

# Long-Run Discounting: Evidence from the UK Leasehold Valuation Tribunal\*

Cristian Badarinza and Tarun Ramadorai<sup>†</sup>

This version: October 2015

First version: April 2013

## Abstract

The United Kingdom's Leasehold Valuation Tribunal hears cases in which landlords (freeholders) and tenants (leaseholders) argue about the terms for extension of leases of up to 90 years in length, as well as enfranchisements, for conversion of a leasehold to a freehold. The decisions of the leasehold valuation tribunal provide a unique insight into differing expectations of long-run discount rates and cash-flow expectations. We use the record of decisions since 1995 to extract information about future discount rates in this unique setting, which requires no estimation, but has real stakes for the participants in these negotiations. We find evidence that the discount rate associated with these decisions causes values of properties discounted for long periods (above 90 years) to be close to zero.

---

\*We gratefully acknowledge the Alfred P. Sloan Foundation for financial support.

<sup>†</sup>Badarinza: National University of Singapore, 4 Architecture Drive, Singapore 117566, Oxford-Man Institute of Quantitative Finance and CEPR. Email [cristian.badarinza@nus.edu.sg](mailto:cristian.badarinza@nus.edu.sg). Ramadorai: Saïd Business School, Oxford-Man Institute of Quantitative Finance, University of Oxford, Park End Street, Oxford OX1 1HP, UK, and CEPR. Email [tarun.ramadorai@sbs.ox.ac.uk](mailto:tarun.ramadorai@sbs.ox.ac.uk).

# 1 Introduction

How do economic agents discount cashflows that materialize very many years into the future? This is a central question in many areas of economics. Calculations involving such long-run discount rates are not only important in areas of finance such as pensions, and insurance, they are also critical inputs into the deeply important debates surrounding the value that society does and should place on our natural environment, see for example Weitzman (1998), and Stern et al. (2006).

Despite the importance of long-run discounting, there is little available direct evidence about long-run discount rates that agents actually use. The available maturity of long-term bonds is generally too low to extract useful evidence, and there are few other assets that one can generally use to extract this information.

Recently, using housing market data from the U.K. and Singapore, Giglio, Maggiori, and Stroebe (2014) ingeniously extract information on how houses leased for extremely long periods of time are valued. Using hedonic pricing regressions, they find that there are valuation differentials associated with the length of the leasehold term, and attribute part of these differentials to low long-run discount rates.

Our paper also utilizes information from the unique setting in the U.K. to extract information about long-run discount rates. However, we adopt an identification approach that sidesteps some of the tricky issues that plague hedonic pricing regressions. These issues include unobserved variation in hedonics that may be correlated with the length of the leasehold, as well as the legal framework in the U.K., which empowers leaseholders to extend their leases using a relatively straightforward process, complicating indirect inferences about leasehold discounts, and raising the possibility of interpretation of these discounts as control premia.

Our approach is to collate information from the U.K. Leasehold Valuation Tribunal (LVT), which is a dispute resolution legal setting which hears cases in which landlords (freeholders) and tenants (leaseholders) argue about the terms for extension of leases of up to 90 years in length. The decisions of the leasehold valuation tribunal provide a unique insight into differing expectations (that of the leaseholder, that of the freeholder,

and the final decision of the Tribunal) of long-run discount rates, and about long-run cash-flow expectations about U.K. housing. We use the record of all decisions from 1995 to the present to extract information about future discount rates.

This unique setting requires no estimation, as leaseholders, freeholders, and the LVT all reveal long-run discount rate point estimates, and ultimate valuation differentials between short- and long-term leasehold properties. However, our data is far better than survey data, as it comprises real and high stakes for the participants in these negotiations.

We find evidence that the valuation of leasehold properties decreases substantially with the length of time over which they are discounted. This evidence is complemented by the high discount rates applied to per-period cash-flows, another output from the LVT data. This results in the terminal value of properties discounted for long periods (anything after roughly 90 years) to be close to zero. We also find intriguing evidence that the per-period discount rate applied to cashflows appears slightly positively correlated with the total length of the term over which the discount rate is applied.

Overall, the lease extension and enfranchisement rights do not immediately imply that leasehold and freehold properties should be priced similarly. The key element is that when tenants decide to extend or enfranchise, they have to compensate the landlord in a fair fashion. If long-run discount rates are indeed very low (and thus the lease discount is very high), the price that they have to pay for an extension is high, because it corresponds to the present value of future cash flows, discounted at a low rate. The valuation of the leasehold property relative to a freehold one is therefore unaffected by the possibility to extend the lease or purchase the right to freehold tenure.

However, the decisions taken by the LVTs have an important impact on the structure of the UK housing market. Even in the case in which landlords may be discounting the future at low rates, the reality of the market is that a landlord will never be able to enforce a "reversion" calculated based on a rate below 5% because the tenant immediately goes to an LVT, which settles the premia to the low levels we observe. Hence, what makes leasehold and freehold properties rather similar in the current UK housing

market environment (and what thus makes a leasehold property a different type of asset than a dividend strip) is the combination of the lease extension right and the precedents set by the decisions of the LVTs.

The remainder of this paper is as follows. The next section describes the data that we use in this study. The subsequent section describes the anatomy of a typical leasehold extension. The third section discusses our results, and the final section concludes.

