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Detailed Analysis of Private rents and rental rates of return: 1996/97 to 2006/07

Source document for the Dataspring Report to the Housing Corporation

UNIVERSITY OF CAMBRIDGE

HOUSING CORPORATION

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Key findings

Private rents across England

- In 2006/07, the average private rent in England was £121.10 per week.

- Rents increased from £82.77 in 1996/97 (the beginning of the observation period). This implies an increase of £38.33 (46.3%) in ten years or an annual increase of about 3.9%.

- In real terms, the increase in rents was 12.5% over a decade. This implies an annual increase of about 1.2%.

- Across the regions, in 2006/07, London had the highest rents (£199.42), while the North East had the lowest (£85.22).

- The highest percentage growth during the period was seen in the East (59.7% or an annual rate of 4.8%) while the lowest growth was observed in the North West (31.4% or an annual rate of 2.8%).

- In real terms, rents in the East increased by 20.7% in 11 years (or an annual rate of 2.1%). At the other extreme, in the North West rents almost unchanged (a rise of 1.0% for the period or an annual rate of 0.1%).

- At the local authority (LA) level, in 2006/07, the highest average rents were found in Kensington and Chelsea (£295.51), followed by Westminster (£265.66) and Hammersmith & Fulham (£245.86).

- The lowest average rents were observed in South Norfolk (£59.77), followed by Teignbridge (£64.67) and North East Lincolnshire (£66.37). Comparing with their neighbour LAies equivalents, these figures, however, might warrant investigation and correction.

- The highest growth occurred in St. Helens (84.9% or in real terms 42.1% in 11 years) which was followed by South Holland (82.6% or in real terms 40.3%) and Milton Keynes (77.3% or in real terms 36.3%).

- The lowest growth (or the largest decrease) was observed in Guildford (-22.3% or in real terms -40.3% in 11 years). This was followed by Teignbridge (-10.9% or in real terms -31.5%) and South Norfolk (-9.2% or in real terms -30.2%). These figures, however, should be interpreted with caution.

- In 2006/07, the average rent across urban areas was £127.97. The equivalent for rural areas was £106.37.

- Rents in urban areas increased by 45.4% (or in real terms by 11.7%) from 1996/97 to 2006/07 while rents in rural areas rose by 49.6% (or in real terms 15.0%) over the same period.

Private sector house prices across England

- Lower quartile (LQ) house prices in England (the most relevant comparator for private rents and rental rates of return) were £124,200 in 2006/07.

- The national LQ house price increased from £41,500 in 1996/97. This implies an increase of £82,700, or 199.3%. The average annual rate of increase was therefore 11.6%.

- In real terms, the increase in national LQ house prices was 130.0% in 11 years. This implies an annual increase of 8.7%.

- Across the regions in 2006/07, the highest LQ prices (£190,000) were in London while the lowest (£85,000) were in the North East.

- The highest growth, in percentage terms during the period was in London (233.3% or an annual rate of 12.8%) while the lowest growth was in the North East (174.2% or an annual rate of 10.6%).

- In real terms, London experienced an increase of 156.2% for the period (or an annual rate of 9.9%). At the other extreme LQ house prices in the North East increased by 110.8% (or an annual rate of 7.7%).

- At the local authority level, in 2006/07, the highest LQ house prices were observed in Kensington & Chelsea (£360,000), followed by those in Westminster (£292,375) and Hammersmith & Fulham (£266,000).

- The lowest LQ house prices were found in Burnley (£47,000), followed by those in Pendle (£58,000) and Kingston upon Hull (£64,000).

- The highest growth was seen in Newham (348.7%, or in real terms 244.9%) over the 11 year period. This was followed by Manchester (342.2%, or in real terms 239.9%) and Brighton & Hove (317.7%, or in real terms 221.1%).

- Castle Morpeth had the lowest growth (140.2%, or in real terms 84.7%) in eleven years, followed by Hartlepool (140.7%, or in real terms 85.0%) and Sedgefield (143.6%, or in real terms 87.3%).

- In 2006/07, the estimated LQ house price in urban areas was £132,000 and the equivalent for rural areas was £139,961.25.

- The LQ house price in urban areas increased by 231.3% (or in real terms 154.6%) from 1996/97 to 2006/07 while the increase in rural house prices was 218.1% (or in real terms 144.5%).

The relationship between private rents and house prices across England

- There was a positive relationship between private rents and LQ house prices across the English LA areas throughout the observation period. The correlation coefficient (an indicator of the strength and direction of a relationship) between rents and house prices has been above 0.8 at the national level for the ten years.

- There were positive relationships between rents and house prices in all nine English regions, but the significance of the relationships varied. In 2006/07,

London showed the strongest correlation coefficient (0.908) which meant that it had the most significant relationship between the two variables.

- The North East had the lowest, of 0.701. An empirical test result for the region implied that house prices were not the sole explanatory variable for rents, despite this positive relationship.

Private rental rates of return across England

- The private rental rate of return (measured by annual rent as a percentage of the relevant LQ house price; i.e., taking no account of the costs of letting and maintaining the property) was 5.07% for England in 2006/07.

- This rate of return compares with 10.37% in 1996/97. The rate of return decreased for the observation period except in 2005/06 when it showed a marginal upturn owing partly to a robust increase in rents. 2006/07 saw a decline of 0.18 percentage points from the previous year.

- Despite the declining pattern of rates of return, there was no equivalent decrease in rental property supply (measured by rent cases) for the same period. This suggests that private sector landlords are expecting another type of return from their property investment, i.e., capital gains.

- In this context, the sum of the rate of return and the house price real growth rate seems to be moving in tandem with rent cases since 1999/00, with a year lag to some extent, although the consistency of this is unclear.

- In 2006/07, London had the highest average rate of return (5.46%) while the South West had the lowest (4.23%).

- The rates of return for the other regions were, in ascending order, 4.41% in the East Midlands, 4.47% in the South East, 4.59% in the East, 4.69% in Yorkshire and the Humber, 4.79% in the West Midlands, 5.09% in the North West and 5.21% in the North East.

- Compared with the 1996/97 figures, London experienced the most marked reductions in rates of return (a decline of 6.35 percentage points). The East Midlands saw the lowest decline, of 4.32 points.

- From 2004/05 to 2005/06, upturns of rates of return were observed in some regions. But in the latest year, all nine regions observed decreases in the rate of return.

- At the LA level, in 2006/07 the highest rates of return were observed in Burnley (8.58%), followed by those in St. Helens (7.61%) and Pendle (6.97%).

- The lowest rates were found in South Norfolk (2.14%), followed by Teignbridge (2.27%) and Guildford (2.43%). These figures, however, should be cautiously interpreted.

- The largest decline in rate of return was seen in Manchester (by 12.02 percentage points) over the eleven year period. This was followed by Hyndburn (10.14 points) and Pendle (10.07 points).

- Castle Morpeth had the smallest decline (1.80 points) in 11 years, followed by Rushcliffe (3.04 points) and Rutland (3.10 points).

- In 2006/07, the estimated rate of return in urban areas was 5.02% and the equivalent for rural areas was 3.95%.

- The rate of return in urban areas decreased by 6.43 percentage points from 1996/97 to 2006/07 while the increase in rural house prices was 4.45 points.

1 Introduction

Last year Dataspring undertook a detailed analysis of the spatial pattern of the private rents and rental rates of return from 1996/97 to 2005/06. This paper both updates this analysis to 2006/07 and examines the pattern of change since the beginning of the observation period at national, regional and local levels. The purpose of this paper is, thus, to analyse how private rents relate to house prices and to examine the relationship between private rents and house prices, with, by implication the gross rates of return achievable, over the period 1996/97 to 2006/07.

The research consists of three elements:

1. A detailed description of the spatial patterns of private rents and house prices and of the relationship between the two over the period 1996/97 to 2006/07 – the period for which the data were originally available;
2. A statistical analysis of factors helping to determine the variations in rates of return across the country;
3. An update to 2006/07 and drawing out the implications for tenants and providers alike.

The results will also be used to inform the annual tenure comparison analysis. This paper reports on the first stage of the research.

The paper is structured as follows. Section 2 reports descriptions and trends with respect to private rents as determined for Housing Benefit purposes by the Rent Officer Service. The analysis is in terms of weekly average rents, for furnished and unfurnished properties respectively, at the national and regional levels, as well as at the LA level and by rural and urban classification. Section 3 presents a similar analysis of private sector house prices concentrating on LQ prices as these are most likely to be comparable stock to that found in the private rented sector. Section 4 examines the strength of the relationship between private rents and house prices and clarifies how private rents vary in relation to house prices. Section 5 investigates private gross rental rates of return, measured by rents divided by house prices. Section 6 summarises some of the key points arising from the above analyses and draws some conclusions.

2 Private rents across England 1996/97 – 2006/07

2.1 Source and definition of private rents

Private sector rent data examined in this paper are taken from Rent Officer Service at the former Department of Transport, Local Government and the Regions (DTLR) for 1996/97 to 2000/01, and from the Rent Service, an executive agency of the Department for Work and Pensions (DWP), for 2001/02 to 2006/07. Following the government's department restructuring, the Rent Service was launched in 1999 to replace the Rent Officer Service and record rent determinations in housing benefit (HB) cases, so the two agencies are practically identical in respect of the data they produce.

One merit of using these sources lies in the fact that their records are the most comprehensive dataset for private rents. Another advantage is that the data may be the most applicable reference for rents in the private sector or the rents of Housing Associations (HAs), as the HB-case private rent data are representative of the lower half of the market, i.e., the section of the market in which HAs compete.[1]

From this source, we will use weekly average rents from local authorities (LA) in England over the period of 1996/97 to 2006/07.[2] The annual term is defined as April 1st to March 31st in the following year. The weekly average rents are based on rents for self-contained one bedroom or larger properties, i.e., rents for bedsits are excluded. The data refer to lettings of unfurnished and furnished assured short-hold tenancies, and secure tenancies.

Due to administrative boundary changes or for other reasons, there are a few missing LAs for each year of the observation period. LAs with few private rent cases and/or some geographical or socio-economic peculiarity have been excluded from the analyses. (This applies for example to the City of London and the Isles of Scilly.) Therefore, the totals of LA areas' figures in some tables may not be the same as the equivalents published by the data source organisations.

Prior to 2001/02, weekly average rents were disaggregated by tenure, i.e.; rents of furnished or unfurnished properties, and thus those data have been aggregated as case-weighted averages in order to be comparable with data for each year onwards. All the figures are inflation-unadjusted unless specified.

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[1] The Rent Officer needs to limit payment of HB to be no higher than the median of the range of rents (excluding high outliers) within a given locality (Rent Officers estimate the median using their knowledge of the local market). Most rents referred to the Rent Officer are not significantly above the median for the locality (both sets of data are included in the Rent Officer statistics database). Therefore, HB-case private rents provide a good representation of the lower half of the private rented market as well as a good reference for the social housing rented market. For reference, the proportion of private renters receiving HB was 21% in 2004/05 (DCLG, 2006).

[2] The rents are the contractual rent (including service charges eligible for HB) proposed by the landlord and referred by the local authority to the Rent Service, and thus they are considered to contain management, maintenance and depreciation allowances.

2.2 The national trend of private rents

Table 2.1 sets out the private rents for England from 1996/97 to 2006/07. For the observation period national average rents increased steadily, rising from £82.77 per week in 1996/97 to £121.10 in 2006/07, a rise of 46.3% for the period, or an annual average increase of 3.9%. This increase is above the rise in the RPI.[3] In real terms the rent change was 12.5% for the period or an annual rate of 1.2% (Table 2.2).

Table 2.1 Weekly average rent, 1996/97 – 2006/07

	Rent (£)	Change
1996/97	82.77	
1997/98	83.46	0.8%
1998/99	83.36	-0.1%
1999/00	81.59	-2.1%
2000/01	85.91	5.3%
2001/02	89.35	4.0%
2002/03	104.17	16.6%
2003/04	105.42	1.2%
2004/05	106.72	1.2%
2005/06	116.57	9.2%
2006/07	121.10	3.9%
1996/97 – 2006/07		46.3%
Estimated annual change		3.9%

Note: The weighted average is based on the constituent LAs' rent cases. Due to rounding, 0.1% or £0.01 errors might be allowed.

Source: Calculation based on the Rent Officer Service and the Rent Service.

Table 2.2 Weekly average rent in real terms (base year = 1996/97), 1996/97 – 2006/07

	Rent (£)	Change
1996/97	82.77	
1997/98	80.56	-2.7%
1998/99	77.98	-3.2%
1999/00	75.48	-3.2%
2000/01	76.98	2.0%
2001/02	78.72	2.3%
2002/03	90.19	14.6%
2003/04	88.81	-1.5%
2004/05	87.26	-1.7%
2005/06	92.81	6.4%
2006/07	93.08	0.3%
1996/97 – 2006/07		12.5%
Estimated annual change		1.2%

Note: The deflators are as Footnote 15. The weighted average is based on the constituent LAs' stock. Due to rounding 0.1% or 0.01 per pound errors might be allowed.

Source: As Table 2.1.

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[3] RPI (all items) change, (first row: annual; second row: as in September over the preceding 12 months: %).

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change (96-06)	(annualised)
2.4	3.1	3.4	1.5	3.0	1.8	1.7	2.9	3.0	2.8	3.2	29.7	2.6
2.1	3.6	3.2	1.1	3.3	1.7	1.7	2.8	3.1	2.7	3.6	30.1	2.7

Source: ONS and Dataspring's calculation.

2.3 The regional trends of private rents

Table 2.3 sets out the private rents by Government Office Region over the period 1996/97 to 2006/07. For each year, the highest rent among the English regions is highlighted in yellow and the lowest in blue. In 2006/07, the highest average weekly rent was observed in London (£199.42), and the lowest was in the North East (£85.22). London has maintained its position as the region with the highest average rent over the observation period. The lowest average rent was in the East Midlands for the first two years and in 2001/02, while Yorkshire and the Humber charged the lowest in 2004/05. Except for these years, the North East charged the lowest.

Over the period, private rents increased in all nine regions. The fastest growth in percentage terms was observed in the East (59.7%, or an annual rate of 4.8%). This was followed by the South West (54.9%, or an annual rate of 4.5%) and the East Midlands (54.3%, or an annual rate of 4.4%). The slowest growth was in the North West (31.4%, or an annual rate of 2.8%), followed by Yorkshire and the Humber (38.0%, or an annual rate of 3.3%) and the North East (40.7%, or an annual rate of 3.5%). All the regional annual rent increases for the period were above the RPI development. The North West, however, showed that the increase was fairly close to the benchmark inflation so that in real terms, the region's average rent almost unchanged over the eleven year period (Table 2.4).

Table 2.3 Weekly average rents by region, 1996/97 – 2006/07

	East	E. M.	London	N. E.	N. W.	S. E.	S. W.	W. M.	Y & H	Max. – Min.
1996/97	77.44	60.46	129.45	60.56	69.59	90.16	75.13	69.43	62.70	68.99
1997/98	79.04	61.20	132.20	61.37	70.07	92.37	76.58	70.54	63.55	71.00
1998/99	80.64	62.38	135.28	61.98	69.37	94.06	78.20	71.76	64.36	73.30
1999/00	83.21	62.83	137.02	60.20	68.68	96.04	80.03	72.65	64.57	76.82
2000/01	85.04	65.24	149.16	62.82	69.03	101.86	83.27	75.18	66.28	86.34
2001/02	87.22	68.91	148.51	68.98	75.11	102.84	84.42	78.28	69.60	79.60
2002/03	100.54	77.72	177.34	77.15	80.46	118.46	104.02	86.25	85.92	100.19
2003/04	107.43	78.41	183.08	74.82	81.70	121.45	102.97	88.44	79.20	108.26
2004/05	107.02	80.78	187.09	76.69	81.95	120.06	99.96	91.34	76.36	110.73
2005/06	118.59	89.02	194.69	81.19	87.47	130.00	110.81	98.04	82.59	113.50
2006/07	123.70	93.30	199.42	85.22	91.44	134.88	116.41	101.30	86.55	114.20
Change:										%-point
96/97 – 06/07	59.7%	54.3%	54.1%	40.7%	31.4%	49.6%	54.9%	45.9%	38.0%	28.3
Estimated annual	4.8%	4.4%	4.4%	3.5%	2.8%	4.1%	4.5%	3.8%	3.3%	2.5

Note & Source: As Table 2.1.

Table 2.4 Weekly average rents by region in real terms (base year = 1996/97), 1996/97 – 2006/07

	East	E. M.	London	N. E.	N. W.	S. E.	S. W.	W. M.	Y & H	Max. – Min.
1996/97	77.44	60.46	129.45	60.56	69.59	90.16	75.13	69.43	62.70	68.99
1997/98	76.29	59.07	127.61	59.24	67.64	89.16	73.92	68.09	61.34	68.53
1998/99	75.43	58.35	126.55	57.98	64.89	87.99	73.15	67.13	60.21	68.57
1999/00	76.98	58.12	126.75	55.69	63.53	88.84	74.03	67.21	59.73	71.06
2000/01	76.20	58.46	133.66	56.29	61.85	91.27	74.61	67.37	59.39	77.37
2001/02	76.85	60.71	130.85	60.78	66.18	90.61	74.38	68.97	61.32	70.13
2002/03	87.05	67.29	153.54	66.80	69.66	102.56	90.06	74.68	74.39	86.74
2003/04	90.51	66.06	154.24	63.03	68.83	102.32	86.75	74.51	66.72	91.20
2004/05	87.51	66.05	152.98	62.71	67.01	98.17	81.73	74.69	62.44	90.54
2005/06	94.42	70.88	155.01	64.64	69.64	103.50	88.22	78.06	65.76	90.37
2006/07	95.08	71.71	153.28	65.50	70.28	103.67	89.48	77.86	66.53	114.2
Change:										%-point
96/97 – 06/07	20.7%	17.3%	16.0%	7.9%	1.0%	13.3%	17.2%	11.2%	5.8%	19.7
Estimated annual	2.1%	1.7%	1.7%	0.8%	0.1%	1.4%	1.8%	1.2%	0.6%	2.0

Note & Source: As Table 2.2.

2.4 Private rents at LA level

Range of weekly average rents

Table 2.5 describes private rents at the LA level over the period 1996/97 to 2006/07.[4] In 2006/07, the median rent was £108.14 per week, compared to £72.86 in 1996/97, an increase of 48.4%. For the observation period, the distribution of rents across LA areas has widened, except in 2001/02 and 2004/05. In 1996/97, the lowest rent was £48.33, while the highest was £180.10, a range of £131.77. The standard deviation for the year was £23.46. In 2006/07, the range increased to £235.73 while the highest average rent was £295.51 and the lowest was £59.78. The standard deviation also increased to £37.20.

Table 2.5 Ranges of weekly average rents at the LA level, 1996/97 – 2006/07

	Median	Std. Deviation	Maximum	Minimum	Max. – Min.
1996/97	72.89	23.46	180.10	48.33	131.77
1997/98	74.16	24.78	195.41	49.08	146.33
1998/99	75.71	26.75	208.76	50.22	158.54
1999/00	77.35	28.68	223.77	50.37	173.40
2000/01	79.29	30.90	236.19	53.89	182.30
2001/02	80.71	27.94	206.06	55.48	150.58
2002/03	97.38	35.99	256.94	61.33	195.61
2003/04	94.82	36.71	263.12	61.23	201.89
2004/05	95.45	35.76	254.48	61.81	192.67
2005/06	104.58	36.62	280.45	71.15	209.30
2006/07	108.14	37.20	295.51	59.78	235.73
Change: 96/97 – 06/07	48.4%	58.6%	64.1%	23.7%	78.9%

  Note & Source: As Table 2.1.

Figure 2.1 is a box plot illustrating the distribution pattern of rents at the LA level for each year in the observation period. In the figures, each box explains an inter-quartile (i.e.; from the 25th to 75th percentile) range of the rents across LA areas. The line in the boxes represents the median of the rents. The whiskers, which extend from the boxes, show the highest and lowest rents within a range of 1.5 times the box length. Extreme values outside the ends of the whiskers, i.e.; rents more than 1.5 (or 3.0) box lengths from the upper or lower edge of the box, would be expressed as a circle (or an asterisk) in a box plot.

All the key rent levels – the median, the highest, the lowest, the 25th percentile, and the 75th percentile, have increased steadily over the observation period, except for a decline in the lowest rent in 2003/04 and 2006/07. Roughly speaking, there was a positive skew in the data, as the lengths of the upward whiskers extending from the box were much longer than the downward whiskers in each year. Also, extreme values appeared only in a high rent area.

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[4] The LA areas are based on the boundaries as of April 1998.

Figure 2.1 Distribution of weekly average rents of the English LA areas, 1996/97 – 2006/07
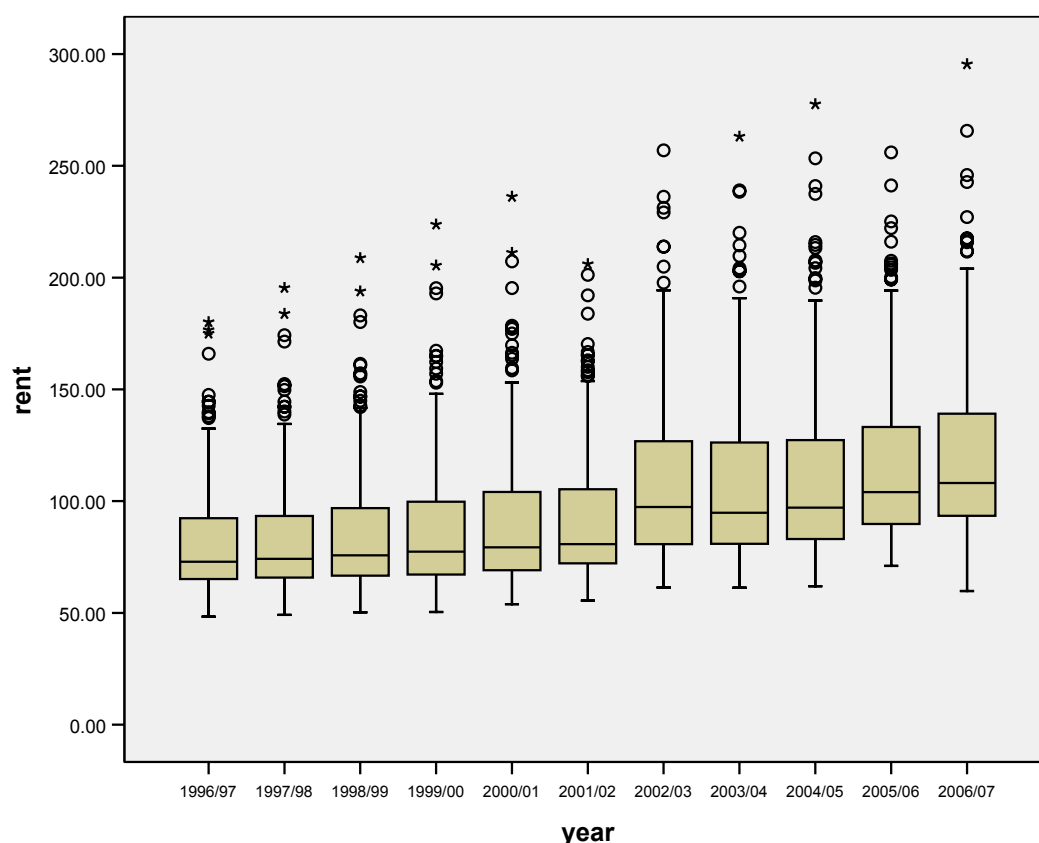
Note & Source: As Table 2.1.

LA areas with a high/low weekly average rent

Table 2.6 lists the ten LA areas in England with the highest average weekly rents in 1996/97 and in 2006/07. In 1996/97, Kensington & Chelsea charged the highest average weekly rent (£180.10), followed by Westminster (£176.51) and Camden (£174.94). All the ten LA areas charging the highest rents were in London, except for Elmbridge in the South East, and as a matter of fact, all these LA areas are categorised as an urban area base by the definitions introduced in 2005 by the Department for Environment, Food and Rural Affairs (DEFA).[5]

Six LA areas on the list in 1996/97 remained there in 2006/07. The highest average rent was charged again in Kensington & Chelsea (£295.51) followed by Westminster (£265.55) and Hammersmith & Fulham (£245.86). All ten LA areas charging the highest rents were in London, and in consequence they were categorised as urban.

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[5] DEFA (2006) 'Rural Definition and Local Authority Classification', available from http://www.defra.gov.uk/rural/ruralstats/rural-definition.htm#defn, accessed in September 2006. In this paper, all the urban/rural classification is based on this definition. Please note that the classification was a snap-shot as in 2005.

Table 2.6 Ten LA areas with the highest weekly average rents, 1996/97 and 2006/07

1996/97				2006/07			
LA area	Region	Rural/ Urban	Rent (£)	LA area	Region	Rural/ Urban	Rent (£)
Kensington and Chelsea	Lon	Urban	180.10	Kensington and Chelsea	Lon	Urban	295.51
Westminster	Lon	Urban	176.51	Westminster	Lon	Urban	265.66
Camden	Lon	Urban	174.94	Hammersmith and Fulham	Lon	Urban	245.86
Hammersmith and Fulham	Lon	Urban	165.92	Camden	Lon	Urban	242.75
Islington	Lon	Urban	147.49	Tower Hamlets	Lon	Urban	227.10
Barnet	Lon	Urban	144.51	Brent	Lon	Urban	217.66
Wandsworth	Lon	Urban	144.44	Hackney	Lon	Urban	217.39
Richmond Upon Thames	Lon	Urban	142.65	Islington	Lon	Urban	216.29
Elmbridge	SE	Urban	139.79	Barnet	Lon	Urban	215.83
Haringey	Lon	Urban	139.26	Ealing	Lon	Urban	212.04

Source: As Table 2.1.

Table 2.7 lists the ten LA areas in England with the lowest average weekly rents in 1996/97 and 2006/07. In 1996/97, Berwick-upon-Tweed had the lowest of these (£48.33), followed by Wansbeck (£48.48) and Alnwick (£51.51). Of the ten LA areas charging the lowest rents, six were in the East Midlands and four were in the North East. Nine of these LA areas were categorised as rural, while the remaining one was an urban LA area. Three LA areas on the list in 1996/97 remained there in 2006/07. South Norfolk (£59.77) was the lowest, followed by Teignbridge (£64.67) and North East Lincolnshire (£66.37). By region, three were in the North West while two each in Yorkshire & the Humber and the North East. Three were urban while seven were rural.

Table 2.7 Ten LA areas with the lowest weekly average rents, 1996/97 and 2006/07

1996/97				2006/07			
LA area	Region	Rural/ Urban	Rent (£)	LA area	Region	Rural/ Urban	Rent (£)
Berwick-upon-Tweed	NE	Rural	48.33	South Norfolk	East	Rural	59.77
Wansbeck	NE	Rural	48.48	Teignbridge	SW	Rural	64.67
Alnwick	NE	Rural	51.51	North East Lincolnshire	Y & H	Urban	66.37
West Lindsey	E Mid	Rural	51.72	Berwick-upon-Tweed	NE	Rural	70.56
Castle Morpeth	NE	Rural	52.21	Barrow-in-Furness	NW	Urban	72.62
Boston	E Mid	Rural	52.32	Kingston upon Hull	Y & H	Urban	72.94
Bolsover	E Mid	Rural	52.89	Copeland	NW	Rural	73.91
East Lindsey	E Mid	Rural	53.71	Allerdale	NW	Rural	75.30
Ashfield	E Mid	Urban	53.89	West Lindsey	E Mid	Rural	75.34
South Holland	E Mid	Rural	54.04	Wansbeck	NE	Rural	75.93

Source: As Table 2.1.

LA areas with high/low increases in rents

Compared with in 1996/97, almost all the LA areas experienced increases in private rents over the period up to 2006/07. Three LA areas, which will be presented later, exceptionally showed declines. The average growth was 47.90% and the majority experienced growth of around 50% (Figure 2.2). Table 2.8 clarifies the number of LA areas with the largest increases in average weekly rents (56.47%, or more, i.e.; the upper quartile, with respect to rental growth) by region. The great majority of the 87 LA areas in the table were from southern England, 26 were from the East, 17 were from London, 15 from the South West and 12 from the South East. By urban-rural classification, the two groups had nearly equal number of LA areas.

