

Taxing land for urban containment: Reflections on a Dutch debate

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Abstract

Excessive land use regulations aimed at containing urban sprawl have been criticised, because they may overcompensate for the external effects of uncontrolled greenfield development and contribute to stagnation in house building. Taxes on building in green spaces may be an instrument for balancing urban growth and the protection of the landscape. This paper discusses development tax and puts it in the context of other planning instruments. It reviews a recent policy debate in the Netherlands relating to the introduction of an open space tax and the research into this tax . It also investigates the policy process, which resulted in the tax not being introduced. Finally, conclusions are drawn as to whether the taxation of development may be a useful instrument to complement other planning measures.

Key words: development planning; taxation; urban sprawl; Netherlands; open spaces

1. Introduction

The most common measures used to protect open landscapes, such as green belts, zoning and protected landscapes, aim to prohibit building. Critics argue that the negative welfare effects of urban sprawl on the landscape are overcompensated for by excessively stringent planning policies (Cheshire and Sheppard, 2002; see also Glaeser, 2007). The result of over-stringent planning is, according to these critics, the

stagnation of house building which has negative effects on welfare development. Therefore, a relaxation of planning controls may be beneficial.

As a response to this, Cheshire and Sheppard (2005) have made a plea for the introduction of price signals as a material consideration in planning decisions in the UK. If the premium for changing one land use to another exceeds a specified threshold, according to their proposal, planning permission must be granted in principle, unless there are specific amenity values of the present use which exceed this premium.

Alternatively, taxation may also be a way of influencing the change of land use so that market information, in other words, the price effect of land use change, plays a larger role in the government's structuring of the property development process. Brueckner (2000) has even called taxation a 'simple remedy' for the problem of the loss of landscape amenities due to urban sprawl. Bird and Slack (2007), however, are of the opinion that "...imposing special land taxes explicitly to achieve desired nonfiscal outcomes is a temptation that should generally be resisted" (p. 226). They have little confidence in 'tax gadgets' and refer to Britain's 'futile attempts' to tax land value increments.

In the Netherlands, there has recently been a debate about introducing a tax on urban development which goes beyond charging for the costs of infrastructure provision. This paper reflects on this debate and uses this reflection to analyse the feasibility of a development tax.

The debate has its relevance as development taxes are also being considered elsewhere and in some cases have already been introduced. Alterman (1988b) describes the case in Israel of land that has been re-zoned for development, on which the owners must pay a tax as soon as they start building or when the land is transferred to a new owner. She suggests that this may stimulate the government to re-zone more land for development, as this will result in the government receiving more revenue.

The idea of a development tax has also been raised in Kate Barker's Review of Housing Supply (Barker, 2004; see also Barker, 2006; Corkindale, 2007; Oxley, 2006) in the United Kingdom. The Barker commission recommends using tax measures to extract windfall gains from land to be developed for residential purposes. The tax Barker is proposing on the development gain, in other words, the unearned increment, has a different basis from the one Brueckner is proposing, which is on the welfare loss resulting from building on open spaces. The debate in the United Kingdom has broadened the use of this instrument of taxation and turned it into a planning-gain supplement as 'a mechanism to help finance the investment needed to offer greater housing opportunities for everyone'. (HM Treasury et al., 2005, p. 3) The idea is that development obligations, in other words, the contribution that a land owner has to pay to local government in order to obtain planning permission, are scaled back with the aim of mitigating the direct impact and that the revenues from this tax will also be used for the provision of infrastructure. However, the aim of this tax, although interesting from the perspective of taxation as a useful planning instrument, is not to prevent urban sprawl. On the other hand, British planning

policies are strongly directed towards building on previously developed land (Adams, 2004), so the form of this instrument will probably take this planning policy into account.

Although, as has been stated above, Bird and Slack (2007) explain the failure of betterment taxation in terms of malpractice, that is, the use of a fiscal instrument for non-fiscal purposes, others, such as Corkindale (1999; 2007) and Whatmore (1994), state that the abandonment of betterment taxation is due not to technical fiscal reasons, but to ideological grounds. This even has an impact on the functioning of the tax. Landowners and developers expected an incoming conservative administration to abolish development taxes and, according to Corkindale (2007), this resulted in them withholding land for development from the market. For this reason, he is also critical of the Barker commission's proposal to introduce a planning-gain supplement to reap a windfall gain by granting planning permission. If development companies expect an incoming conservative government to abolish a tax of this kind, this will result in further stagnation in house building and will not re-establish a balance between landscape values, planning controls and urban uses. In Colombia, landowners confronted with extra charges on the increment of land value, known as *Participación en plusvalías*, have also been gambling on the regulations changing and have ignored them eventually. It took some time for the market to adjust to the new regulations (Borrero Ochoa and Morales Schechinger, 2007).