## 2 Data

To uncover household-level patterns of long-run discounting, we use information on decisions taken by the Leasehold Valuation Tribunals across the UK. Leasehold Valuation Tribunals (LVTs) were instituted by the UK Government to facilitate mediation of disputes between the leaseholder (the tenant) and the freeholder of the property (the landlord)

The main types of cases in which there are appeals to the Tribunal are cases of lease extensions and collective enfranchisement. Collective enfranchisements occur when a group of tenants get together to purchase freehold rights; as long as they fulfil certain conditions, they are entitled to do so by law. Lease extensions are cases in which the tenant makes use of the legal right to request (and receive) an amendment of the contract with 90 additional years added on to the leasehold. The granting of the extension or enfranchisement is conditional on the payment of a lump sum, which is meant to compensate the landlord for the foregone interest in the property.

Disagreements between the two parties generally concern differing estimates of the future value of the property and/or the appropriate discount rate at which to discount future cash flows accruing to the freeholder. These disputes are settled through the LVT's decisions.

The LVT dataset we have collected covers a sample of 1204 decisions, which contain expert estimates of the leasehold property's freehold value, estimated future sale prices, and the discount rates at which future cash flows are to be discounted back to the present. The dispute resolution setting means that there are different assessments of each of these variables across decisions, from the leaseholder, the freeholder, and finally, the verdict from the LVT, which could be different from either of these assessments for every one of these variables.

In Table 1, we present the main variables contained in the available text releases of LVT court case decisions.

In Table 2 we report a set of summary statistics pertaining to our newly compiled dataset. Panel A shows that the number of observations varies through time, with

most cases occurring in 2005. A substantial increase in the number of cases occurs in the year 2002, when a change in legislation was implemented through the Commonhold and Leasehold Reform Act.

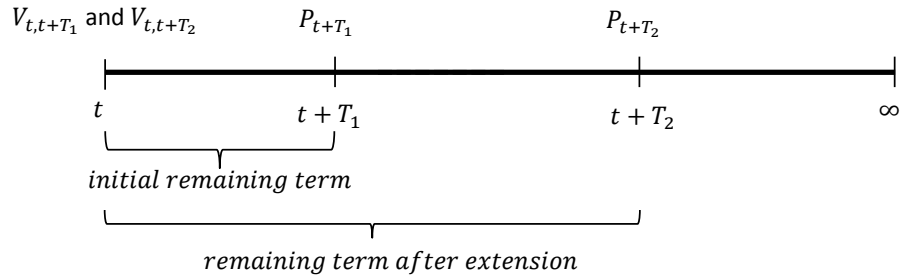
In Panel B of the table, we show that the average remaining lease term in our sample equals 78.5 years and the observations range from a minimum of 1 year to a maximum of 994 years. The discount rates used in the calculation have a mean of 7.1 percent and reach up to 15 percent. The estimated percent valuation differential between  $V_{t,t+T_2}$  and  $V_{t,t+T_1}$  decided by the LVT – the “lease discounts” – range from 0 to 95.7 percent, with an average of 15.6 percent. The minimum discount of 0 suggests that for at least one case, the 90-year lease extension or the collective enfranchisement does not seem to lead to an increase in the market value.

### 3 Anatomy of a Leasehold Extension

Henceforth, we use the following notation:

$V_{t,t+T_1}$ and $V_{t,t+T_2}$	Value of a leasehold at time $t$ , of duration $t + T_i$ , for lease extension of length $T_2 - T_1$ .
$P_{t+T_1}$ and $P_{t+T_2}$	Expected traded price of the freehold, at $t + T_i$ .
$\gamma$	Per-period ground rent.
$r_\gamma$ and $r$	Discount rates for ground rent and reversion, respectively.

Typical lease extension and collective enfranchisement cases are based on the following implied timeline:



Three components enter the calculation of the premium payable for a lease extension:

1. Foregone ground rent:

$$\gamma \left[ \frac{1 - (1 + r_\gamma)^{-T_1}}{r_\gamma} \right]$$

2. Reversion:

$$\frac{P_{t+T_1}}{(1+r)^{T_1}} - \frac{P_{t+T_2}}{(1+r)^{T_2}}$$

3. Marriage value:

$$m_{t,T_1,T_2} = \underbrace{V_{t,t+T_2} + \frac{P_{t+T_2}}{(1+r)^{T_2}}}_{\text{aggregate interests under the new lease}} - \underbrace{\left( V_{t,t+T_1} + \frac{P_{t+T_1}}{(1+r)^{T_1}} + \gamma \left[ \frac{1 - (1 + r_\gamma)^{-T_1}}{r_\gamma} \right] \right)}_{\text{aggregate interests under the old lease}}$$

Finally, the premium payable is given by the expression:

$$\begin{aligned} \pi_{t,T_1,T_2} &= \gamma \left[ \frac{1 - (1 + r_\gamma)^{-T_1}}{r_\gamma} \right] + \frac{P_{t+T_1}}{(1+r)^{T_1}} - \frac{P_{t+T_2}}{(1+r)^{T_2}} + \frac{1}{2} m_{t,T_1,T_2} \\ &= \frac{1}{2} \left\{ V_{t,t+T_2} - V_{t,t+T_1} - \frac{P_{t+T_2}}{(1+r)^{T_2}} + \frac{P_{t+T_1}}{(1+r)^{T_1}} + \gamma \left[ \frac{1 - (1 + r_\gamma)^{-T_1}}{r_\gamma} \right] \right\} \end{aligned}$$

### 3.1 A specific example of a leasehold extension:

#### Reasons for dispute

	Leaseholder	Landlord	LVT
Implied lease discount	5%	8%	6%
Discount rate	7%	4.5%	6.75%

#### Valuation

Initial term	$T_1$	78 years
Extended term	$T_2$	168 years
Value of 78-year lease	$V_{t,t+T_1}$	£208,680
Value of 168-year lease	$V_{t,t+T_2}$	£222,000
PV of ground rent		£957
PV of deferred sale (reversion)		£1,360
Marriage value	$m_{t,T_1,T_2}$	£11,004
50% of marriage value		£5,502

#### Cash flows

Premium payable	$\pi_{t,T_1,T_2}$	£7,818
Net gain from extending	$V_{t,t+T_2} - V_{t,t+T_1} - \pi_{t,T_1,T_2}$	£5,502

## 4 Results

Figure 1 summarizes the spectrum of lease contracts in our dataset. The figure shows the distribution of the remaining leasehold terms across the contracts subject to LVT decisions. There is better representation of the low end of the range of terms than the higher end, but most observations fall within the 60 to 80 year range.

