

# **Leasehold discount in dwelling prices: A neglected view to the challenges facing the leasehold institution**

**Risto Peltola**

**Key words: dwelling prices, leasehold, public land**

## **SUMMARY**

City of Helsinki leases some 2000 hectares of residential lots. Leasing public land became popular after the war, partly because housing finance was difficult to find. In the 1950-ies more than half of new housing was built on public land. So in the present decennium , a typical 60-year old lease period made in 1950-ies is about to expire in hundreds of contracts involving tens of thousands of apartments. Several problems arise: should the lease be extended for another 30-100 years? If so, how should the new rent and other terms be determined? Or should the land be sold to the tenant, or to a third party? At what price?

This article focuses on a particular aspect of leasing land market, namely, sales of apartments that are built on leased land. What do the selling prices of those dwellings tell us about the value of the lease contract? What is told about a contract, where the lease term is about to expire?

On the average, dwellings on leasehold land are only 7 % cheaper than dwellings on freehold land. This price impact is the leasehold discount. The 7 % discount is rather small given the share of land value of a dwelling price on freehold land, which is typically between 20-30 % in Helsinki suburbs.

As the leasehold discount is usually much smaller than land price, this difference is interpreted as the value of the lease contract, seen from the dwelling buyer's point of view. A very small leasehold discount is not consistent with the fundamental distinction between freehold and leasehold, and the public finance interests of the city. The city government faces hard choices, as it can't please everybody.

# **Leasehold discount in dwelling prices: A neglected view to the challenges facing the leasehold institution**

**Risto Peltola**

## **1. PUBLIC LEASEHOLD IN HELSINKI**

### **1.1 Current policy concerns of public land leasing**

City of Helsinki owns 68 % of its land area (prior to changes in subdivision in 2010). Public land has played and still plays an important role in housing. 40 % of the city population lives on leased public land, either as tenants or owner-occupiers of apartments.

Public land leasing has played a huge role in expansion of Helsinki, but can it survive the era of privatization? Some other European countries have witnessed a downshift in public leasehold. For Barrie Needham it was “hard not to be cynical about public land leasing in the Netherlands”, and indeed the city of Rotterdam decided to scrap its public land leasing as of 2003 (Needham 2003). Mattsson has documented the partial withering of leasing in Sweden (Mattsson 2003). In Stockholm, most leased single-family home lots have been sold to lessees, and the trend has went on, and it has been similar in other Swedish towns as well (Villaägarnas Riksförbund 2010). However, leased lots for multifamily houses have not been sold out to lessees, and public land leasing still plays an important role in commercial and industrial land supply in Sweden.

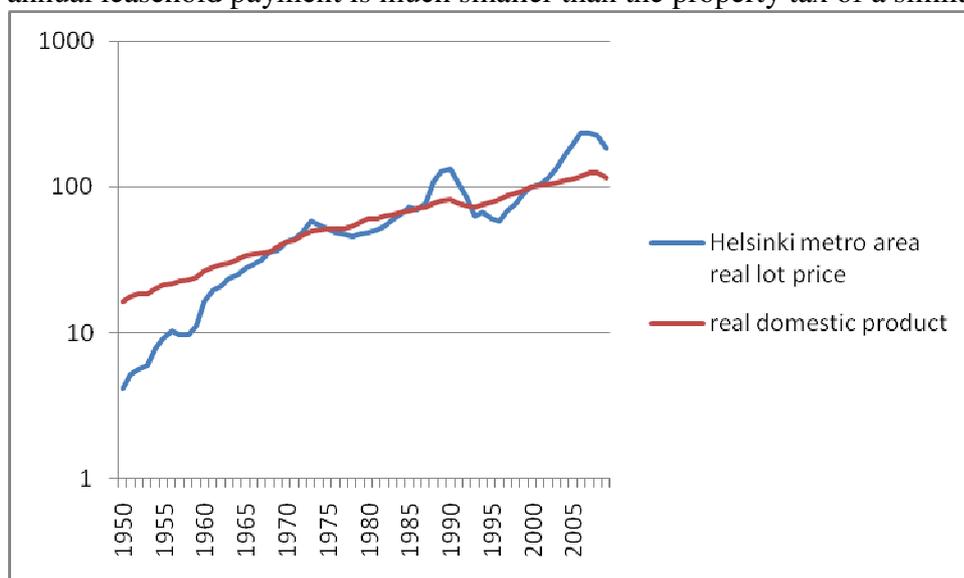
In Finland, too, the most expansive years of public land leasing are behind. Most of the growth of Helsinki metropolitan area has for the last 40 years occurred in communities where leasing has not been a major form of land supply.