This paper will, firstly, provide a general introduction to development taxes in relation to urban growth controls. Then it will analyse the changing Dutch context of

land development. Relations between local government, housing associations and market players, and the economic value of greenfield sites have changed considerably in the Netherlands. This will be followed by a presentation of the development tax options that emerged from the Dutch debate on these taxes. Within this debate four different objectives, each needing a different form of the tax, have been subjected to analysis. The side effects of these objectives will be described and conclusions will be drawn about the question of whether development taxes might be an alternative, or a supplement, to the traditional planning instruments that prohibit building. In the Netherlands, this policy process ended with the tax not being introduced. Finally, conclusions are drawn as to whether taxing development may be a useful instrument to complement other planning measures.

2. Development tax and urban growth controls

Not all of the costs of open, agricultural space are internalised in market transactions involving agricultural land. This may cause an excessive penetration of urban land into open spaces. In other words, the phenomenon of urban sprawl may occur.

The most common policy instrument used to contain urban growth consists of controls on urban growth. Designation of land as green belt or as agricultural land is an instrument which is often used to prevent building on agricultural land (Alterman, 1997). Figure 1 shows that this instrument has the effect of making development more concentrated. However, as there is no price attached, the effect is that a value increment occurs between the agricultural value and the marginal urban value, as a result of the transfer from agricultural land to urban land. Although this value

increment has been referred to as a 'regulative tax' (Glaeser et al., 2005), it is not transferred to the community, but is an increment for the owner of the land. If the rules are effective, which is not always the case (Cheshire and Sheppard, 2002), this does not result in a welfare loss (which occurs when no measures are taken), but instead in a redistribution of welfare from city dwellers, who are losing their open spaces, to the owners of greenfield development land. According to Cheshire (2005), land use regulation has created the basis for a financial return on property investments in the United Kingdom and probably also elsewhere (see also Boelhouwer, 2005).

Figure 1. The effect of urban growth controls on urban land use and prices

The regulation of the supply of property may lower production and therefore also reduce the supply. Prices rise, as this does not have a direct impact on demand (see also De Vries & Boelhouwer, 2005). These higher prices make it possible for some expensive brownfield areas to be redeveloped because they become profitable. However, the higher prices also result in extra value for owners of property and do not compensate the users of green spaces for the loss of these areas.

Alternatively, a development tax will increase the costs of transferring agricultural land to urban uses (see also Skaburskis & Qadeer, 1992). Consequently, this will reduce the amount of land used for urban purposes (Figure 2).

Figure 2. The effect of a development tax on urban land use and prices

In practice, although there are often systems in place for recovering the cost of infrastructure provision and other impacts on government services through development charges and impact fees, the instrument of taxation is hardly ever used to internalise the value of open spaces.

Development taxes on building on green fields have a connection with development cost charges to finance infrastructure provision and to compensate for the impact on government services. In relation to these development cost charges, Skaburskis (2003) debates the idea of 'pricing city form' (see also Skaburskis & Tomalty 2000; Skaburskis & Qadeer, 1992) by introducing development cost charges that cover all the costs of development. In Canada, development cost regimes were not always based on a careful calculation of the costs, but may be "based on the city councillors' views of 'what the market would bear'" (Skaburskis, 2003, p. 197), and therefore can be considered as a tax, rather than simply a recovery of specific costs for infrastructure provision. As a result, on the basis of cost recovery, development charges on windfall profits may also be introduced, depending on the local legislation.

This paper will focus on the case of the Netherlands, where there has been a debate about introducing a development tax in a context where strict urban growth controls are already in place.

3. The changing context of land development in the Netherlands

The Netherlands has long been considered a textbook example of the combination of strong urban planning controls and an ample supply of developable land. The supply of developable land was so large that there was no value increment between agricultural land value and land designated for urban land development. Moreover location subsidies had to overcome the major loss made when building land was created on the preferred sites (Needham, 1992).

The following four aspects may have contributed to this situation. First, the agricultural value of land in the Netherlands is high, due to intensive agriculture and a strong agricultural sector in which many farmers are looking for opportunities to enlarge their farms. The Netherlands, with only 20,000 sq. km of agricultural land, was, for example, in 2002 after the USA and ahead of France, the second largest exporter of agricultural and food products in the world (LEI, 2005, p. 220). The agricultural value of land is even higher when the land is used for specific intensive purposes, such as flower bulbs, intensive pig farming where, because of the smell, houses cannot be built nearby or greenhouses.

