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## **The Role of Stakeholders**

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## The Role of Stakeholders

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### Abstract

This paper introduces the role of stakeholders in land use and housing markets. Without public intervention, competitive private developers may generate a city with insufficient public land use and amenities. This can be overcome by public intervention. Some stakeholders (property owners of city center dwellings) may lobby for a too large restriction on private development as this may increase the value of their property. For the housing market we identify two stakeholders: social housing corporations and private home owner associations. The market share of social housing corporations varies strongly across countries. The social housing corporations lobby for cheap land and rental subsidies. The private home owner associations lobby for tax deductions and direct subsidies. Reform of housing policies can bring about important welfare benefits as demonstrated by the reform proposals for the distorted housing market in the Netherlands.

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### Keywords

Stakeholders, regulation of land use,

### Preferred citation style

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# 1 Introduction

This paper presents a literature review of the role of stakeholders in the real estate market. The review is done in the context of the project SustainCity: *Microsimulation, land use and transportation models for more sustainable cities in Europe*<sup>1</sup>. One of the goals of this project is to develop a land use modelling tool to evaluate urban policies in European cities. This tool will be based in the software UrbanSim (Waddell, 2002), which will be updated and adapted to the European context.

One of the improvements that will be implemented in the modelling platform is the inclusion of stakeholders as agents in the simulation process and, therefore, it is necessary to understand their role in the urban system.

As land and buildings in cities are used by many people for a variety of purposes there will be many stakeholders and it is difficult to be exhaustive. We define stakeholders as those groups that have an interest in influencing the regulation of land and housing markets. Every buyer or seller with a non atomistic share in the land or housing market can have an interest in influencing public decisions. We will distinguish between stakeholders for the land use market and stakeholders on the housing market. Of course both aspects are closely related but we will mainly discuss them separately. We will not discuss the office building market.

In section 2 we will discuss the regulation of land use in rather general terms and distinguish only two types of land use: housing and public land use (public parks, playgrounds etc.). For the land use market we look into the supply of open space and the instruments that cities use to reach an efficient supply of open space. We find that there is still a need for empirical work.

In section 3 we address the housing market. The main stakeholders on the housing market are the owners associations and the corporations who take care of the social rental market. We discuss first their importance and role. Next we discuss the elementary economics of the two most common public policies that the stakeholders try to influence: the subsidies for building and owning a house and the subsidies on the rental market. We conclude with a brief review of the reform plans on the Dutch housing market. Looking into the Dutch case has two advantages. First it is the housing market with probably the largest public interventions in Western Europe. Second it has been studied in great detail.

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<sup>1</sup> [www.sustaincity.eu](http://www.sustaincity.eu)

## 2 Regulation of land use: the share of public land

Land can be used for different purposes: housing, offices, transport and other public use. The other public use consists of public parks, playgrounds other public amenities. Regulation of land use is given different names: zoning, land use planning etc. Zoning means that one reserves land for a particular purpose and one imposes minimum (or maximum) restrictions on the size of the plot of land or housing unit that can be built. The main purpose is to attract a particular mix of inhabitants or activities. This type of intervention and the behaviour of different interest groups in this respect has been studied extensively in the literature. One type of land use that has been very popular and has been studied extensively is zoning (see Mills & Hamilton, (1994)).

We take here a more aggregate and simpler economics approach and survey briefly the welfare optimal use of land. We rely mainly on Chesshire and Vermeulen (2009).