Panel A of Figure 2 shows time variation in the length of the leasehold terms about which disputes occur. There is a small tendency for disputes about short-lease properties to have become less prevalent through time. Panel B shows that the highest applied discount rates appear to have reduced over time, suggesting that it will be important to control for time variation in the mean discount rate applied by the LVT. Panel C shows that the lease discounts have been decreasing during more recent years, which is consistent with the increase in lease terms mentioned above.

Figure 3 plots the LVT outcome discount rates against the remaining terms for



each of the decisions. It appears that there is no tendency for the discount rate to be negatively correlated with the remaining term of the leasehold contract. If anything, there appears to be a slight positive correlation between the remaining term and the per year discount rate applied to ground rent and other cash flows. This goes to the heart of the question – it does not appear from the LVT decisions as if the long-distant future is being discounted at a lower rate than the present.

In Table 3, each year, we regress the rates  $r$  in each of the decisions on  $T_1$ . The relationship between the two is positive and statistically significant in most years. The positive relationship is very pronounced in the first half of the sample and only weakly statistically significant towards the end. This confirms that if anything, the long-distant future is being discounted at slightly higher rates than the short-term, in the LVT decisions.

The estimated time path of discount rates (which can be seen from the pattern of fixed effects) is strongly downward-sloping, mirroring the actual evolution of nominal interest rates in the UK during this period. In terms of the actual levels of the discount rates, we observe values between 2 and 15 percent. Taken at face value, they are surprisingly high on average and we can best describe this as a puzzle, probably reflecting a perception of a high housing  $\beta$ .

Figure 4 illustrates the relationship between the remaining lease term, and the lease discounts. Importantly, we observe a pronounced flattening of this lease discount up to a horizon of 90 years. This contrasts with the evidence from hedonic pricing regressions uncovered by Giglio, Maggiori, and Stroebe (2014).

Table 4 reports the results from a simple linear regression of the lease discounts on the remaining term, in which we observe that the negative relationship is robust through time. We view this as reassuring evidence about the quality and consistency of the judgements underlying the decisions of the LVTs.

## 5 Conclusions

We use the unique setting of the U.K. Leasehold Valuation Tribunal to shed light on the important issue of long-run discounting. Using a sample of 1204 decisions from the LVT, we find that discount rates are high, and if anything, have a slight tendency to increase with the length of the term over which the discounting is done. The terminal values produced by these discount rates are negatively sloping in the length of the term over which the discounting is done, reaching zero at roughly 90 years.

This is a very preliminary draft, and in future versions, we intend to investigate the extent to which there is disagreement between the leaseholder and the freeholder over discount rates and valuation differentials at long horizons. We also intend to use the relationship between the per period discount rate and the valuation differentials extracted from the data to shed light on cash-flow expectations at very long horizons. Finally, we intend to carefully study time-variation in the observed long-run discount rates.

## References

- Giglio, Stefano and Maggiori, Matteo and Stroebe, Johannes, 2014, Very Long-Run Discount Rates, available at SSRN: <http://ssrn.com/abstract=2346049>.
- Stern, N., and co-authors, 2006, The Stern Review Report on the Economics of Climate Change, H.M. Treasury.
- Weitzman, M.L., 1998, Why the Far-Distant Future Should Be Discounted at Its Lowest Possible Rate, *Journal of Environmental Economics and Management*, 36, 201-208.

**Table 1**  
Leasehold Valuation Tribunal court case dataset

Description	Variable type	Values
<b>Court case</b>		
Case type	categorical	<i>LE</i> <i>CE(§)</i>
Date of Tribunal's decision	ordinal	<i>(date)</i>
<b>Property</b>		
Address of property	character string	<i>(UK format)</i>
Postcode	character string	<i>(8-digit UK format)</i>
<b>Lease contract</b>		
Remaining term	cardinal	<i>(years)</i>
<b>LVT valuation assumptions</b>		
Discount rate	cardinal	<i>(percent)</i>
Marriage value	cardinal	<i>(percent)</i>
Estimated lease discount	cardinal	<i>(percent)</i>
<b>Premium</b>		
Tenant valuation	cardinal	<i>(£)</i>
Landlord valuation	cardinal	<i>(£)</i>
LVT valuation	cardinal	<i>(£)</i>

**Notes:**

1. LE denotes leasehold extensions.
2. CE denotes collective enfranchisement, referring to section (§) of the 1993 Act.
3. The marriage value is given as a fraction of the premium.
4. Landlords and tenants often disagree about the discount rates used in the calculation and the lease discounts.

**Table 2**  
Summary Statistics

This table reports summary statistics for the variables in our dataset of LVT court cases.