However, the vast stock of leased land needs management. Several problems arises: should the lease be extended for another 30-100 years? Or should the land be sold to the lessee, or to a third party? At what price?

The answer to the first question is usually positive, but new questions arise, and they are not less difficult: How should the new rent and other terms be determined? How to handle the negotiations process, especially when the lessee claims to be ill-prepared to a rent rise? How to be fair between all lessees and the taxpayers and stakeholders of the city as a whole?

Increases in land prices make these questions very important. Real land prices have increased 30 to 50 -fold in last 60 years (figure 1). Especially in the 50-ies and 60-ies huge increases occurred. The recent high volatility in lot prices adds to the confusion about how to handle the increment in land values, which part of it belongs to the lessor, which part to the lessee. How to measure the increment?

Lease contracts made in the 50-ies materialize as only a nominal payment today. Lessee's obligations have been all but forgotten. Table 3 illustrates, that there was no difference in expenses between freehold and leasehold lots in contracts of that era. It's not uncommon that annual leasehold payment is much smaller than the property tax of a similar freehold lot.



**Figure 1. Real residential land price index in Helsinki metropolitan area (2000=100)**

The city of Helsinki decided, in essence, to make a 15-fold increase in contracts where the lease period expired in 2010. Even then, the new rent was probably smaller than market rent. However, the lessees were not happy and some didn't sign the new contract offered by the city, and a trial in court seems likely.

The fiscal function of leasing is most important in recent years of fiscal distress in public finances of the city. The annual shortfall of income has been 300 million in recent two years. Annual leasing income on residential lots is 65 million euros. Large as it is, it's only 1 % market value of that land. Doubling the leasing income would help public finances a lot, and the average land rent would only be 2 % of land value. If this land rent could be evenly divided by all lessees, the new fees were still moderate. Of course, this is unfortunately not the case: it's very difficult to increase the leasing income without hurting somebody, and without difficult equity problems.

Apart from fiscal, leasing has other functions as well. It has supplied land for housing construction and it has lowered housing costs, as the lease payments have often been slightly below market rents, even initially. These other functions may have been more relevant in decennia after the war, and they still have some relevance as to the flow of new leasing. But as to the large stock of leasehold land, the fiscal function overshadows all others.

## 1.2 Statistics of urban growth and public land leasing in Helsinki

City of Helsinki leases some 2000 hectares of residential lots. It had about 7000 lease contracts in 1999, all kind of land included (Virtanen 2003). Leasing public land became popular after the war, partly because housing finance was difficult to find. In the 50-ies more than half of new housing was built on public land. So in the present decennium, a typical 60-year old lease period is about to expire in very many contracts involving thousands of apartment owners every year.

Table 1 shows the basic statistics of urban expansion in city of Helsinki and the surrounding metropolitan area:

**Table 1. Statistics of urban expansion in city of Helsinki and Helsinki metropolitan area**

era	up to 1945	1946-1970	1971-2009	
Helsinki city land area	35	180	180	(km <sup>2</sup> )
population, city of Helsinki, in end of period	0,28	0,52	0,58	(million)
population, Helsinki metropolitan area, end of period	0,4	0,8	1,3	(million)
Helsinki city population density	8000	2889	3222	per km <sup>2</sup>
Helsinki city share of HMA population	70 %	65 %	45 %	
Helsinki city share of HMA population growth		60 %	12 %	
Main urban growth located in	Inner city, less than 4 km from centre	Suburbs, 4-12 km from centre	Metropolitan area outside of Helsinki, more than 12 km from centre	

During the last 40 years most of the population growth has occurred outside the city boundaries, where communities rather sold than leased the land. However, within the boundaries of Helsinki leasing has been popular, and it still is. About half of new housing has been built on public land even during the last 40 years, and more than a third of new owner-occupied housing (table 2).