### 2.1 Market failures as the source for land use regulation

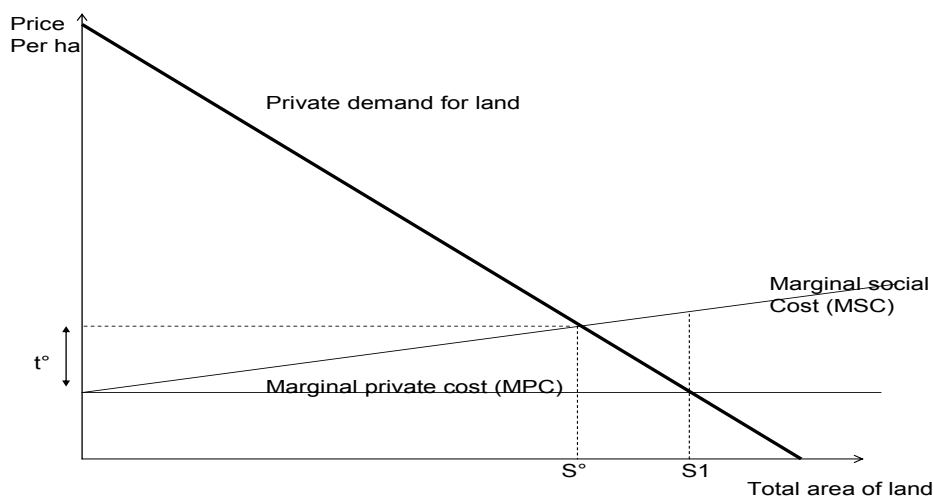
Chesshire and Vermeulen (2009) list the different market failures associated to the land use market. They point to two types of externalities. The first externality is the traditional environmental externality of one activity (associated to one plot of land) on activities on a neighbouring plot of land. This can be a polluting firm influencing the comfort of nearby houses. These are usually taken care of by land use regulations (not allowing particular activities at certain places), by emission standards (noise insulation, air pollution filters etc.) and by public hearing procedures. The remaining external effects end up in lower (sometimes higher) values of nearby land and houses.

The second externality on which we will concentrate in this section is the provision of public goods that require land. This can be public parks, sport facilities, playgrounds etc.. There is a well developed theory on the supply of public goods in general. Here we specifically focus on the location of the public goods that are land intensive and where accessibility is important.

We use the following simple diagram (Figure 1) to represent the use of land for private purposes (housing, offices) and for public land. We have a private demand for land. In its most simple form we have a constant marginal cost of land for private purposes (MPC) but an upward sloping marginal social cost of land use (MSC). The marginal social cost curve is upward sloping because the larger is the area used for private purposes; the more difficult it will

be for the households to reach the public amenities<sup>2</sup>. The non regulated land use equilibrium would give rise to a quantity  $S_1$  of private land use. This is too large because no account is taken of the need for public land use that is increasing in the private land use. The optimal private land use is only  $S^\circ$ . This optimum can be achieved using different instruments. An obvious policy instrument is a land development tax  $t^\circ$  that would make private land use sufficiently expensive so as to restrict the private land use to the optimal quantity  $S^\circ$ .

According to the Henry George theorem, under certain ideal conditions, aggregate spending by government on public amenities (public land) will be reflected in higher private land rents (Arnott (2004)). It would be sufficient that homogeneous voters control the government to obtain an optimal public land size and amenities. In practice, urban governments have to limit private land use because voluntary contributions to a public good are insufficient to reach the optimal quantity of public land. Urban governments tend to use quantity instruments rather than tax instruments to contain private land use. Figure 2 presents an example of a too binding restriction on private land use under the form of a greenbelt or growth boundary. The maximum private land use is now  $S_2$ , to the left of  $S^\circ$ , so too small. Important side effect of the quantity constraint is that the initial property owners now have an extra land rent equal to  $r$  times  $S_2$ . This implies that the initial owners (central city habitants) can be a powerful stakeholder or lobby group that prefer quantity instruments over tax instruments and prefer strict quantity restrictions on residential building. The precise political equilibrium will depend on the political institutions but we have identified here a clear interest for one group of stakeholders. According to lobbying theory (Dixit et al (1997)), this interest group has an incentive to influence public decisions in this direction.



<sup>2</sup> In fact the determination of the marginal social cost depends on the type of public amenity (frequency of use), transport options etc.. For an illustration to public parks see Moons et al (2008).