Panel A			Panel B									
Year	Obs.	Freq. (%)			Mean	Min	5%	25%	50%	75%	95%	Max
1995	20	1.66	Remaining lease term	(years)	78.5	1.0	20.0	58.0	69.2	79.0	106.3	994.0
1996	19	1.58	Discount rate	(percent)	7.1	2.0	5.0	5.0	7.0	8.0	11.0	15.0
1997	31	2.57	Lease discount	(percent)	15.6	0.0	2.0	6.0	10.0	18.5	52.5	95.7
1998	41	3.41										
1999	47	3.90										
2000	43	3.57										
2001	56	4.65										
2002	66	5.48										
2003	94	7.81										
2004	76	6.31										
2005	168	13.95										
2006	141	11.71										
2007	97	8.06										
2008	9	0.75										
2009	18	1.50										
2010	3	0.25										
2011	70	5.81										
2012	105	8.72										
2013	86	7.14										
2014	14	1.16										
Total	1204	100										

**Table 3**

Relationship between discount rate and remaining lease term

This table reports estimated coefficients from the following regression:

$$r_{i,t} = \alpha + \tau_t + \nu_t T_{1,i} + \varepsilon_i,$$

where  $i$  is an index of LVT lease extension court cases,  $r_{i,t}$  is the rate used in the settlement calculation,  $T_{1,i}$  is the remaining lease term and  $t$  indicates the year during which the LVT decision was taken. The procedure is equivalent to running a regression of discount rates on remaining terms, separately for each year. We exclude the cases with a remaining term above 125 years. Standard errors are reported in parentheses.

$t$	$\alpha$	$\tau_t$	$\nu_t$
	9.61 (0.67)		
1995			0.026 (0.010)
1996		-2.38 (0.85)	0.041 (0.008)
1997		-2.94 (0.92)	0.053 (0.009)
1998		-2.62 (0.83)	0.053 (0.007)
1999		-1.43 (0.90)	0.004 (0.010)
2000		-3.67 (1.13)	0.045 (0.013)
2001		-3.27 (0.88)	0.030 (0.008)
2002		-3.06 (0.75)	0.022 (0.006)
2003		-3.29 (0.76)	0.026 (0.006)
2004		-3.04 (0.76)	0.022 (0.005)
2005		-2.66 (0.76)	0.012 (0.005)
2006		-5.03 (0.73)	0.030 (0.004)
2007		-4.36 (0.77)	0.001 (0.005)
2008		-3.93 (1.75)	-0.003 (0.023)
2009		-4.61 (1.40)	0.000 (0.015)
2010		-5.80 (2.24)	0.027 (0.033)
2011		-4.63 (0.75)	0.006 (0.005)
2012		-3.98 (0.79)	-0.005 (0.006)
2013		-4.30 (0.88)	-0.002 (0.008)
2014		-4.61 (2.79)	0.000 (0.040)
Adjusted R <sup>2</sup> : 70.0			
number of observations: 1193			

**Table 4**  
Relationship between lease discount and remaining lease term

This table reports estimated coefficients from the following regression:

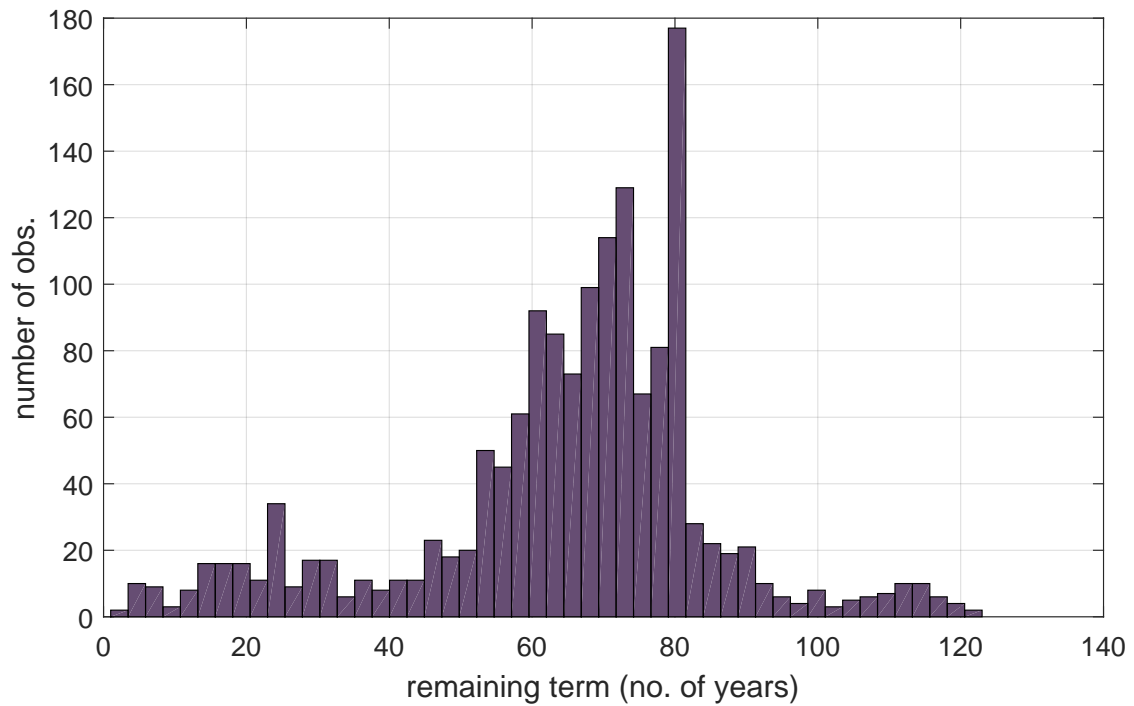
$$discount_{i,t} = \mu + \zeta_t + \xi_t T_{1,i} + \varepsilon_i,$$

where  $i$  is an index of LVT lease extension court cases,  $T_{1,i}$  is the remaining lease term and  $t$  indicates the year during which the LVT decision was taken.  $discount_{i,t}$  is equal to  $\frac{V_{t,t+T_2} - V_{t,t+T_1}}{V_{t,t+T_2}}$ . For example, a discount value of 5% implies that the marketable value of the property under the old (shorter) lease is 5% less than it is expected to be under the new (longer) lease. The procedure is equivalent to running a regression of lease discounts on remaining terms, separately for each year. We exclude the cases with a remaining term above 125 years. Standard errors are reported in parentheses.