Figure 2.2 The distribution of rent growth from 1996/97 to 2006/07 amongst English LA areas
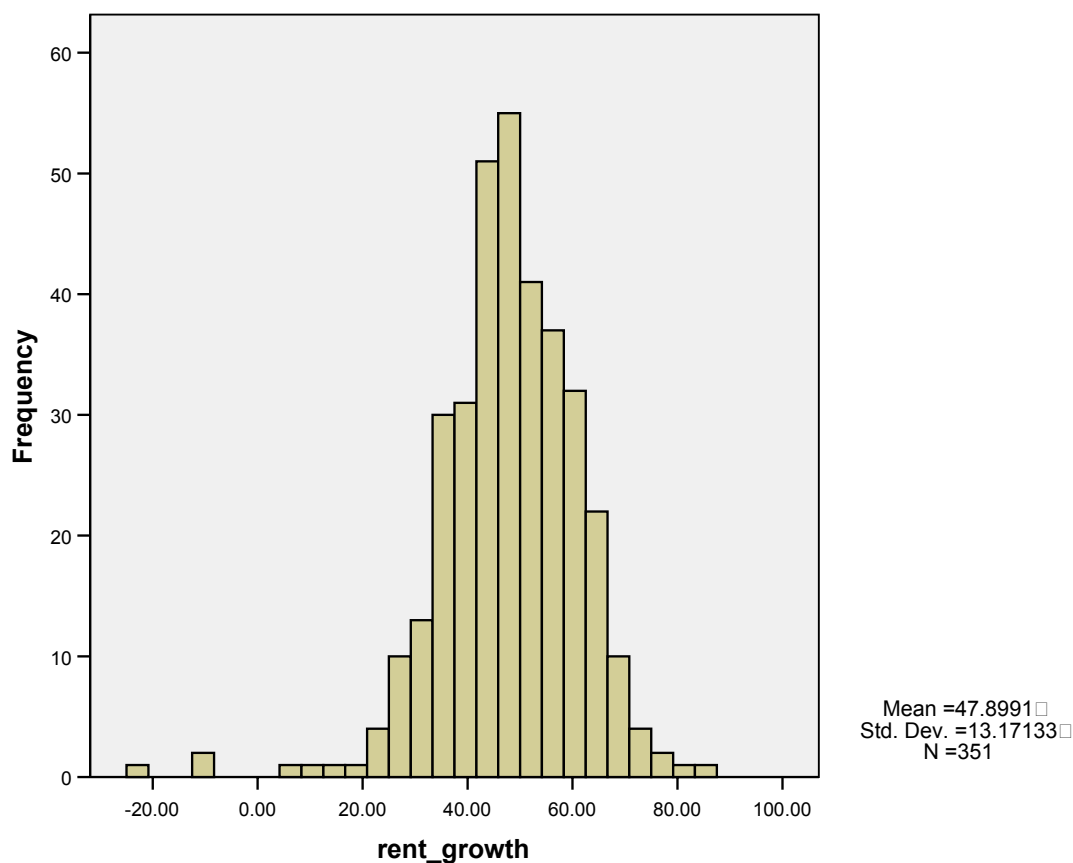
Mean	Median	Upper quartile	Lower quartile
47.90	48.54	40.37	56.47

Source: As Table 2.1.

Table 2.8 Number of LA areas with average weekly rents increasing by 56.47% or more from 1996/97 to 2006/07

Region			Bu urban/rural		
East	26	29.9%	Urban	43	49.4%
East Midlands	13	14.9%	Rural	44	50.6%
London	17	19.5%	England	87	100.0%
North East	2	2.3%			
North West	1	1.1%			
South East	12	13.8%			
South West	15	17.2%			
West Midlands	1	1.1%			
Yorkshire and the Humber	-	-			
England	87	100.0%			

Source: As Table 2.1.

Table 2.9 lists the ten LA areas with the highest growth in average rents between 1996/97 to 2006/07. St. Helens had the highest increase of 84.9% – from £69.22 in 1996/97 to £127.97 in 2006/07, followed by South Holland (82.6% – from £54.04 to £98.67) and Milton Keynes (77.3%- from £82.10 to £145.57). By region, there were three LA areas in London, and two each in the East Midlands, the South East and the East. Six LA areas were classified as urban while four were rural.

Table 2.9 LA areas with the highest increase in weekly average rents (in parentheses, real terms based on 1996/97 figures), 1996/97 and 2006/07

LA areas	Region	Urban/rural	1996/97	2006/07		Change	
St.Helens	NW	Urban	69.22	127.97	(98.36)	84.9%	(42.1%)
South Holland	E Mid	Rural	54.04	98.67	(75.84)	82.6%	(40.3%)
Milton Keynes	SE	Urban	82.10	145.57	(111.89)	77.3%	(36.3%)
Boston	E Mid	Rural	52.32	91.69	(70.48)	75.2%	(34.7%)
Mid Bedfordshire	East	Rural	77.77	135.03	(103.79)	73.6%	(33.5%)
Greenwich	Lon	Urban	100.22	173.05	(133.01)	72.7%	(32.7%)
Tower Hamlets	Lon	Urban	131.75	227.10	(174.56)	72.4%	(32.5%)
Chelmsford	East	Rural	84.18	144.72	(111.24)	71.9%	(32.1%)
Slough	SE	Urban	103.13	176.03	(135.30)	70.7%	(31.2%)
Brent	Lon	Urban	127.86	217.66	(167.30)	70.2%	(30.8%)

Source: As Table 2.2.

Table 2.10 clarifies the number of LA areas with lower rates of growth (40.37% or less, i.e.; the lower quartile in terms of growth) by region. Of the 88 LA areas in the table, three quarters (66-six LA areas) were in northern England – 35 were in the North West, 13 in the West Midlands, ten in Yorkshire and the Humber, six in the North East and two in the East Midlands. Fifty LA areas were categorised as urban areas while 38 were rural.

Table 2.10 Number of LA areas with average weekly rent change growth rates of 40.37% or less from 1996/97 to 2006/07

Region			By urban/rural		
East	4	4.5%	Urban	50	56.8%
East Midlands	2	2.3%	Rural	38	43.2%
London	3	3.4%	England	88	100.0%
North East	6	6.8%			
North West	35	39.8%			
South East	14	15.9%			
South West	1	1.1%			
West Midlands	13	14.8%			
Yorkshire and the Humber	10	11.4%			
England	88	100.0%			

Source: As Table 2.1.

Table 2.11 lists the ten LA areas with the lowest rent increase (or the largest decrease) from 1996/97 to 2006/07. Three LA areas (Guildford, Teignbridge and South Norfolk) showed declines in weekly average rent between the two years, which appears unusual taking into account various fundamentals of rental property markets for the period. Compared to their neighbouring LA areas' equivalents these three LA areas' rents appeared considerably low in 2006/07(See Appendix 1). This hints that these figures warrant further investigation and possible correction before concluding that these LA areas actually experienced rent devaluations in nominal terms.

Except for these extreme case, the lowest increase was in North East Lincolnshire of 7.2% (from £61.92 to £66.37), followed by Lewisham (10.1% – from £106.59 to £117.40), and Wandsworth (16.6% – from £144.44 to £168.47). Of the ten LA areas on the list, four were in the North West, and two were in London. Six were categorised as urban areas while four were rural.

Table 2.11 Ten LA areas with the lowest increase in weekly average rents (in parentheses, real terms based on 1998/99 figures), 1996/97 – 2006/07

LA areas	Region	Urban/rural	1996/97	2006/07		Change	
Guildford	SE	Rural	120.51	93.61	(71.95)	-22.3%	(-40.3%)
Teignbridge	SW	Rural	72.59	64.67	(49.71)	-10.9%	(-31.5%)
South Norfolk	East	Rural	65.81	59.77	(45.94)	-9.2%	(-30.2%)
North East Lincolnshire	Y & H	Urban	61.92	66.37	(51.01)	7.2%	(-17.6%)
Lewisham	Lon	Urban	106.59	117.40	(90.24)	10.1%	(-15.3%)
Wandsworth	Lon	Urban	144.44	168.47	(129.49)	16.6%	(-10.3%)
Copeland	NW	Rural	61.81	73.91	(56.81)	19.6%	(-8.1%)
Burnley	NW	Urban	63.30	77.58	(59.63)	22.6%	(-5.8%)
Stockport	NW	Urban	87.30	107.3	(82.48)	22.9%	(-5.5%)
Pendle	NW	Urban	62.26	77.73	(59.75)	24.8%	(-4.0%)

Source: As Table 2.2.

2.5 Private rents of urban and rural areas

Table 2.12 sets out the private rents for rural and urban areas over the period of 1996/97 to 2006/07. In 2006/07, the average private rent was £127.97 per week for urban areas and £106.37 for rural areas. Overall private rents in both groups showed upward trends, except from 1998/99 to 1999/00 for the urban group and from 2003/04 to 2004/05 for the rural group. Compared with 1996/97, the average urban rent rose by £39.93 or 45.4% (in real terms 11.7%, Table 2.13) in 2006/07, while the average rural rent increased by £35.27 or 49.6% (in real terms 15.0%).

Table 2.12 Weekly average rents by urban/rural classification, 1996/97 – 2006/07

	Urban		Rural		Urban – rural	
	Rent	Change	Rent	Change	Rent	Change (%-point)
1996/97	88.04		71.10		16.94	
1997/98	88.35	0.4%	72.25	1.6%	16.10	-1.3
1998/99	87.95	-0.5%	73.05	1.1%	14.90	-1.6
1999/00	85.49	-2.8%	74.52	2.0%	10.97	-4.8
2000/01	90.06	5.3%	76.72	3.0%	13.34	2.4
2001/02	94.18	4.6%	78.75	2.6%	15.43	1.9
2002/03	108.82	15.5%	94.28	19.7%	14.54	-4.2
2003/04	111.53	2.5%	92.79	-1.6%	18.74	4.1
2004/05	113.92	2.1%	92.20	-0.6%	21.72	2.8
2005/06	123.27	8.2%	102.48	11.1%	20.79	-2.9
2006/07	127.97	3.8%	106.37	3.8%	21.60	0.0
1996/97 – 2006/07		45.4%		49.6%		-4.2
Estimated annual change		3.8%		4.1%		-0.3

Source: As Table 2.1.

Table 2.13 Weekly average rents by urban/rural classification in real terms
(base year = 1996/97), 1996/97 – 2006/07

	Urban		Rural		Urban – rural	
	Rent	Change	Rent	Change	Rent	Change (%-point)
1996/97	88.04		71.10		16.94	
1997/98	85.28	-3.1%	69.74	-1.9%	15.54	-1.2
1998/99	82.27	-3.5%	68.33	-2.0%	13.94	-1.5
1999/00	79.08	-3.9%	68.94	0.9%	10.15	-4.8
2000/01	80.70	2.0%	68.75	-0.3%	11.95	2.3
2001/02	82.98	2.8%	69.38	0.9%	13.59	1.9
2002/03	94.22	13.5%	81.63	17.6%	12.59	-4.1
2003/04	93.96	-0.3%	78.17	-4.2%	15.79	4.0
2004/05	93.15	-0.9%	75.39	-3.6%	17.76	2.7
2005/06	98.14	5.4%	81.59	8.2%	16.55	-2.9
2006/07	98.36	0.2%	81.76	0.2%	16.60	0.0
1996/97 – 2006/07		11.7%		15.0%		-4.2
Estimated annual change				1.4%		-0.3

Source: As Table 2.2.

Table 2.14 sets out the breakdown of average weekly rents into six categories of rural and urban. The highest figures (both for rents and annual changes) among the six categories are highlighted in yellow, with the lowest in blue. For the observation period, the most urban category, Major Urban, has experienced the highest rent. By contrast the most rural category, Rural-80, had the lowest rent over the period, except for in 2002/03 when the second most rural category, Rural-50, had the lowest.

With respect to growth in average rents, Rural-80 experienced the highest growth for the period (50.9%, or an annual rate of 4.2%; in real terms 16.0%, or an annual rate of 1.5%, Table 2.15). This was followed by the smallest urban group, Other Urban (47.1%, or an annual rate of 4.2%; in real terms 15.9%, or an annual rate of 1.5%). The lowest growth was observed in the Large Urban category (42.9%, or an annual rate of 3.6%; in real terms 9.8%, or an annual rate of 0.9%).[6]

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[6] For reference, using a numerical explanatory variable representing urban/rural characteristics, instead of the categorical ones used above, the correlations between urban/rural features and private sector rents across the English LA areas are examined. The results in the table below failed to present the urban/rural features as having a significantly strong correlation with rent as well as with price growth.

The correlation coefficient with % of rural population in each LA (2005).

Private rents in 2006/07	Rent growth 96/97 – 06/07
-0.325	0.013

Note: % of rural population was based on DEFA (2006) 'Rural Definition and Local Authority Classification', available from http://www.defra.gov.uk/rural/ruralstats/rural-definition.htm#defn, accessed in September 2006. Please note that the classification was a snap-shot as in 2005.

Table 2.14 Weekly average rents by six urban/rural classifications, 1996/97 – 2006/07

	Major urban		Large urban		Other urban		Rural-26	
	Rent	Change	Rent	Change	Rent	Change	Rent	Change
1996/97	99.92		76.51		73.21		72.22	
1997/98	98.91	-1.0%	77.38	1.1%	74.36	1.6%	73.09	1.2%
1998/99	97.52	-1.4%	78.80	1.8%	75.37	1.4%	73.82	1.0%
1999/00	95.11	-2.5%	80.89	2.7%	75.89	0.7%	75.38	2.1%
2000/01	100.42	5.6%	81.47	0.7%	77.39	2.0%	77.70	3.1%
2001/02	104.99	4.6%	84.55	3.8%	80.41	3.9%	79.32	2.1%
2002/03	122.90	17.1%	95.94	13.5%	91.32	13.6%	94.58	19.2%
2003/04	125.82	2.4%	97.76	1.9%	94.51	3.5%	94.08	-0.5%
2004/05	129.54	3.0%	95.81	-2.0%	97.49	3.2%	93.25	-0.9%
2005/06	140.01	8.1%	104.55	9.1%	105.07	7.8%	102.01	9.4%
2006/07	144.06	2.9%	109.33	4.6%	110.42	5.1%	106.20	4.1%
Change:								
96/97 – 06/07		44.2%		42.9%		50.8%		47.1%
Estimated annual		3.7%		3.6%		4.2%		3.9%

	Rural-50		Rural-80		Max. – Min.	
	Rent	Change	Rent	Change	Rent	Change (%-point)
1996/97	72.55		68.75		31.17	
1997/98	73.89	1.8%	70.00	1.8%	28.91	2.9
1998/99	74.41	0.7%	71.19	1.7%	26.33	3.2
1999/00	75.94	2.1%	72.64	2.0%	22.47	5.1
2000/01	77.98	2.7%	74.63	2.7%	25.79	4.9
2001/02	80.19	2.8%	76.97	3.1%	28.02	2.5
2002/03	91.11	13.6%	96.89	25.9%	31.79	12.4
2003/04	92.81	1.9%	91.45	-5.6%	34.37	9.1
2004/05	93.45	0.7%	89.92	-1.7%	39.62	5.1
2005/06	105.29	12.7%	100.48	11.7%	39.53	4.9
2006/07	109.35	3.9%	103.77	3.3%	40.29	2.2
Change:						
96/97 – 06/07		50.7%		50.9%		8.0
Estimated annual		4.2%		4.2%		0.6

Source: As Table 2.1.

Table 2.15 Weekly average rents by six urban/rural classifications in real terms (base year = 1996/97), 1996/97 – 2006/07

	Major urban		Large urban		Other urban		Rural-26	
	Rent	Change	Rent	Change	Rent	Change	Rent	Change
1996/97	99.92		76.51		73.21		72.22	
1997/98	95.47	-4.5%	74.69	-2.4%	71.78	-2.0%	70.55	-2.3%
1998/99	91.23	-4.4%	73.71	-1.3%	70.51	-1.8%	69.06	-2.1%
1999/00	87.98	-3.6%	74.83	1.5%	70.20	-0.4%	69.73	1.0%
2000/01	89.98	2.3%	73.00	-2.4%	69.35	-1.2%	69.62	-0.2%
2001/02	92.50	2.8%	74.49	2.0%	70.85	2.2%	69.89	0.4%
2002/03	106.41	15.0%	83.06	11.5%	79.06	11.6%	81.89	17.2%
2003/04	106.00	-0.4%	82.36	-0.8%	79.62	0.7%	79.26	-3.2%
2004/05	105.92	-0.1%	78.34	-4.9%	79.71	0.1%	76.25	-3.8%
2005/06	111.47	5.2%	83.24	6.3%	83.65	4.9%	81.22	6.5%
2006/07	110.73	-0.7%	84.04	1.0%	84.87	1.5%	81.63	0.5%
Change:								
96/97 – 06/07		10.8%		9.8%		15.9%		13.0%
Estimated annual		1.0%		0.9%		1.5%		1.2%

	Rural-50		Rural-80		Max. – Min.	
	Rent	Change	Rent	Change	Rent	Change (%-point)
1996/97	72.55		68.75		31.17	
1997/98	71.32	-1.7%	67.57	-1.7%	28.91	2.9
1998/99	69.61	-2.4%	66.59	-1.4%	26.33	3.2
1999/00	70.25	0.9%	67.20	0.9%	22.47	5.1
2000/01	69.87	-0.5%	66.87	-0.5%	25.79	4.9
2001/02	70.65	1.1%	67.81	1.4%	28.02	2.5
2002/03	78.88	11.7%	83.89	23.7%	31.79	12.4
2003/04	78.19	-0.9%	77.04	-5.6%	34.37	9.1
2004/05	76.41	-2.3%	73.52	-4.6%	39.62	5.1
2005/06	83.83	9.7%	80.00	8.8%	39.53	4.9
2006/07	84.05	0.3%	79.76	-0.3%	30.97	2.2
Change:						
96/97 – 06/07		15.9%		16.0%		6.2
Estimated annual		1.5%		1.5%		0.6

Source: As Table 2.2.

3. Private sector house prices across England 1996/97 – 2006/07

3.1 Definition of private sector house prices

Private sector house prices in this paper are provided by the Communities and Local Government (CLG)/Land Registry.[7] Lower quartile (LQ) house prices, rather than the median, for the English LA areas, are used in the analyses.[8] This is mainly because the rent dataset examined in the previous section is representative of the lower part of the market.[9] Thus, LQ house prices are preferable to median house prices for comparative analyses between rents and house prices, which will be undertaken in a later section of this paper.[10] The annual term for LQ house prices in this section is defined as April 1st to March 31st of the following year, and the figures are not adjusted for inflation except where specified. LA areas with few private rent cases and/or some geographical or socio-economic peculiarity have been excluded from the analyses at the LA level, so as to remain comparable with analyses of private rents (this applies for example to the City of London and the Isles of Scilly).

3.2 The national trend of private sector house prices

Table 3.1 sets out the evidence on LQ house prices in England from 1996/97 to 2006/07. Over the observation period national LQ house prices have increased considerably. In 1996/97 the national LQ house price was £41,500. By 2006/07 it had risen to £124,200. This implies a growth rate of 199.3% or 11.6% per annum. In real terms, the increase was 130.0% or an annual rate of 8.7% (Table 3.2). The LQ house price increased particularly rapidly from 2002/03 to 2004/05, but prices increased moderately thereafter (nominal 6.9% or real 4.1% in 2005/06 and nominal 7.5% and real 3.8% in 2006/07), possibly partly reflecting, with some time lags, the Bank of England's tightening monetary policy, which affected the cost of borrowing (see Appendices 2 and 3).

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[7] Formerly these data were provided by the Office of the Deputy Prime Minister (OLDP)/Land Registry.

[8] The LAs are based on 1 April 1998 boundaries. Figures for any "new" re-organised areas have been estimated retrospectively applying the new boundaries back to 1996, making appropriate assumptions for any county re-organisation which involved cutting across districts (ODPM/Land Registry).

[9] According to DWP (2007), in UK nearly half (48%) of households in private rented tenures had a weekly income less than £400, while the equivalent proportion of households in social rented tenures was 68% in 2005/06.

[10] In calculation of LQ house prices, CLG did not include sales at below market price (e.g., Right To Buy), sales below £1,000 and sales above £20m.

Table 3.1 LQ house price, 1996/97 – 2006/07

	LQ house price	Change
1996/97	41,500	
1997/98	44,000	6.0%
1998/99	46,500	5.7%
1999/00	51,000	9.7%
2000/01	54,950	7.7%
2001/02	60,000	9.2%
2002/03	74,250	23.8%
2003/04	89,000	19.9%
2004/05	108,000	21.3%
2005/06	115,500	6.9%
2006/07	124,200	7.5%
1996/97 – 2006/07		199.3%
Estimated annual change		11.6%

Source: Calculation based on the ODPM/Land Registry and CLG.

Table 3.2 LQ house price in real terms (base year = 1996/97), 1996/97 – 2006/07

	LQ house price	Change
1996/97	41,500	
1997/98	42,471	2.3%
1998/99	43,499	2.4%
1999/00	47,179	8.5%
2000/01	49,238	4.3%
2001/02	52,863	7.3%
2002/03	64,286	21.7%
2003/04	74,979	16.6%
2004/05	88,307	17.7%
2005/06	91,959	4.1%
2006/07	95,465	3.8%
1996/97 – 2006/07		130.0%
Estimated annual change		8.7%

Note: The deflators are as Footnote 3. Due to rounding 0.1% or £0.1 errors might be allowed.
Source: As Table 3.1.

3.3 The regional trend of private houses

Table 3.3 sets out LQ house prices by region over the period between 1996/97 and 2006/07. In 2006/07, the highest price was observed in London (£190,000), and the lowest in the North East (£85,000). London had the highest LQ house prices, and the North East had the lowest throughout the observation period. The range between the lowest to highest priced regions widened from £26,000 in 1996/97 to £105,000 in 2006/07.

LQ house prices rose in all nine regions between 1996/97 and 2006/07. The fastest growth, in percentage terms, was seen in London (233.3%, or an annual rate of 12.8% and in real terms 156.2% or 9.9%,Table 3.4); followed by the East (225.6%, or an annual rate of 12.5%; in real terms 150.3% or 9.6%) and the South West (225.4%, or an annual rate of 12.5%; in real terms 150.1% or 9.6%). The slowest growth was seen in the North East (174.2%, or an annual rate of 10.6%; in real terms 110.8% or 7.7%) followed by Yorkshire and the Humber (178.3%, or an annual rate of 10.8%; in real terms 113.9% or 7.9%). Therefore in all regions real house prices were significant over the period.

Table 3.3 LQ house price by region, 1996/97 – 2006/07

	East	E. Midlands	London	N. E.	N. W.
1996/97	43,000	36,000	57,000	31,000	33,500
1997/98	46,500	38,000	62,000	32,000	34,750
1998/99	50,000	39,000	70,000	32,000	35,000
1999/00	55,950	42,000	83,500	34,000	37,000
2000/01	63,500	44,500	99,000	33,500	37,000
2001/02	74,000	50,000	115,000	35,000	39,950
2002/03	92,500	62,950	140,000	38,000	44,000
2003/04	112,500	80,000	157,000	49,950	56,000
2004/05	127,000	95,000	172,000	65,000	73,000
2005/06	130,000	102,000	179,000	76,500	83,500
2006/07	140,000	109,950	190,000	85,000	93,500
Change:					
96/97 – 06/07	225.6%	205.4%	233.3%	174.2%	179.1%
Estimated annual	12.5%	11.8%	12.8%	10.6%	10.8%

	S. E.	S. W.	W. Midlands	Y & H	*Max. – Min.*
1996/97	51,000	43,950	39,000	34,500	*26,000*
1997/98	55,000	46,500	40,500	35,500	*30,000*
1998/99	59,950	49,950	42,000	36,000	*38,000*
1999/00	68,000	56,000	45,000	38,000	*49,500*
2000/01	79,500	64,000	48,000	38,907	*65,500*
2001/02	90,000	74,950	54,000	40,000	*80,000*
2002/03	114,000	92,500	65,000	45,500	*102,000*
2003/04	129,950	112,675	80,000	59,950	*107,050*
2004/05	144,000	129,000	95,000	77,000	*107,000*
2005/06	148,500	132,000	104,000	86,000	*102,500*
2006/07	157,000	143,000	110,000	96,000	*105,000*
Change:					*(%-point)*
96/97 – 06/07	207.8%	225.4%	182.1%	178.3%	*59.1*
Estimated annual	11.9%	12.5%	10.9%	10.8%	*2.2*

Source: As Table 3.1.

Table 3.4 LQ house price by region in real terms (base year = 1996/97),
1996/97 – 2006/07

	East	E. Midlands	London	N. E.	N. W.
1996/97	43,000	36,000	57,000	31,000	33,500
1997/98	44,884	36,680	59,846	30,888	33,542
1998/99	46,773	36,483	65,482	29,935	32,741
1999/00	51,758	38,853	77,243	31,452	34,228
2000/01	56,900	39,875	88,710	30,018	33,154
2001/02	65,198	44,053	101,322	30,837	35,198
2002/03	80,087	54,502	121,212	32,900	38,095
2003/04	94,777	67,397	132,266	42,081	47,178
2004/05	103,843	77,678	140,638	53,148	59,689
2005/06	103,503	81,210	142,516	60,908	66,481
2006/07	107,610	84,512	146,042	65,334	71,868
Change:					
96/97 – 06/07	150.3%	134.8%	156.2%	110.8%	114.5%
Estimated annual	9.6%	8.9%	9.9%	7.7%	7.9%

	S. E.	S. W.	W. Midlands	Y & H	Max. – Min.
1996/97	51,000	43,950	39,000	34,500	26,000
1997/98	53,089	44,884	39,093	34,266	28,958
1998/99	56,080	46,726	39,289	33,676	35,547
1999/00	62,905	51,804	41,628	35,153	45,791
2000/01	71,237	57,348	43,011	34,863	58,692
2001/02	79,295	66,035	47,577	35,242	70,485
2002/03	98,701	80,087	56,277	39,394	88,312
2003/04	109,478	94,924	67,397	50,505	90,185
2004/05	117,743	105,478	77,678	62,960	87,490
2005/06	118,232	105,096	82,803	68,471	81,608
2006/07	120,676	109,915	84,550	73,789	80,707
Change:					(%-point)
96/97 – 06/07	136.6%	150.1%	116.8%	113.9%	45.4
Estimated annual	9.0%	9.6%	8.0%	7.9%	2.2

Source: As Table 3.2.

3.4 Private sector house prices at the LA level

Range of the LQ house prices

Table 3.5 describes LA areas' LQ house prices over the period 1996/97 to 2006/07.[11] In 2006/07 the median of LQ prices was £137,500, compared with £43,250 in 1996/97, providing growth of 217.9%. Over the observation period, the distribution of LQ house prices across LA areas widened. In 1996/97, the lowest LQ house price was £18,000, while the highest was £124,250, a range of £106,250. The standard deviation for the year was £13,380.48. In 2006/07, the range had increased to £313,000 with the highest being £360,000, and the lowest £47,000. The latest standard deviation was £42,681.80.

Table 3.5 Ranges of the LQ house price at the LA level, 1996/97 – 2006/07

	Median	Std. Deviation	Minimum	Maximum	Max. – Min.
1996/97	43,250.00	13,380.48	18,000.00	124,250.00	106,250.00
1997/98	45,500.00	15,899.73	20,000.00	145,000.00	125,000.00
1998/99	48,995.00	18,994.57	19,950.00	150,000.00	130,050.00
1999/00	53,531.50	24,007.28	21,000.00	190,000.00	169,000.00
2000/01	60,000.00	30,197.55	17,500.00	222,500.00	205,000.00
2001/02	71,000.00	34,336.16	16,500.00	240,000.00	223,500.00
2002/03	87,972.50	40,654.48	12,000.00	260,000.00	248,000.00
2003/04	109,000.00	42,091.16	19,000.00	270,000.00	251,000.00
2004/05	125,500.00	41,513.35	22,500.00	300,000.00	277,500.00
2005/06	129,281.50	40,715.51	34,000.00	322,250.00	288,250.00
2006/07	137,500.00	42,681.80	47,000.00	360,000.00	313,000.00
Change: 96/97 – 06/07	217.9%	219.0%	161.1%	189.7%	194.6%

Source: As Table 3.1.

Figure 3.1 illustrates the distribution of LQ house prices across the English LA areas from 1996/97 to 2006/07. In the figures, each box explains an inter-quartile (i.e. from the 25th to 75th percentile) range of the LQ house prices for LA areas across England, and a line in the boxes represents the median prices. The whiskers, which extend from the boxes, show the highest and lowest prices within a range of 1.5 times the box length. Values outside the ends of the whiskers are outliers of LQ house prices, which appear as circles (LQ house prices between 1.5 and 3 box lengths from the upper or lower edge of the box) or asterisks (LQ house prices more than 3 box lengths from the upper or lower edge of the box).

The graph explains that in each year there was a positive skew in the data; that is, the range of the upper half of LQ house prices was broader than the lower half. The overall range at the upper end has increased over for the period, and all the outliers in LQ house prices each year are at the upper end of the scale. 2006/07 saw an extreme high outlier (shown as an asterisk) for the first time since 2001/02, and all the key levels such as median and lower and upper quartile rose from the previous year. The range of the middle cohort (i.e., length of a box), however, did not show a drastic increase, suggesting that the regional discrepancy in the middle cohort remained stable.

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[11] The LA areas are based on the boundaries as of April 1998. Figures for any "new" re-organised areas have been estimated retrospectively, applying the new boundaries back to 1996, making appropriate assumptions for any county re-organisation which involved cutting across districts (CLG/Land Registry).

