction is chosen, the interest received over the premium paid remains untaxed. By making use of this second tax facility, the life insurance or savings mortgage loan provides the homeowner with a real advantage over the serial or annuity mortgage loan. It should be noted that this advantage implies that over the whole term of the mortgage the interest paid over the whole loan is deducted from taxable income, which means that maximum use is made of the mortgage interest deductibility.

It is a somewhat paradoxical fact that the special tax facilities for life insurances used in the life insurance or savings mortgage were available long before this type of mortgage loan was developed. Anyone who liked to use it, could do so. However, this opportunity was used only by a few until it was combined with a mortgage loan. As a result, many households did not repay their mortgage moan until the end of its term and this has contributed substantially to the increase in average mortgage payments shown in Figure 3.

Table 4 Mortgage loans of Dutch households in 2002

Mortgage type	All households with a mortgage (%)	Households with a mortgage that moved to their present home before 1995 (%)
Life insurance/savings	39.63	35.44
Other endowment	11.23	5.13
No forced repayment	31.76	35.87
Annuity	10.66	15.11
Linear	3.62	5.10
Other	3.10	3.33

Source: Housing Needs Survey 2002.

More recently other mortgage types have been introduced that allow the homeowner more freedom for repayment. Sometimes repayment has to be done from the returns on investments in stocks or other securities which are sometimes expected to give higher returns than savings accounts (or paying the premium for the life insurance). In other cases repayment is left entirely to the homeowner. Obviously, these new mortgage type offer the homeowner the possibility to repay the mortgage loan slowly or not at all, and increase the average amount of mortgage interest paid and deducted from taxable income.

Table 4 shows the frequencies of the various mortgage types among households in 2002 for all homeowners with a mortgage loan and those that moved to their present house before 1995. Annuity and linear mortgage occur more frequently among the latter group, whereas the life insurance/savings and endowment mortgages are more popular among those who moved more recently to their present house. The other endowment mortgages usually require a fixed investment in securities per period. Mortgages without forced repayment are often second mortgages or mortgages that have been taken after the first mortgage was repaid so as to release some of the equity contained in the home.

7 Incentives from the current Dutch income tax system

A final aspect of the mortgage interest deductibility are the incentives for mortgage choice type provided by the current Dutch tax system. To analyze them, we consider a household that wants to buy a house with price P and has a sufficient amount of liquid wealth available to finance it completely with its own money. We compare this possibility of being an outright owner immediately with that of financing the house completely with a mortgage loan. To focus on the consequences of these two alternative financing opportunities, we abstract from maintenance costs and all other aspects of housing costs that are independent of the way the house is financed.

If the household chooses to use its own wealth to finance the house, it should realize that it will not receive the returns that could otherwise have been realized. This opportunity cost is equal to the product of the net returns ρ^{net} of the most preferred alternative investment opportunity and the price of the house. Moreover, the household has to pay income tax over the imputed rent of the house. Imputed rent equals λP, with λ the share of the house price used in the tax rule. The total annual net cost are therefore equal to $\left(\rho^{net} + \tau\lambda\right)P$.

Alternatively, the household could use a mortgage loan to finance the house completely. The mortgage interest rate is *r*. Since paid mortgage interest is deductible from taxable income, the total cost of housing is in this case equal to $((1-\tau)r+\tau\lambda)P$. Clearly, the mortgage will be preferred if $\rho^{net}<(1-\tau)r$, where τ denotes the marginal tax rate. Financing the house with a mortgage loan is therefore attractive if the after-tax return on the alternative use of household wealth is higher than the net mortgage interest rate.

Before the tax reform of 2001, returns on capital and earnings were taxed identically. This means that $\rho^{net}=(1-\tau)\rho$, where ρ is the gross rate of return on capital. Clearly, in that situation the gross return had to exceed the interest rate to make financing the house with a mortgage loan attractive. If the most preferred alternative use of capital has a gross return that is lower than the mortgage interest rate, mortgage financing is not attractive. Hence households who prefer to put their wealth into savings accounts or government bonds will usually prefer to be outright owners, since these low risk assets typically have a rate of return that is lower than the mortgage interest rate. [6] However, if a household has stocks as their most preferred alternative, the expected gross rate of return on capital may well have been higher than the mortgage interest rate and for such households debt financing of the house may be preferred.

The tax reform of 2001 introduced a distinction between the taxation of earnings and that of the returns on capital. The latter are taxed on the basis of a hypothetical annual return of 4% at a marginal rate of 30%. This is lower than the marginal tax on earnings in all tax brackets. If the return on capital is equal to the mortgage interest rate, and even when it is slightly lower, a household would therefore prefer to finance the house completely with a mortgage loan. This means that the current Dutch tax system provides an incentive for households to maximize mortgage financing. It may therefore be expected that the average amount of mortgage interest paid by Dutch households will continue to increase. The consequence will be a further deterioration of the income tax base that fuels the debate concerning its deductibility and targeting towards higher incomes. In the absence of appropriate arguments in favor of the measure, it must be expected that it will ultimately be limited and perhaps in the long run abolished. Given the enormous popularity of the facility, it seems probable that this will happen at a time when pressure on the government budget is unusually high, that is, during a recession.

[6] Note that the life insurance/savings mortgage avoids the tax on the alternative use of capital, which is the main explanation for its popularity, as discussed in the previous section.

In such circumstance house prices are vulnerable and substantial negative effects on housing wealth can be expected.

8 Conclusion

In the previous sections we considered the deductibility of paid mortgage interest in the Dutch income tax system. Its origins were traced back to a basic tax rule, that became outdated by the practical and political difficulties associated with taxing imputed rent, and changes in the tax system itself. The main argument in favor of the deductibility of mortgage interest paid is that it stimulates homeownership, but the size of the subsidy and the fact that it is targeted towards the rich make it unconvincing to many. However, the large number of households making use of this facility are a major obstacle against its abolishment. In fact, the average mortgage payments of Dutch households have increased substantially in the past 25 years, due to growing homeownership rates, increasing frequency of mortgage use and changing mortgage type choices. Innovations on the mortgage market and the incentives for financing homeownership with mortgage loans provided by the current tax system were identified as important driving forces behind this development. The deterioration of the income tax base that will result from further increases in the average amounts of mortgage interest paid will increase the pressure to limit or abolish the facility. Since convincing arguments for its continued existence seem to be absent, it should be expected that the Dutch will finally limit or abolish this facility, as other European countries did earlier.

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