$t$	$\mu$	$\zeta_t$	$\xi_t$
	46.00 (4.78)		
1995			-0.501 (0.070)
1996		10.50 (6.20)	-0.609 (0.060)
1997		-6.56 (6.40)	-0.398 (0.059)
1998		7.91 (6.16)	-0.651 (0.063)
1999		-28.46 (6.71)	-0.121 (0.071)
2000		1.22 (8.55)	-0.536 (0.101)
2001		3.20 (6.39)	-0.514 (0.060)
2002		16.06 (5.46)	-0.773 (0.048)
2003		15.36 (5.67)	-0.757 (0.051)
2004		11.09 (5.63)	-0.711 (0.049)
2005		10.66 (5.73)	-0.689 (0.048)
2006		13.43 (5.46)	-0.718 (0.042)
2007		19.96 (5.70)	-0.766 (0.046)
2008		-9.01 (20.12)	-0.425 (0.299)
2009		-18.00 (16.47)	-0.266 (0.205)
2010		-15.52 (30.19)	-0.263 (0.548)
2011		30.53 (5.46)	-0.967 (0.045)
2012		1.08 (5.86)	-0.514 (0.053)
2013		6.70 (6.82)	-0.610 (0.075)
2014		17.29 (21.22)	-0.786 (0.308)
Adjusted R <sup>2</sup> : 71.7			
number of observations: 1062			

**Figure 1**  
The distribution of remaining lease term

This figure reports the histogram of the remaining lease term corresponding to the observations we can draw upon in our LVT dataset, covering the period from 1995 to 2014. We exclude the cases with a remaining term above 125.