Figure 1 Optimal private land use with a developers' tax

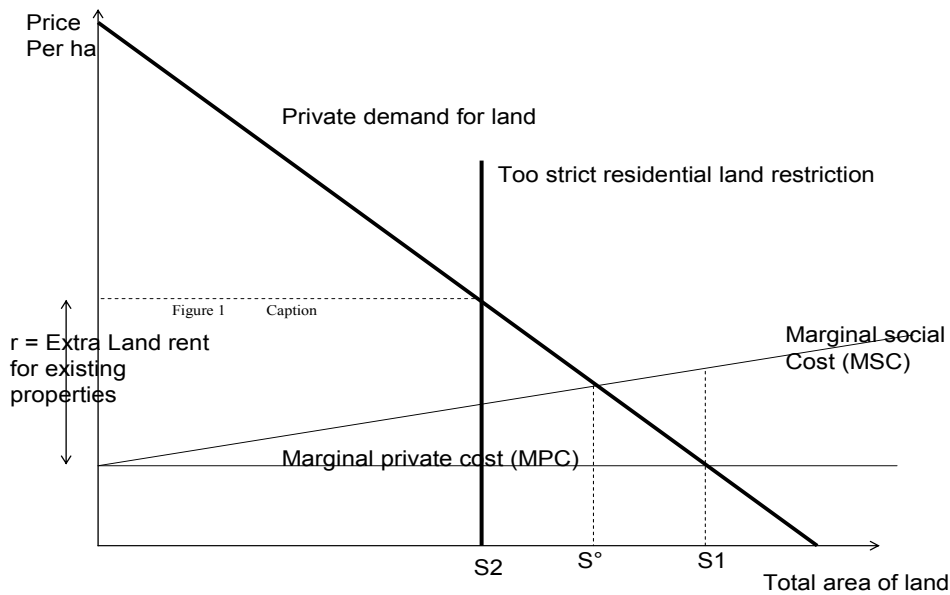


Figure 2 Effects of using a quantity constraint on residential land

## 2.2 How important is land use regulation?

In order to know the net welfare effects of land use regulation we need to know the benefits associated to the two uses of land. The marginal value for private use can be derived on the basis of land and property markets. The marginal value of public amenities provided by open space is more difficult to measure. Anderson and West (2006) show that the type of open space matters a lot (parks have much larger recreational values than agricultural land) as well as the distance to the amenities.

When it comes to assessing land use restrictions, a distinction has to be made between restrictions that affect the lot size itself and restrictions that only affect the total available area for housing. In the US, the minimum lot size regulation is a popular instrument to keep the lower income households outside the city. In Europe, the land use restrictions are very different and can affect the type and size of houses and land. Brueckner (1990) proposed a theoretical model to assess land use regulations in a city where the population size of the city creates negative externalities. The model is a monocentric open city model with homogeneous households. Once the population size exceeds a given number, the size becomes a negative amenity. The model allows to derive the optimal growth control for the city. He finds that optimal growth controls improve welfare but it is easy to construct examples where too strict

control of land use does worse than no controls. There are a few empirical tests on the ultimate effects of land use regulations but the final result may be different for each case considered. Bento et al (2006) looked at a typical US city. Cheshire and Sheppard (2003) studied the city of Reading, Vermeulen and Rouwendal (2008) studied Amsterdam and a similar town nearby.

There is still a long way to go in order to have a good assessment of land use decisions taking on board the housing market, the labour markets and the demand for open space (see McDonald (2001) and Cheshire and Vermeulen (2009)).

Cheshire and Vermeulen (2009) mention the perverse interests of older generations that own property in the central city. As stakeholders they prefer to limit new construction and strong limitations on land use for housing as this raises the property value of their estate. As urban voters they may be able to form a majority for these policies that are detrimental for people living in the wider area.



### 3 Stakeholder incentives in the housing market

We focus on the housing market taking as given the supply of jobs and public amenities. The main stakeholders on the housing market are the owners associations and the corporations who take care of the social rental market. We discuss first their importance and role. Next we discuss the elementary economics of the two most common public policies that the stakeholders try to influence: the subsidies for building and owning a house and the subsidies on the rental market. We conclude with a brief review of the reform plans on the Dutch housing market.

#### 3.1 The market share of the different types of stakeholders: home owners versus tenants

We can make a distinction between three types of categories for the ownership of houses: owner occupied, private rental and social rental <sup>3</sup>. Data are somewhat scarce and old but the following table shows that there are large differences in market shares within Europe for the three categories of housing.

	Owner-occupied		Rented		
	Without mortgage	With mortgage	Social	Private <sup>a</sup>	Rent-free
<i>Western and Central Europe</i>					
Netherlands	8	44	41	7	1
Belgium	37	29	9	22	3
Germany	22	19	13	42	4
France	30	26	16	23	5
Ireland	44	37	12	5	2
Luxembourg	36	35	3	23	4
Austria	30	20	21	23	7
United Kingdom	24	42	25	7	2
<i>Northern Europe</i>					
Denmark	7	46	27	19	1
<i>Southern Europe</i>					
Greece	69	7	0	22	3
Italy	66	11	5	12	6
Portugal	52	14	4	21	9
Spain	63	18	1	12	6
Total <sup>b</sup>	36	24	14	21	5

<sup>3</sup> See work by Dantan and Picard (2010).