The second aspect is that, especially in the high-density, western part of the Netherlands, servicing land is very expensive. The land often consists primarily of peat and is referred to as 'solid water'. The land is like a sponge and only a fraction of it remains when pressure is put on it and the water is pumped out of it, which is exactly what happens during the construction process. Moreover dry peat undergoes an oxidation process, which means that the land burns away when groundwater

levels are lowered. It is often necessary to apply a thick layer of sand to the land and to wait for several years until this has settled. Alternatively, expensive techniques can be used to accelerate the settlement process. Sewage systems may have to be built on piles resting on deep layers of sand. As the land is often below sea level, managing the water requires sufficient capacity to handle precipitation and measures to accommodate percolating water. These technical aspects of land preparation may stimulate development on a relatively large scale. An additional factor is that the high density development promoted by the Dutch government involves using a relatively large share of the land for infrastructure, that is streets, parking places, pavements, children's play areas, parks and waterworks. Therefore there are factors other than natural ones which make infrastructure provision relatively expensive. If the legal instruments are not watertight, unscrupulous developers may bypass these non-natural factors. Although Dutch policy instruments on cost recovery have never been perfect (Priemus & Louw, 2002), the large majority of development companies do not want to appear unscrupulous. They consider local authorities to be one of their clients (De Reus, 1998) and, according to the General Code of Conduct of the Association of Dutch Property Developers (Neprom, 2002), public interest must also be taken into account by developers. However, some smaller development companies, which do not belong to this organisation, are adopting a more confrontational approach towards local government.

A third aspect is that housing development was dominated by subsidised housing until the 1980s. Local government policy under the welfare state was often geared towards supply, that is producing homes (Boelhouwer, 2002). Social rented housing

in the Netherlands increased from 12% of the housing stock in 1945 to 44% in the early 1990s (Boelhouwer, 2002, p. 224).

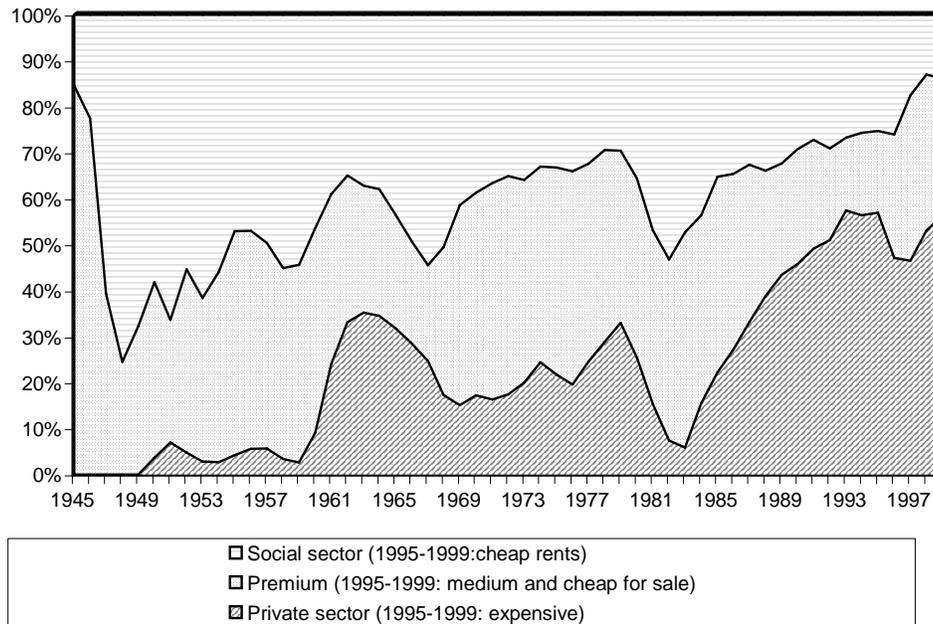


Figure 3. House building in the Netherlands: proportion of social housing (CBS, 2000)

The fourth aspect is the planning system which, although it was highly regulated, has been able to provide fully serviced plots ‘on tap’ (Needham, 1992), because there was a balance between growth restriction and encouraging development on sites which were in line with planning policies (Faludi & Van der Valk, 1994).

Although both agricultural land prices and the costs of infrastructure provision remained high, a major transformation occurred in relation to the third and fourth aspects. The most important underlying cause is the change in the housing sector, where the market plays a more important role. This process has been facilitated by a huge rise in house prices – 339% – between 1982 and 2002 (see NVM, 2003). This

averages out at 6.3% per year for over 20 years. The average inflation was only 1.9% during this period (see also Figure 4).



