Transaction Costs in Housing Markets

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Transaction Costs in Housing Markets:

the Role of Government Policy

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1. Introduction

This chapter aims to review the literature of transaction costs for moving behaviour in the housing market. We will emphasise *monetary* transaction costs, but non-monetary transaction costs – particularly in the 'social housing' rental sector – will be discussed as well. We are mainly interested in the effect of transaction costs which are affected by public policy (e.g stamp duties; rent regulation). In Europe, almost half of the rental market is regulated (Whitehead and Scanlon, 2007), so one must distinguish between three markets: the regulated rental market, usually labelled as the social housing sector, the unregulated rental market and the ownership market. Transaction costs in these three markets are structurally different in type and in size. As government involvement in the non-regulated rental market is minimal (or to be more precise, the *direct* involvement is minimal, the indirect involvement via the other two markets is substantial as it determines the size of the non-regulated rental market), and the transaction costs in this market are not induced by public policy, we will ignore this market here.

One of the main reasons why transaction costs are extremely relevant is that from a welfare perspective, transactions costs generally, but not always, lead to reductions in welfare (well-being of the citizens), because these transaction costs prevent the optimal allocation of residences over households (the optimal allocation is the hypothetical allocation of residences which is in line with preferences of households). In most countries, monetary transaction costs in the ownership market are large policy-induced, as transaction costs largely consist of taxes, whereas in the regulated rental markets implicit transaction costs are created through regulation.

2. Transaction costs, residential mobility and welfare

Households move for different motives. Quite obviously, households do *not* move residence, or postpone residential moves, due to transaction costs.[1] In the micro-economic literature, the welfare consequences of transaction costs for households which aim to consume the optimal number of consumption goods – including housing services (e.g. the size of the residence) – have been analysed (see, for example, O'Sullivan et al., 1995 and Quigley, 2002). Quite intuitively, transaction costs prevent households in making the optimal choice regarding the type of residence. Hence, transaction costs prevent households from moving to the residence which fits best their preference.

To be more specific, we start from the assumption that households are frequently confronted with (expected or unexpected) changes in their demand for housing. Due to transaction costs, households will not react in the same way as when these costs are absent. For example, given an increase in household income, most households would be inclined to occupy a larger residence, but due to transaction costs households may decide not to move residence, but to wait for another increase in income and then to move residence (so economising on moving costs), hence the characteristics of their current residence will not be in accordance with their preferences. Another example is that, given an (unexpected) offer of a new job at a longer distance from the residence, the household may decide to decline the offer (which prevents an increase in the worker's productivity) or to accept a longer commuting distance by not moving closer to the workplace (which induces additional commuting costs). In the latter case, transaction costs in the housing market do not create misallocation in the type of residence occupied, but reduce welfare through non-optimal behaviour in the labour / transport market.

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[1] In the extreme case that transaction costs are zero, one would expect that households move very frequently, as their demand for housing changes. Households do not move frequently, whereas household demand for housing changes almost continuously due to income changes, job relocations, household composition changes etc., indicating the importance of transaction costs.

When transaction costs increase, it is plausible that misallocation of residences increases, because these costs induce a reduction in residential moving as shown by empirical studies (e.g. Van Ommeren and Van Leuvensteijn, 2005).[2] It is important to realise that it does not follow from these studies that governments should encourage residential moving, it follows that governments must try to avoid the introduction of transaction costs in the economy. Hence, any tax on residential moving – for example stamp duties, which are particularly common in OECD countries – or public policies which create implicit transaction costs (e.g., queuing systems in the social rental sector, but, more generally, rent control in the housing market, see Glaeser and Luttmer, 2003) are in principle welfare decreasing.

This conclusion, which seems to hold quite generally, must be qualified in case of (negative or positive) *external effects of residential moving* – i.e. costs or benefits for *other* agents in the economy which are not captured in the decision making of the household which considers moving – or any other market imperfections (e.g. market power by housing suppliers).[3] In addition, there appear to be *macro-economic* reasons for the government to create barriers to move residence.

External effects of residential moving. There is an increasing awareness in the economic literature that the type of residence occupied may generate external benefits and costs. For example, home owners appear to be "better citizens" as they make more (investments in) social contacts, see Dietz and Haurin (2003). It is quite plausible that the same holds for residential moving. It is likely that households largely ignore the *negative* effects of the residential move on neighbours and friends, who see the number of social

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[2] Transaction costs will not only affect households through reduced residential mobility, but may have also other welfare implications (e.g. the size of the housing stock in the economy). However, it is plausible that the main effects are through reduced residential mobility.