Figure 3.1 Distribution of LQ house prices of English LA areas
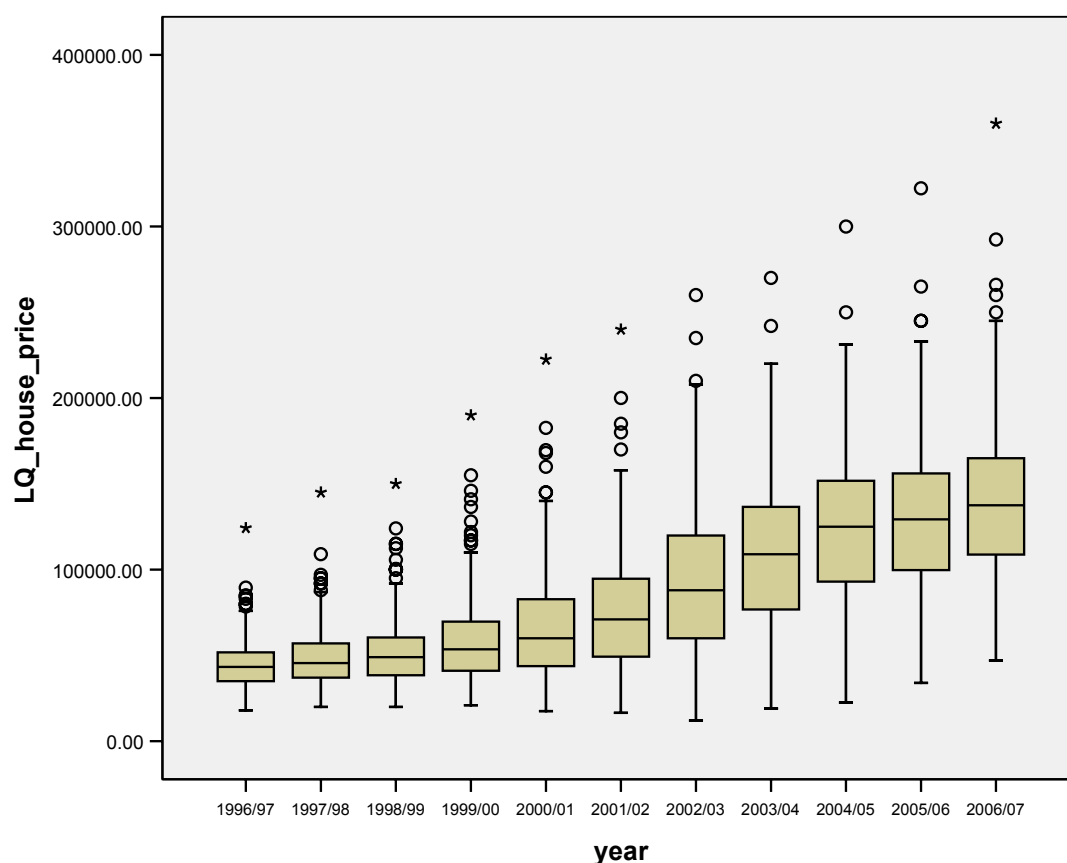
Source: As Table 3.5.

LA areas with a high/low LQ house price

Table 3.6 lists the ten LA areas with the highest LQ house prices among the English LA areas in 1996/97 and 2006/07 respectively. In 1996/97, Kensington & Chelsea had the highest LQ house price (£124,250), followed by Westminster (£89,500) and Camden (£85,000). The top-three order was identical to that for the same year's average weekly rents (see Table 2.6). Including those, six LA areas appeared on both the highest LQ house prices and the average weekly rents lists. The ten highest LA areas were evenly spread between London and the South East. Of the ten, eight LA areas were classified as an urban area while two were rural.

The proportion displayed in 2006/07 was fairly similar. Of the ten LA areas, eight were already in the 1996/97 list. The highest LA area was Kensington & Chelsea (£360,000), followed by Westminster (£292,375) and Hammersmith & Fulham (£266,000). The top-four order was identical to that for the same year's average weekly rents. By region, seven were in London and three were in the South East. Eight were urban while two were rural.

Table 3.6 Ten LA areas with the highest LQ house price, 1996/97 and 2006/07

1996/97				2006/07			
LA area	Region	Rural/ urban	LQ house price	LA area	Region	Rural/ urban	LQ house price
Kensington and Chelsea	Lon	Urban	124,250.00	Kensington and Chelsea	Lon	Urban	360,000.00
Westminster	Lon	Urban	89,500.00	Westminster	Lon	Urban	292,375.00
Camden	Lon	Urban	85,000.00	Hammersmith and Fulham	Lon	Urban	266,000.00
Richmond upon Thames	Lon	Urban	84,500.00	Camden	Lon	Urban	259,987.50
Hammersmith and Fulham	Lon	Urban	83,000.00	Richmond upon Thames	Lon	Urban	249,950.00
Elmbridge	SE	Urban	80,000.00	Wandsworth	Lon	Urban	245,000.00
South Bucks	SE	Rural	80,000.00	South Bucks	SE	Rural	244,950.00
Chiltern	SE	Rural	78,500.00	Elmbridge	SE	Urban	240,000.00
Mole Valley	SE	Urban	76,000.00	Chiltern	SE	Rural	235,000.00
Windsor and Maidenhead	SE	Urban	76,000.00	Islington	Lon	Urban	234,000.00

Source: As Table 3.5.

Table 3.7 lists the ten LA areas with the lowest LQ house prices among the English LA areas in 1996/97 and 2006/07. In 1996/97, Burnley had the lowest LQ house price (£18,000), followed by Pendle (£19,000) and Hyndburn (£20,000). Of these ten LA areas, seven were in the North West, two were in the North East and the remaining one was in the West Midlands. Eight were categorised as an urban area while two were rural. Seven LA areas on the list in 1996/97 remained there in 2006/07. Burnley (£47,000), Pendle (£58,000) and Hyndburn (£64,000) were, again, the lowest three with Kingston upon Hull, which shared the third lowest house price. By region, six were in the North West while three in the North East. Eight were urban while two were rural.

Table 3.7 Ten LA areas with the lowest LQ house price, 1996/97 and 2006/07

1996/97				2006/07			
LA area	Region	Rural/ urban	LQ house price	LA area	Region	Rural/ urban	LQ house price
Burnley	NW	Urban	18,000.00	Burnley	NW	Urban	47,000.00
Pendle	NW	Urban	19,000.00	Pendle	NW	Urban	58,000.00
Hyndburn	NW	Urban	20,000.00	Kingston upon Hull	YH	Urban	64,000.00
Barrow-in-Furness	NW	Urban	20,200.00	Hyndburn	NW	Urban	64,000.00
Easington	NE	Rural	22,000.00	Barrow-in-Furness	NW	Urban	64,500.00
Blackburn with Darwen	NW	Urban	22,500.00	Hartlepool	NE	Urban	65,000.00
Manchester	NW	Urban	22,500.00	Stoke-on-Trent	W Mid	Urban	67,000.00
Stoke-on-Trent	W Mid	Urban	23,000.00	Sedgefield	NE	Rural	67,000.00
Wansbeck	NE	Rural	23,000.00	Easington	NE	Rural	67,962.50
Rossendale	NW	Urban	25,537.50	Blackburn with Darwen	NW	Urban	69,000.00

Source: As Table 3.5.

LA areas with high /low increases in LQ house prices

All the LA areas experienced increases in the LQ house prices between 1996/97 and 2006/07. The average growth was 211.20% and the majority of LA areas grew at around this average (Figure 3.2). Table 3.8 sets out the LA areas with the highest growth (227.38% or more, i.e.; the upper quartile measured by growth) by region. Of the 88 LA areas in the table, the great majority (80 LA areas) were from southern England – 26 were form the South West, 22 were in London the East, 20 were in London and 12 in the South East. Fifty LA areas were categorised as urban while 38 were rural.

Figure 3.2 Distribution of the LQ house price growth from 19996/97 to 2006/07 for English LA areas

Mean =211.1983
Std. Dev. =31.3075
N =351
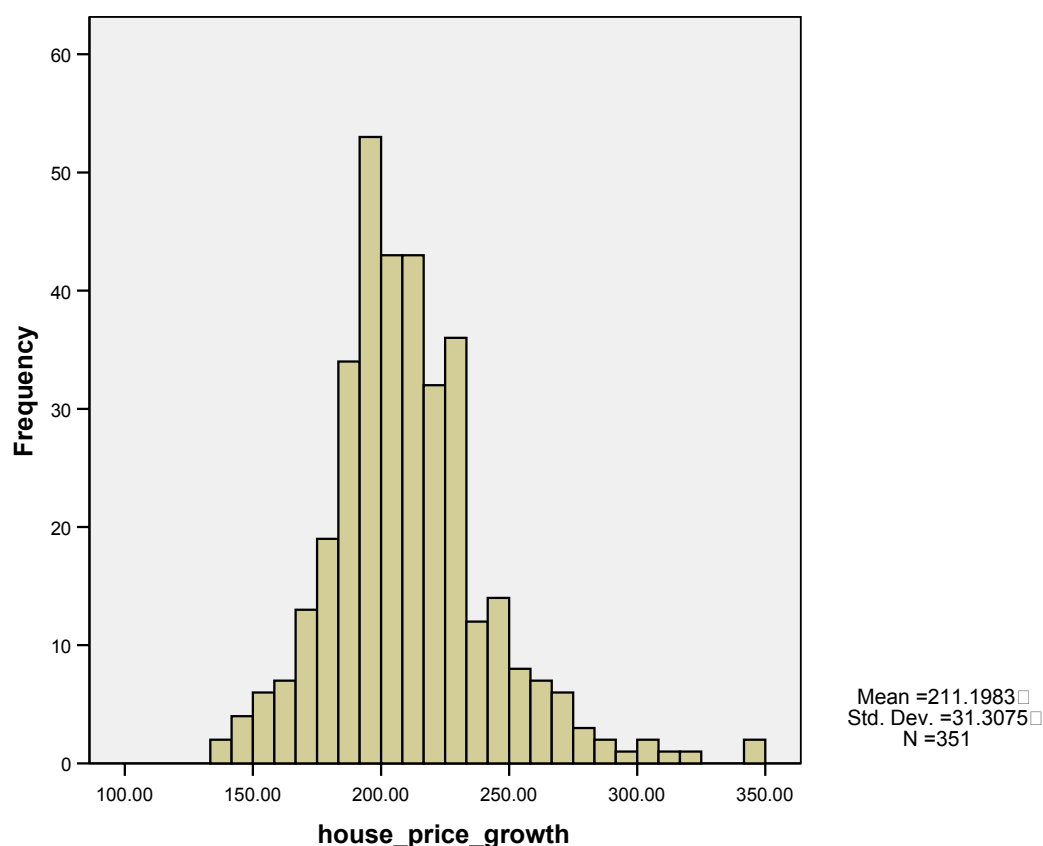
Mean	Median	Upper quartile	Lower quartile
211.20	206.85	227.38	192.15

Source: As Table 3.3.

Table 3.8 Number of LA areas where the LQ house price increased by 227.38% or more from 1996/97 to 2006/07

Region			By urban/rural		
East	22	25.0%	Urban	50	56.8%
East Midlands	6	6.8%	Rural	38	43.2%
London	20	22.7%	England	88	100.0%
North East	-	-			
North West	1	1.1%			
South East	12	13.6%			
South West	26	29.5%			
West Midlands	1	1.1%			
Yorkshire& the Humber	-	-			
England	88	100.0%			

Source: As Table 3.5.

Table 3.9 lists the ten LA areas with the highest increases in LQ house prices between 1996/97 to 2006/07. Newham had the highest increase of 348.7%, or in real terms 244.9%. The second highest was in Manchester (342.2%, or in real terms 239.9%), followed by Brighton & Hove (317.7%, or in real terms 221.1%). By region, four LA areas were in the South West while three were in London. Seven were urban LA areas while three were rural.

Table 3.9 The ten LA areas with the highest increases in LQ house prices (in parentheses, real terms based on 1996/97 figures), 1996/97 and 2006/07

	Region	Rural/urban	1996/97	2006/07		Change	
Newham	Lon	Urban	39,000.00	175,000.00	(134,511.91)	348.7%	(244.9%)
Manchester	NW	Urban	22,500.00	99,500.00	(76,479.63)	342.2%	(239.9%)
Brighton and Hove	SE	Urban	39,500.00	165,000.00	(126,825.52)	317.7%	(221.1%)
Waltham Forest	Lon	Urban	42,500.00	175,000.00	(134,511.91)	311.8%	(216.5%)
Penwith	SW	Rural	38,000.00	155,000.00	(119,139.12)	307.9%	(213.5%)
Hackney	Lon	Urban	48,000.00	195,000.00	(149,884.70)	306.3%	(212.3%)
Weymouth and Portland	SW	Urban	38,237.50	150,000.00	(115,295.93)	292.3%	(201.5%)
Kerrier	SW	Rural	35,950.00	140,000.00	(107,609.53)	289.4%	(199.3%)
Norwich	East	Urban	32,000.00	123,500.00	(94,926.98)	285.9%	(196.6%)
Carrick	SW	Rural	43,950.00	167,000.00	(128,362.80)	280.0%	(192.1%)

Source: As Table 3.5.

Table 3.10 lists the number of LA areas with the lowest LQ house price growth (192.15% or less, i.e.; the lower quartile of the growth) by region. The great majority (77 LA areas or 86% of the total) were from the northern England – 22 were in the North West, 18 were in the West Midlands, 16 were in the North East, 12 were in Yorkshire and the Humber and eight in the East Midlands. Forty-nine LA areas were categorised as urban while 39 were rural.

Table 3.10 Number of LA areas where the LQ house price increased by 192.15% or less from 1996/97 to 2006/07

Region			By urban/rural		
East	1	1.1%	Urban	49	55.7%
East Midlands	8	9.1%	Rural	39	44.3%
London	1	1.1%	England	88	100.0%
North East	16	18.2%			
North West	22	25.0%			
South East	9	10.2%			
South West	1	1.1%			
West Midlands	18	20.5%			
Yorkshire& the Humber	12	13.6%			
England	88	100.0%			

Source: As Table 3.5.

Table 3.11 lists the ten LA areas with the lowest LQ house price growth from 1996/97 to 2006/07. Castle Morpeth had the lowest increase rate of140.2% for the period- from £29,950 in 1996/97 to £120,000 in 2006/07. The second lowest growth was observed in Hartlepool (140.7%; from £27,000 to £65,000), followed by Sedgefield (143.6%; from £27,500 to £67,000). Even these LA areas, however, showed considerable real increases in house prices – over 80% for the period. Of the ten LA areas on the list, five were in the North East and three were in the North West. Six were categorised as urban areas while four were rural.

Table 3.11 The ten LA areas with the lowest increases in LQ house prices (in parentheses, real terms based on 1996/97 figures), 1996/97 and 2006/07

	Region	Rural/urban	1996/97	2006/07		Change	
Castle Morpeth	NE	Rural	49,950.00	120,000.00	(92,236.74)	140.2%	(84.7%)
Hartlepool	NE	Urban	27,000.00	65,000.00	(49,961.57)	140.7%	(85.0%)
Sedgefield	NE	Rural	27,500.00	67,000.00	(51,498.85)	143.6%	(87.3%)
Kingston upon Hull	Y & H	Urban	25,950.00	64,000.00	(49,192.93)	146.6%	(89.6%)
Middlesbrough	NE	Urban	28,340.75	70,000.00	(53,804.77)	147.0%	(89.8%)
North East Lincolnshire	Y & H	Urban	28,950.00	71,962.50	(55,313.22)	148.6%	(91.1%)
West Lancashire	NW	Rural	43,000.00	108,500.00	(83,397.39)	152.3%	(93.9%)
Ellesmere Port and Neston	NW	Urban	43,500.00	110,000.00	(84,550.35)	152.9%	(94.4%)
Stockton-on-Tees	NE	Urban	36,000.00	92,000.00	(70,714.83)	155.6%	(96.4%)
Carlisle	NW	Rural	34,000.00	87,000.00	(66,871.64)	155.9%	(96.7%)

Source: As Table 3.9.

3.5 Private sector house prices of rural and urban areas

Table 3.12 lists the estimated LQ house prices for rural and urban areas over the period between 1996/97 to 2006/07. In 2006/07, the LQ house prices were £132,500 for the English urban area and £139,961.25 for the rural area. Through the observation period, the average of LQ house prices of both groups increased continuously. Urban LQ house prices rose by £92,500 or 231.3% between 1996/97 and 2006/07 (in real terms 154.6%, Table 3.13) while rural LQ house prices increased by £95,961.25 or 218.1% (in real terms 144.5%). Rural LQ house prices have outperformed urban areas over the observation period.

Table 3.12 LQ house price by urban/rural classification, 1996/97 – 2006/07

	Urban		Rural		Urban – rural	
	LQ house price	Change	LQ house price	Change	LQ house price	Change (%-point)
1996/97	40,000.00		44,000.00		-4,000.00	
1997/98	43,500.00	8.8%	46,500.00	5.7%	-3,000.00	3.1
1998/99	46,987.50	8.0%	49,000.00	5.4%	-2,012.50	2.6
1999/00	51,000.00	8.5%	54,500.00	11.2%	-3,500.00	-2.7
2000/01	59,950.00	17.5%	61,975.00	13.7%	-2,025.00	3.8
2001/02	69,995.00	16.8%	72,000.00	16.2%	-2,005.00	0.6
2002/03	86,500.00	23.6%	88,950.00	23.5%	-2,450.00	0.0
2003/04	105,000.00	21.4%	109,995.00	23.7%	-4,995.00	-2.3
2004/05	121,000.00	15.2%	127,000.00	15.5%	-6,000.00	-0.2
2005/06	124,000.00	2.5%	131,000.00	3.1%	-7,000.00	-0.7
2006/07	132,500.00	6.9%	139,961.25	6.8%	-7,461.25	0.1
1996/97 – 2006/07		231.3%		218.1%		13.2
Estimated annual change		12.7%		12.3%		0.4

Source: Estimation based on LA areas LQ house prices subject to Table 2.1. The estimation method produced errors ranging from 2.0 to 10.2%, when adopted to estimate the region's LQ house prices.

Table 3.13 LQ house price by urban/rural classification in real terms (base year = 1996/97), 1996/97 – 2006/07

	Urban		Rural		Urban – rural	
	LQ house price	Change	LQ house price	LQ house price	Change	LQ house price
1996/97	40,000.00		44,000.00		-4,000.00	
1997/98	41,988.42	5.0%	44,884.17	2.0%	-2,895.75	3.0
1998/99	43,954.63	4.7%	45,837.23	2.1%	-1,882.60	2.6
1999/00	47,178.54	7.3%	50,416.28	10.0%	-3,237.74	-2.7
2000/01	53,718.64	13.9%	55,533.15	10.1%	-1,814.52	3.7
2001/02	61,669.60	14.8%	63,436.12	14.2%	-1,766.52	0.6
2002/03	74,891.77	21.4%	77,012.99	21.4%	-2,121.21	0.0
2003/04	88,458.30	18.1%	92,666.39	20.3%	-4,208.09	-2.2
2004/05	98,937.04	11.8%	103,843.01	12.1%	-4,905.97	-0.2
2005/06	98,726.11	-0.2%	104,299.36	0.4%	-5,573.25	-0.7
2006/07	101,844.73	3.2%	107,579.75	3.1%	-5,735.01	0.1
1996/97 – 2006/07		154.6%		144.5%		10.1
Estimated annual change				9.4%		0.4

Source: As Table 3.12.

Table 3.14 sets out the breakdown of the above table into six urban and rural categories. The highest figures (both for LQ house prices and for annual changes) among the six categories are highlighted in yellow while the lowest are in blue. For the observation period, the most urban category, Major Urban, has the highest LQ prices, whereas one of the two remaining urban categories (Large Urban or Other Urban) had the lowest prices. In terms of annual changes expressed as percentages, Major Urban and Large Urban were invariably related, for example when Major Urban showed the highest growth rate in 1999/00 and 2001/02, Large Urban experienced the lowest growth. Conversely when Major Urban had the lowest growth in 2003/04 and 2004/05, Large Urban had the highest.[12]

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[12] For reference, using a numerical variable representing urban/rural characteristics, rather than the categorical ones used above, the correlations between urban/rural features and the LQ house price across the English LA areas are shown in the below table. The results failed to present the urban/rural features having a strong correlation with the LQ house price as well as its growth.

The correlation coefficient with % of rural population in each LA (2005)

LQ house prices in 2006/07	LQ house price growth 96/97 – 06/07
-0.005	-0.034

Note: % of rural population was based on DEFA's calculation.

Table 3.14 LQ house price by 6 urban/rural classifications, 1996/97 – 2006/07

	Major urban		Large urban		Other urban		Rural-26	
	LQ house price	Change	LQ house price	Change	LQ house price	Change	LQ house price	Change
1996/97	49,000.00		40,000.00		36,975.00		43,500.00	
1997/98	55,000.00	12.2%	42,500.00	6.3%	40,000.00	8.2%	46,000.00	5.7%
1998/99	59,950.00	9.0%	45,000.00	5.9%	42,500.00	6.3%	49,000.00	6.5%
1999/00	69,500.00	15.9%	49,000.00	8.9%	47,500.00	11.8%	54,000.00	10.2%
2000/01	80,000.00	15.1%	52,000.00	6.1%	55,000.00	15.8%	60,000.00	11.1%
2001/02	96,000.00	20.0%	58,500.00	12.5%	63,612.50	15.7%	71,000.00	18.3%
2002/03	120,000.00	25.0%	73,950.00	26.4%	77,000.00	21.0%	87,995.00	23.9%
2003/04	140,000.00	16.7%	93,000.00	25.8%	91,000.00	18.2%	105,000.00	19.3%
2004/05	154,950.00	10.7%	112,748.00	21.2%	108,000.00	18.7%	124,000.00	18.1%
2005/06	160,000.00	3.3%	118,000.00	4.7%	112,500.00	4.2%	128,250.00	3.4%
2006/07	170,000.00	6.3%	124,950.00	5.9%	123,500.00	9.8%	135,000.00	5.3%
96/97 – 06/07		246.9%		212.4%		234.0%		210.3%
Estimated annual		13.2%		12.1%		12.8%		12.0%

	Rural-50		Rural-80			Max. – Min.	
	LQ house price	Change	LQ house price	Change		LQ house price	Change (%-point)
1996/97	43,998.75		44,000.00			12,025.00	
1997/98	46,250.00	5.1%	46,950.00	6.7%		15,000.00	7.1
1998/99	49,500.00	7.0%	49,250.00	4.9%		17,450.00	4.1
1999/00	56,475.00	14.1%	54,187.50	10.0%		22,000.00	7.0
2000/01	63,000.00	11.6%	60,000.00	10.7%		28,000.00	9.7
2001/02	73,000.00	15.9%	71,750.00	19.6%		37,500.00	7.5
2002/03	87,975.00	20.5%	89,225.00	24.4%		46,050.00	5.9
2003/04	109,975.00	25.0%	110,000.00	23.3%		49,000.00	9.1
2004/05	125,500.00	14.1%	129,950.00	18.1%		46,950.00	10.6
2005/06	129,747.50	3.4%	133,750.00	2.9%		47,500.00	1.7
2006/07	139,250.00	7.3%	143,125.00	7.0%		46,500.00	4.5
96/97 – 06/07		216.5%		225.3%			36.6
Estimated annual				12.5%			1.2

Source: As Table 3.12.

Table 3.14 LQ house price by 6 urban/rural classifications in real terms (base year = 1996/97), 1996/97 – 2006/07

	Major urban		Large urban		Other urban		Rural-26	
	LQ house price	Change	LQ house price	Change	LQ house price	Change	LQ house price	Change
1996/97	49,000.00		40,000.00		36,975.00		43,500.00	
1997/98	53,088.80	8.3%	41,023.17	2.6%	38,610.04	4.4%	44,401.54	2.1%
1998/99	56,080.45	5.6%	42,095.42	2.6%	39,756.78	3.0%	45,837.23	3.2%
1999/00	64,292.32	14.6%	45,328.40	7.7%	43,940.80	10.5%	49,953.75	9.0%
2000/01	71,684.59	11.5%	46,594.98	2.8%	49,283.15	12.2%	53,763.44	7.6%
2001/02	84,581.50	18.0%	51,541.85	10.6%	56,046.26	13.7%	62,555.07	16.4%
2002/03	103,896.10	22.8%	64,025.97	24.2%	66,666.67	18.9%	76,186.15	21.8%
2003/04	117,944.40	13.5%	78,348.78	22.4%	76,663.86	15.0%	88,458.30	16.1%
2004/05	126,696.65	7.4%	92,189.70	17.7%	88,307.44	15.2%	101,390.02	14.6%
2005/06	127,388.54	0.5%	93,949.04	1.9%	89,570.06	1.4%	102,109.87	0.7%
2006/07	130,668.72	2.6%	96,041.51	2.2%	94,926.98	6.0%	103,766.33	1.6%
96/97 – 06/07		166.7%		140.1%		156.7%		138.5%
Estimated annual				9.2%		9.9%		9.1%

	Rural-50		Rural-80			Max. – Min.	
	LQ house price	Change	LQ house price	Change		LQ house price	Change (%-point)
1996/97	43,998.75		44,000.00			12,025.00	
1997/98	44,642.86	1.5%	45,318.53	3.0%		14,478.76	6.9
1998/99	46,304.96	3.7%	46,071.09	1.7%		16,323.67	4.0
1999/00	52,243.29	12.8%	50,127.20	8.8%		20,351.53	7.0
2000/01	56,451.61	8.1%	53,763.44	7.3%		25,089.61	9.4
2001/02	64,317.18	13.9%	63,215.86	17.6%		33,039.65	7.4
2002/03	76,168.83	18.4%	77,251.08	22.2%		39,870.13	5.8
2003/04	92,649.54	21.6%	92,670.60	20.0%		41,280.54	8.8
2004/05	102,616.52	10.8%	106,255.11	14.7%		38,389.21	10.2
2005/06	103,302.15	0.7%	106,488.85	0.2%		37,818.47	1.7
2006/07	107,033.05	3.6%	110,011.53	3.3%		35,741.74	4.4
96/97 - 06/07		143.3%		150.0%			28.2
estimated annual		9.3%		9.6%			1.2

Source: As Table 3.13.

4. The relationship between private rents and house prices across England 1996/97 – 2006/07

This section examines how private rents vary in relation to house prices – particularly in terms of how strongly private rents are correlated with house prices at the national as well as at lower geographical levels. Annual analyses are also presented.

4.1 Methodology

The datasets analysed are as those used in the previous two sections (see Table 4.1 for details). One minor change in the data is that the measurement unit for house prices is in £1,000.[13]

Table 4.1 Data for the tests

Variable	Description	Unit	Period	Source
Private rent	Weekly rent for LA areas across England	£	Annual (1996/97 – 2006/07)	as in Section 2
House price	LQ house price for LA areas across England	'000 £	Annual (1996/97 – 2006/07)	as in Section 3

First (In our tests), correlation coefficients between private rents and house prices were entered to see the degree of relationship between the two variables. We then ran the following simple linear regression to examine the degree to which private rents are influenced by house prices.

Model: Weekly rent $_t$ (£s) = α + $β$ * LQ house price $_t$ ('000 £s) + u$_t$;

where α is a constant term,
$β$ is a coefficient for house price
u is an error term, and
$_t$ represents a year term, which takes 1996/97 to 2006/07

Many pieces of literature and anecdotal episodes have held that private rents and house prices are positively related across England, and that rents are significantly affected by house prices. This is partly because private rents have been affected by costs to rental property owners, notably purchase costs, maintenance costs and deprivation, all of which are associated with property values. If this is the case, then rents and house prices should be positively correlated regardless of time and region. Therefore, the hypotheses of the tests are that the correlation coefficients will be positive and close to unity, and that in the regression $β$ will appear positive, with statistical significance.

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[13] The natural logarithm form of rents and/or house prices presented similar test results, while not being significantly more convenient for these analyses, which is why we used non-log forms.

4.2 The relationship between private rents and house price: England, 1999/97 to 2006/07

First we examine this relationship for LA areas across England from 1996/97 to 2006/07.

The correlation coefficient between rents and LQ house prices was 0.830. This suggests that private rents and house prices had a significantly strong positive relationship for the observation period.

The regression results were:

> Weekly rent = 46.625 + 0.608 * LQ house price.
> (72.86)*** (92.45)***
> *t*-value in parenthesis, R^2 = 0.689, Adjusted R^2 = 0.689
> N=3,867
> *** 1-% significance level

This equation confirms a positive and significant relationship between rents and house prices. The coefficient of house price was significantly positive (0.608). The adjusted R^2 (0.689) implies that there are other important determinates of private rents. The linear model and the scatter patterns of LA areas, relating rents to house prices during the ten year period are presented in Figure 4.1

Figure 4.1 Relationship between private rents and house prices: England
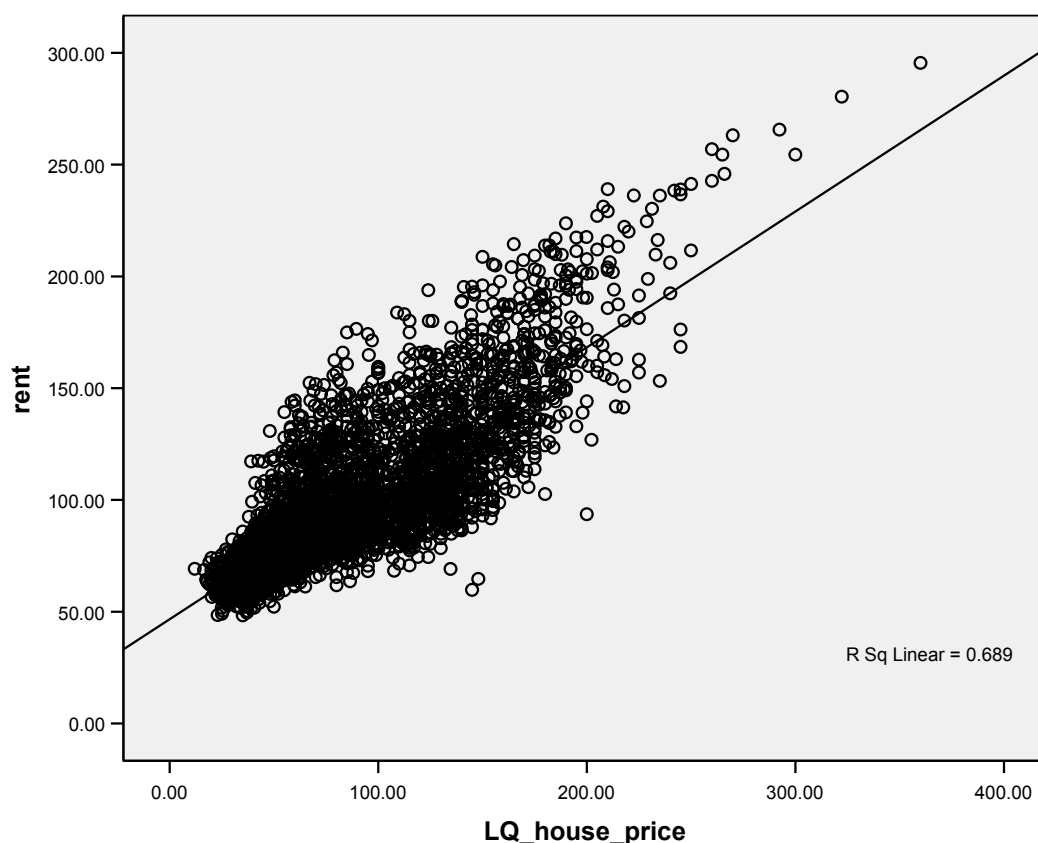
For reference, we have examined the same relationship with respect to 'real' rents and 'real' LQ house prices. The real values are derived by deflating the two variable

sets based on the RPI (September 1996 = 100).[14] The correlation coefficient between rents and house prices is 0.761. This means that private rents and house prices were positively related over the observation period but the degree of relationship is lower than that in nominal terms.