Figure 4. Development of median real sales price of dwellings, 1975 = 100 (NVM, 2003; 2005; CBS, 2005)

The restructuring of housing policy involved placing more emphasis on the demand for housing and other services. Grants shifted from an object-related focus to a subject-related focus; the ‘old’ grants for building and renting out low-cost homes were abolished in 1995 (Priemus, 1995) and replaced with grants aimed at enabling individual households to pay their rent or mortgage (Priemus, 2003). Matching supply and demand locally has become an increasingly important focus in housing policy (Korthals Altes, 2007).

However, the planning system may not fully be able to meet the higher dynamics of supply for market housing. The average annual production of new houses between

1950 and 2000 was 2.5% of the housing stock; at present it is below 1% (Korthals Altes, 2006a). Currently, the public sector is playing a more active role in interacting with non-state sectors and is no longer the centre of decision-making (Groetelaers, 2004). New forms of public-private partnership are emerging and influencing strategic planning and land development practice (Louw et al., 2003; Groetelaers, Korthals Altes, 2004). The overall supply of land was not able to match the shifts in demand. The planning system is less dynamic than the changes in market demand.

The result is that there is a price gap between agricultural land and greenfield building land. In this respect the success story of the Dutch planner's paradise has come to an end (Korthals Altes, 2006a). However, this has resulted in a debate on introducing new taxes on land development.

4. The options for taxing land in the Netherlands

The debate on taxing land took place in a context in which all kinds of different options for modifying government instruments to allow them to intervene in the land market were being discussed. A new planning law and a new instrument for cost recovery for infrastructure provision are in the making. A government report has been produced on land development. Within this wider context, taxing land was on the agenda and different options have been debated. In the Netherlands four different potential objectives for a development tax have been identified (Kolpron et al., 2001).

1. An open space tax to internalise welfare losses resulting from construction on open spaces where the users of the open spaces are not compensated for their losses.
2. A negative takings tax. Landowners are compensated when a local plan reduces the value of their land. However, landowners do not have to pay anything when a new development plan offers them added value, by turning agricultural land into building land. The idea is to tax this, at least in part.
3. A development tax to steer development towards building on previously developed land by making greenfield sites more expensive.
4. A development tax as a way of acquiring money for the public purse.

In a study by Kolpron et al. (2001) different forms of tax to meet all four objectives were examined. This was done using a standard housing programme, which corresponds with Dutch practice for greenfield sites, and is based on the New Housing Monitor (Dol & Van der Heijden, 2001) and housing production statistics from Statistics Netherlands (CBS, 1999). Using this housing programme, costs and revenues were estimated on the basis of the assumption that the land will be acquired for a price that compensates the farmer for the loss of his livelihood (see Table 1). In practice, higher prices are paid, but it is expected that these prices may come down if development becomes more expensive as a result of development taxes. However, the price paid for the land will not fall below the cost of compensating the farmer for the loss of his livelihood, and these costs must, in all cases, be taken into account.

Table 1 Costs and revenues of land development based on agricultural prices plus compensation for the farmer's loss of livelihood (Kolpron et al., 2001)

	per dwelling	per m2 plan	per m2 parcel
Acquisition	€ 2,269	€ 7	€ 12
Sub-surface infrastructure	€ 3,803	€ 11	€ 20
Surface infrastructure	€ 6,673	€ 20	€ 36
Main infrastructure	€ 5,446	€ 16	€ 29
Other costs	€ 5,895	€ 18	€ 32
Correction for interest and price changes	€ 2,735	€ 8	€ 15
Total costs	€ 26,821	€ 80	€ 144
Proceeds of selling the land	€ 45,123	€ 135	€ 243
Surplus	€ 18,302	€ 55	€ 98

4.1 Open space tax

The idea of an open space tax is that it compensates for the loss of welfare when open spaces are turned into building land. Many people use open spaces as recreational areas or enjoy driving through the countryside. These open spaces have a certain value. The activity that is being taxed is the “closure” of these open spaces. In order to be able to do this, it is important to determine whether or not the land is classed as an open space (Table 2).