[3] It does not follow that government policies which create transaction costs are always welfare decreasing, if these policies address other imperfections. For example, rent control systems may be welfare increasing even though they reduce residential mobility, because rent control addresses other market imperfections, so the net effect of rent control may be positive (see Arnott, 1995).

contacts reduced (as argued by Brauninger, 2002).[4] This suggests that the negative externality effects of moving residence can be reduced (or even nullified) by applying a tax on moving.[5]

There are however potentially also *positive* externalities of residential moving. To be more specific, it is plausible that transaction costs in the housing markets have negative effects on the functioning of the labour market (e.g. increased unemployment). *Some* of the negative effects on the labour market will be external to the household. In particular, if residential moving costs increase unemployment in the economy (for which there is some evidence[6]), then it is plausible that *some* of this negative effect is external, as households ignore that unemployment benefits are transfers in the economy, and do not reflect productive behaviour. This may potentially justify a small subsidy on (long-distance) moving.[7]

Macro-economic stability. In the macro-economic literature, the effect of changes in housing market on the stability of the economy is discussed (see, e.g. ECB, 2003). It is a well-known empirical phenomenon that economic growth and residential mobility are strongly, and positively, correlated. In this literature, one of the premises is that strong movements in the economy may be harmful to welfare. In economies where most of the households own a residence *and* where house price fluctuations are substantial, the housing market will reinforce the business cycle. There is suggestive evidence that in countries where transaction costs are low due to a low moving tax – including the US and UK – there is more cyclical variation in house prices and business cycle than in other countries. A moving tax may

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[4] This argument is consistent with the arguments put forward by Putnam (2000), who argues that Americans have less social contacts than in the past. Note however that we do *not* observe an increasing trend in residential moving (in contrast to popular opinion), so the decrease in social capital cannot be explained by an increase in residential mobility

[5] In effect, a moving tax does exist in many economies. In most countries, buying or selling of residences is taxed (for a full discussion, see next section), but moving residence in the (private) rental market is not taxed. Note however that the current moving taxes are likely *much* to high as to justify the level of these taxes.

[6] At the *macro-economic* level, several studies suggest a positive relationship between the share of owned houses and unemployment (Oswald, 1999; Green and Hendershot, 2001). This is usually interpreted as an effect of transaction costs. More recent studies however do not show a direct relationship (Blanchflower and Oswald, 2006). Micro-economic studies tend to find that home-ownership reduces job mobility, but does not increase unemployment (see e.g. Battu et al., 2008). Note that effects are usually interpreted as being due to transaction costs, but there may be other explanations. For example, expected residence durations are likely lower for home owners.

[7] In Finland, unemployment employees receive moving subsidies, who aim to move residence to another region.

therefore potentially be useful to reduce strong cyclical variation in house prices.[8] Such a tax may therefore be considered a type of "Tobin tax", which sometimes has been argued to be useful to reduce speculation in financial markets.

Concluding, economic theory indicates that there are no compelling reasons to strongly tax or subsidy moving in order to deal with positive or negative externalities, but low levels of taxes may be potentially justified. This is in contrast to the practice in most countries where public policies have created moving taxes which strongly *reduce* residential mobility (see, e.g. Strassman, 1991).

As emphasised above, transaction taxes will not only induce misallocation in the housing market, but these taxes will likely have consequences for misallocation in other markets. The study by Larsen et al. (2008) is relevant in this context as it demonstrates that levels of road taxes, generally recommended by transport economists to reduce the negative external effects of road congestion, must be set at a much higher level in the presence of transaction taxes in the housing market. Another consequence of transaction costs (and therefore of transaction taxes) is that they may induce monopsonistic behaviour by the employer when the employee has to incur substantial relocation costs in order to move closer to other employers (see Van Ommeren and Rietveld, 2007).

3. Transaction costs: taxation and subsidies

There are only a few studies which explicitly aim to identify the overall transaction costs in housing markets (e.g. Venti and Wise, 1984). However, in the market for owners, the *monetary* transaction costs can be easily observed. Using aggregate information, mainly from

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[8] The main counterargument to the application of such a tax is that home owners are already confronted with substantial (non-monetary) transaction costs. This suggests that the argument is more applicable for investors only. In Ireland, the stamp duties have been recently increased for investors only (not for owner-occupier), see ECB (2003).