The regression results are:

Weekly rent = 43.227 + 0.585 * LQ house price.
              (66.27)*** (72.99)***
t-value in parenthesis, R^2 = 0.580, Adjusted R^2 = 0.579
N = 3,867
*** 1-% significance level

This equation confirms the significantly positive relationship between rents and house prices. The coefficient of house prices was significantly positive (0.585) although slightly lower than the equivalent for the nominal values. The adjusted R^2 (0.579) again shows that there are other determinants explaining private rents more precisely. The linear model and the scatters patterns of LA areas, relating rents to house prices during the ten year period are presented in Figure 4.2.

Figure 4.2 Relationship between private rents and house prices in real terms: England

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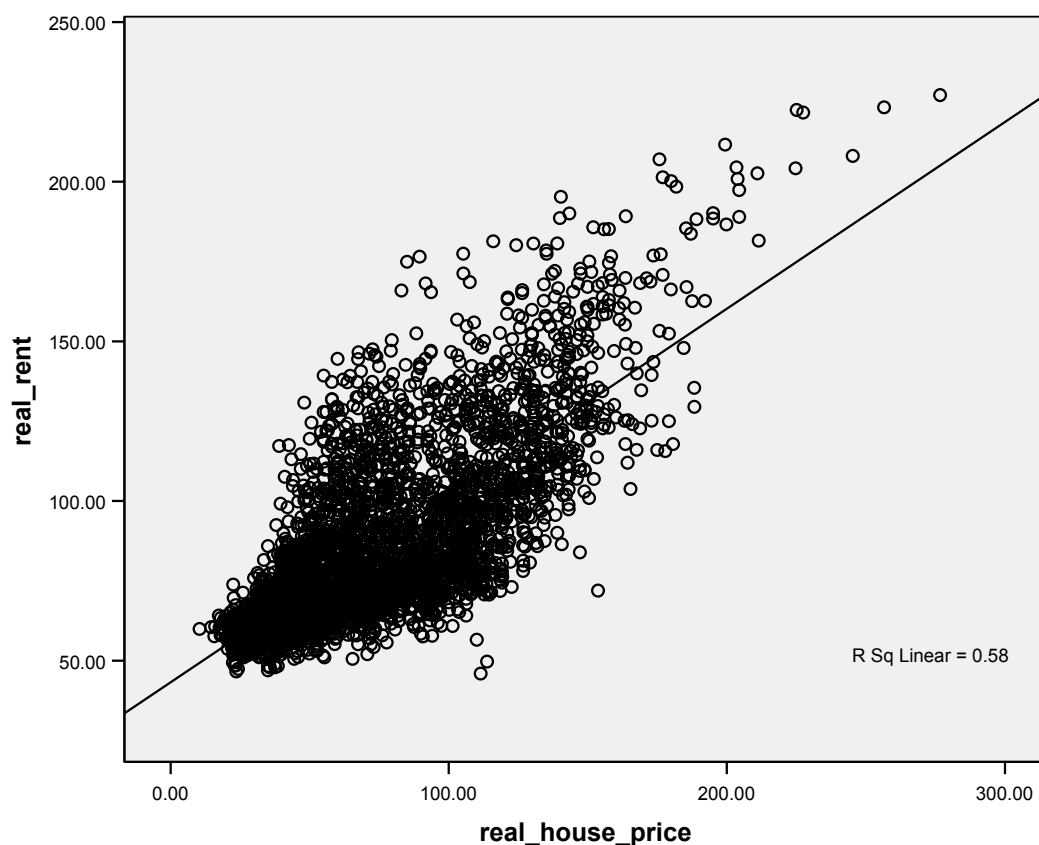
[14] Thus, the deflator for each year is as below.

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
100.0	103.6	106.9	108.1	111.6	113.5	115.5	118.7	122.3	125.6	130.1

Source: Dataspring's calculation base on ONS.

Annual changes in relationship

We now examine the relationship between private rents and house prices across England for each year of the observation period using the same approach. The empirical test results are summarised in Table 4.2. In the regression results, the coefficient of house price is consistently significantly positive, confirming the positive relationship between private rents and house prices (the regression lines are displayed in Figure 4.18). The adjusted R^2 values are low, implying that there are missing variables.[15] The adjusted R^2 was reasonably large but for some years it appeared below 0.8, implying that other determinants were involved in private sector rent formation.

Table 4.2 Correlation coefficients and test results for each year, 1996/97 – 2006/07

	Correlation coefficient	Regression results					
		Constant		Coefficient of LQ house price		Adjusted R^2	*N*
1996/97	0.836	15.465	***	1.465	***	0.698	351
1997/98	0.866	17.950	***	1.350	***	0.750	349
1998/99	0.899	19.542	***	1.266	***	0.807	351
1999/00	0.916	23.967	***	1.094	***	0.838	352
2000/01	0.930	28.089	***	0.952	***	0.864	352
2001/02	0.907	36.935	***	0.738	***	0.823	352
2002/03	0.871	37.921	***	0.771	***	0.758	352
2003/04	0.871	26.716	***	0.759	***	0.757	352
2004/05	0.833	18.787	***	0.718	***	0.694	352
2005/06	0.882	14.087	***	0.793	***	0.777	352
2006/07	0.867	14.816	***	0.756	***	0.751	352

*** 1-% significance level.
Source: As Figure 4.1.

---

[15] For reference, we considered a time-lag between house prices and rents, and implemented similar tests using the previous year's house price as an explanatory variable. Thus, the model is:

Weekly rent $_t$ (£s) = α + $β$ * LQ house price $_{t-1}$ ('000 £s) + u$_t$;
where $_t$ takes 2(=1997/98) to 11(=2006/07).

The results, which are summarised in the table below, present a fairly similar picture to the preceding tests.

	Correlation coefficient	Regression results				
		Constant		Coefficient for LQ house price		Adjusted R^2
1997/98	0.847	12.977	***	1.565	***	0.717
1998/99	0.876	14.217	***	1.478	***	0.767
1999/00	0.898	16.950	***	1.357	***	0.805
2000/01	0.921	21.953	***	1.186	***	0.849
2001/02	0.905	36.757	***	0.838	***	0.819
2002/03	0.878	38.967	***	0.920	***	0.770
2003/04	0.898	34.686	***	0.811	***	0.807
2004/05	0.851	30.114	***	0.723	***	0.724
2005/06	0.870	22.070	***	0.767	***	0.756
2006/07	0.863	17.782	***	0.788	***	0.744

*** 1-% significance level

Figure 4.18 Relationship between private rents and house prices for LA areas
across England by year: 1996/97 to 2006/07
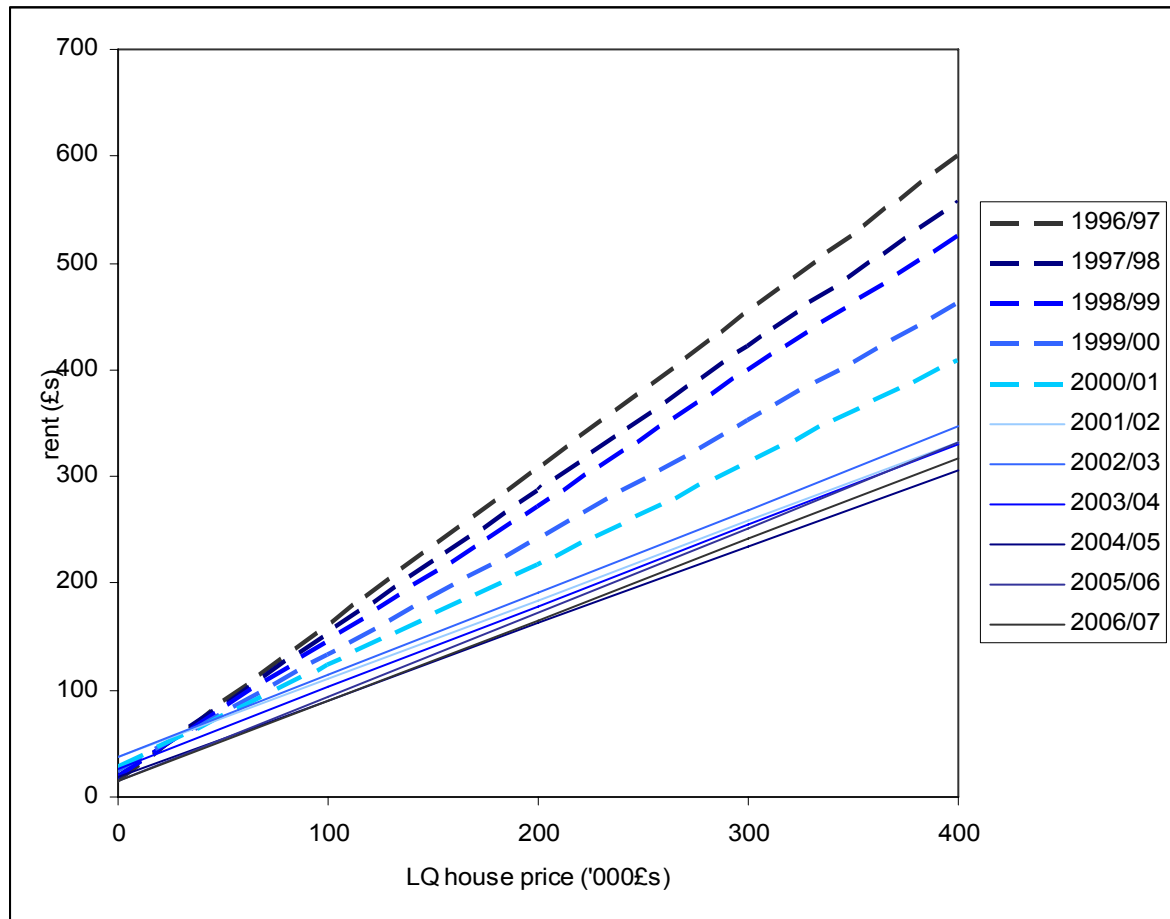
Additionally, we compared two consecutive years' regressions by adding dummy variables for years as below.

Model: Weekly rent $_t$ = α_1 + α_2 * D_t + β_1 * LQ house price $_t$ + β_2 (D_t * LQ house price $_t$) + u_t;

> where α is a constant term,
> β is a coefficient for house price
> D = 0 for the first year
>   = 1 for the second year
> u is an error term, and
> $_t$ represents a year term, which takes 1996/97 to 2006/07

For example (a test for a sample of the 1996/97 and 1997/98 figures) the model could be expressed as:

For 1996/97: Weekly rent $_t$ = α_1 + β_1 * LQ house price $_t$ + u_t
For 1997/98: Weekly rent $_t$ = (α_1 + α_2) + (β_1 + β_2) * LQ house price $_t$ + u_t

If relationships between house prices and rents significantly changed from 1996/97 to 1997/98, then α_2 and/or β_2 in the second equation would be significantly different from zero. The test results shown in Table 4.3 indicate that from 1999/00 to 2001/02 the coefficient of house prices dropped, with statistical significance compared with the previous year. For this period t hen, a unit of increase in a rental property value raised the property's rent less than in the previous year, with statistical significance.

By contrast, both α_2 and β_2 failed to be significantly different from zero for the 2005/06 and 2006/07 data, suggesting that the relationship between the private rents and house prices was not drastically changed over the last two years across England.

Table 4.3 Test results for two consecutive years

Sampled years			α_1	α_2		β_1	β_2		Adjusted R^2	N
1996/97	and	1997/98	15.465	2.485		1.465	-0.115	*	0.725	700
1997/98	and	1998/99	17.950	1.592		1.350	-0.084		0.781	700
1998/99	and	1999/00	19.542	4.426	*	1.266	-0.172	***	0.824	703
1999/00	and	2000/01	23.967	4.122	*	1.094	-0.142	***	0.852	704
2000/01	and	2001/02	28.089	8.846	***	0.952	-0.213	***	0.845	704
2001/02	and	2002/03	36.935	0.986		0.738	0.032		0.794	704
2002/03	and	2003/04	37.921	-11.206	***	0.771	-0.012		0.757	704
2003/04	and	2004/05	26.716	-10.895	**	0.759	0.002		0.734	704
2004/05	and	2005/06	18.787	-4.701		0.718	0.075	**	0.740	704
2005/06	and	2006/07	14.087	0.730		0.793	-0.037		0.763	704

*, **, and *** indicate 10 %, 5%, and 1% significance levels respectively.
Source: As Figure 4.1.

4.3 The relationship between private rents and house price by region

This sub-section examines whether similar relationships can be found at the regional level.

The East

The correlation coefficient between social rents and LQ house prices in the East was 0.838. This suggests a positive relationship between private rents and house prices over the period.

The regression result was:

Weekly rent = 53.193 + 0.528 * LQ house price
　　　　　 (34.58)*** (35.23)***
t-value in parenthesis, R^2 = 0.702, Adjusted R^2 = 0.702
N = 528
*** 1-% significance level

The coefficient of house prices was significantly positive (0.528). The adjusted R^2 was moderate (0.702), implying that there are missing variables. Figure 4.3 illustrates the relationship and the scatter patterns across the region's LA areas.

Figure 4.3 Relationship between private rents and house prices in the East
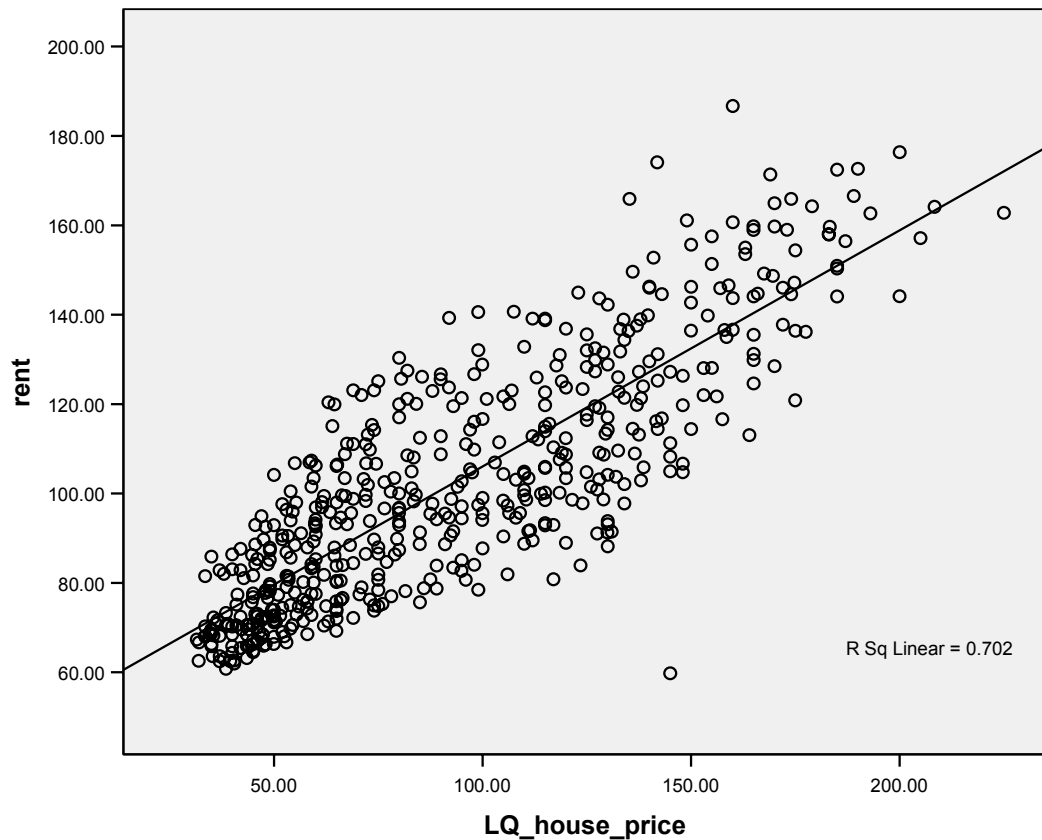
East Midlands

The correlation coefficient between social rents and LQ house prices in the East Midlands was 0.851. This suggests a positive relationship between private rents and house prices over the period.

The regression result was:

> Weekly rent = 48.323 + 0.402 * LQ house price
> 　　　　　　　(54.90)***(33.98)***
> t-value in parenthesis, R^2 = 0.725, Adjusted R^2 = 0.724
> N = 440
> *** 1-% significance level

The coefficient of house prices was significantly positive (0.402). The adjusted R^2 was moderate (0.724), implying that here too, there are missing variables. Figure 4.4 illustrates the relationship and the scatter patterns across the region's LA areas.

Figure 4.4 Relationship between private rents and house prices in the East Midlands
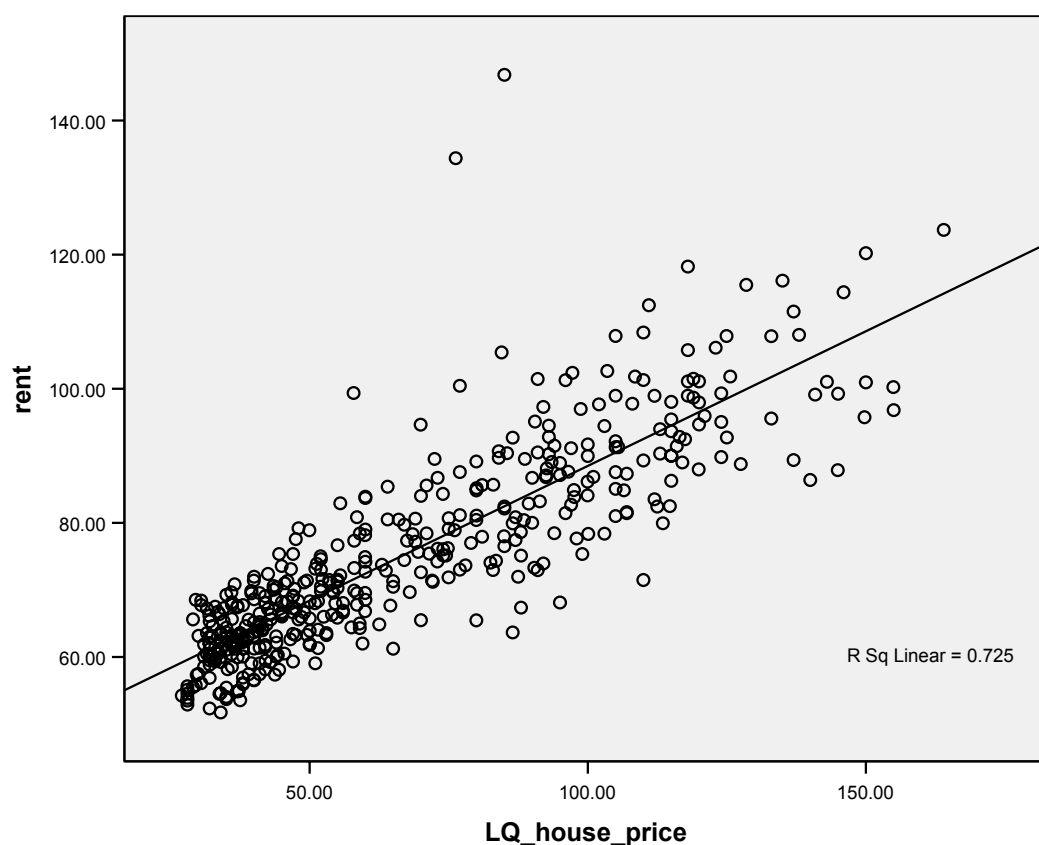
London

The correlation coefficient between social rents and LQ house prices in London was 0.908, which was the highest among the nine English regions. This suggests a significant positive relationship between private rents and house prices over the period.

The regression result was:

Weekly rent = 87.377 + 0.581 * LQ house price
              (42.42)***(40.44)***
t-value in parenthesis, R^2 = 0.824, Adjusted R^2 = 0.823
N = 352
*** 1-% significance level

The coefficient of house prices was significantly positive (0.581). The adjusted R^2 was moderate (0.823), which was again, the highest among the nine regions, implying that the model fits well. Figure 4.5 illustrates the relationship and the scattering patterns of the region's LA areas.

Figure 4.5 Relationship between private rents and house prices in London

R Sq Linear = 0.824

rent (y-axis), **LQ_house_price** (x-axis)
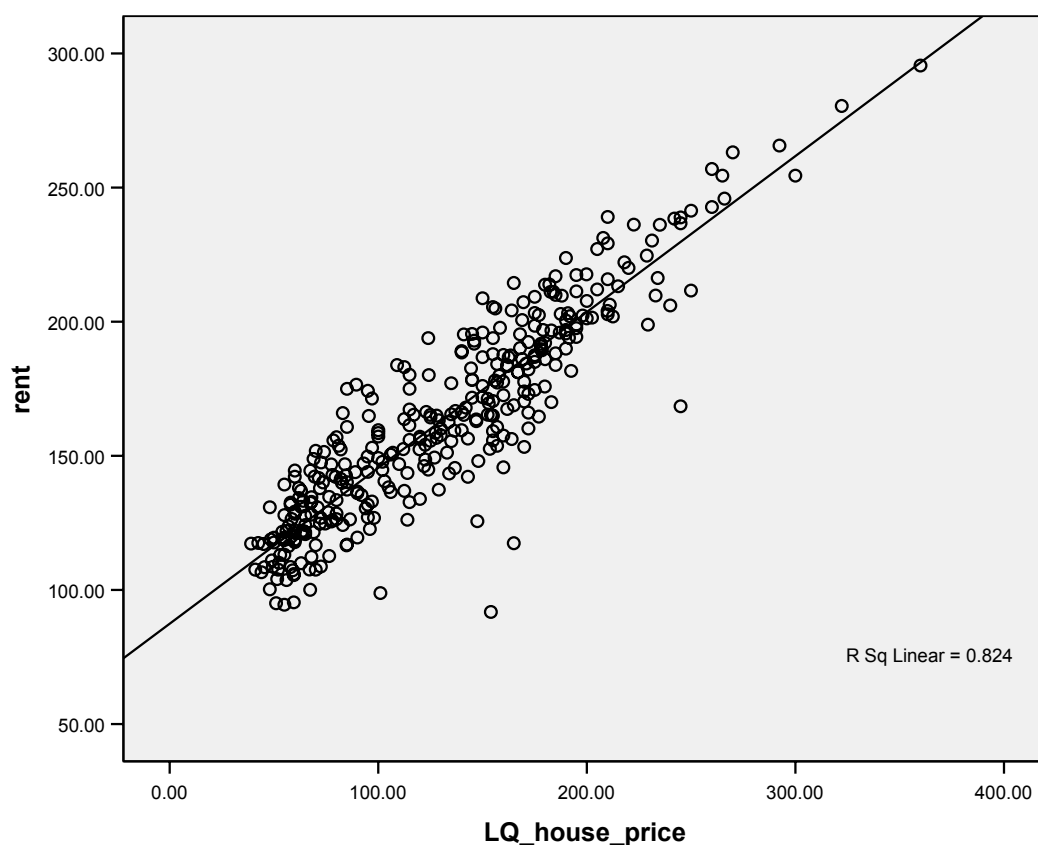
North East

The correlation coefficient between social rents and LQ house prices in the North East was 0.701. This suggests a positive relationship between private rents and house prices over the period, although the degree to which it was positive was the lowest among the nine English regions.

The regression result was:

Weekly rent = 52.641 + 0.323 * LQ house price
            (45.98)*** (15.58)***
t-value in parenthesis, R^2 = 0.492, Adjusted R^2 = 0.490
N = 253
*** 1-% significance level

The coefficient of house prices was significantly positive (0.323). The adjusted R^2 (0.490) was moderate and was the lowest among the nine regions, implying that there are missing variables. Figure 4.6 illustrates the relationship and the scatter pattern across the region's LA areas.

Figure 4.6 Relationship between private rents and house prices in the North East
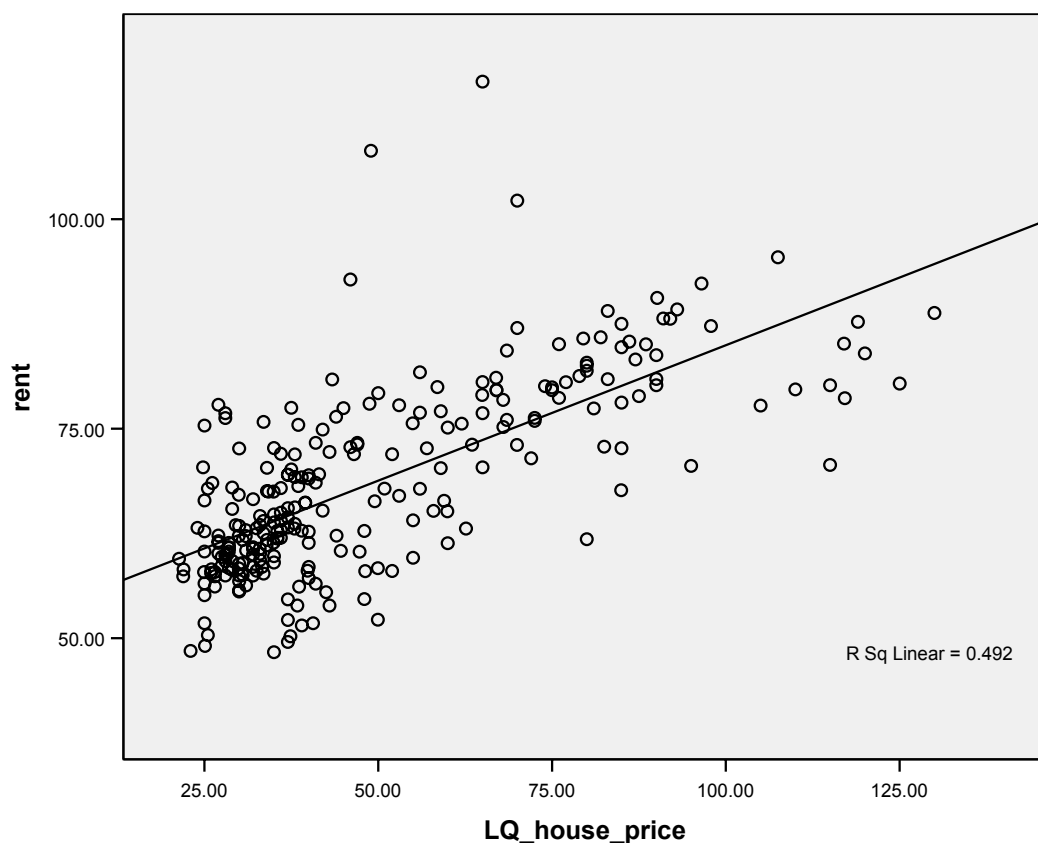
North West

The correlation coefficient between social rents and LQ house prices in the North West was 0.810. This suggests a positive relationship between private rents and house prices over the period.

The regression result was:

Weekly rent = 59.100 + 0.345 * LQ house price
              (81.94)***(29.96)***
t-value in parenthesis, R^2 = 0.656, Adjusted R^2 = 0.655
N = 473
*** 1-% significance level

The coefficient of house prices was significantly positive (0.345). The adjusted R^2 was moderate (0.655), implying that there is also missing variable here. Figure 4.7 illustrates the relationship and the scatter pattern across the region's LA areas.

Figure 4.7 Relationship between private rents and house prices in the North West
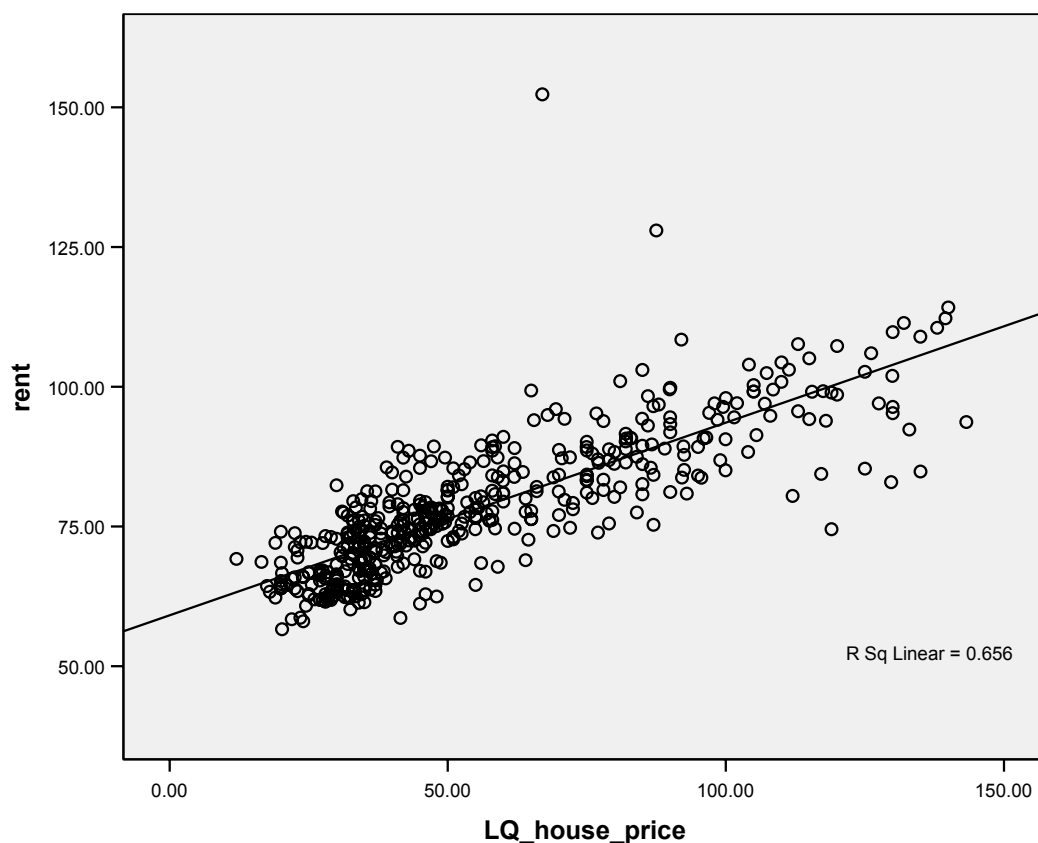
South East

The correlation coefficient between social rents and LQ house prices in the South East was 0.828. This suggests a positive relationship between private rents and house prices over the period.