Table 1 Market share of different stakeholders in the housing market in 1996 (source: Priemus & Dieleman (2002))

In some countries the social rental market is significant (Netherlands, UK, Austria, Portugal), in other countries (Germany, France, Luxemburg, Austria) also the private rental market is well developed. These differences are the result of differences in housing policies. There are basically two types of housing policies in place: there are the policies favouring the rental sector (rent subsidies, cheap building land for social housing associations, legal protection of tenants) and there are the policies favouring the ownerships of houses (deductible interests and capital, government guaranteed loans etc.). Stakeholders like tenants and home owner associations will tend to lobby for their policies, this will allow them to increase their market share. Once a particular stakeholder group is large enough, it will tend to defend the policy and it will be difficult to change.

### 3.2 The simple economics of rental price control and homeownership subsidies

For didactic reasons we study the rental market and the homeownership market separately. It is clear that both markets interact: they are to some extent substitutes. For a more technical review of the housing market one can consult Arnott (1987).

Government can intervene in the rental market using either subsidies or maximum prices. The motivations for interventions can be income distribution to the poor, diversity objectives in central city districts etc. Subsidies are transparent but costly for the public budget. In the long run, the private rental market can not survive in the presence of rent controls. So the choice for rent controls implies that the social rental market will grow at the expense of the private rental market. In the social rental market, the supply of public housing is organised by social housing associations. These receive several types of government aid like cheaper building land, loans with government guarantee and exemptions from capital gains taxes. In exchange they have to offer low rent housing to certain categories. This is illustrated on Figure 3. In the absence of any intervention, there will be an equilibrium  $Q_r^o$  and a rent  $P_r^o$ . When rent control is introduced at a level  $P_m$ , demand exceeds supply: ( $Q_{rd}(P_m) > Q_{rs}(P_m)$ ). One needs to determine rules to allocate the low cost housing. This can be rules based on income, family size, etc. and there is a clear risk that this becomes a political favour (as it was in Belgium in some cases). The efficiency loss associated to the rent control is limited to ABC (loss of consumer and producer surplus) if there would be efficient rationing (giving the houses to those with highest willingness to pay). In general rationing is not at all efficient. If houses are allocated at random to those who want to pay the maximum rent  $P_m$ , this means that  $Q_{rd}(P_m)$

households qualify for those houses. Their average willingness to pay is AvgWTP. The total consumer surplus of allocating  $Q_{rs}(P_m)$  houses on a random basis is then equal to the area GDAF and this is much lower than the result with efficient rationing ECAF.

Confronted with a real scarcity, other mechanisms appear to maximise the supply of social housing. A first mechanism is to use the wealth of the housing associations to subsidize the rent. But this can only last for a limited period and decreases the capacity for future expansion of the social housing stock. A second mechanism is average cost pricing: using the profits of the inframarginal supply ( $Q < Q_s(P_m)$ ) to pay for the supply beyond  $Q_s(P_m)$ ). A third mechanism is price discrimination. The demand curve shows that the WTP of potential tenants is not uniform, higher income owners are ready to pay more than the maximum rent imposed. In many countries the social rent to be paid is therefore made a function of the tenants' income. This allows increasing the supply of social rental housing. A fifth mechanism is to give city land at cheap conditions or to reserve part of the available urban space for social housing only.

There may be different benefits associated to the social housing policy as there is income redistribution, less segregation, but there are also costs. The non-market allocation generates usually inefficiencies as the housing units do not go to those that have highest willingness to pay. The cheap social housing tends also to limit the mobility on the labour market as it may be very difficult to obtain the same low rents in another city.