Belot and Ederveen (2005), it is clear that in most countries buyer ad valorem *taxes* are the main component of the transaction costs.

Although it is common to emphasise moving taxes, we are also aware of some moving subsidies. For example, in most European countries, employers tend to reimburse some of the residential relocation costs when the employee moves closer to the workplace.[9] Usually, the relocation costs reimbursement is tax free, so implicitly moving residence is *subsidised*. Note that these subsidies only affect the working population and their families under specific circumstances (the commute must be high at the moment of application and strongly reduced) and therefore do not occur frequently. Note further that for home owners the level of this subsidy is an order of magnitude smaller than the level of ad valorem buyer taxes.[10] Hence, the level of moving taxes generally far exceeds those of moving subsidies.

4. Transaction taxes in the ownership market

Theoretical studies show that transaction costs in the housing market induces large *negative welfare effects*. Transaction taxes are essentially transaction costs, so the same applies to transaction taxes. The negative welfare effects of transaction taxes are much larger than those of a tax on ownership, such as a tax on the value of the residence. For example, the study by O'Sullivan et al. (1995) suggests that the negative effect may be a factor ten larger than the effect of a tax on the value of a residence. The main reason is that a transaction tax prevents households in making an optimal choice regarding the residence, whereas the effect of a tax on the value of the residence hardly affects decision-making of households. This result is consistent with the Henry George Theorem which claims that public expenditure can be best financed by a tax on the value of land (see, e.g. Fujita and Thisse, 2001, p. 140). Taxation of

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[9] Van Ommeren et al. (2006) demonstrate that, at least for managers, the effect of a reimbursement offer on residential mobility is very strong if the length of the commute is substantial.
[10] For renters who move within the private rental market (a small group of households in most European economies), the net moving subsidy may be positive.

the value of land may be impractical, but a tax on the value of the residence may be considered a second-best choice.[11]

The negative welfare effects of a transaction tax are, at least from a theoretical point of view, not the same for all households. It affects particularly households which aim to change more frequently their housing services, including young persons who (expect to) move job more frequently and households who (expect to) experience large changes in composition (through divorce, birth of children, new household formation). Due to transaction taxes, these households will be less inclined to move residence *now* when there is a relative large change to move residence in the next period (e.g. Venti and Wise, 1984).[12]

Before we return to empirical evidence, it is important to emphasise that there are strong theoretical reasons to expect that the effect of transaction taxes on residential mobility – and therefore on the (mis)allocation of residences – is large. We will discuss four reasons:

First, the level of buyer transaction taxes tend to be *high* in most European countries. For example, in the Netherlands, the ad valorem buyer tax is 6%, which is quite average for Europe. The average buyer price is about € 200,000 (roughly six times the gross yearly income of buyers). The average transaction tax is therefore € 12,000, about 50% of household net income (and roughly equal to the household income tax paid in a year).

Second, it seems plausible to assume that most households are *risk averse*. The benefits of residential moving are frequently uncertain, but the additional costs of a buyer transaction tax are certain, so risk averse households will move less given a high level of transaction taxes.

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[11] Another effect of buyer transaction taxes is that these taxes only apply to *existing* properties, which provides an implicit, but likely unintended, tax advantage to new residences (housing starts). In countries, such as Belgium, where transaction taxes are much higher than in most other countries, it is indeed observed that residential mobility is low, and many households build their own residences on vacant plots. In this way, the transaction tax can be avoided. One of the consequences is overconstruction of residences which will depress house prices, in line with low house prices in Belgium.

[12] The welfare effects will also be highest in areas where house prices are higher (particularly city centres) as the transaction tax is (usually) proportional to house prices.

Third, it seems also reasonable to assume that households are loss-averse (Kahneman et al., 1990). Loss aversion is particularly relevant for type of decisions which occur infrequently, such as buying and selling of residences. This implies that households refuse to accept a loss when the sales price of their residence (which the household aims to receive) is less than their residence purchase price *plus transaction costs* that are paid for in the past. So, households prefer not to sell before they are compensated for the incurred transaction costs due to an increase in house prices (Chan, 2001). Genosove and Mayer (2000) demonstrate that loss aversion is relevant in case of decreasing house prices. Furthermore, they demonstrate that, given a higher nominal loss, sellers not only ask a higher price, they also are able to receive a higher price for their residence, and, not surprisingly, need more time to sell their residence.[13]

Fourth, households are equity-constrained, as they do not have unlimited access to mortgages. Transaction taxes reduce the households' wealth (e.g. through a higher mortgage) and may therefore induce a negative wealth (the value of the mortgage exceeds the value of the residence). A negative wealth may not only prevent households from moving (as demonstrated by Chan, 2001), it likely reduces households' incentive to pay the required interest and to maintain the residence appropriately (as the loss in more likely borne by the mortgage supplier).