The regression result was:

Weekly rent = 71.022 + 0.451 * LQ house price
　　　　　　 (52.98)*** (40.08)***
t-value in parenthesis, R^2 = 0.686, Adjusted R^2 = 0.686
N = 736
*** 1-% significance level

The coefficient of house prices was significantly positive (0.451). The adjusted R^2 was moderate (0.686), implying that there are missing variables. Figure 4.8 illustrates the relationship and the scatter pattern across the region's LA areas.

Figure 4.8 Relationship between private rents and house prices in the South East
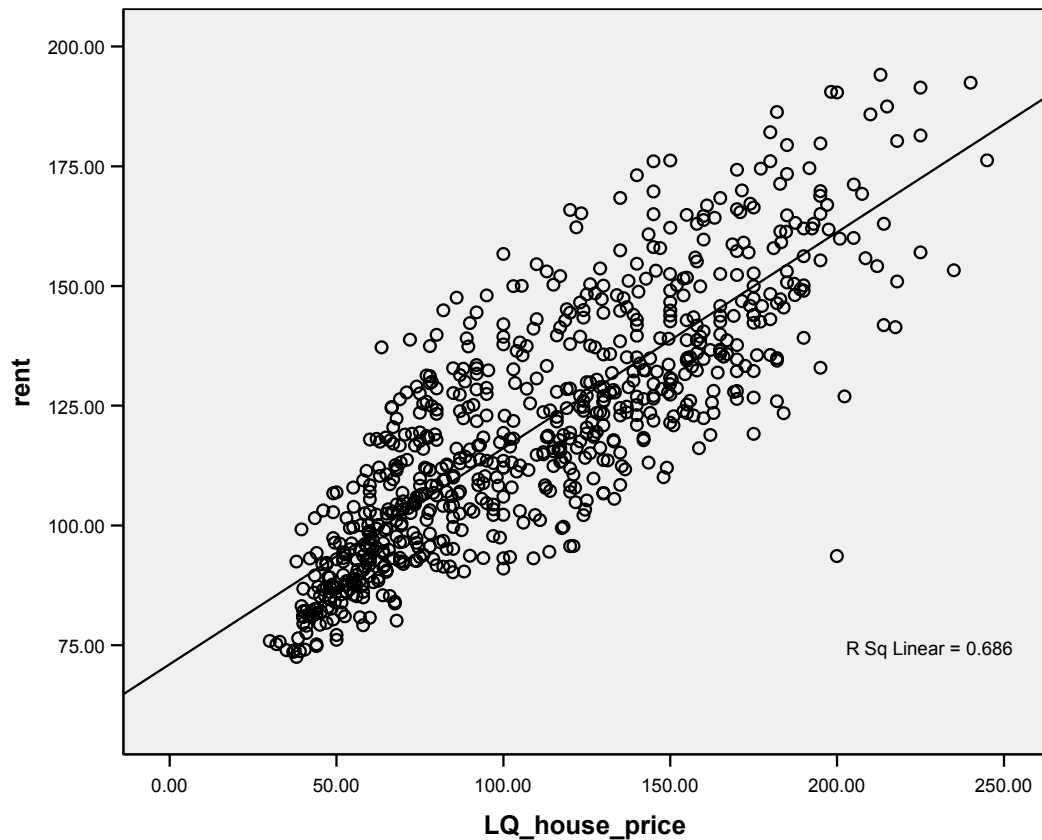
South West

The correlation coefficient between social rents and LQ house prices in the South West was 0.793. This suggests a positive relationship between private rents and house prices over the period.

The regression result was:

Weekly rent = 60.075 + 0.362 * LQ house price
                   (48.06)*** (28.59)***
t-value in parenthesis, R^2 = 0.629, Adjusted R^2 = 0.628
N = 484
*** 1-% significance level

The coefficient of house prices was significantly positive (0.362). The adjusted R^2 was moderate (0.628), implying that there are missing variables. Figure 4.9 illustrates the relationship and the scatter patterns across the region's LA areas.

Figure 4.9 Relationship between private rents and house prices in the South West

R Sq Linear = 0.629
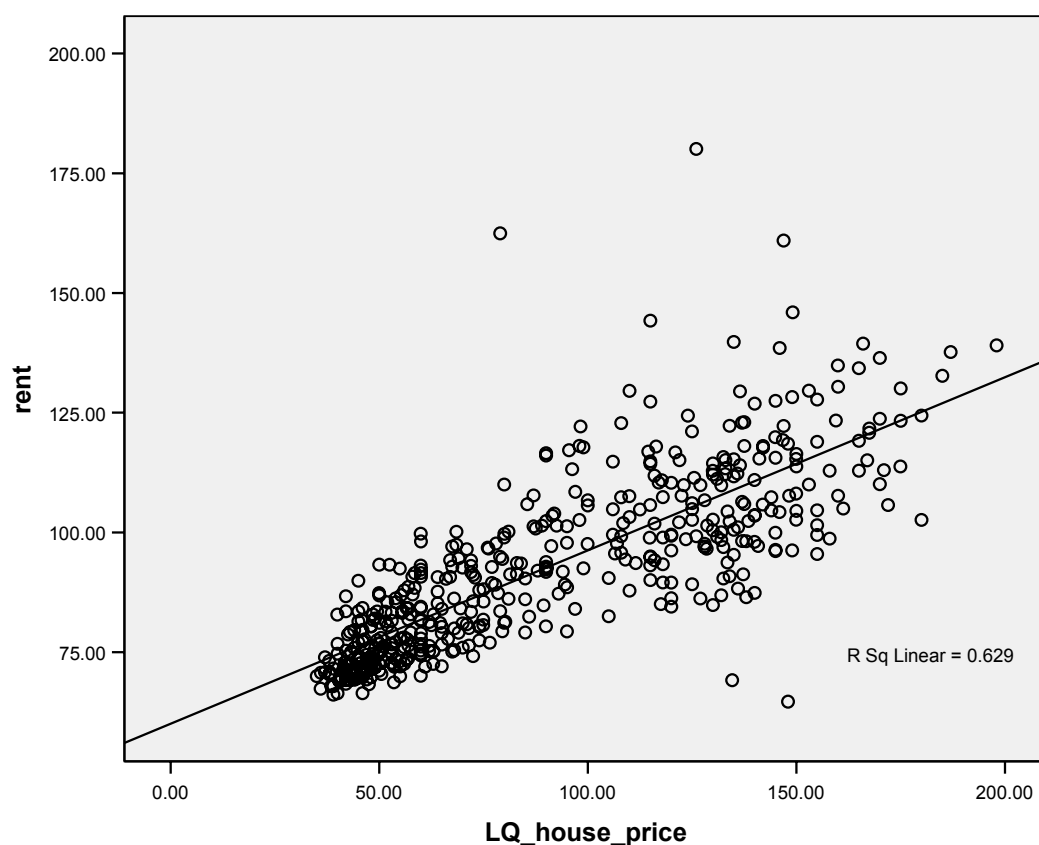
West Midlands

The correlation coefficient between social rents and LQ house prices in the West Midlands was 0.810. This suggests a positive relationship between private rents and house prices over the period.

The regression result was:

> Weekly rent = 57.164 + 0.339 * LQ house price
>   (54.69)*** (26.58)***
> t-value in parenthesis, R^2 = 0.657, Adjusted R^2 = 0.656
> N = 371
> *** 1-% significance level

The coefficient of house prices was significantly positive (0.339). The adjusted R^2 was moderate (0.656), implying that there are missing variables. Figure 4.10 illustrates the relationship and the scatter pattern across the region's LA areas.

Figure 4.10 Relationship between private rents and house prices in the West
Midlands
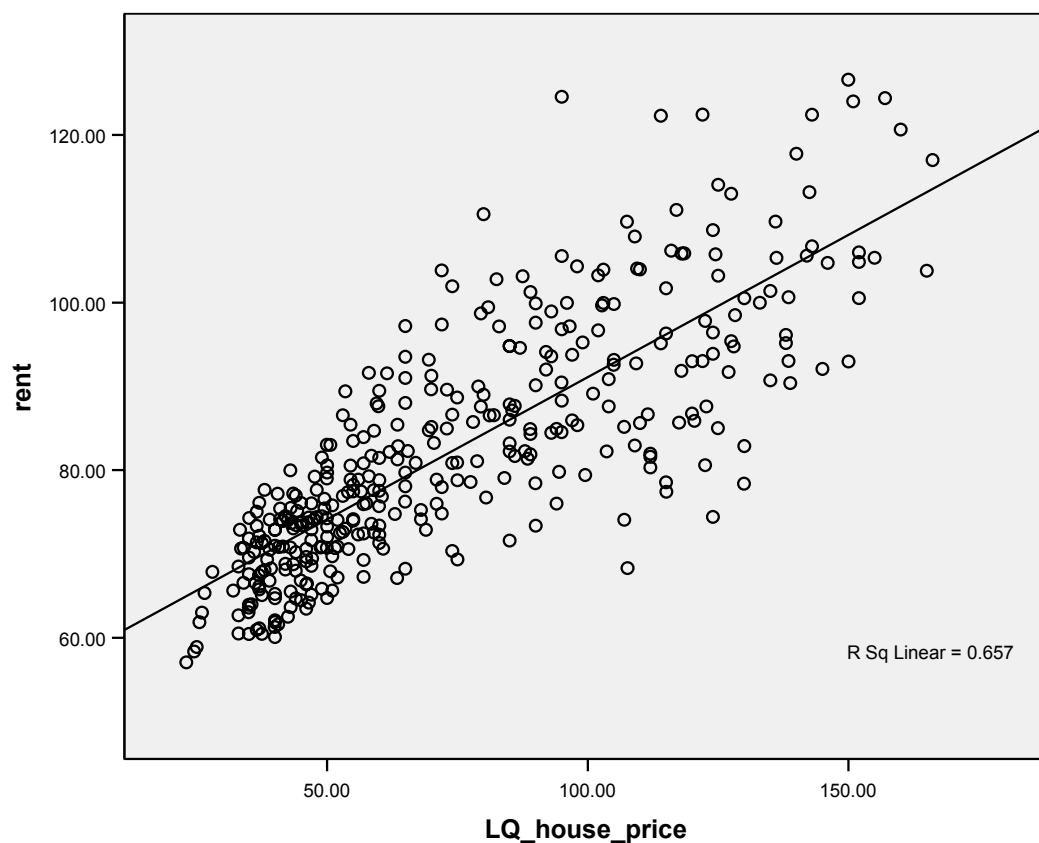
Yorkshire and the Humber

The correlation coefficient between social rents and LQ house prices in Yorkshire
and the Humber was 0.755. This suggests a positive relationship between private
rents and house prices over the period.

The regression result was:

Weekly rent = 54.861 + 0.346 * LQ house price
(39.99)*** (17.37)***
t-value in parenthesis, R^2 = 0.570, Adjusted R^2 = 0.568
N = 230
*** 1-% significance level

The coefficient of house prices was significantly positive (0.346). The adjusted R^2
was moderate (0.568), implying that there are missing variables. Figure 4.11
illustrates the relationship and the scatter pattern across the region's LA areas.

Figure 4.11 Relationship between private rents and house prices in Yorkshire and the Humber
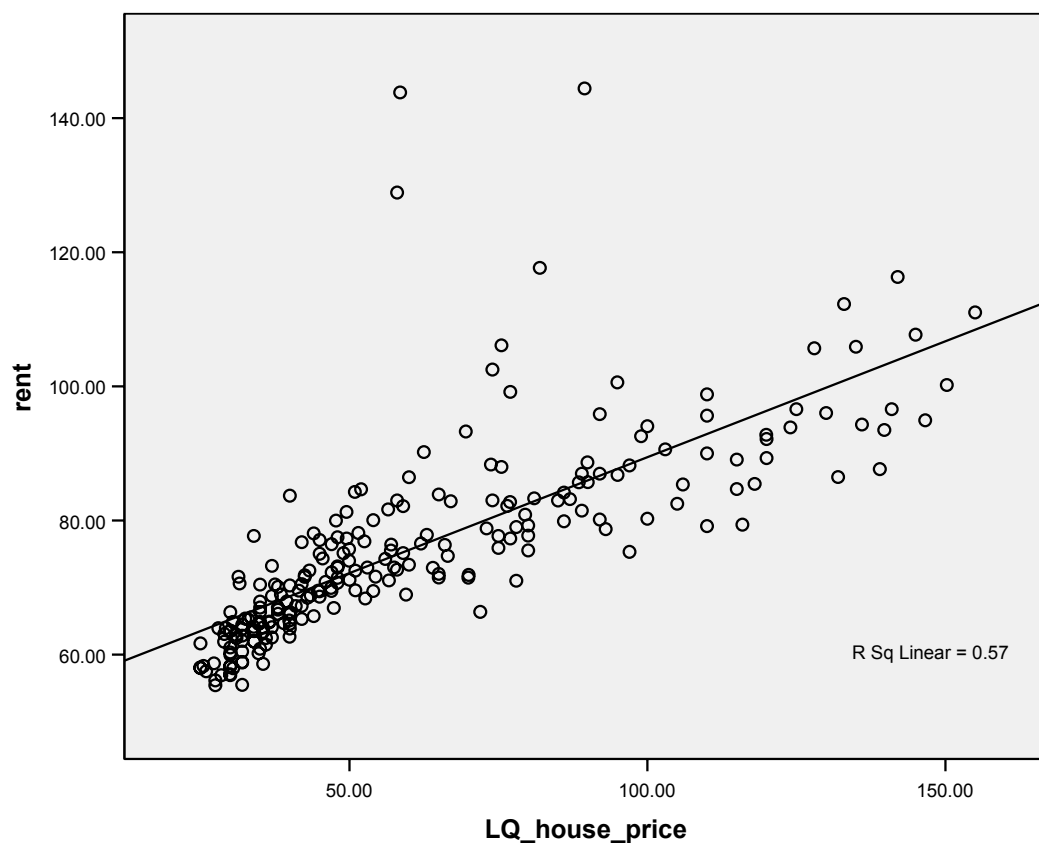
Integrated regions for reference

Although all the nine regions revealed that private rents were positively related to house prices, the significance of the relationships varied across them. For example, the relationship in the North East appeared the weakest in England. For reference, we implemented the same test for all the regions excluding this unique region. In addition, sampling three regions with relatively high private sector rents (the East, London and the South East), the reference test was undertaken. As reported in Table 4.4, both of the selected regions presented significantly positive relationships between private sector rents and house prices but the former variable was not explained solely by the latter variable (i.e.; suggesting that there are missing explanatory variables for private sector rents).

Table 4.4 Relationship between private rents and house prices in the selected regions

Region	Correlation coefficient	Regression results				
		Constant		Coefficient for LQ house price		Adjusted R^2
All but NE (N = 3,614)	0.824	47.583	** *	0.604	***	0.680
East, Lon & SE (N = 1,616)	0.815	59.598	** *	0.591	***	0.664

*** 1-% significance level

4.4 The relationship between private rents and house prices by urban/rural classification

Using the definition of rural and urban areas described in Section 2, the same tests were undertaken for rural and urban areas and the results are as below.

Urban LA areas

The correlation coefficient between social rents LQ house prices was 0.888. This suggests a positive relationship between the two variables over the period.

The regression result was:

Weekly rent = 47.033 + 0.706 * LQ house price
             (56.79)*** (84.54)***
t-value in parenthesis, R^2 = 0.788, Adjusted R^2 = 0.788
N = 1,921
*** 1-% significance level

The coefficient of house prices was significantly positive (0.706). The adjusted R^2 (0.788) was close enough to unity to indicate that the model fit well, although it is acknowledged that factors other than house prices are associated with private rent formation. Figure 4.12 illustrates the relationship and the scatter pattern across the urban LA areas.

Figure 4.12 Relationship between private rents and house prices in urban areas
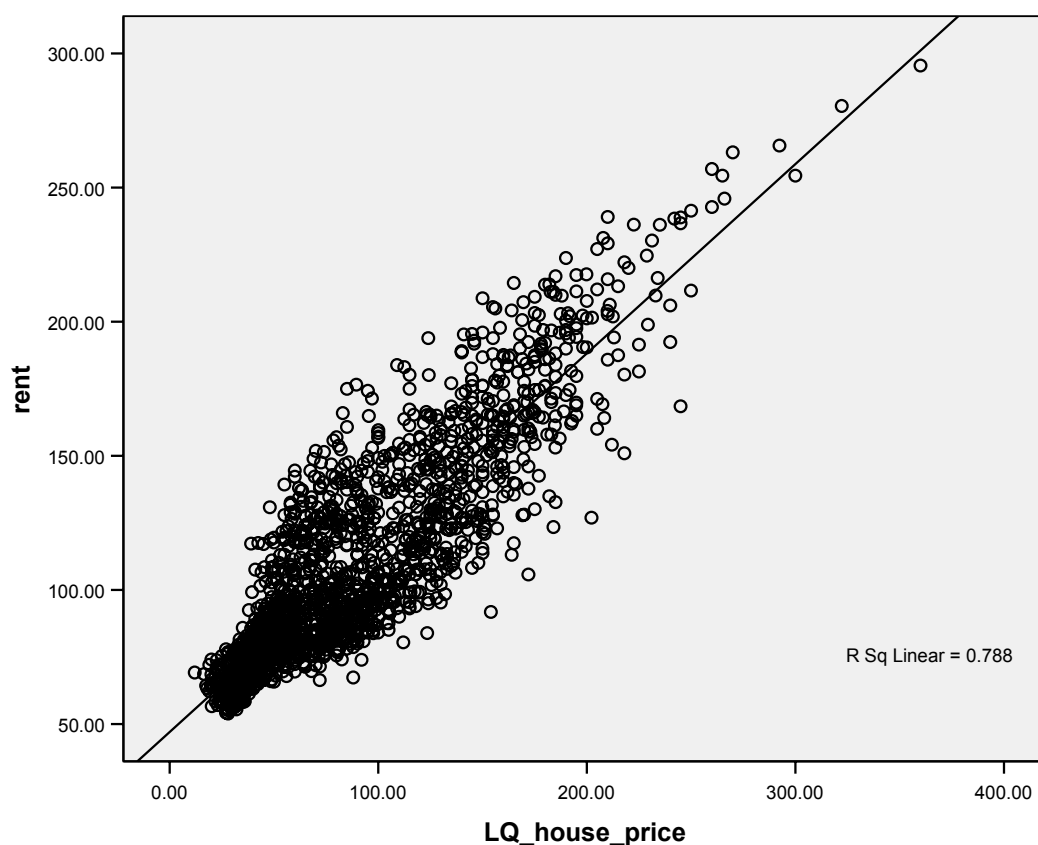
Rural LA areas

The correlation coefficient between social rents LQ house prices was 0.830. This suggests a positive relationship between the two variables over the period.

The regression result was:

Weekly rent = 49.718 + 0.471 * LQ house price
                       (72.56)*** (65.55)***
t-value in parenthesis, R^2 = 0.689, Adjusted R^2 = 0.688
N = 1,946
*** 1-% significance level

The coefficient of house prices was significantly positive (0.471). The adjusted R^2 (0.688) did not appear close enough to unity to indicate that private rents are explained solely by house prices. In other words, the result hints at some additional factors being involved in private sector rent formation. Figure 4.13 illustrates the relationship and the scatter pattern across the rural LA areas.

Figure 4.13 Relationship between private rents and house prices in rural areas
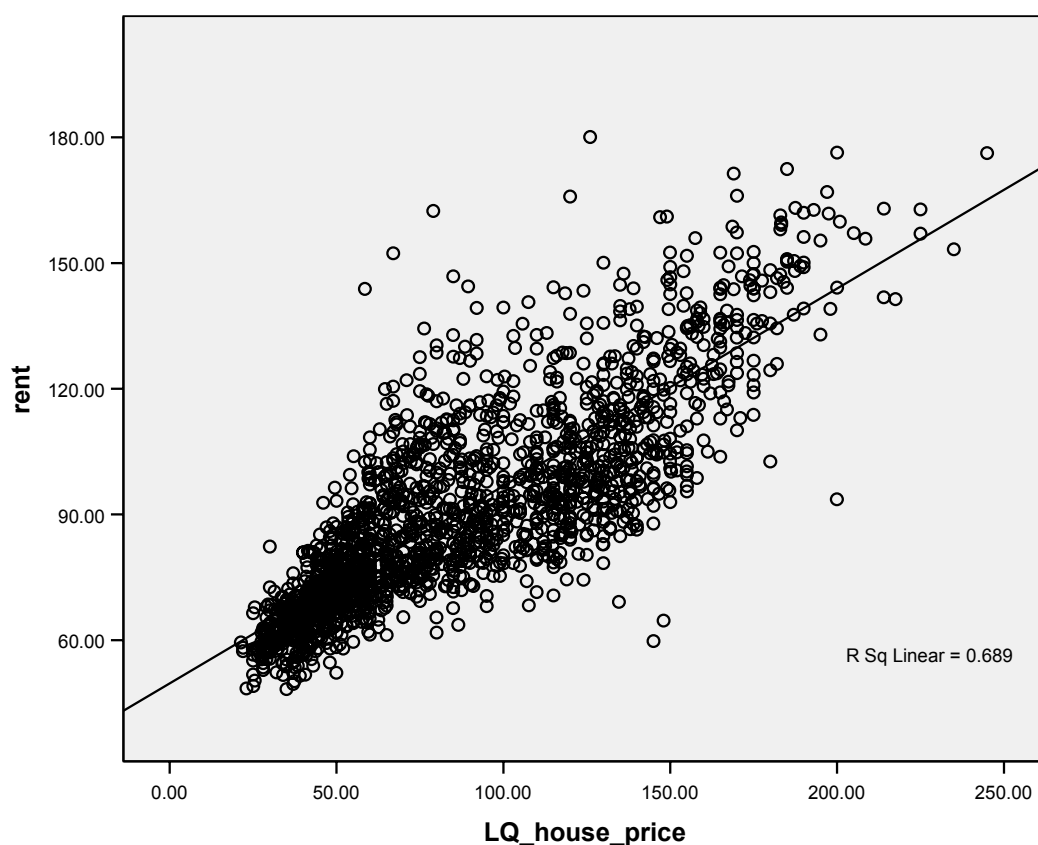
4.5 The relationship between private rents and house price by high/low increase in rents and house prices

As reported in Sections 2 and 3, changes in private rents and house prices varied across England over the period of 1996/97 to 2006/07. Looking at LA areas with high and low increases in private rents and house prices respectively for the observation period, the same empirical tests were estimated. The definition of LA areas with a high (low) increase is where the increase for a LA area was in the (lower) quartile cohort. The distribution of such LA areas across the regions is reported in Table 4.5 for rent increases and in Table 4.6 for house price increases.[16]

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[16] The sampled LA areas in the two tables are not identical for the high/low categorisation. See the distribution of the LA areas by rent and house price growth in the below table.

| | | LQ house price increase | | | |
		High	Middle	Low	Total
Rent increase	High	45	38	4	87
	Middle	34	95	47	176
	Low	9	42	37	88
Total		88	175	88	351

Table 4.5 Number of LA areas with high/low increases in rents by region

| | Increase in weekly average rents from 1996/97 to 2006/07 | | | |
	High	Middle	Low	Total
East	26	18	4	48
East Midlands	13	25	2	40
London	17	12	3	32
North East	2	15	6	23
North West	1	7	35	43
South East	12	41	14	67
South West	15	28	1	44
West Midlands	1	19	13	33
Yorkshire and the Humber	0	11	10	21
England	**87**	**176**	**88**	**351**

Note: LA areas with fewer rent cases or without corresponding figures between the comparison points
were excluded.
Source: As Table 2.1.

Table 4.6 Number of LA areas with high/low increases in house prices by region

| | Increase in LQ house price from 1996/97 to 2006/07 | | | |
	High	Middle	Low	Total
East	22	25	1	48
East Midlands	6	26	8	40
London	20	11	1	32
North East	0	7	16	23
North West	1	20	22	43
South East	12	46	9	67
South West	26	17	1	44
West Midlands	1	14	18	33
Yorkshire and the Humber	0	9	12	21
England	**88**	**175**	**88**	**351**

Source: As Table 3.1.

LA areas with high increases in rents

The correlation coefficient between social rents and LQ house prices in these LA
areas was 0.817. This suggests a positive relationship between the two variables
over the period.

The regression result was:

> Weekly rent = 46.057 + 0.652 * LQ house price
> (29.78)*** (43.82)***
> *t*-value in parenthesis, R^2 = 0.668, Adjusted R^2 = 0.668
> N = 956
> *** 1-% significance level

The coefficient of house prices was significantly positive (0.652). The adjusted R^2
was moderate (0.668), implying that there are missing variables. Figure 4.14
illustrates the relationship and the scatter pattern across the LA areas with high rent
increases.

Figure 4.14 Relationship between private rents and house prices in LA areas with high increases in rents.
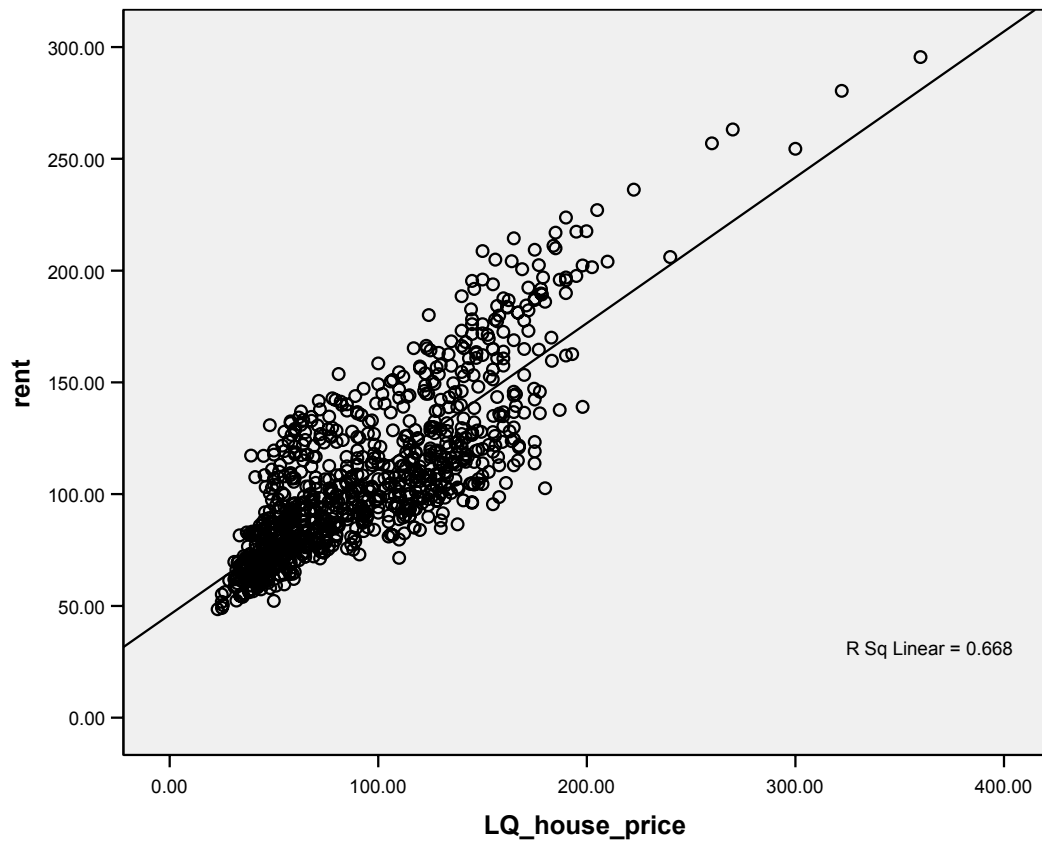
LA areas with low increases in rents

The correlation coefficient of social rents and LQ house prices in LA areas was 0.821. This suggests a positive relationship between the two variables over the period.

The regression result was:

Weekly rent = 49.339 + 0.548 * LQ house price
$$(46.95)^{***} \ (44.70)^{***}$$
t-value in parenthesis, $R^2 = 0.674$, Adjusted $R^2 = 0.674$
N= 968
*** 1-% significance level

The coefficient of house prices was significantly positive (0.548). The adjusted R^2 was moderate (0.674), implying that there are missing variables. Figure 4.15 illustrates the relationship and the scatter pattern across the LA areas with high rent increases.