Table 2 Open and built-up areas, based on official statistical categories (Kolpron et al., 2001)

Form of use	Sub-form	Classification
Water		Open
Agricultural	Greenhouses	Built-up
	Other	Open
Forest		Open
Natural areas	Dry	Open
	Wetlands	Open
Built-up areas	Housing	Built-up
	Extracting minerals	Obligation to landscape after use
	Commercial areas	Built-up
	Public services	Built-up
	Harbours	Built-up
Traffic		No taxation, as government pays for it
Recreation	Residential	Closed
	Other	Specific
Other	Landfill	Obligation to landscape after use
	Junkyard	Closed
	Cemetery	Specific
	Building land	Conservational assessment, payment when building starts

Based on the above classification 86% of the Netherlands (Table 3; see also Koomen et al, forthcoming), which has a population density of over 400 inhabitants per square km, consisted of open spaces in 1996. According to scenarios produced by central government this will fall to between 81% and 83% by 2030. (Kolpron et al., 2001, p. 45).

Table 3 Land use in the Netherlands in 1996 (Kolpron et al., 2001)

	Hectares	Percentage
Open	3,562,923	86%
Specific	66,893	2%
Landscaping after use	15,903	0%
Traffic	134,032	3%
Building land	23,462	1%
Build	349,403	8%
Total area	4,152,616	100%

The most complex aspect of this tax is the valuation of open space. There are different methods for assessing this (Dunse et al., 2007), such as contingent valuation based on stated preference research, travel cost methods based on the costs people make to visit a certain area, hedonic price analysis, and shadow prices of land resulting from government regulations.

In recent decades many studies—using hedonic pricing—have been conducted on the impact of parks and other green spaces, such as natural area parks, green belts and golf courses, on property values (Crompton, 2005; Dunn et al., 2007; Rouwendal & Van der Straaten, 2007). Distance is an important aspect in these studies. In US

studies the positive effect on housing values does not extend much beyond 450 metres (Dunn et al., 2007:17).

Studies on the impact of large rural parks on property values provide little conclusive evidence (Nechyba & Walsh, 2004; Nicholls & Crompton, 2005a). In rural areas there is often a plentiful supply of green spaces, and Nicholls and Crompton suggest that rural residents are in this context unwilling to pay a premium for green spaces in their neighbourhood. In relation to green belts and greenways, relatively few studies have been undertaken, and even these provide inconclusive evidence (Nicholls & Crompton, 2005b).

The Netherlands Economic Institute estimated an average marginal value of EUR 15.88 (around NLG 35) per square metre of open space lost (Kolpron et al., 2001). This estimation is based on the fiction that the urban growth containment policies of the Dutch government are rational and that therefore the difference between the price of agricultural land, including the cost of compensation for the change of use and the optional value of being able to choose when to develop, and the development value of agricultural land equals the value of open space. This is a questionable approach, as in many cases governments fail, e.g., the regulations may overcompensate for loss of landscape values, and consequently the shadow price based on government policies cannot be used. Alternatively Lindblom (1959) has argued that the 'science of muddling through' may lead to efficient results. The value based on shadow prices, falls within the price ranges of other methods. The complexity of measuring the value of open space accurately is the Achilles heel of

this tax. On the basis of the average ratio of plots to public space, a tax of €23.37 per square metre of plot size has been proposed.

Table 4 The housing programme, a base exploitation result based on the fiction that only ‘agricultural price plus’ has to be paid and the surplus after taxation

		Dwelling price (incl. VAT)	Percentage of housing	Surplus base	Surplus after tax
Social	sf	€ 86,218	14.9%	-€ 12,981.74	-€ 18,066.35
Social	ap	€ 86,218	4.9%	-€ 11,427.09	-€ 14,332.65
Market	ap	€ 113,445	1.9%	-€ 1,634.52	-€ 4,540.07
Market	ap	€ 181,512	6.0%	€ 12,454.45	€ 9,134.14
Market	ap	€ 272,268	1.6%	€ 35,012.77	€ 31,069.88
Market	ap	€ 453,780	0.6%	€ 97,586.34	€ 93,332.15
Market	sf	€ 120,252	10.1%	€ 160.64	-€ 5,027.88
Market	sf	€ 181,512	37.2%	€ 16,022.07	€ 9,900.12
Market	sf	€ 272,268	16.1%	€ 42,963.91	€ 34,974.20
Market	sf	€ 363,024	3.4%	€ 73,456.13	€ 61,212.23
Market	sf	€ 453,780	3.1%	€ 111,103.09	€ 96,368.40
Market	lw	€ 317,646	0.2%	€ 50,370.51	€ 39,163.96
Weighted average				€ 18,303.68	€ 12,077.81

Sf = Single family

Ap= Apartment

Lw = Live/work housing

Even without a tax, the affordable housing programme is not profitable (Table 4). Taxation makes this programme more critical and may make it even more difficult to have this type of housing developed. A tax of this kind may put pressure on legislators to make it possible to allocate land for affordable housing, which is not yet possible under Dutch planning law. However, as the amount of tax paid is based on the actual price difference between the costs of acquiring a farm based on agricultural value and the costs of compensating for other costs and the market process for this land, it potentially only redistributes the value from agricultural owners and other speculative owners to the government. It redistributes the ‘regulative tax’ (Glaeser et al., 2005) that is already in place as a result of the planning controls.