**Table 2. Public land leasing as a tool to manage urban housing problems in city of Helsinki and Helsinki metropolitan area**

era	1945	1946-1970	1971-2009
Helsinki city	marginal: first leases in the 1920-ies	more than half of new housing construction and more than a third of new owner-occupied housing on public leasehold	
Rest of Helsinki metropolitan area	no public leasehold	selling preferred leasing	is preferred to leasing

### 1.3 Dwelling prices: a neglected view on leasehold issues

This article focuses on a particular aspect of leasing land market, namely, sales of apartments that are built on leased land. Dwelling prices always include a hidden, implicit price paid on land. In case of leasehold land, dwelling prices include an implicit price paid on lease contract. What do the selling prices tell us about the value of the lease contract? What is most interesting, what do these prices tell, when the lease term is about to expire? How much weight should be put on information hidden in sales prices, and the knowledge or ignorance of buyers and sellers that they reflect?

The next chapter is the analysis of sales prices data. In the final chapter some policy implications about sales prices analysis are drawn.

## THE LEASEHOLD IMPACT ON DWELLING PRICES

### 1.4 The data

The dwelling sales data consists all dwelling transactions in Helsinki in 2008 in multi-family buildings (blocks of flats). Descriptive statistics is given in tables 3-4, where the results of the analysis are also found.

Land price data consists of all lot sales in Helsinki in years 1985-2009.

### 1.5 Specification of variables

Leasehold discount in dwelling prices (constant quality) (% , e/m<sup>2</sup>)

For each dwelling in a leasehold lot, a dwelling price is estimated assuming the lot is freehold. Leasehold discount is then calculated simply as a difference between the estimated and actual selling prices. In the price model these variables were controlled: zip code, age of building, quality of dwelling (good,

average, poor), floor number of the dwelling and number of floors in the building. The price model also controls the fact that the depreciation is slower the more expensive the area is due to better maintenance.

#### Land price

Land price on the dwelling lot was estimated with a rather rough price model, which only controls distance to city centre, lot size and lot ratio. Some rather important variables are omitted, e.g. distance to seashore. The model was fit to a very large dataset of all lot sales in Helsinki during years 1985-2009.

#### Implicit land share of dwelling price (% , freehold)

is a ratio of lot price estimate and actual dwelling selling price in a freehold lot, both measured per dwelling area unit (m<sup>2</sup>).

#### Implicit land price (% of actual) in leasehold sales

is calculated as a function of lot price and dwelling prices in freehold and leasehold lots:

implicit land price (% of actual) in leasehold sales	=	$\frac{\text{dwelling price in leasehold lot} - \text{dwelling price of the same assuming a freehold lot} + \text{land price}}{\text{land price}/100}$
--	---	--

#### Leasehold effect on expenses (% , e/m<sup>2</sup>/kk)

Monthly expenses depend on several attributes, e.g. the age of building, if the housing association receives rent income, and of course, when the leasehold lot has to pay annual fee. These variables are controlled, if possible, to get the constant quality effect of leasehold to housing expenses. Again, this impact is actual expenses minus estimated expenses assuming a freehold lot. This impact is almost always positive implying the leasehold increases expenses.

## 1.6 Results

The essential results are shown on tables 3-4.

### *1.6.1 Leasehold discount in dwelling prices*

Dwellings in leasehold lots are cheaper than dwellings in freehold lots, of course. On the average, the leasehold discount is 7 %. This is a rather low figure given that the land share of freehold dwelling prices in Helsinki suburbs is about 25 %.

The leasehold discount does not significantly depend on location: close to the centre or distant from it, the discount is in the same order of magnitude.

However, the leasehold discount DOES significantly depend on the age of the leasehold contract: the older the contract, the less the discount. In the critical contracts of the 50-ies and 60-ies, which represents more than half of the leasehold dwelling stock and where the 60-year lease period is about to expire within the next 20 years, the leasehold discount was 4-5 %. In sales with more recent leasehold contract, the discount was 12-16 %. Even the latter figures are considerably lower than land price.