Figure 4.15 Relationship between private rents and house prices in LA areas with
low increases in rents.
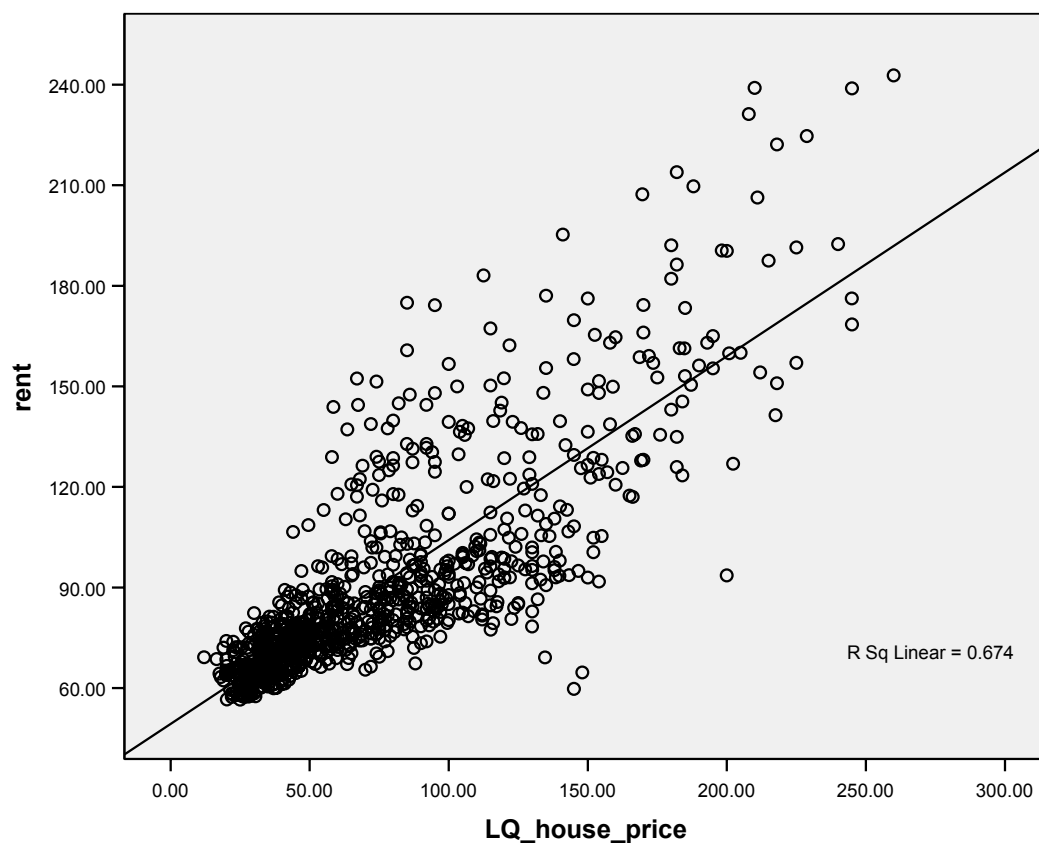
LA areas with high increases in house prices

The correlation coefficient between the social rents and LQ house prices in LA areas
was 0.762. This suggests a positive relationship between the two variables over the
period, but the degree of relationship was lower than that of the low increase group.

The regression result was:

Weekly rent = 50.814 + 0.625 * LQ house price
           (29.88)*** (36.56)***
t-value in parenthesis, R^2 = 0.581, Adjusted R^2 = 0.568
N= 967
*** 1-% significance level

The coefficient of house prices was significantly positive (0.625). The adjusted R^2
was low (0.568), which implies, again, that there are missing variables. Figure 4.16
illustrates the relationship and the scatter pattern across the LA areas with high rent
increases.

Figure 4.16 Relationship between private rents and house prices in LA areas with high increases in house prices.
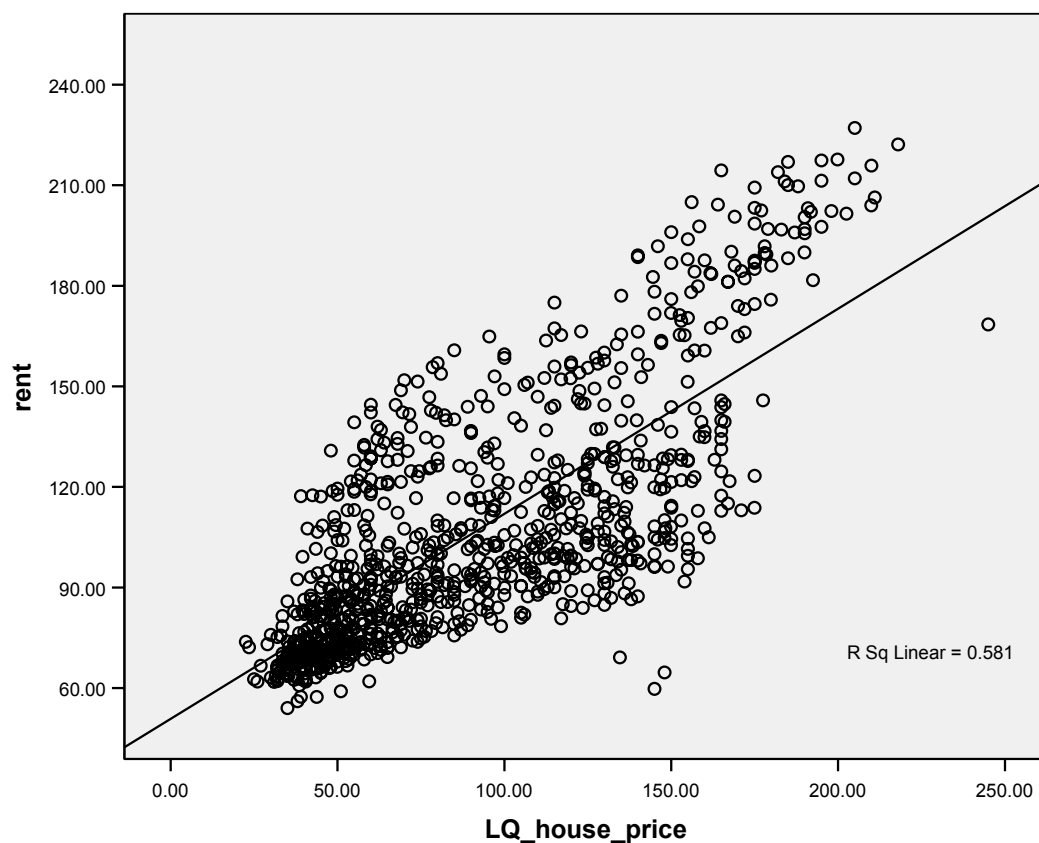
LA areas with low increases in house prices

The correlation coefficient between social rents and LQ house prices in LA areas was 0.871. This suggests a positive relationship between the two variables over the period.

The regression result was:

Weekly rent = 44.518 + 0.583 * LQ house price
    (53.26)*** (55.10)***
t-value in parenthesis, R^2 = 0.759, Adjusted R^2 = 0.759
N= 967
*** 1-% significance level

The coefficient of house prices was significantly positive (0.583). The adjusted R^2 was moderate (0.759), implying that there are missing variables. Figure 4.17 illustrates the relationship and the scatter pattern across the LA areas with high rent increases.

Figure 4.17 Relationship between private rents and house prices in LA areas with low increases in house prices.

R Sq Linear = 0.759
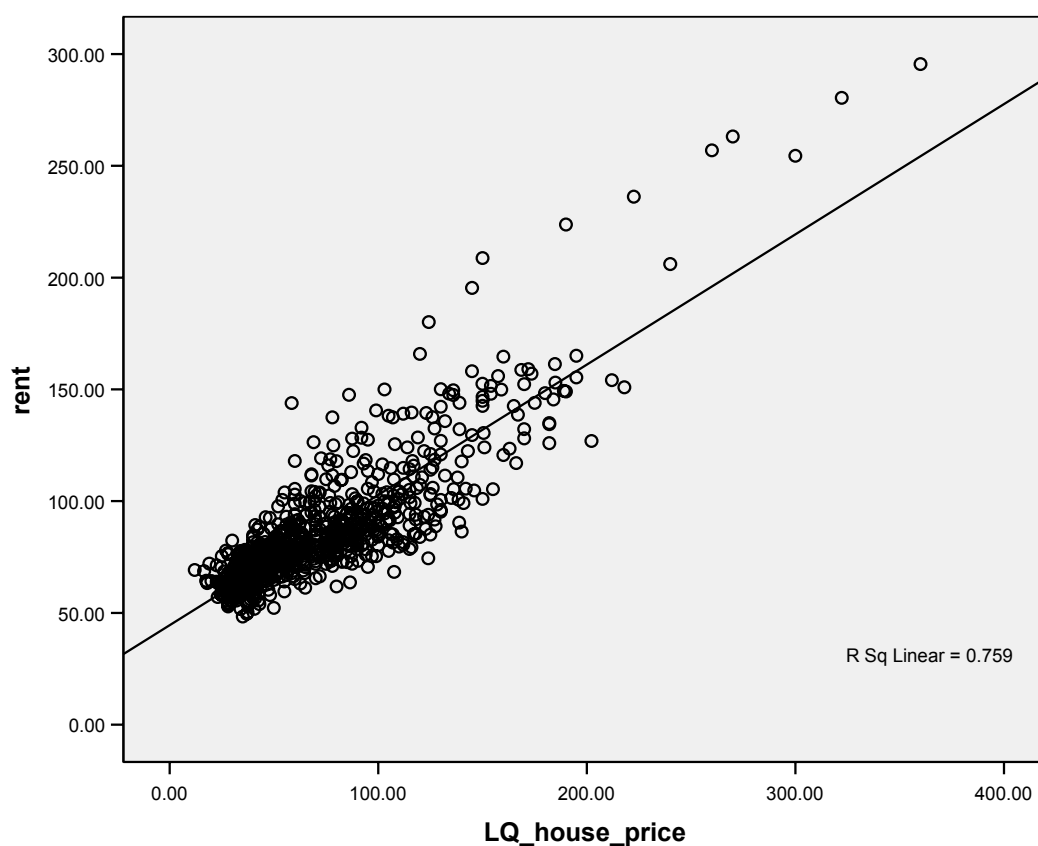
5. Private rental rates of return across England 1996/97 – 2006/07

5.1 Definition of rate of return

This section examines the pattern of private rental rates of return from 1996/97 to 2006/07 at various geographical levels. Rate of return, in this analysis, is measured by the private sector annual average rent, converted from the weekly average, as a percentage of LQ house prices for each LA area across England. The data sources for the numerators and denominators are the same as those in the previous sections.

5.2 The national trend of private rental rates of return

Table 5.1 sets out private rental rates of return for England over the period 1996/97 to 2006/07. In 2006/07, the rate was 5.07%, 5.30 points below that for 1996/97. The rates have declined over the period except in 2005/06 – the year had LQ house prices growing higher (in percentage terms) than private rents. The large increase in house prices from 2002/03 to 2004/05 resulted in a sharp decline in the rate of return.

Table 5.1 Rental rate of return (%, %-point for change from the previous year)

	Rental rate of return	Change
1996/97	10.37	
1997/98	9.86	-0.51
1998/99	9.32	-0.54
1999/00	8.32	-1.00
2000/01	8.13	-0.19
2001/02	7.74	-0.39
2002/03	7.30	-0.44
2003/04	6.16	-1.14
2004/05	5.14	-1.02
2005/06	5.25	0.11
2006/07	5.07	-0.18
1996/97 – 2006/07		-5.30

Source: As Tables 2.1 and 3.1.

Declining rental rates of return might make renting properties an unattractive investment, particularly for landlords supplying properties purchased on mortgages. In recent years, the average rental rate of return underperformed the banks and building societies' average mortgage rate.[17] A simple comparison between the two rates might therefore discourage prospective landlords from supplying rental properties. Nevertheless, the movement of private sector rental property supply (measured by rent cases reported in the same data source) was not in tandem with the trend for the rate of return (Figure 5.1). Rather they seem to have moved in opposite directions since 1999/00.

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[17] According to the Councils of Mortgage Lenders, the building society and bank basic mortgage rates were 6.47% for 2004/05 and 6.46% for 2006/07 (four-quarter average, see Appendix 3).

Figure 5.1 Rental rate of return and rent cases
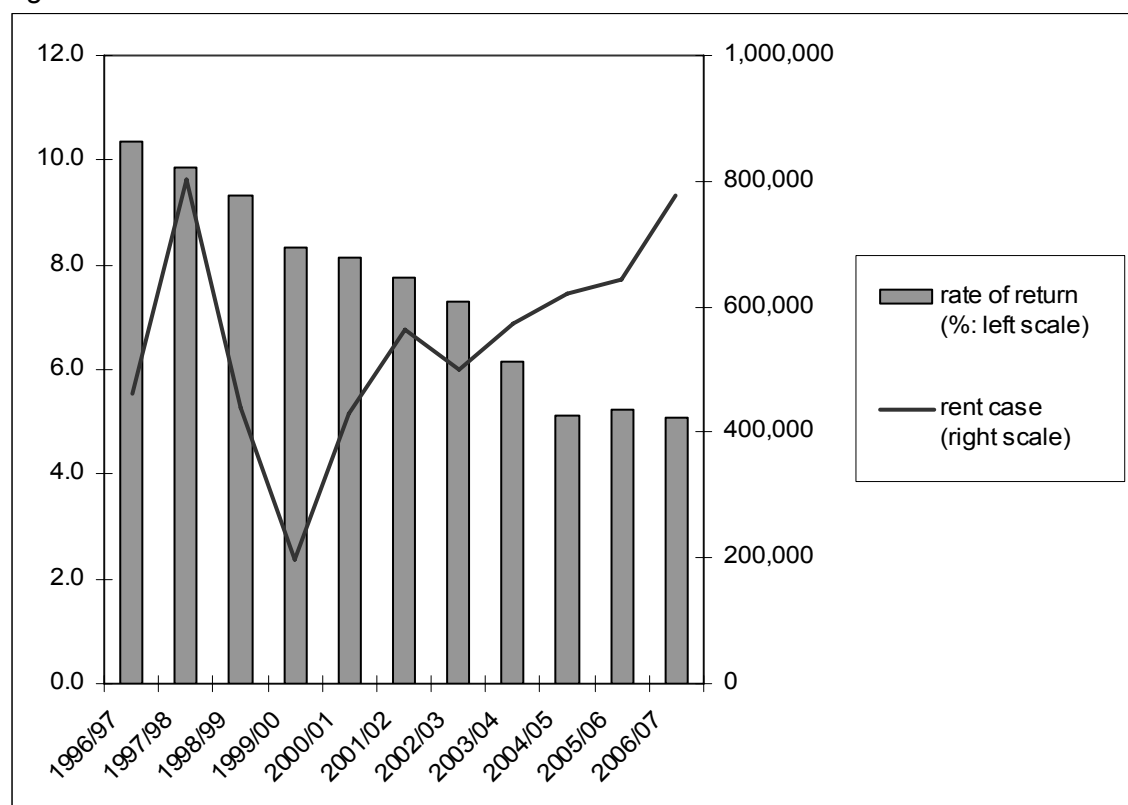
Source: As Tables 2.1 and 3.1.

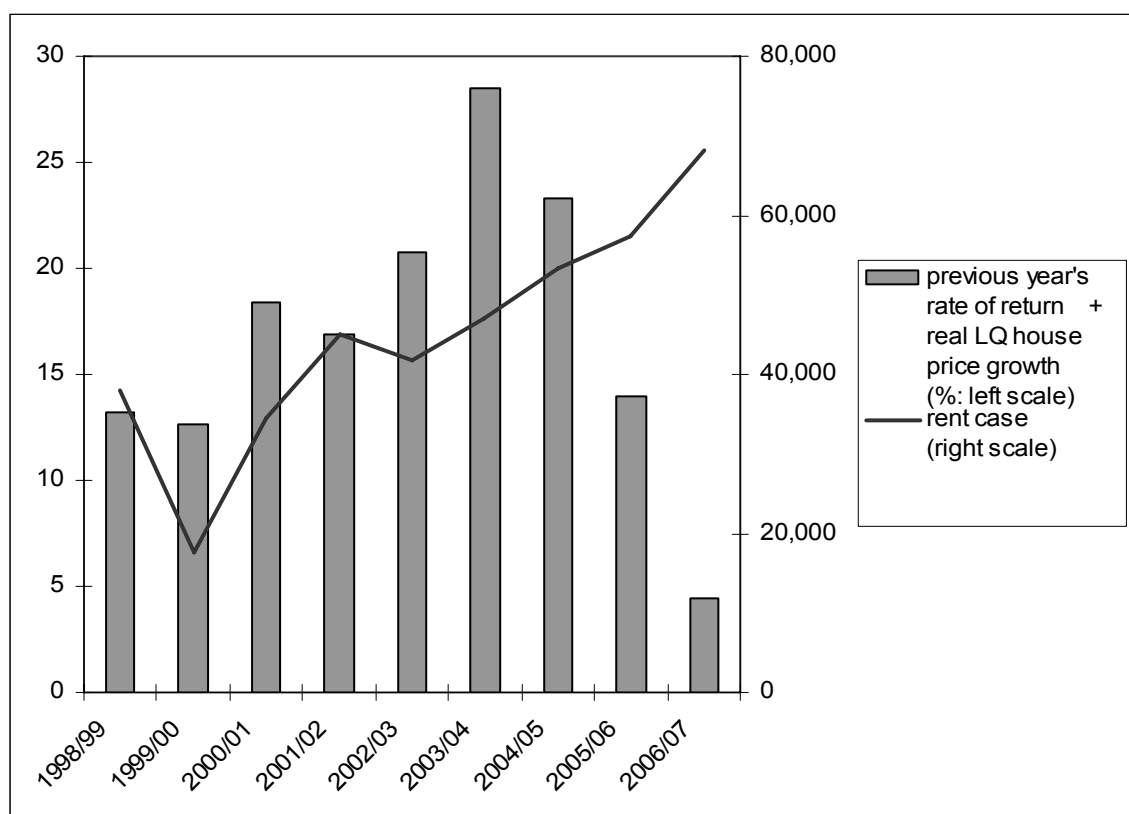Figure 5.2 Rental rate of return plus LQ house price real growth rate and rent cases
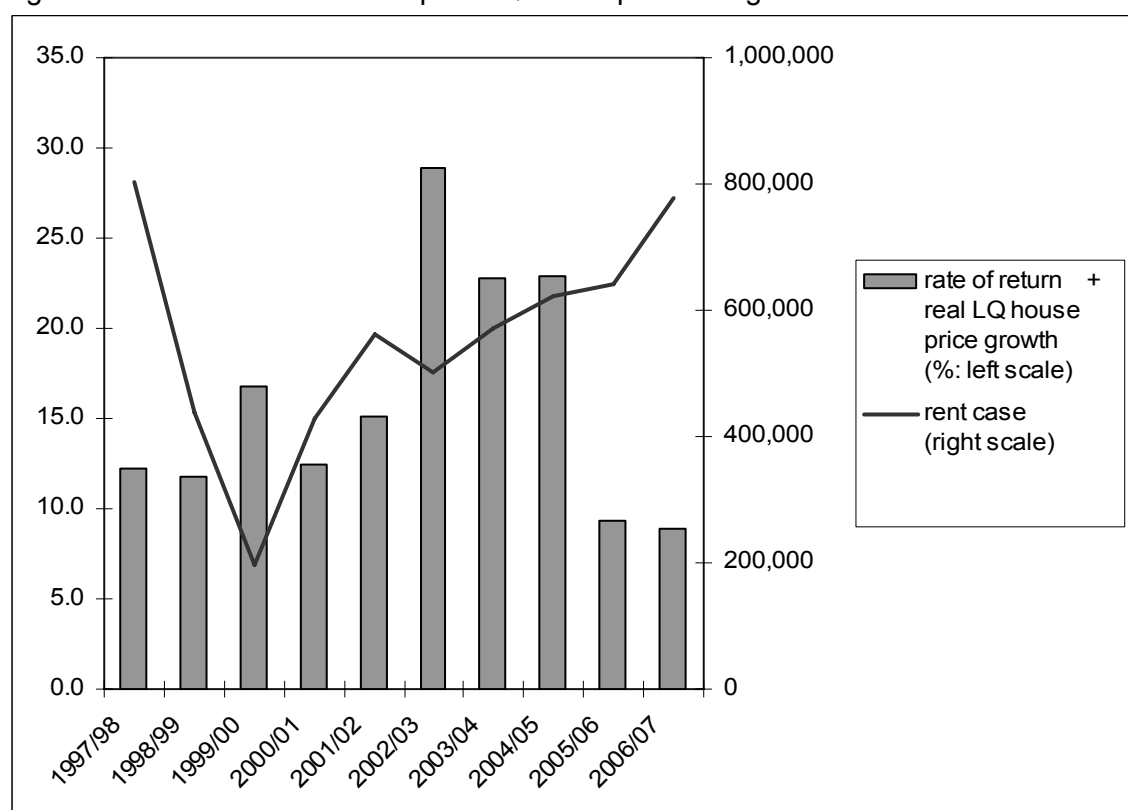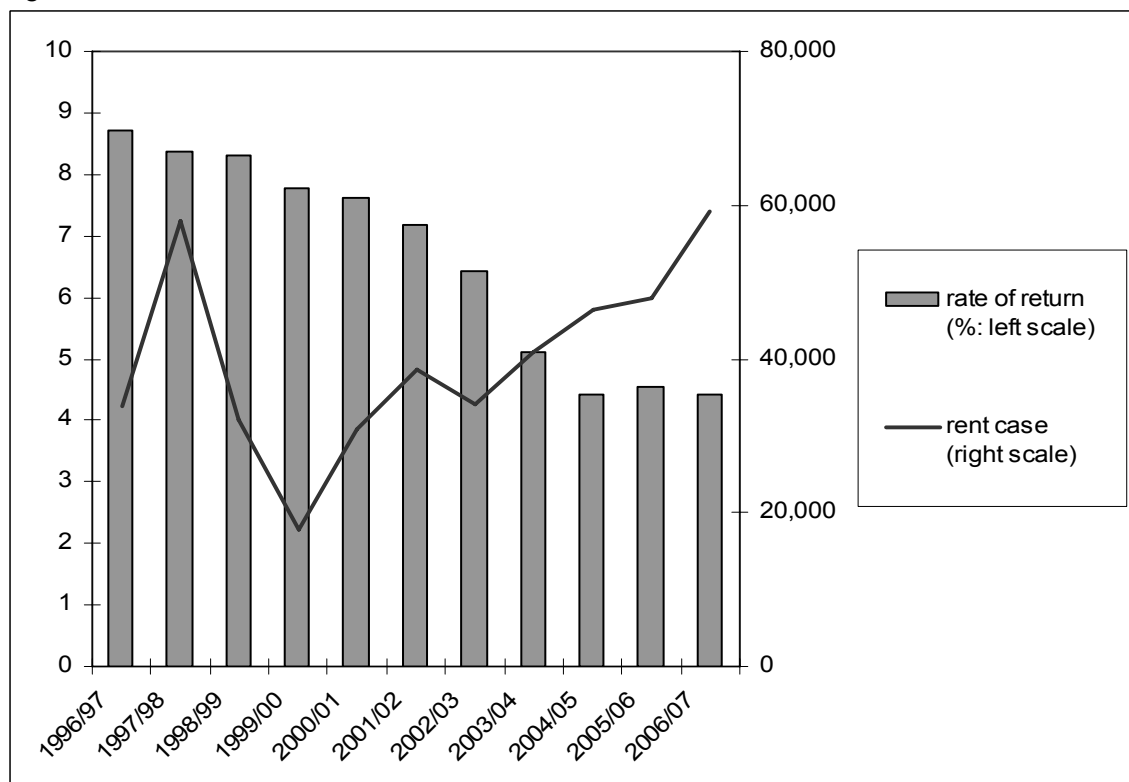

Source: As Tables 2.1 and 3.1.

Figure 5.3 Previous year's rental rate of return plus LQ house price real growth rate
          and rent cases
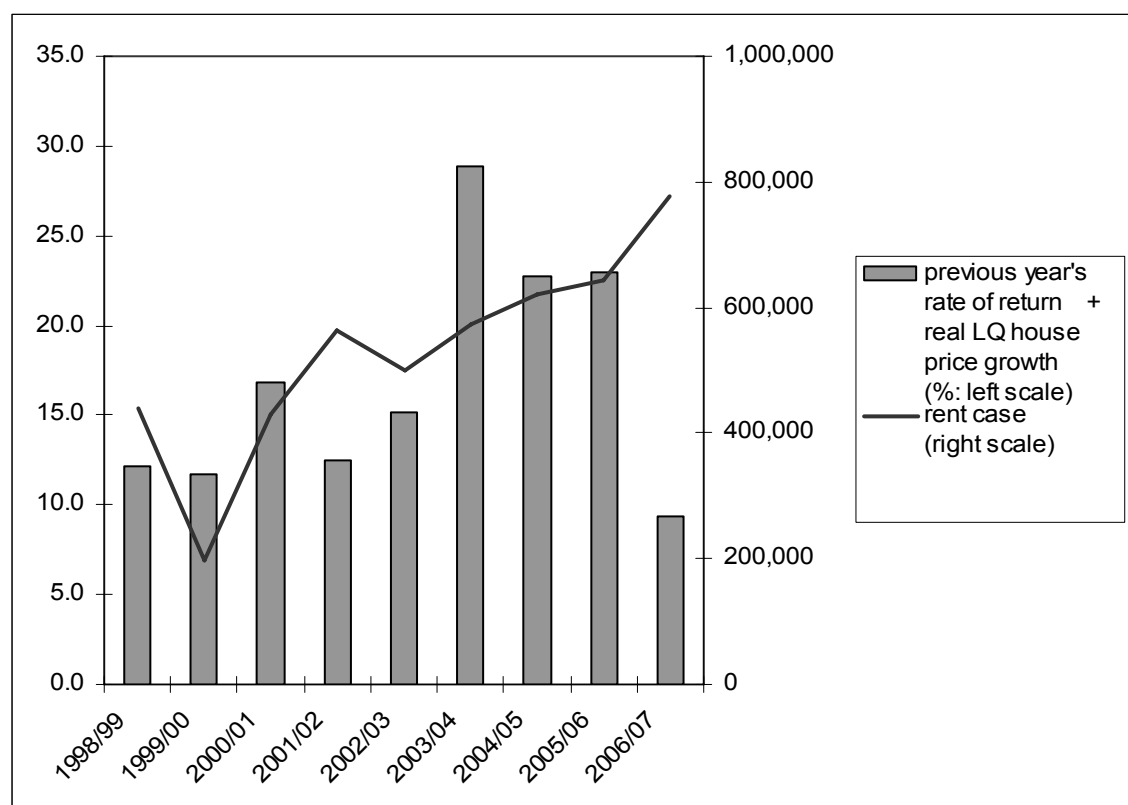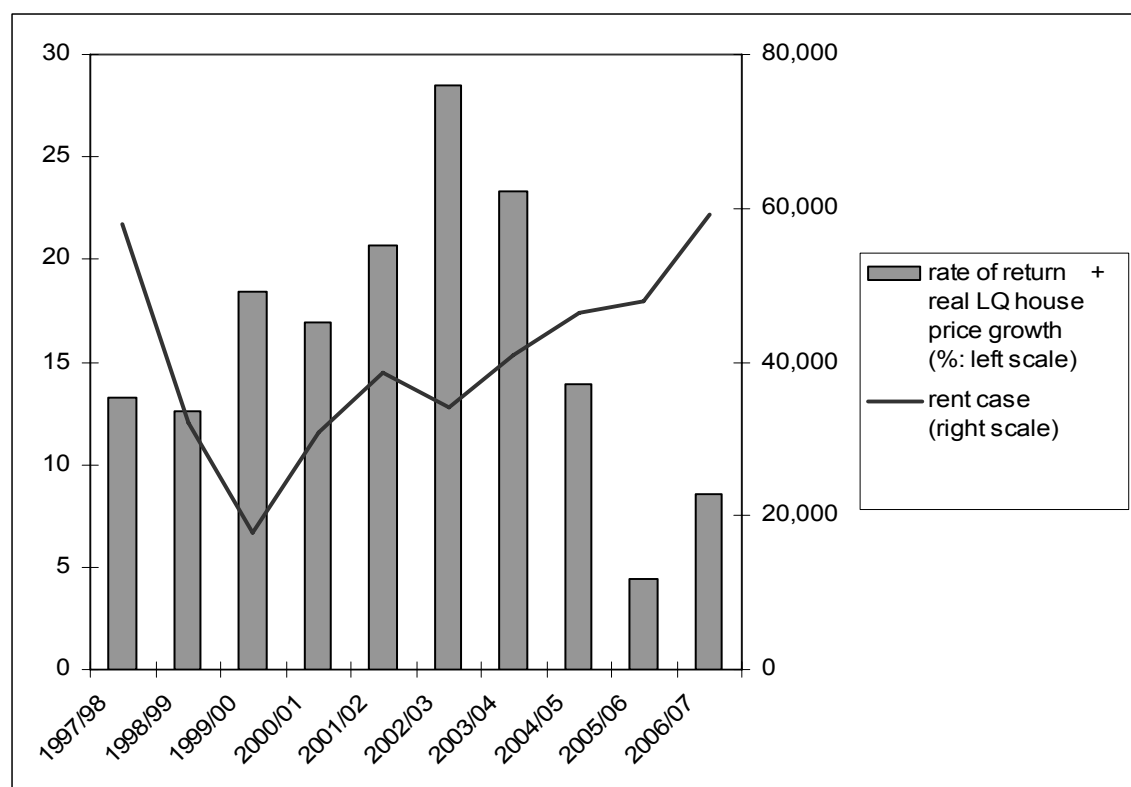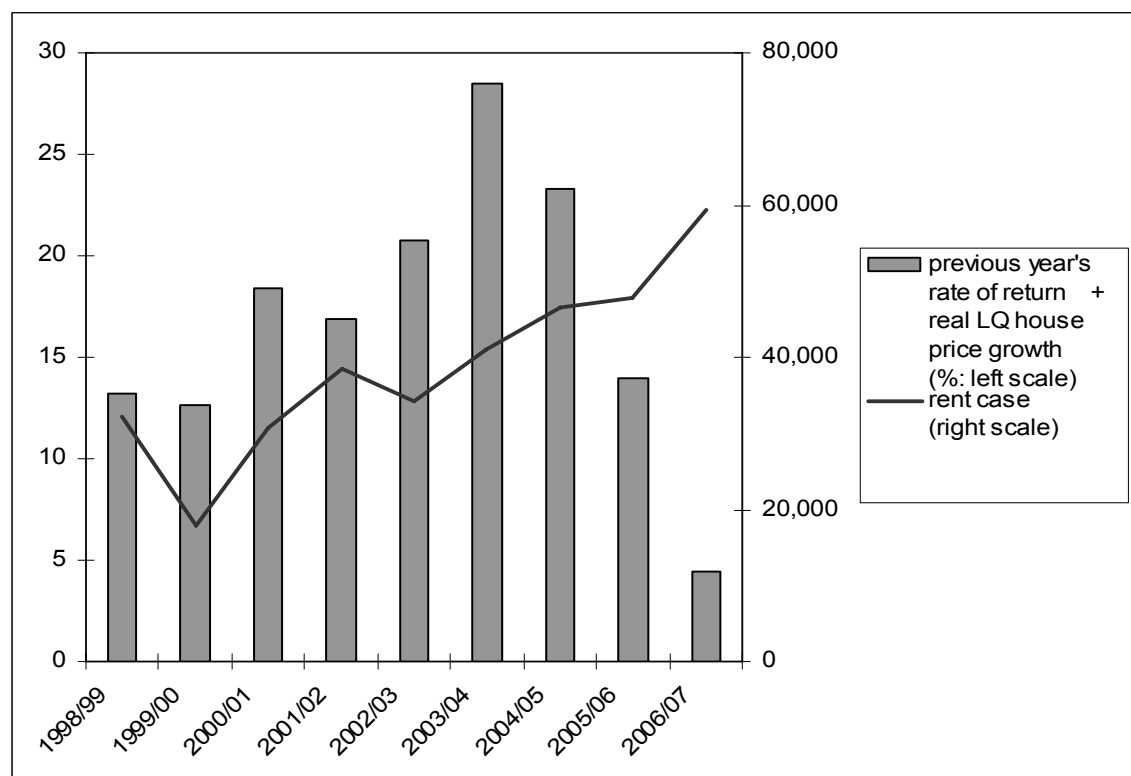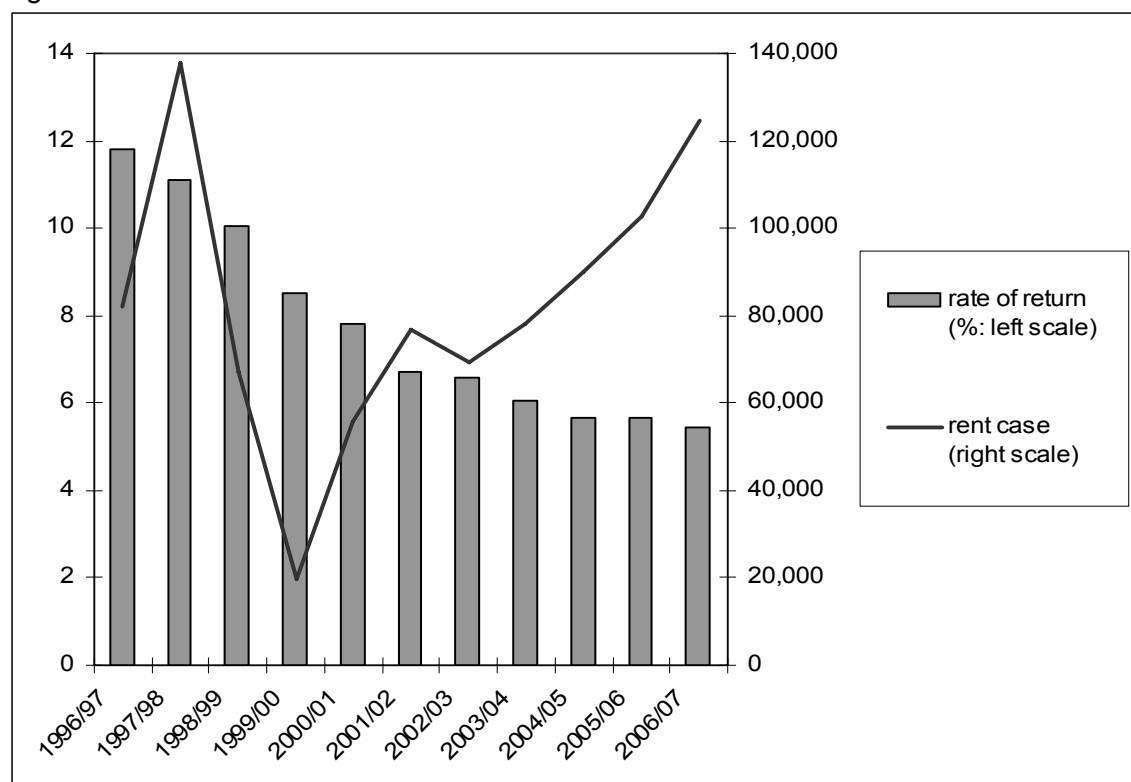