4.2 The development plan change tax

The idea of this tax is to tax the difference in value between land according to an old development plan that does not allow building and land in a new plan that allows building. As a result it mirrors the compensation for takings. If the government gives your land added value by allowing more development, the government can tax part of this added value. Two options are explored here.

The first option is the valuation of an individual parcel of land by professional assessors, with the possibility of going to court if there is a dispute as to whether they have assessed the value correctly. However, the costs of collecting the tax may be rather high, both for government, and for private agents.

In cases where plans lower land value, in principle landowners receive full compensation in the Netherlands. In the same way the concept behind the tax is that it will mirror this process and deduct 90% of the value increase. The concept is a balance between takings and 'givings'. As the difference in value between agricultural land and building land is quite high, this tax may be substantial. One relevant factor is that the cost of applying this tax is also high. The assessments are likely to be expensive and the costs of appeals in court will also be significant.

The most common objection to a high tax rate is that it does not encourage specific behaviour. However, this tax does not penalise the behaviour of landowners, but instead it is an incentive for governments to zone land for development in order to

generate revenue. In this sense, a tax of this kind could promote the re-zoning of agricultural land by government (see also Skaburskis, 2003). However, as the tax must only be paid when the value increase is being exploited, that is when the land is sold or construction work starts, the tax could have the effect of freezing building activities or land transactions on the market. If the tax has to be paid to higher levels of government, this may lead to debates between different levels of government for financial reasons.

A second concept is to introduce a more general tax for different changes in land use by region. One example is the Flemish concept of a plan benefit tax. In this case the costs of collection are lower. As the assessment is not as precise, the tax tariff will generally be lower in order to prevent over-taxation, that is, to ensure that the parties involved do not pay more tax than the value increase.

In both cases the charge affects other areas. If a development plan permits more building on previously developed land, in theory this tax could also be used. It is not intended only to prevent the development of open spaces.

4.3 Development tax to change land use

The idea of a steering tax is that raising the cost of building on greenfield sites will reduce the pace of new developments and will make it more feasible to build on previously developed land. A specific problem of this tax is that development in the Netherlands is not entirely guided by the principles of price or otherwise the affordable housing part of the programme would not be realised. The idea is that

when a plan is no longer financially viable, the developer will optimise the plan by removing the unprofitable parts of the programme.

A relevant factor for the steering possibilities of a tax is the price elasticity of supply; that is, the relationship between changing prices and the supply of urban property. There is a conflict between taxes that have an effect on land use and taxes that generate large revenue (Needham, 2000). If taxing a small amount of money has a large impact on land use, the impact will soon make it impossible to generate larger sums. In contrast, a tax that has hardly any impact on land use will allow large amounts of income to be generated without major disturbance to the land markets. The study by Needham (2000) suggests that elasticity is low and 'draconian' development charges, far above what he considers to be politically tolerable, that is, 10% of the market value of agricultural land, must be applied in order to have an impact on land use. The elasticity of the housing supply is not independent of the planning system, and restrictive zoning and other land use regulations may make the housing supply 'very inelastic' (Glaeser et al., 2006:73; cf. Meen, 2005).

In the report by Kolpron et al. (2001) a simple exercise has been carried out. When taxing the standard housing programme, at what level of tax will the plan with 50% of the most profitable part of this programme reach break-even point and at what level of tax will this be the case for 10% of the programme? The researchers came up with taxes of €65 per square metre plot size for housing and €318 for commercial enterprises. In order to bring about drastic change, the tax on housing must be around €100,000 per dwelling. The researchers themselves stated that these taxes

were likely to be too low, must be evaluated more carefully and were in need of regional differentiation. In the west of the Netherlands these taxes are probably too low and in the north too high.

4.4 Taxation to generate revenue

Given that there is already a 'regulative tax' resulting from strong planning controls, which make prices rise, and that taxes need to be high in order to change land use, this tax seems to be a potential way of generating funds for the public purse. For the purposes of the research, three potential spending goals have been identified that provide a certain level of income. If the goals are too high, the tax will be higher than the value increment of urbanising land and it will have an impact on demand, which will result in an even higher levy being needed to produce the same amount of funds. It must be possible to generate revenue of around €1,000 million per year in the Netherlands, without a major disturbance of the market. However, a substantial part of the extra income will leak away through reductions in income tax, corporate tax and land transfer tax. If financing government is the only goal, it is probably wise not to levy this tax, but to focus on other possibilities for taxing land, such as a land value tax on all land.