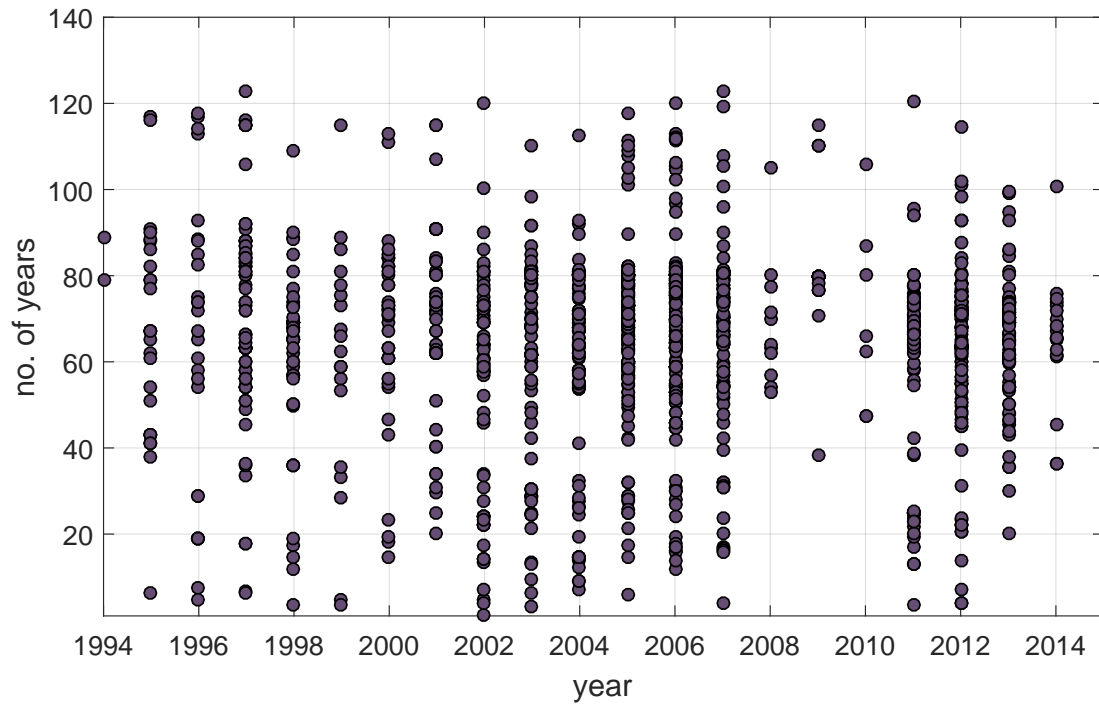


**Figure 2**

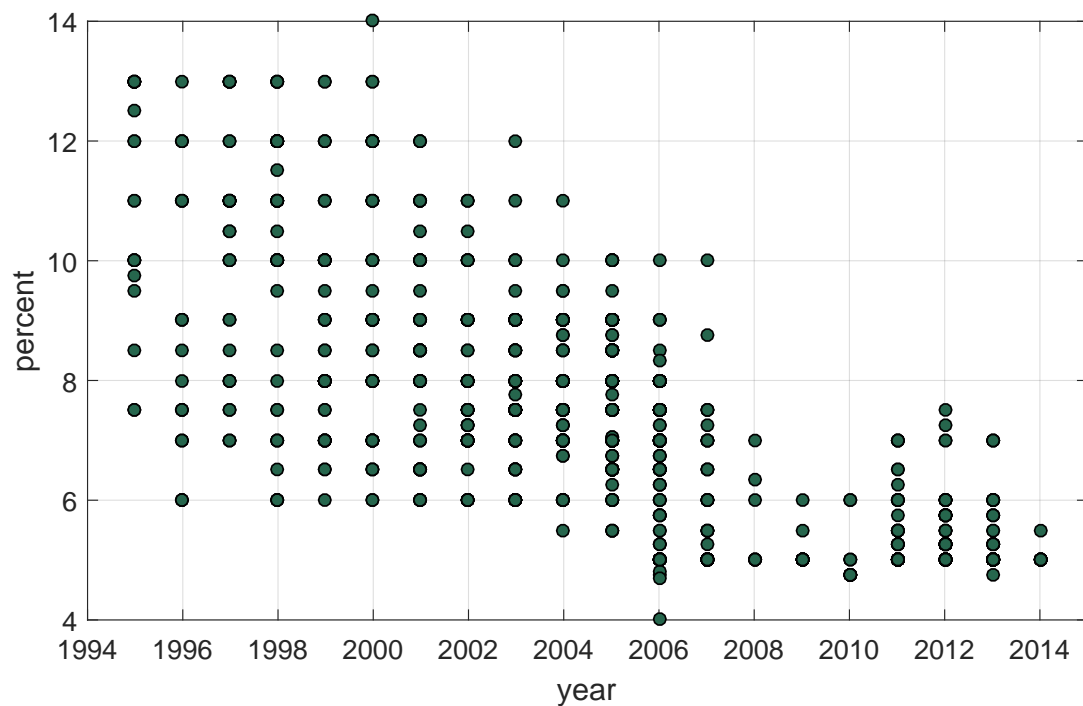
Variation through time: key variables in LVT dataset

This figure reports the time series variation of the remaining lease terms, the discount rates used in the calculation and the implies lease discounts, from our sample of LVT court case decisions. We exclude the cases with a remaining term above 125.