Source: As Tables 2.1 and 3.1.

To examine whether or not this inconsistency is explained by capital gain or increase
in property value – another type of return on rental property investment, Figure 5.2
displays the capital gain (represented by LQ house price annual growth rate in real
terms, available from Section 3) and rental rate of return. Considering the time lag
between the cause (i.e.; potential landlords obtained information on a rental
property's price growth) and its effect (i.e.; they owned and started to rent it). Rent
cases and the previous year's returns are represented later in the text in Figure 5.3.

Still, the two figures do not present a clear relationship between property supply and
returns on properties, but the movements of the two variables since 1999/00 were
not as incompatible as when returns are measured solely by rents.

With regard to this issue, further research will be required, but if private sector
property supply is sustained dominantly by returns in the form of capital gains, then
this will provide uncertainties for private sector tenants.[18] Once speculation is when
property market becomes sluggish, private sector landlords may start selling their
rental properties to realise capital gains, which will affect tenants.[19] Taking this

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[18] To examine whether private sector rental property supply is influenced by rental rates of
return and/or capital gains, comparison with returns from other investments (e.g., equities
and gilts) would be required. For reference, the FTSE reported that 12-month growths for
FTSE 100 index (equities) and FTSE UK Gilts All Stock were 8.45% and 0.16% respectively
as at 28 September 2007 (FTSE, *UK Commercial Property Index Series*, available from
ftse.com/Indices/ FTSE_UK_ Commercial_ Property _Index_ Series/factsheets.jsp; accessed
in April 2008.).
[19] However, the latest property slump in the late 1980s and early 1990s, which happened as
part of the economic recession, did not reduce private sector rental properties. It was partly
because home owners started to rent their homes to compensate the income decline arising

uncertainty within the private sector into account, the role of private sector landlords will be highly significant to the sustainability of rental property provision.

5.3 Regional trends of private rental rates of return

Table 5.2 sets out the rental rates of return by region for the same period. In 2006/07, the highest rental rate of return was observed in London (5.46%), followed by the North East (5.21%) and the North West (5.09%). The three regions with the lowest were the South West (4.23%), the East Midlands (4.41%) and the South East (4.47%). Until 2004/05, rental rates of return dropped continuously in all the regions except the North East from 200/01 to 2002/03 and Yorkshire and the Humber in 2002/03. In 2006/07, however, four regions (the East, the East Midlands, the South East, and the South West) presented increases from the previous year and London remained at the same level. Compared with in 1996/97, London showed the largest drop (6.35 points) in 2006/07, whereas the smallest decline was in the East Midlands, of 4.32 points.

Table 5.2 Rental rates of return by region (%, %-point for change)

	East	E. Mid	London	N. E.	N. W.	S. E.	S. W.	W. Mid	Y & H	Max. – Min.
1996/97	9.36	8.73	11.81	10.16	10.80	9.19	8.89	9.26	9.45	3.08
1997/98	8.84	8.37	11.09	9.97	10.49	8.73	8.56	9.06	9.31	2.71
1998/99	8.39	8.32	10.05	10.07	10.31	8.16	8.14	8.88	9.30	2.17
1999/00	7.73	7.78	8.53	9.21	9.65	7.34	7.43	8.40	8.84	2.31
2000/01	6.96	7.62	7.83	9.75	9.70	6.66	6.77	8.14	8.86	3.09
2001/02	6.13	7.17	6.72	10.25	9.78	5.94	5.86	7.54	9.05	4.39
2002/03	5.65	6.42	6.59	10.56	9.51	5.40	5.85	6.90	9.82	5.15
2003/04	4.97	5.10	6.06	7.79	7.59	4.86	4.75	5.75	6.87	3.04
2004/05	4.38	4.42	5.66	6.14	5.84	4.34	4.03	5.00	5.16	2.11
2005/06	4.74	4.54	5.66	5.52	5.45	4.55	4.37	4.90	4.99	1.29
2006/07	4.59	4.41	5.46	5.21	5.09	4.47	4.23	4.79	4.69	1.23
change:										%-point
96/97 – 06/07	-4.77	-4.32	-6.35	-4.95	-5.71	-4.72	-4.66	-4.47	-4.76	2.03
Estimated annual	-0.48	-0.43	-0.64	-0.50	-0.57	-0.47	-0.47	-0.45	-0.48	0.21

Source: As Table 5.1.

Compared with the national level, the average rates for London, the North East and the North West appeared high in 2006/07, while the remaining six regions held low rates of return. To examine the impact of private sector rent levels on the rental rates of return, we plotted the nine regions according to rents and house prices for 2006/07 (Figure 5.4). In the figure, the X and Y axes relate to LQ house prices and weekly average rents respectively, intersecting at the English average. Therefore regions with higher (lower) rents than the national average will be situated above (below) the X axis, while those with higher (lower) house prices than the national level will be located in the right (left) side of the Y axis.

from the recession (Kemp, 2004). The possible effect of a decline in property prices should be the subject of further research, which is beyond the scope of this paper.

Figure 5.4 Position of nine regions by rent and house price, 2006/07
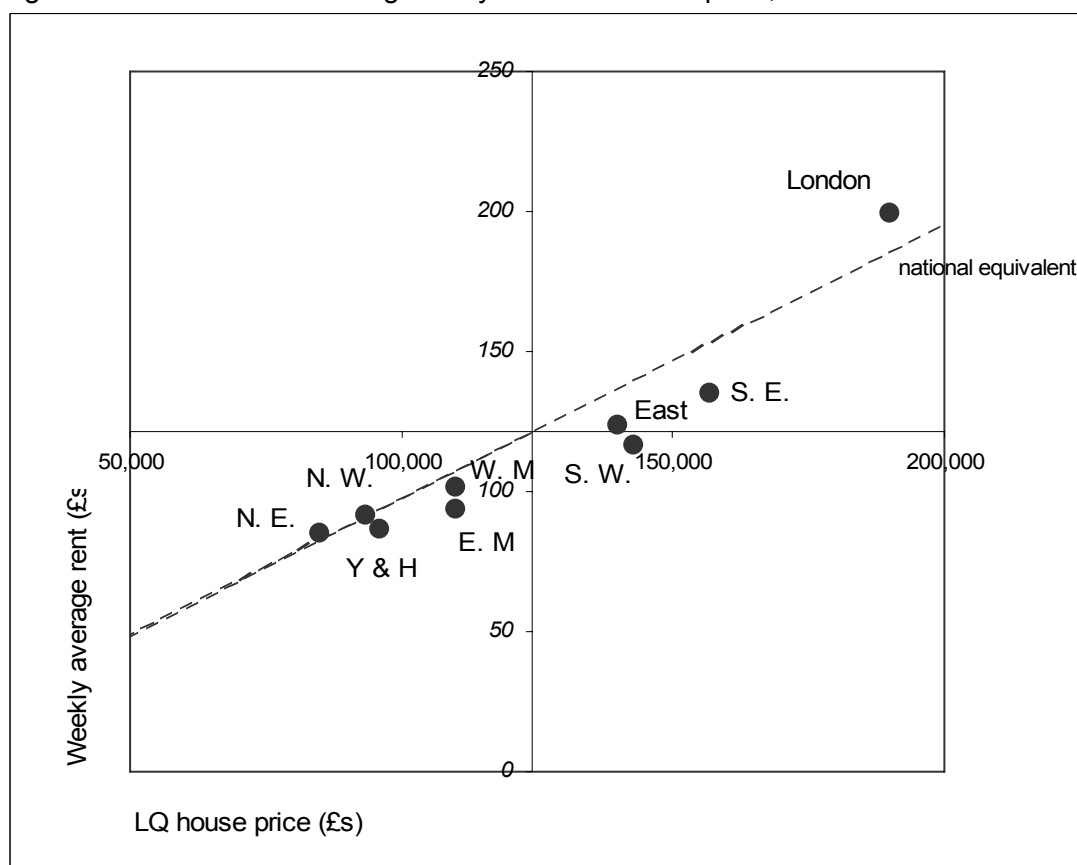
Source: As Tables 2.1 and 3.1.

In addition, the figure plots a line showing the rent level necessary to sustain the national rental rate of return for corresponding house prices (the dotted line named 'national equivalent' in the figure). The region above (below) the line has an actual rent higher (lower) than the average rent, which would bring the rental rate of return up to the national level for a given LQ house price. Therefore, regions with higher rental rates of return than the national average (London, the North East and the North West) appear above the national equivalent line, whereas those with lower rental rates of return (the East, the East Midlands, the South East, the South West, the West Midlands and Yorkshire and the Humber) plotted below this line.

The vertical distance between each region and the national equivalent line shows the difference between the region's actual rent and the national rent. For example, if London had a rental rate of return equivalent to the national standard, the region's average weekly rent should plot at the point where a vertical line from London would cross the national equivalent line. By contrast, the South East would have to increase its rent level, for the region to have a rental rate of return closer to the national rate.[20]

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[20] Another interpretation of the figure is: If London's rental rate of return was close to the national rate, while keeping its current private sector rent level, the region's LQ house price would have to be raised to the point where a horizontal line from London would cross the national equivalent line. However, considering causality (where the value of a property is first specified and then a rent for the property is decided), this interpretation would be unrealistic.

Figures 5.5 to 5.31 present the number of rent cases with a rental rate of return plus LQ house price real growth rates or a previous year's sum of the two rates for each region. As observed at the national level in Figure 5.1, movements of rent cases did not stay in line with the path of rental rates of return for all the regions. On the other hand, previous years' sums of the rental rate of return and real LQ house price real growth, shifted partly (but not completely), in the same direction since 1999/00 in some regions.

Figure 5.5 Rental rate of return and rent cases: East
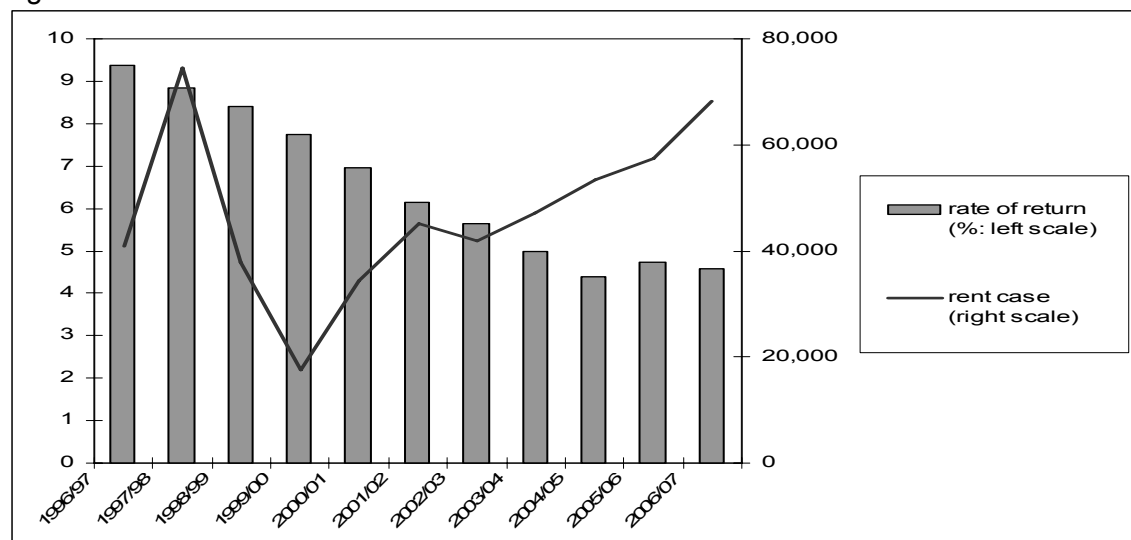
Source: As Tables 2.1 and 3.1.

Figure 5.6 Rental rate of return plus LQ house price real growth rate and rent cases: East

Source: As Tables 2.1 and 3.1.

59
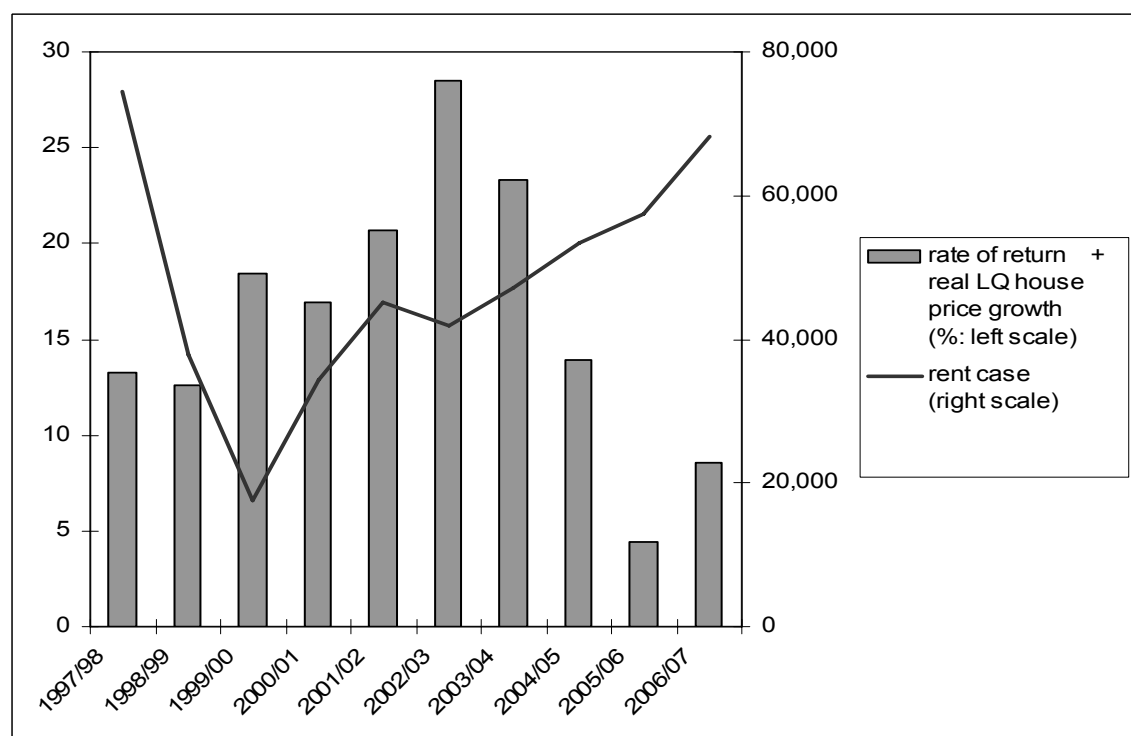
Figure 5.7 Previous year's rental rate of return plus LQ house price real growth rate and rent cases: East

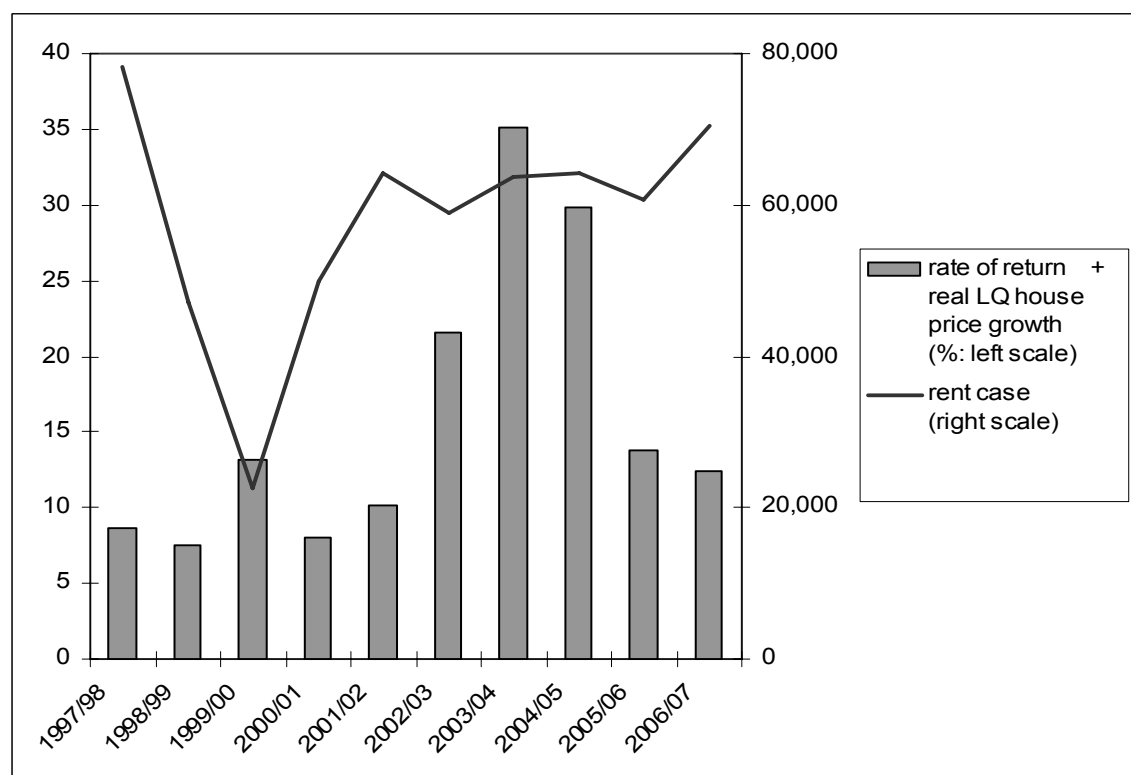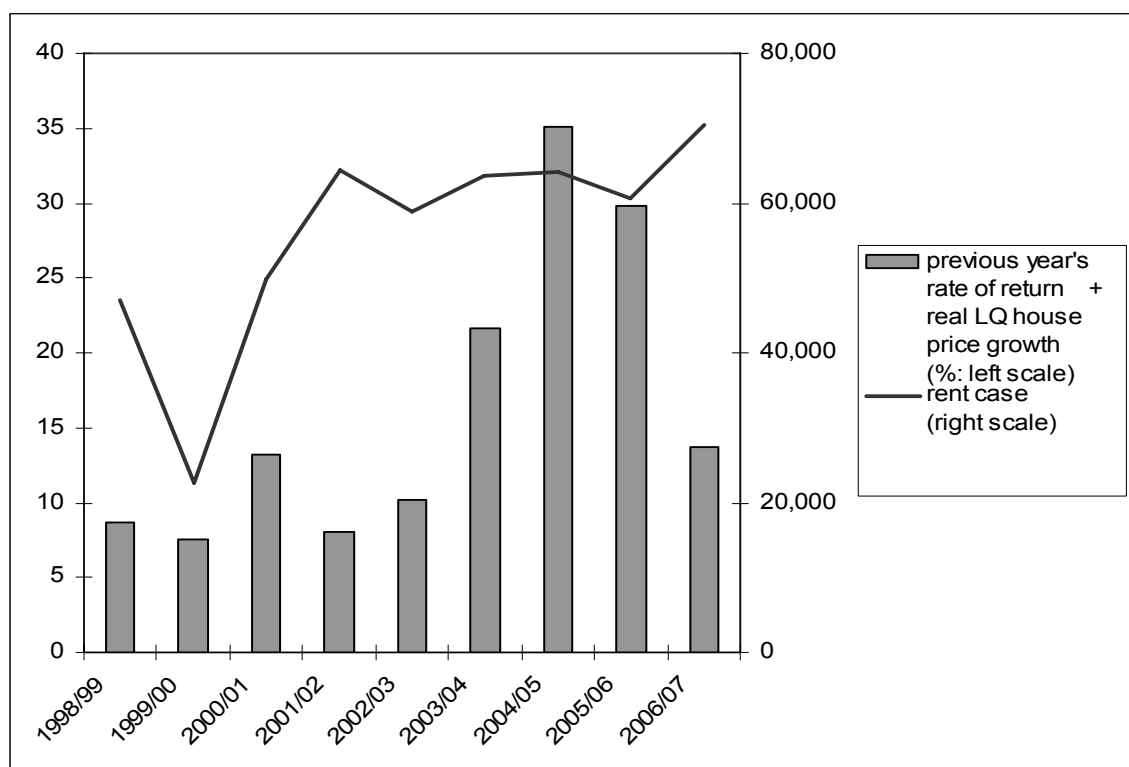

Source: As Tables 2.1 and 3.1.

Figure 5.8 Rental rate of return and rent cases: East Midlands

Source: As Tables 2.1 and 3.1.

Figure 5.9 Rental rate of return plus LQ house price real growth rate and rent cases:
East Midlands

Source: As Tables 2.1 and 3.1.

Figure 5.10 Previous year's rental rate of return plus LQ house price real growth rate
and rent cases: East Midlands

Source: As Tables 2.1 and 3.1.

Figure 5.11 Rental rate of return and rent cases: London

Source: As Tables 2.1 and 3.1.

Figure 5.12 Rental rate of return plus LQ house price real growth rate and rent
cases: London
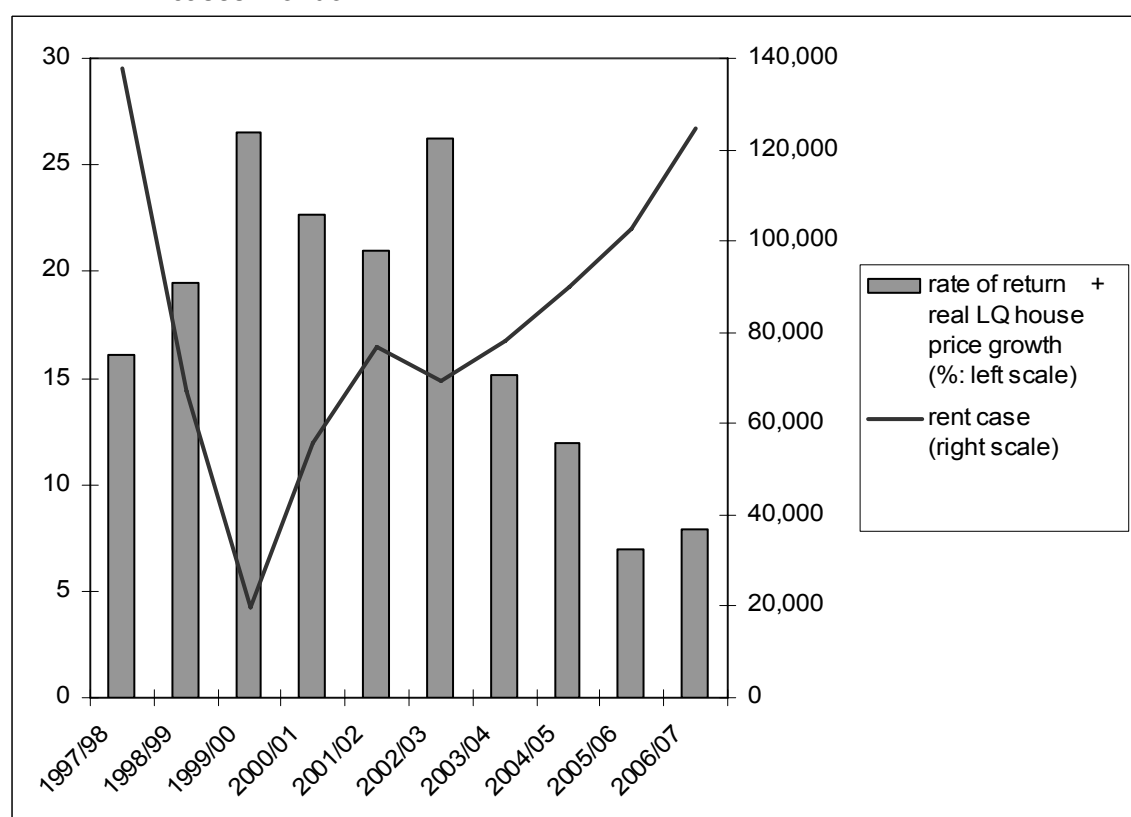
Source: As Tables 2.1 and 3.1.