Empirical evidence. The negative welfare consequences of transaction taxes may be thought to be large (e.g. O'Sullivan et al., 1995) and there may be strong reasons to believe that these taxes have negative effects on residential mobility (Chan, 2001), one may ask for empirical evidence. The most direct evidence is provided by Lundborg and Skedinger (1999).

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[13] If we assume that house prices increase at the long-run rate of inflation (about 2% per year), then this means that a one point increase in the ad valorem buyer tax stops households from moving residence for another 6 months. In the Dutch context (quite representative for Europe), this means that households will not move residence in the first three years after buying their residence, due to reasons related to loss aversion. Note that over longer periods (e.g twenty years), nominal decreases in house price are rare (at least for the last 75 years), so loss aversion will mainly play a role on the first years after buying new property.

They demonstrate for Sweden that a capital gains tax (essentially a seller's tax on the increased value of the property) reduces residential mobility. More indirect evidence is provided by Weinberg et al. (1981), Venti and Wise (1984), Ioannides and Kan (1996), Quigley (2002) and Van Ommeren and Van Leuvensteijn (2005). For example, the latter study indicates that the abolishment of the Dutch six percent ad valorem buyer tax may increase household residential mobility rates from owing to owning by 50%. The findings of this micro-economic study is roughly in line with descriptive information on residential mobility and transaction costs for a number of European countries (see e.g. Van Ommeren and Van Leuvensteijn, 2005).[14]

5. Transaction costs in the rental market due to regulation

In most countries, the rent for a (large) share of the rental units is not freely determined by demand and supply but is determined by government policy.[15] Rent control has a number of consequences for welfare in the economy (see, for example, Arnott, 2003; Arnott and Igarishi, 2000; Munch and Svarer, 2002), but here we will focus particularly on it's effect on residential mobility. There is a large empirical literature which establishes that rent control has a strong negative effect on residential mobility (Linneman, 1987; Gyourko and Linneman, 1985; Rapaport, 1992; Ault et al., 1994; Simmons and Malpezzi, 2006 and Munch and Svarer, 2002). To be more precise, these studies find that the larger the difference between the regulated rent and the (hypothetical) market rent, the lower the households' residential mobility. A reduction in residential mobility due to rent control indicates that rent control creates *implicit transaction costs*. These transaction costs are reflected in long queues for

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[14] A small number of studies have shown for the US that the marginal effects of transaction costs in the ownership market have a larger effect on the decision to rent than to buy (Boehm, 1981; Haurin and Gill, 2002; Rosenthal, 1988).
[15] Furthermore, in most European countries, a large share of the supply of rental units is in hands of non-profit organisations. The European average is about 46 percent. In the Netherlands, this applies to the large majority of the rental units (see e.g. Van Ommeren and Koopman, 2008).

regulated rent apartments.[16] Long queues imply large transaction costs, and, likely, strong misallocation of residences. It is not straightforward to demonstrate misallocation in the housing market (see Glaeser and Luttmer, 2003, for a novel approach), but to determine the consequences for the labour market is more straightforward. The study by Svarer et al. (2005) finds that unemployed individuals in rent-controlled apartments are less likely to find jobs in other regions (for which a residential move is necessary), but tends to increase the probability of accepting a job for which a residential move is not necessary.[17] Battu et al. (2008) also find that rent control is a constraint for the unemployed. A number of studies have investigated the consequences of rent-control for commuting distances. The study by Svarer et al. (2005) does not find any effect, but Benito and Oswald (1999), as well as Krol and Svorny (2005) find that rent control increases the length of the commute.

6. Conclusion

According to economic theory, there are no strong reasons to tax (or to subsidise) residential moves, although low levels of taxation may be potentially justified to deal with the presence of externalities and economic stability. This is in contrast to practise in most countries where governments have created strong barriers to moving (transaction taxes, rent control) which induces substantial transaction costs. Likely, the welfare losses due to these government-induced transaction costs are substantial.

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[16] To give an extreme example, in the centre of Amsterdam, the expected waiting time for an apartment is between 20 and 25 years.
[17] Also Hughes and McCormick (1981) find a negative effect of rent control on *inter*regional mobility.

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