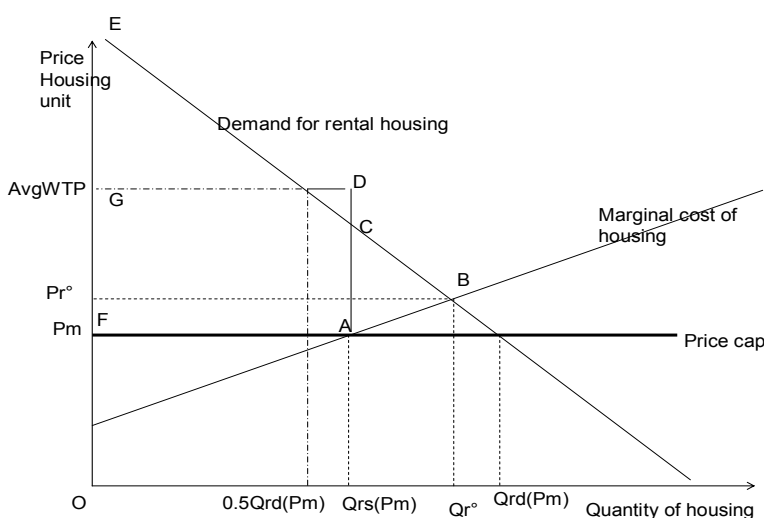


Figure 3 Effects of rent control and the social housing market

There can also be a strong lobby in favour of house ownership subsidies. Figure 4 illustrates the mechanism. House ownership subsidies can take different forms: deductible mortgage interest and property tax payments, non taxation of capital gains etc.. The subsidy expands

home ownership from  $Q_0^o$  to  $Q_01$  by increasing the gross price that home owners want to pay from  $P_0^o$  to gross  $P_01$ . The welfare cost of this measure equals the triangle ABC: the construction of houses with costs higher than the real “value” (willingness to pay) for these housing units. The welfare cost can be higher when the public subsidies (rectangle DBCE) imply extra costs because they have to be raised with taxes that are distortionary.

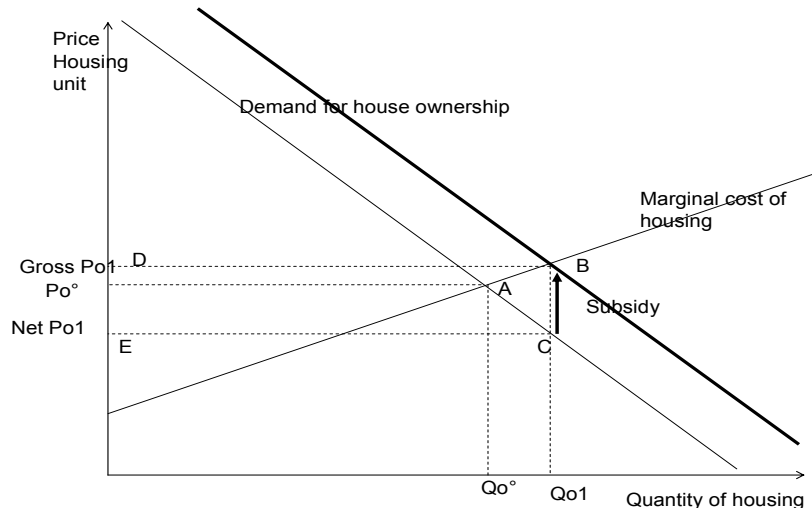


Figure 4 Effects of home ownership subsidies

Again, once the home ownership has been expanded, this forms an important stakeholder group that will defend the subsidy regime.

### 3.3 The Dutch reform experience

The Netherlands are a country<sup>4</sup> with a very strong social housing sector together with strong subsidies for homeownership. The main problems of the Dutch housing market are its inflexibility: supply on rental market too small and inflexible and very expensive house purchase prices. For that reason the CPB has been studying for years a reform of the whole system so that one can return to a better functioning housing market.

In the Netherlands, the social housing associations take care of 75% of the rental market, and the rental market is more or less 50% of all housing. Housing associations are private non profit institutions that are required by their statutory rulings to devote all their capital to housing policy.

<sup>4</sup> Some form of rent control and social housing is certainly present in Paris and Brussels.

The CPB (2010) studied a scenario where all social housing is offered at market prices and where the ownership of houses is no longer subsidized. The obtained the following results:

Structural welfare gain	In billion €/year	7.4
Of which by government and owners		5.4
Of which by households		2.4
Purchase power improvement		1.5%
Purchase price standard house		-17.6%
Net price housing service		+31.8%
Quantity of housing services		-0.5%

Table 2 Effects on Dutch housing market of abolishing subsidies and price controls

There are important efficiency gains. Prices of houses decrease and prices of rental properties increase. There is however a strong substitution of home ownership by rental houses as the rental market is no longer rationed.

### 3.4 Conclusions

This case study has illustrated that well intentioned policy interventions can lead to inefficient housing and land use market equilibria. Urban models allow studying the effects reforms and this is one of the main objectives of the Sustainability case studies.

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