Panel A  
Remaining term

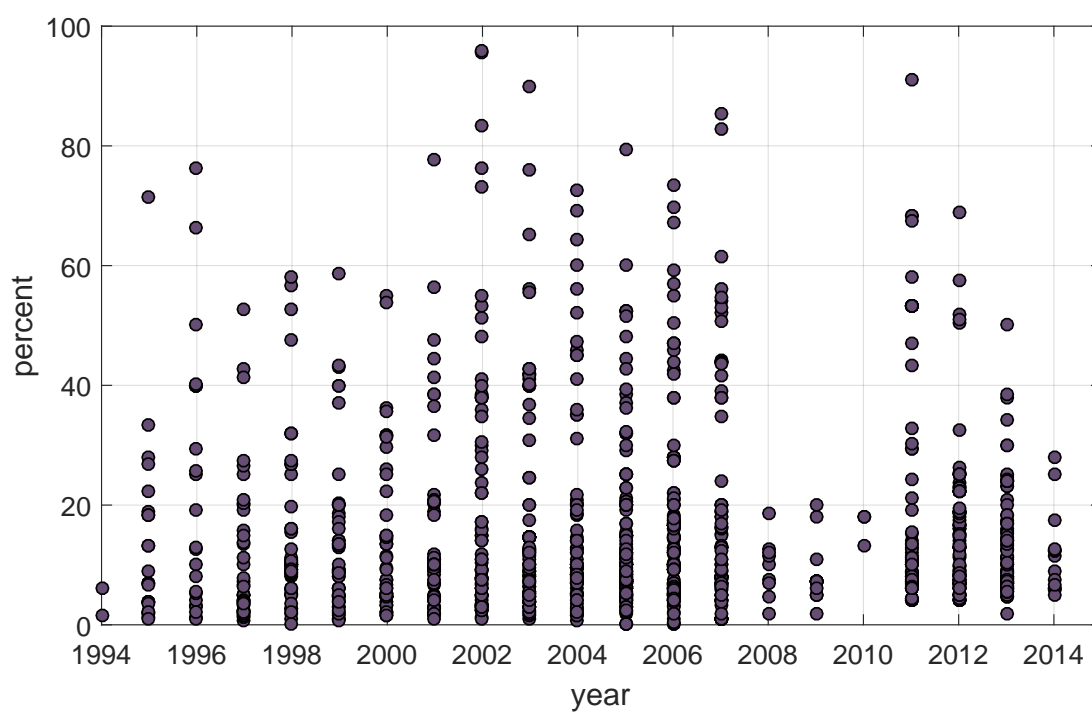


Panel B  
Discount rate



**Figure 2**  
 Variation through time: key variables in LVT dataset  
 (continued)

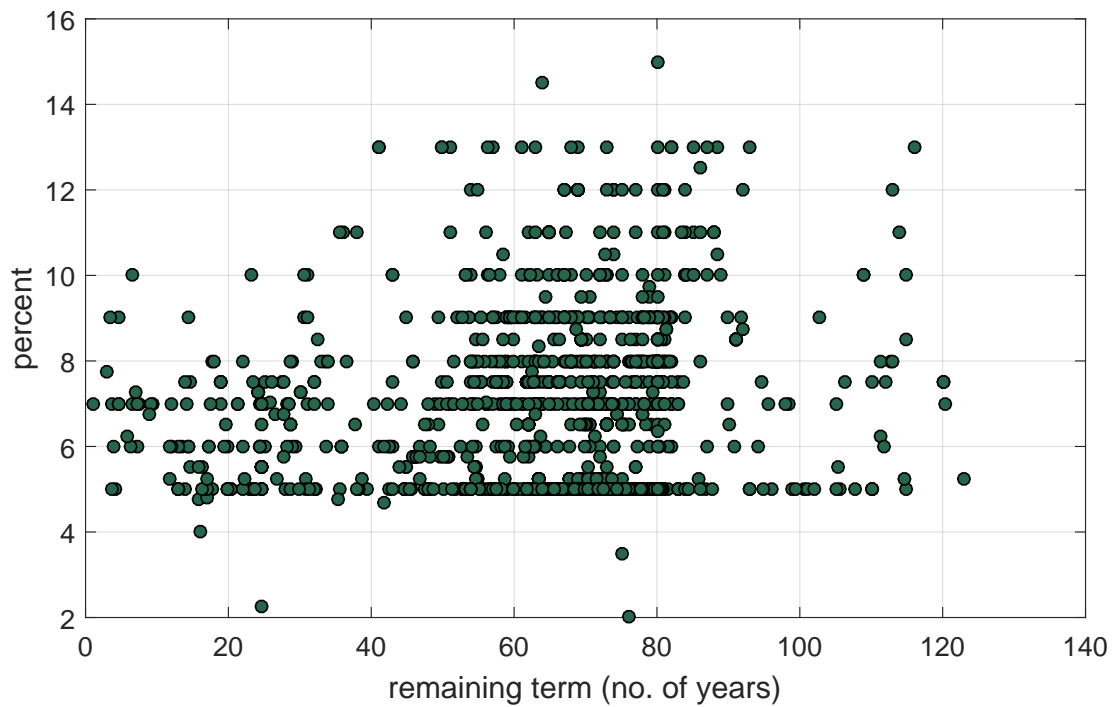
Panel C  
 Lease discount



**Figure 3**

Relationship between discount rate and remaining lease term

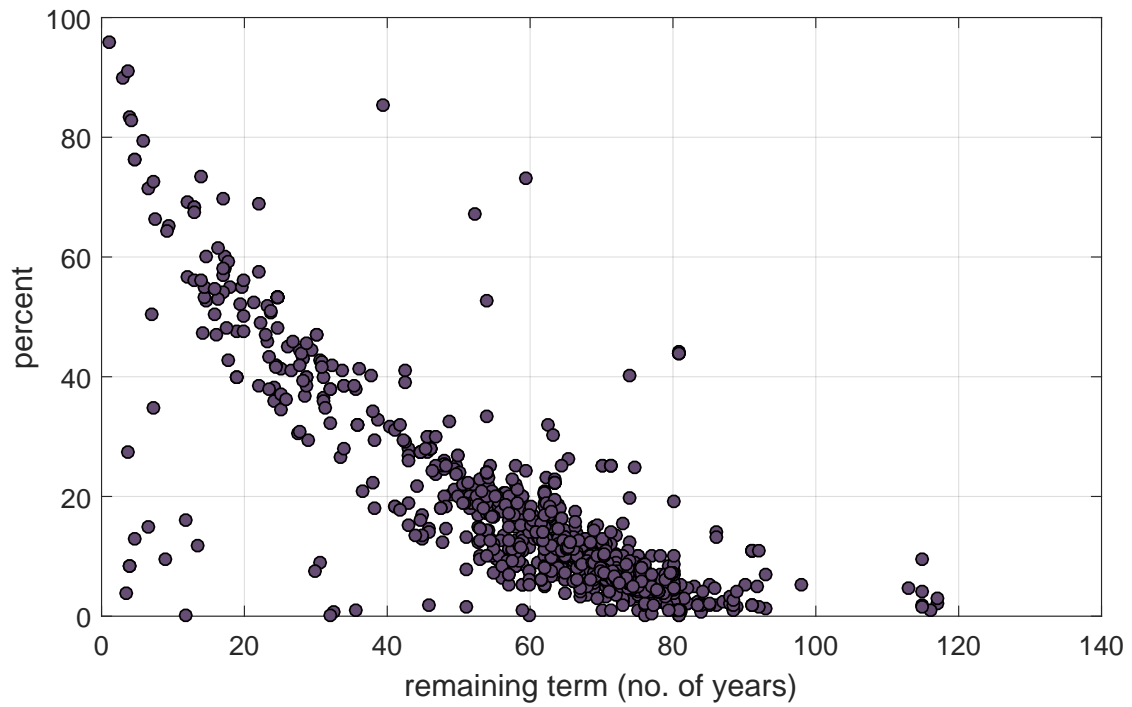
This figure illustrates the relationship between the discount rate used in LVT court case decisions and the remaining lease term of the property. We exclude the cases with a remaining term above 125.



**Figure 4**

Relationship between lease discount and remaining lease term

This figure illustrates the relationship between the leasehold discount estimated from LVT court case decisions and the remaining lease term of the property. We exclude the cases with a remaining term above 125.



## Appendix A

### Legislation

Chapter 2, art. 56 of the Act<sup>1</sup> mentions that:

Where a qualifying tenant of a flat has under this Chapter a right to acquire a new lease of the flat [...], then [...] the landlord shall be bound to grant to the tenant, [...]

- (a) in substitution for the existing lease, and
- (b) on payment of the **premium** payable under Schedule 13 in respect of the grant,  
a new lease of the flat at a **peppercorn rent** for a term expiring **90 years** after the term date of the existing lease.

Schedule 13 mentions that:

The **premium** payable by the tenant in respect of the grant of the new lease shall be the aggregate of:

- (a) the diminution in value of the landlord's interest in the tenant's flat [...]
- (b) the landlord's share of the marriage value [...]

The diminution in value of the landlord's interest is the difference between

- (a) the value of the landlord's interest in the tenant's flat prior to the grant of the new lease [...]
- (b) the value of his interest in the flat once the new lease is granted.

[T]he marriage value is the difference between the following amounts, namely:

- (a) the aggregate of:
  - (i) the value of the interest of the tenant under his existing lease
  - (ii) the value of the landlord's interest in the tenant's flat prior to the grant of the new lease [...]
- (b) the aggregate of:
  - (i) the value of the interest to be held by the tenant under the new lease
  - (ii) the value of the landlord's interest in the tenant's flat once the new lease is granted [...]