4.5 Discussion based on the Dutch case

In the Netherlands there is insufficient public support for a development tax and it has currently been removed from the political agenda. The government that commissioned the study chose to postpone the decision until post-election. Although five political parties with this instrument in their election programmes were voted for

in parliament, a government was formed based on the support of three other parties. The new council of ministers rejected the idea of the tax. However, the potential consequences of such a tax in the Netherlands are still relevant.

Firstly building affordable housing will possibly be more difficult. Currently the good relations between governments and developers play a major role and housing associations use their relationships to obtain their share of the housing programme (Needham & De Kam, 2004). The land prices paid for plots for affordable housing do not cover the costs of infrastructure provision. Taxing land makes it more difficult to realise social housing in the traditional way. Alternatively the extra funds acquired by taxing land may be used to help housing associations to buy more expensive land or, as is more likely, housing associations will build less housing on greenfield sites and will focus their efforts more on post-World-War-II neighbourhoods in which they own a large share of the housing programme. Not only affordable housing, but also other social services may be confronted by this development.

Concentrated development is an important cornerstone of spatial policies. Taxes that only put a price on the land use of green fields, and do not penalise, for instance, leapfrog development or ribbon development, may not produce satisfactory results. Moreover, concentrated greenfield development is often more expensive than sprawl development for the landowners. De-concentrated development may act as a parasite on existing infrastructure, which may, however, not have the capacity to accommodate this development. Large-scale locations on green fields near larger

cities often need specific infrastructure to make them accessible. A motorway or a canal has to be crossed. None of the taxes described above even comes close to an ideal situation ‘...in which the fees are set so well as to let the planners remove regulations and have a price-corrected market determine the form of the city.’ (Skaburskis, 2003, 198). The tax cannot replace planning controls.

If local authorities are entitled to the revenues from a development tax, this tax may stimulate local governments to develop new greenfield sites.

In the Netherlands local authorities usually have land development offices. One of their core activities is to cross-subsidise investments in other locations using the profits they have made from specific sites. The cross-subsidisation fund of the city council of Amsterdam now amounts to €1,045 million and is made up of profits from previous land development activities. However, this total budget, plus another €26 million, is needed to meet the deficits in all the locations, such as the new housing in IJburg and the redevelopment of waterfronts and of the Bijlmermeer, where the city of Amsterdam is developing land at a loss (Rekenkamer Amsterdam, 2006). About two-thirds of the land is being transferred through local government. Taxing land may simply alter the prices local government pays and receives for the land and may also be of limited importance for two-thirds of the developments.

One problem in the Dutch housing market is that housing production has been falling. Having to pay additional taxes when building work starts will generally be a disincentive to build. When the taxes are relatively low and remain below the value

increment between the costs of ending agricultural use and the residual value of new building land, the effects will be small. If the tax is higher, this will lead to less development and less house building.

Tax systems are complex. Taxing value increments in one place may have an impact on taxes raised elsewhere. In the Netherlands mortgages are fully tax-deductible and property taxes are low. As a result higher prices caused by the regulation of supply are not used to finance the objectives for which the regulation has been put in place, but the higher cost of buying housing is partly financed by government through higher tax deductions. First time buyers who have no equity from previous property have therefore often not been able to join the property market and remain in rented property, a sector that has a certain amount of rent control. Given the current situation, local authorities are now debating whether to boost the demand for property even further by supporting first time buyers and middle class housing. The outline of the context given above (see Boelhouwer, 2005 for a more detailed account) illustrates the fact that the Netherlands, together with Great Britain (Cheshire, 2005), is an example of a housing market where rising prices go hand-in-hand with stagnating housing production in a highly regulated system of land use planning.

One alternative solution is to incorporate regional infrastructure in the process of cost recovery (De Wolff et al., 2004; 2006; Korthals Altes, 2006b). For example, the open space tax may be considered to be a charge to recover the impact of greenfield development on the landscape and the funds generated may be used to enhance the

quality of the green space. Another alternative is to designate works which will provide the compensation and to recover the costs from the development. This option is becoming widespread in the Netherlands. By combining landscape and urban development in one project, all the work involved in the new project is presented as the cost of a well-orchestrated plan and developers are asked to pay their share towards this plan. Many developers, on the basis of their two-client strategy, react positively to this idea, but also make it clear that the project must be financially sound. The aims relating to landscape and infrastructure are often so extensive that the urban development gains are not sufficient to finance them. However, the impact of this policy on the property market is limited. It has not succeeded in bringing the price of new building land close to the costs of compensating farmers for change of use. Development involves complex negotiation processes, as the government is usually in the position that development can only proceed when it has modified the development plan.