### *1.6.2 Lot price and implicit land share of dwelling price (% , freehold)*

Lot prices as of year 2008 vary between 3000 €/m<sup>2</sup> (land) closer to the centre of the city and 400 €/m<sup>2</sup> in the outskirts. Ratio of lot price to dwelling area where 1200 €/m<sup>2</sup> (dwelling) closer to the centre of the city and 600 €/m<sup>2</sup> in the outskirts.

These figures imply the land share of a dwelling price of 28 % closer to the centre and 23 % in the suburbs, implying a rather small difference. However, a sales comparison method is not the best method available to value land in city centres. Applying a residual method (dwelling prices minus construction costs) would produce higher land values and, thus, higher land share of dwelling prices up to 70 % in best locations.

### *1.6.3 Implicit land price (% of actual) paid in leasehold sales*

Given the land prices and the constant quality difference in freehold and leasehold dwelling prices, the analysis gives us an important finding: A considerable part of the land price is paid even in leasehold sales. This implicit land price in leasehold sales is almost always at least half of the estimated actual land price. Only the very recent lease contracts are an exception. In the main bulk of contracts of the 50-ies and 60-ies the implicit land price is about 80 % of the estimated land value.

### *1.6.4 Leasehold effect on expenses*

The leasehold effect on expenses is less than 1 €/m<sup>2</sup>/month. It reflects the actual lease payment, which seldom exceed 1 €/m<sup>2</sup>/month.

**Table 3. Dwelling price statistics and analysis as a function of age of building (age of the contract is approximately 2 years older)**

	number of dwellings sold		dwelling price €/m2		Leasehold discount in dwelling prices (constant quality)		implicit land share of dwelling price (% , freehold)	implicit land price (% of actual) in leasehold sales
	ownership		ownership		(% )	€/m2	Mean	Median
	freehold	public leasehold	freehold	public leasehold				
<b>All</b>	5305	2009	3755	2691	-7	-194	26	66
<b>year built</b>								
<b>-1949</b>	2129	137	4319	3317	-1	-33	26	102
<b>1950-1959</b>	687	486	3380	2877	-5	-137	29	79
<b>1960-1969</b>	1120	537	3132	2323	-4	-102	29	84
<b>1970-1989</b>	730	404	2858	2328	-10	-251	27	49
<b>1990-2006</b>	382	243	4110	2810	-12	-375	18	40
<b>2007-2008</b>	257	202	4823	3385	-16	-569	21	-22

	lot price		lot ratio	expenses		leasehold effect	
	(€/m2)			(€/m2/month)		on expenses	
	(dwelling m2)	(land m2)		ownership		(%)	€/m2/month
	Mean	Mean		freehold	public leasehold	Mean	Mean
<b>All</b>	884	1372	157	2.92	3.30	18	0.45
<b>year built</b>							
<b>-1949</b>	1071	2466	261	2.95	4.04	26	0.74
<b>1950-1959</b>	839	891	111	2.89	3.07	-1	-0.02
<b>1960-1969</b>	839	841	99	3.14	3.23	10	0.31
<b>1970-1989</b>	734	775	106	2.91	3.25	19	0.49
<b>1990-2006</b>	722	911	129	2.44	3.52	37	0.90
<b>2007-2008</b>	795	1058	145	2.57	3.37	40	0.91

**Table 4. Dwelling price statistics and analysis as a function of distance to centre**

	number of dwellings sold		dwelling price €/m2		Leasehold discount in dwelling prices (constant quality)		implicit land share of dwelling price (% freehold)	implicit land price (% of actual) in leasehold sales
	ownership		ownership		(%)	€/m2	Mean	Median
	freehold	public leasehold	freehold	public leasehold				
<b>distance to city centre</b>								
<b>0-2 km</b>	1367	20	4815	4298	0	17	27	91
<b>2-4 km</b>	1658	192	3856	3270	-10	-341	28	60
<b>4-6 km</b>	475	335	3582	3267	-4	-143	24	84
<b>6-8 km</b>	447	478	2953	2731	-6	-151	25	77
<b>8-10 km</b>	389	414	2706	2360	-8	-178	25	70
<b>10-12 km</b>	268	345	2820	2291	-9	-230	24	57
<b>12-14 km</b>	374	130	2679	2271	-10	-230	23	42