[...] Where at the relevant date the unexpired term of the tenant's existing lease exceeds eighty years, the marriage value shall be taken to be nil.

---

<sup>1</sup>The Leasehold Reform, Housing and Urban Development Act 1993, amended by the Commonhold and Leasehold Reform Act 2002.

## Appendix B

### UK media coverage

1. **The Independent**, 25 October 1992

*"New legislation published last week gives leaseholders [...] the right to a new lease which runs for 90 years longer than the existing one."*

2. **Financial Times**, 19 May 1993

*"A new concession aimed at increasing tenants' rights was made by ministers yesterday as the House of Lords continued its discussion of the government's controversial legislation on leasehold reform."*

3. **The Evening Standard**, 16 June 1995

*"Residents of one of London's most desirable addresses have won an important victory in a leasehold battle against their landlord [...]. The Leasehold Valuation Tribunal has decided that [the tenants] should be able to acquire 90-year extensions to their leases [...]. The decision is significant because the leases had only 43 years left to run - a point at which they can become very difficult to sell unless they are extended. [...] As part of their deliberations, the tribunal visited the property, which they said was in 'a quiet side street, wide and tree-lined, with substantial houses set well back from the street with attractive and well-maintained front gardens'".*

4. **Property Week**, 4 January 1996

*"Leaseholder pressure group the Leasehold Enfranchisement Association (LEA) has described the 1993 Act as 'cumbersome, intimidating and costly'. [...] 'The Act is a little over-complex and a little over-difficult. But a bit of tinkering will make it perfect.' [...] [L]easehold valuation tribunals, given power under the Act to resolve disputes on the price of freeholds or lease extensions, have only delivered 14 decisions."*

5. **Financial Times**, 24 February 1996

*"It will soon be easier for people who own their flat or house on a lease to buy it outright. A package of measures to strengthen leaseholders' rights is due to come into force in June following last minute amendments to the housing bill."*

6. **Financial Times**, 16 October 1996

*"[...] around 6,000 leaseholders have already taken advantage of the 1993 act to embark on a lease extension or to buy their freehold. [...] Around 95% of cases are being settled through negotiation between the landlord and the leaseholders. A fraction of those that have become deadlocked have gone before leasehold valuation tribunals, the dispute resolution bodies. Their rulings have set clear precedents on the complicated process of valuing leaseholds and freeholds which are now being followed in private negotiations."*

7. **M2 Presswire**, 21 August 2000  
*"A new scheme for the ownership of flats and other interdependent housing units, and a range of measures to improve the rights and conditions of leaseholders in England and Wales is published today in a draft Government Bill and consultation paper."*
8. **The Guardian**, 2 March 2002  
*"Over the next few weeks, new measures aimed at helping 2m leaseholders throughout England and Wales will finally become law. One way out is to club together with others in your block to buy the freehold. Leaseholders have had the right to take over freeholds and extend leases through the courts since 1993, and in 1996 new laws brought in Leasehold Valuation Tribunals [...] aiming to make this simpler and cheaper and to allow leaseholders to dispute service charges. But LVTs have been much criticised for being slow, expensive and inconsistent. The new bill aims to improve LVTs, giving them a 'wider remit' and 'streamlined procedures'."*
9. **Estates Gazette**, 24 September 2005  
*"Criticism has mounted of the valuation determinations by the Leasehold Valuation Tribunals (LVT) when settling disputes between freeholders and lessees about the price to be paid for a freehold or lease extension. There have been suggestions that LVT decisions are pro-tenant and that decisions are typically closer to tenant valuations. [...] The judgments flowing from the five [...] cases, expected soon from the Lands Tribunal, should help to inform the debate on honest and realistic reversion yields."*
10. **Estates Gazette Interactive**, 21 September 2006  
*"The Lands Tribunal has provided definitive guidance on the deferment rate that valuers should use to calculate the amount that leaseholders pay for freeholds. [...] After hearing evidence from valuers and economists over eight days, [the] President of the Lands Tribunal, said that 'unless compelling evidence to the contrary is adduced' the deferment rate would be 4.75% for houses and 5% for flats."*
11. **The Times**, 22 September 2006  
*"Buying a short-lease property could place Mayfair within reach. [...] The trick is to buy a property with a short lease - generally defined as one with fewer than 40 years to run. [...] An extension to the lease would probably cost in the region of 20 per cent of the purchase price."*
12. **The Times**, 1 January 2009  
*"The Lords ruled unanimously that tenants planning to extend their leases or purchase the freehold of a leasehold house will not be subject to landlords' claims that 'hope value' (the potential uplift in price caused by a special purchaser, such as a tenant, making a bid in the future) should be added to the price. [This decision] clarified a number of valuation issues in this complex area of the law. It is good news for most tenants wishing to purchase the freehold of a leasehold house or to extend their lease as they will now have to pay less for their freehold or lease extension."*

**Figure A.1**  
National and local media outlets covering LVTs

This figure reports the number of articles in UK-based media outlets which contain the words "leasehold valuation tribunal" in their headline or text content. The source of the data is Dow Jones's *Factiva* news service. The search query was run on April 4, 2014. Factiva covers the majority of UK-based print newspapers and an increasing share of electronic media. The numbers we report may subsequently be adjusted, reflecting *Factiva*'s changes in the classification of media categories and the addition of new content coverage. In Panel A, we calculate the total number of articles in each year and in Panel B we report a disaggregated view of media coverage, by media outlet, for the period between January 1993 and December 2013.