Finally, in the context of the Netherlands it is less likely that landowners hold their land off the market, to wait for a new incoming majority to abolish the tax. The political culture is based on the formation of coalitions, and some of the coalition parties have also been responsible for defending the policies of the former coalition.

5. Discussion and conclusions

The taxation of development is not an instrument that will abolish the need for planning control in green spaces. A simple tax on development does not distinguish between leapfrog development that divides up green areas and the clustering of

urban development that leaves larger green spaces undeveloped. As taxation is price-based, the pressure on social functions, that is affordable housing, may be high. Additional instruments may be necessary to promote social cohesion in planning. Furthermore tax systems often offer more general methods of taxing increases in development value. Farmers may pay income taxes on earnings from selling land at higher prices. Development companies pay corporate tax on their profits. There are property taxes which, over a period of years, tax part of the increment in development value. Land transfer taxes on property that is sold and VAT on new homes and other properties may also tax part of the development gain. Some of the additional revenue from a development tax may be counterbalanced by lower tax income elsewhere. In particular where a general tax is at a relatively high level, such as income tax in the Netherlands, this leads to a considerable reduction in additional tax revenue. The relative weight of the cost of collection in relation to additional income is also higher. The same can also be said in relation to the steering capacities of the tax. The effects are complex, for example a land development tax that reduces property taxes may lead to less sprawl (Brueckner and Kim, 2003) and the net increase in the tax burden will also lower the demand for space (Brueckner, 2005). Although Brueckner's paper is about cost recovery for infrastructure provision and reducing impacts on the urban infrastructure, it may be the case that, in practice, full cost recovery may not be achieved, and therefore a development tax may have also the effect of recovering infrastructure costs or charging for infrastructure impact. The British example of the tax proposed by the Barker commission to scale back the obligations of section 106 agreements is explicitly following this route (see also Corkindale, 2007; Oxley, 2006).

In the political arena a development tax may not be the most convenient and popular measure. For those who support keeping green spaces undeveloped, the approach that it is possible to build here as long as you pay extra money to the government is not always a convincing argument. Why not prohibit building instead of making money out of it? For others the idea of extra taxes for building new homes is also not the most popular part of a political programme. Although this tax may fit into a concerted approach of positive and negative measures, there is always the risk that a single issue within a certain approach will dominate the political debate and this may be an impediment to this policy.

The solution that has emerged in the Netherlands is to scale up plans and make the development of a whole area, including the development of natural resources, recreational facilities and infrastructure, part of a coherent plan. In this way, the local open space amenities are internalised in large scale developments, which stands in the tradition of the creation of urban parks and adjacent residential areas in the 19th century (Crompton, 2007), and can be considered a kind of comprehensive development area zoning, such as can be found in Hong Kong (Tse, 2001) or Spain (Muñoz Gielen & Korthals Altes, 2007).

This moves the dividing line that separates, on the one hand, taxing the unearned increment and, on the other hand, asking for a contribution to a plan that provides an integral part of the product of the plots where development takes place. These

kinds of projects tend to be very complex and put an additional strain on the institutional capacity of regional planning departments (Korthals Altes, 2006b).

In Britain things seem to be moving in the opposite direction. On the advice of the Barker Commission the government is consulting about scaling development obligations down to their essentials and implementing a tax to finance other aspects of development.

All in all, the remedy is not simple enough to deliver the required results alone and planning instruments are necessary to supplement it. If planning instruments are used, the availability of building plots may decrease, which will eventually lead to a regulative tax, that is the prices will go up. Redistributive reasons are the main argument for this tax. In practice the market already pays more for greenfield land to the original owners and not to the government.

A serious impediment to the development tax is that it is difficult to establish what the value of open space is. On the one hand, why should this prevent a tax of this kind being introduced, if we know that building on greenfield sites results in losses? A tax that taxes a part of this value may be better than no tax at all. On the other hand, the way in which development takes place can have an influence on the value lost by building. Given the uncertainty about this value, it may even be the case that the value of open space lost by building can best be established by the government carefully deciding which sites can be developed under which conditions and which kind of activities are necessary to compensate for the green value that has been lost.

However, the complexity of taxing developments does not lie in the fiscal technicalities. In fiscal terms it is simple to introduce. The complex issue is that we still do not fully understand what the value of open space is above its market value, and that the contribution of different intervention mechanisms to bridging this gap is still unresolved.

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