	lot price		lot ratio	expenses		leasehold effect		vintage
	(€/m2)			(€/m2/month)		on expenses		
	(dwelling m2)	(land m2)		ownership		(%)	€/m2/month	
	Mean	Mean		freehold	public leasehold	Mean	Mean	
<b>distance to city centre</b>								
<b>0-2 km</b>	1240	3067	292	2.80	3.35	61	1.46	1933
<b>2-4 km</b>	1049	1788	216	3.04	3.37	12	0.33	1951
<b>4-6 km</b>	816	783	122	2.95	3.35	12	0.29	1963
<b>6-8 km</b>	676	481	84	2.92	3.19	16	0.38	1969
<b>8-10 km</b>	619	435	84	2.85	3.24	18	0.45	1977
<b>10-12 km</b>	607	379	74	3.04	3.37	21	0.55	1976
<b>12-14 km</b>	530	401	90	2.80	3.27	25	0.64	1983

## 2. POLICY IMPLICATIONS

Dwelling buyers of leasehold lots have paid an implicit land price, which in typical older contracts is 80 % of actual land price. This implies, that the lessees feel already as if they were the true owners of the lot, and would probably not be willing to offer more than 20 % of the market value of the lot, if the lessor were willing to sell the lot.

After the rent rise the lessees should be willing to offer more, perhaps 50 % of market value of lot, if the city offered to sell. Of course, with a perfect foresight the same willingness should exist also before then rent rise. However, selling of leasehold lots has not been a policy issue in Helsinki.

As to lease increases, the lessees have been used to moderate, often nominal, annual payments, and claim not to have foreseen large increases in annual payments. Payments that reflect the market value of lot, valued as freehold and without buildings, would make the lessees unsatisfied, and such increases would probably be tested in court.

The city government understands this and lease increases have been at below-market rent level. However, even this level is more than many apartment buyers have foreseen. In these cases, the apartment buyers will be punished for their ignorance. Even some of these below-market rent level new rents will probably be tested in court.

Selling leasehold land should not be excluded from the policy tool-box. The city would get the sales price in the first instance, and annual property taxes thereafter. (An additional benefit would be a more even playing field for property taxation. An increase in property taxes have been called for by many.) The problem is, if the city decides to sell, it's hard not to avoid bargain prices, even very low prices.

There is scope for more income from public land holdings to distressed local government. But it won't be easy, given the high prices paid on dwellings on leasehold land.

For transparency reasons, my advice is to use the market value of the lot as a benchmark for all leasing. The annual ground rent, which has been 4 % for residential lots in Helsinki, could then be used as policy parameter. This 4 % is rather high given some international comparisons (Sweden), and risk-free rate of interest and the fact that leasehold payment is not tax-deductible unlike mortgage payment of bankloans on freehold lots. Perhaps 3 % would be more equal. In lease-renewals, a 2 to 2½ % rent would soften the impact of applying lot market values as benchmarks.

## REFERENCES

Needham, Barrie One Hundred Years of Public Land Leasing in The Netherlands. In Leasing public land. Policy debates and international experiences. Lincoln institute of land policy. Cambridge, Massachutes 2003.

Mattsson, Hans: Site leasehold in Sweden: a tool to capture land value. In Leasing public land. Policy debates and international experiences. Lincoln institute of land policy. Cambridge, Massachutes 2003.

Villaägarnas enkätundersökning 2010 om tomträtt för småhus. Villaägarnas Riksförbund 2010.

Virtanen, Pekka V: Public Land Leasing in Finland. In Leasing public land. Policy debates and international experiences. Lincoln institute of land policy. Cambridge, Massachutes 2003.

## CONTACTS

Risto Peltola  
Chief Expert  
National Land Survey of Finland  
Development Centre  
P.O.Box 84, FIN-00521 Helsinki

Phone: +358 40 801 7674