Figure 5.13 Previous year's rental rate of return plus LQ house price real growth rate and rent cases: London
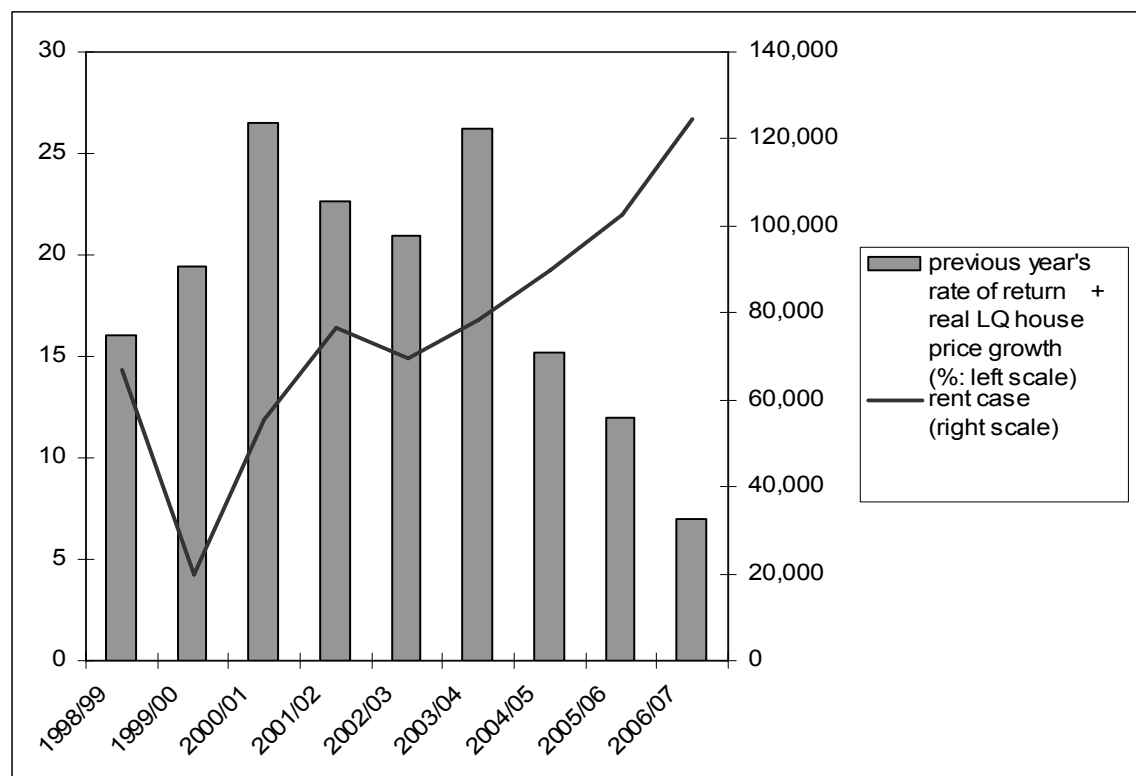
Source: As Tables 2.1 and 3.1.

Figure 5.14 Rental rate of return and rent cases: North East
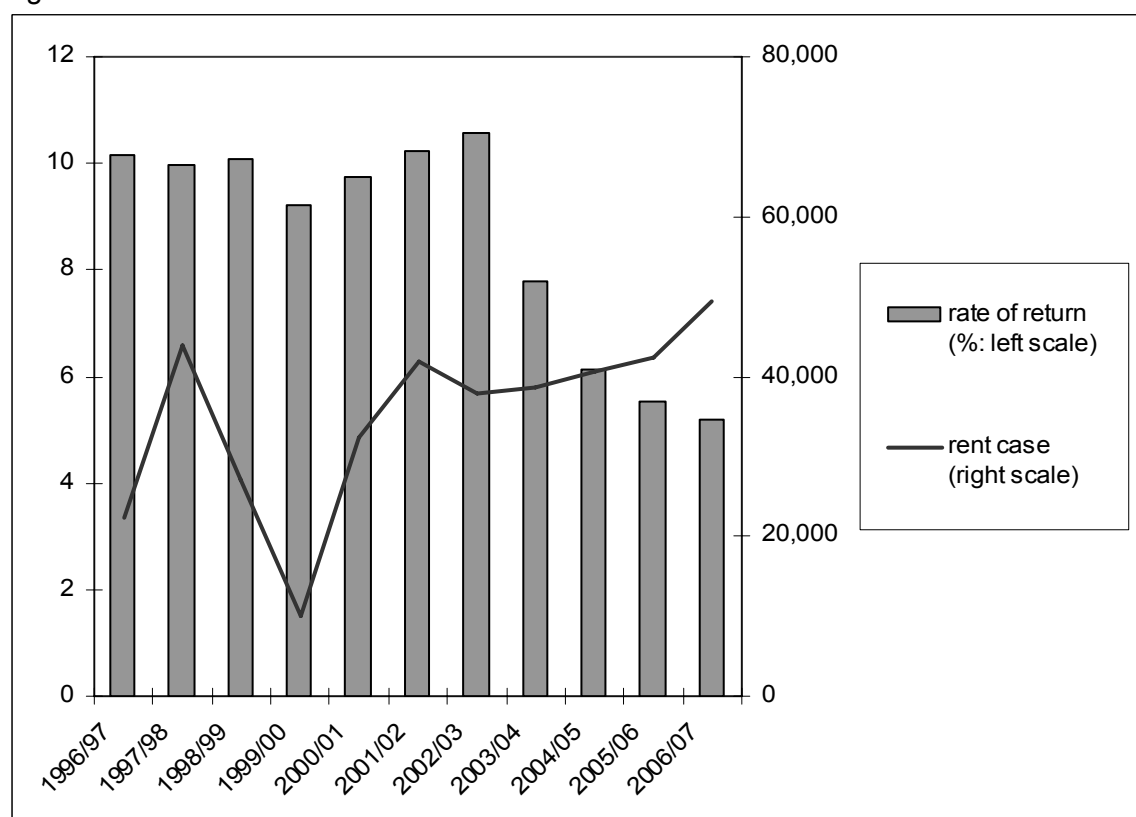
Source: As Tables 2.1 and 3.1.

Figure 5.15 Rental rate of return plus LQ house price real growth rate and rent
               cases: North East
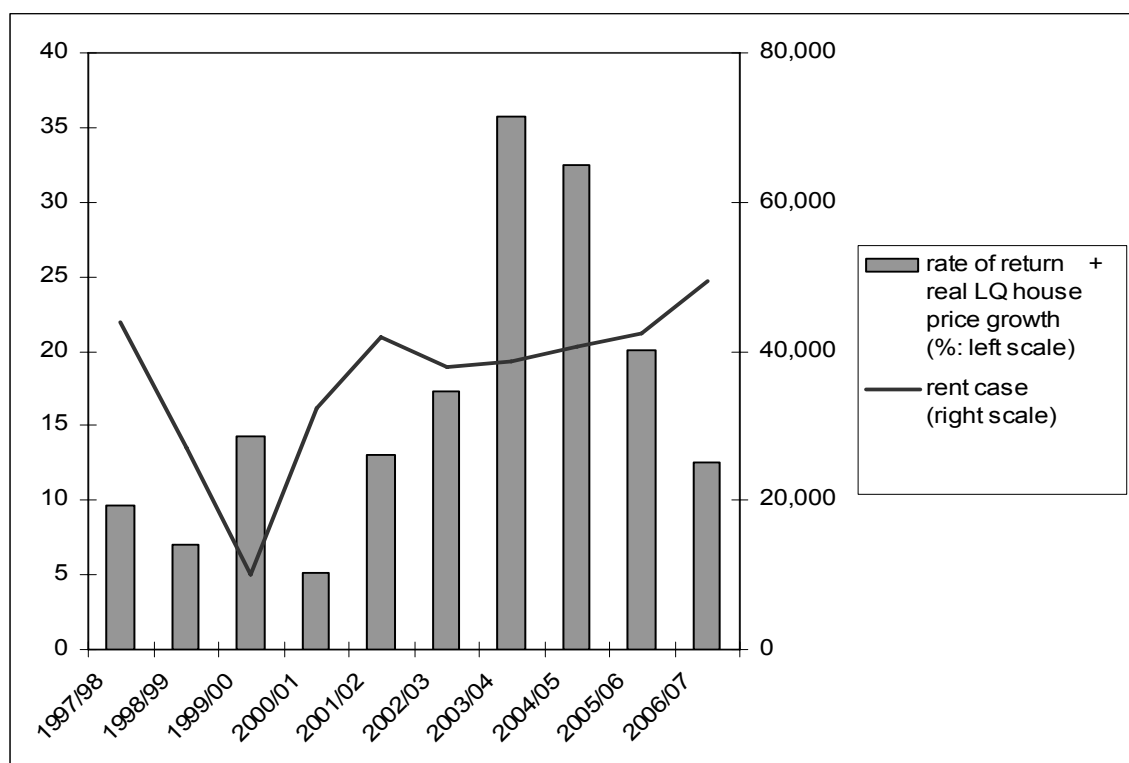
Source: As Tables 2.1 and 3.1.

Figure 5.16 Previous year's rental rate of return plus LQ house price real growth rate
               and rent cases: North East
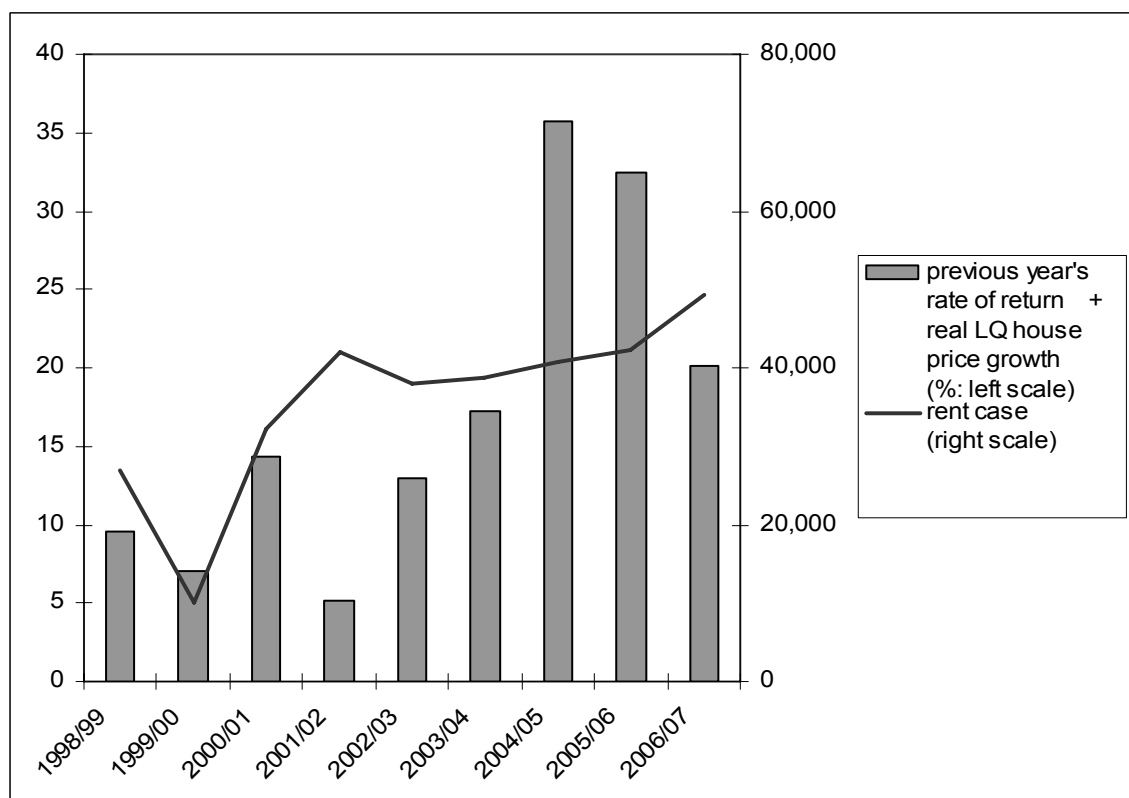
Source: As Tables 2.1 and 3.1.

Figure 5.17 Rental rate of return and rent cases: North West
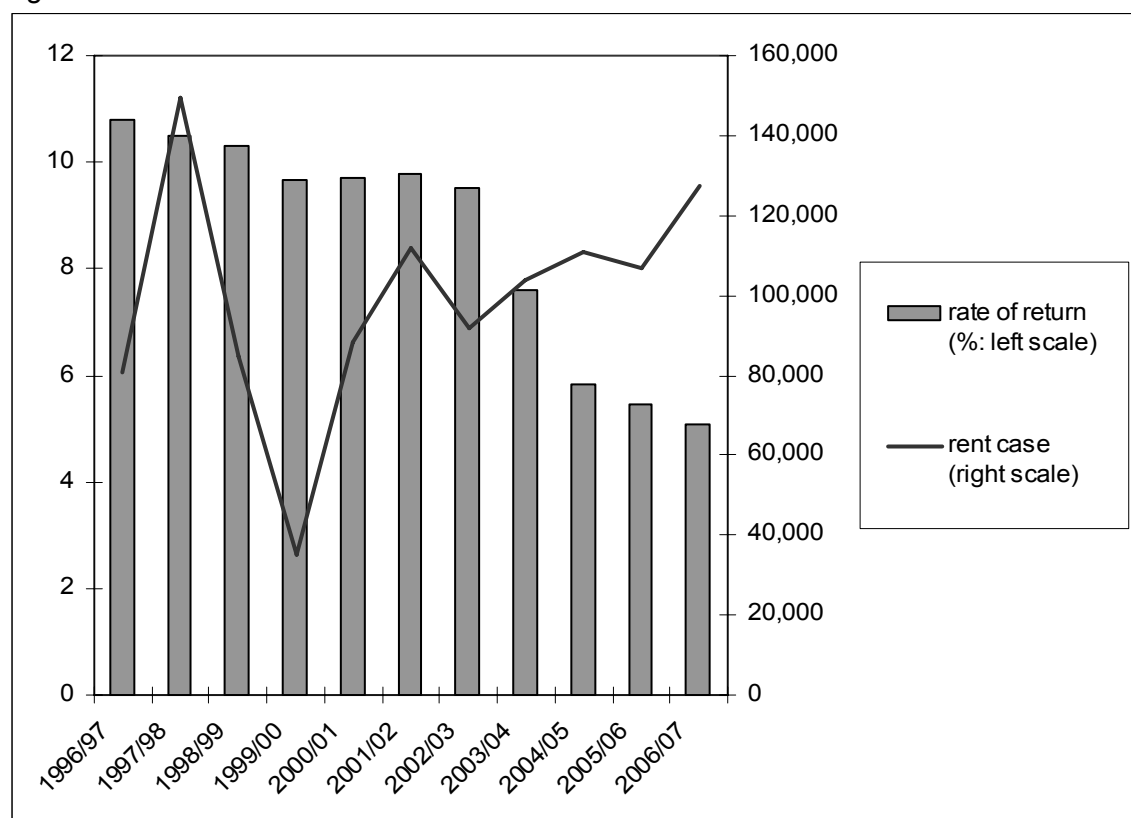
Source: As Tables 2.1 and 3.1.

Figure 5.18 Rental rate of return plus LQ house price real growth rate and rent
cases: North West
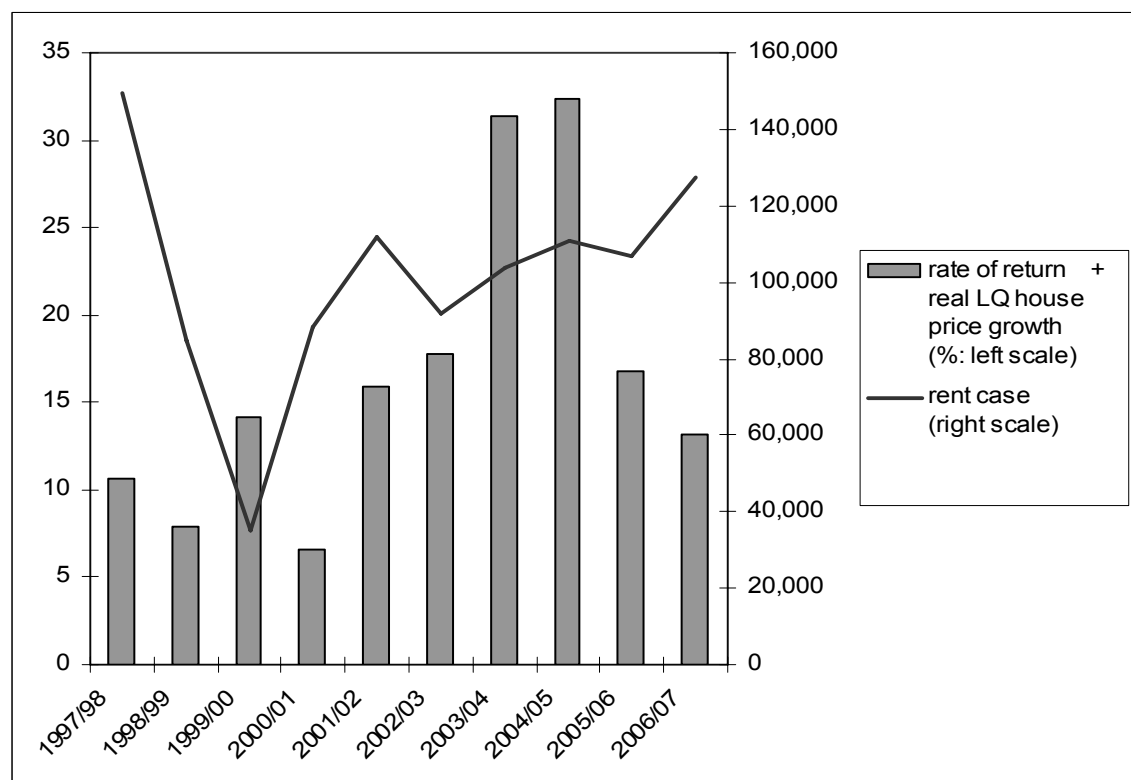
Source: As Tables 2.1 and 3.1.

Figure 5.19 Previous year's rental rate of return plus LQ house price real growth rate and rent cases: North West
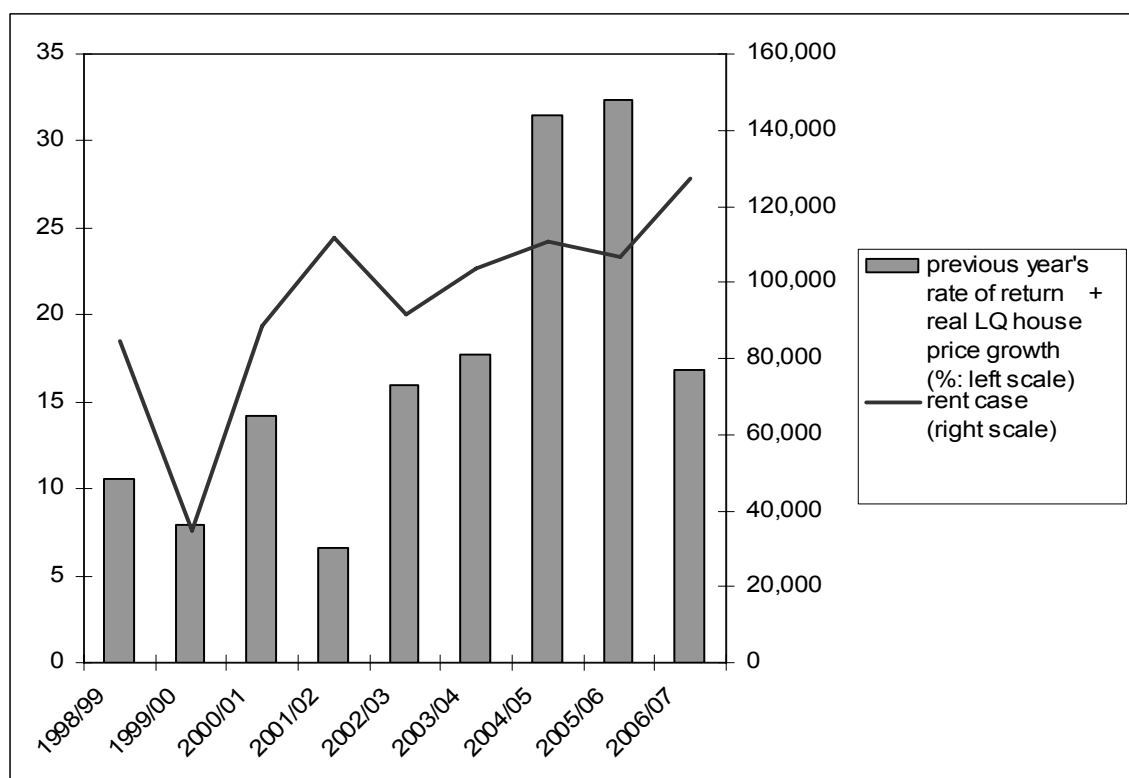
Source: As Tables 2.1 and 3.1.

Figure 5.20 Rental rate of return and rent cases: South East
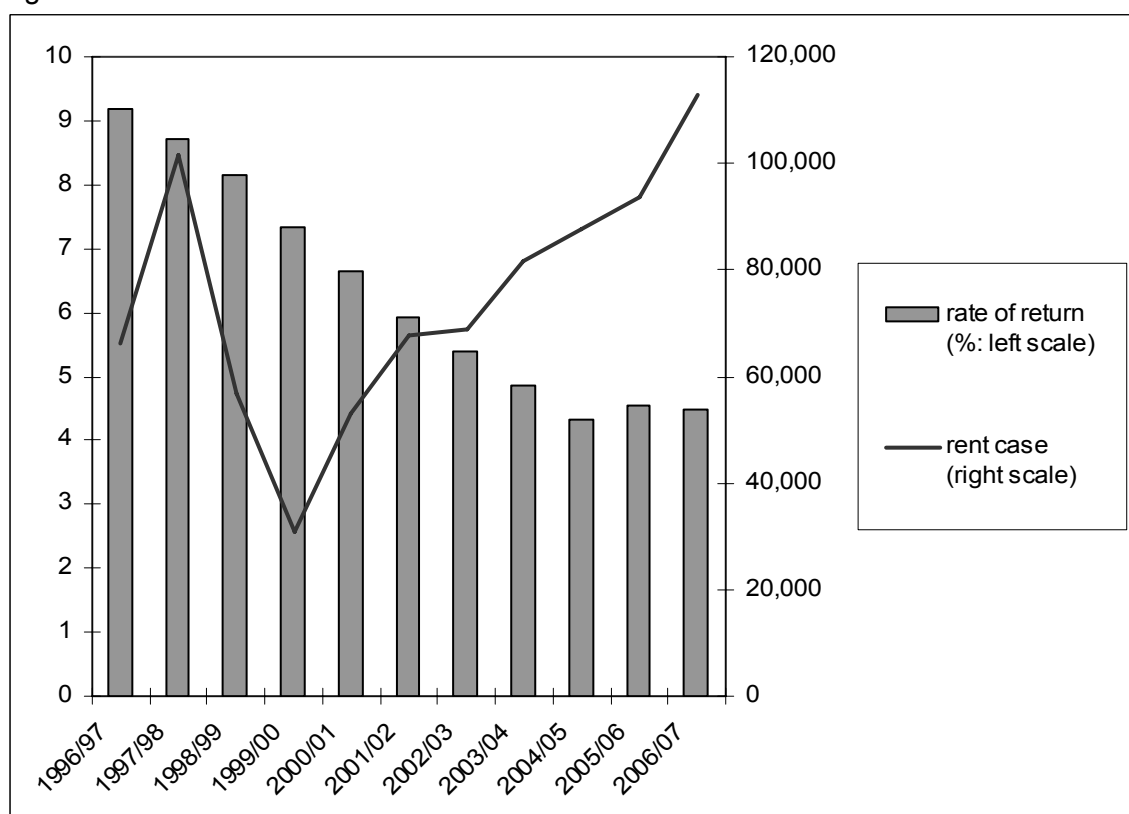
Source: As Tables 2.1 and 3.1.

Figure 5.21 Rental rate of return plus LQ house price real growth rate and rent
cases: South East
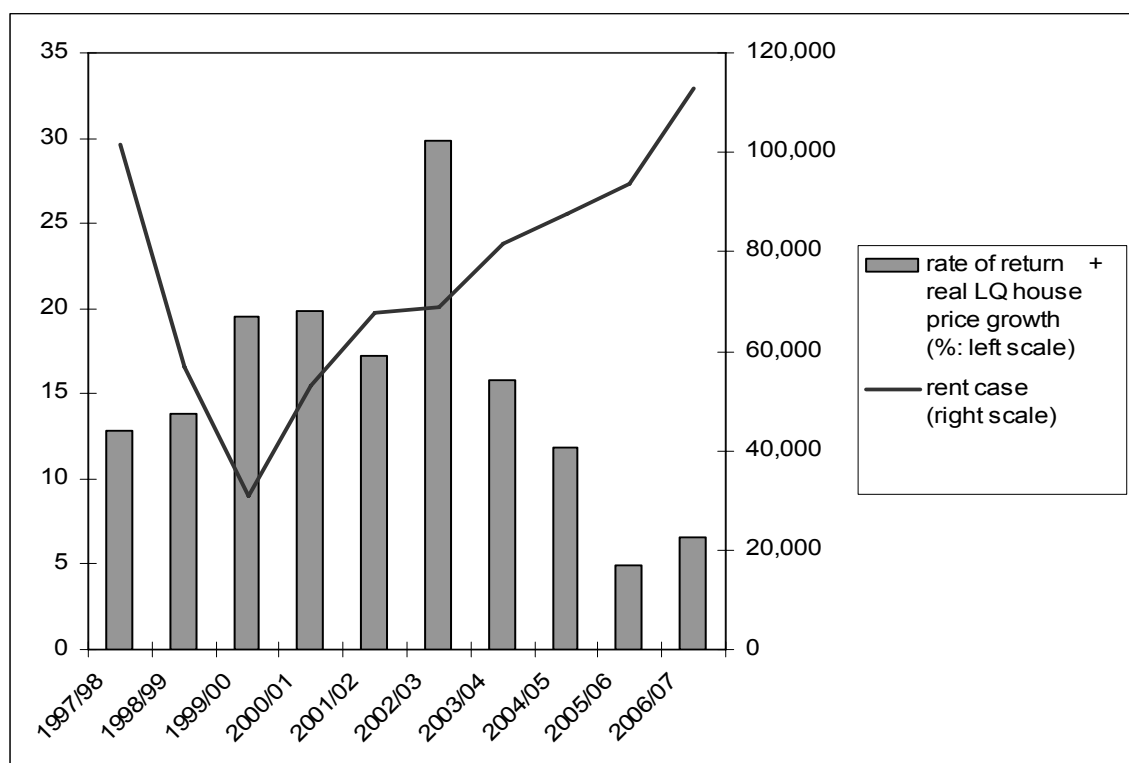
Source: As Tables 2.1 and 3.1.

Figure 5.22 Previous year's rental rate of return plus LQ house price real growth rate
and rent cases: South East
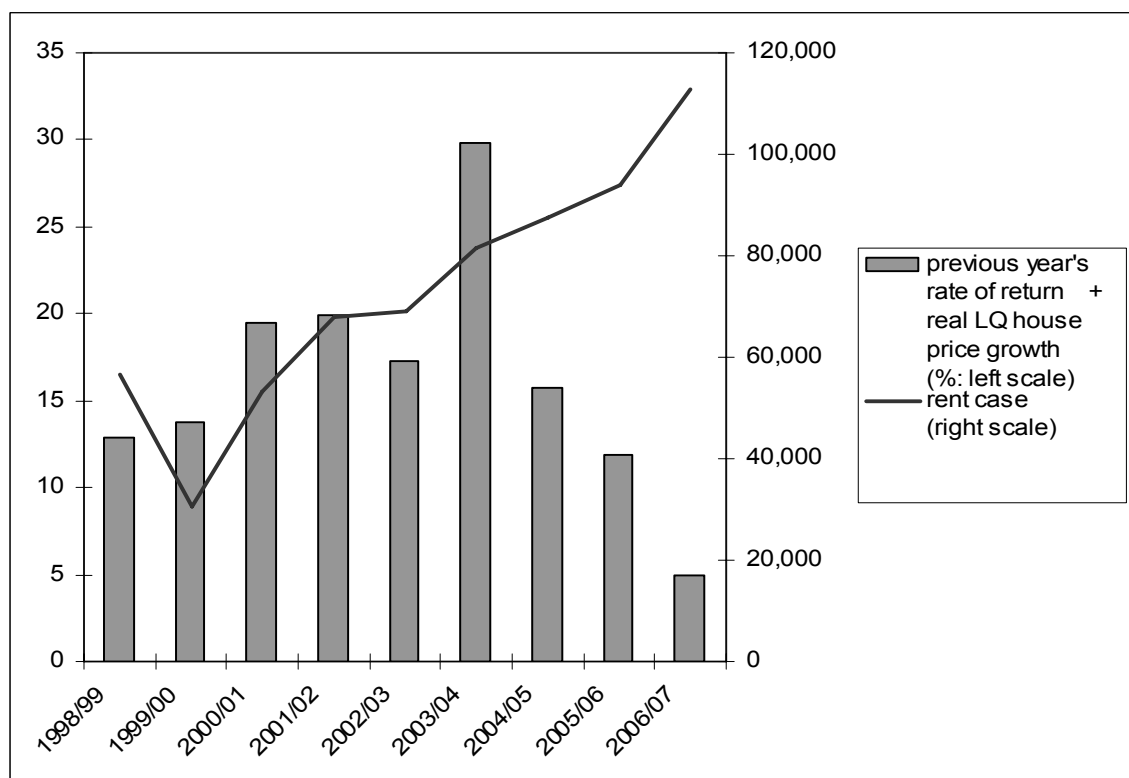
Note & Source: As Tables 2.1 and 3.1.

Figure 5.23 Rental rate of return and rent cases: South West
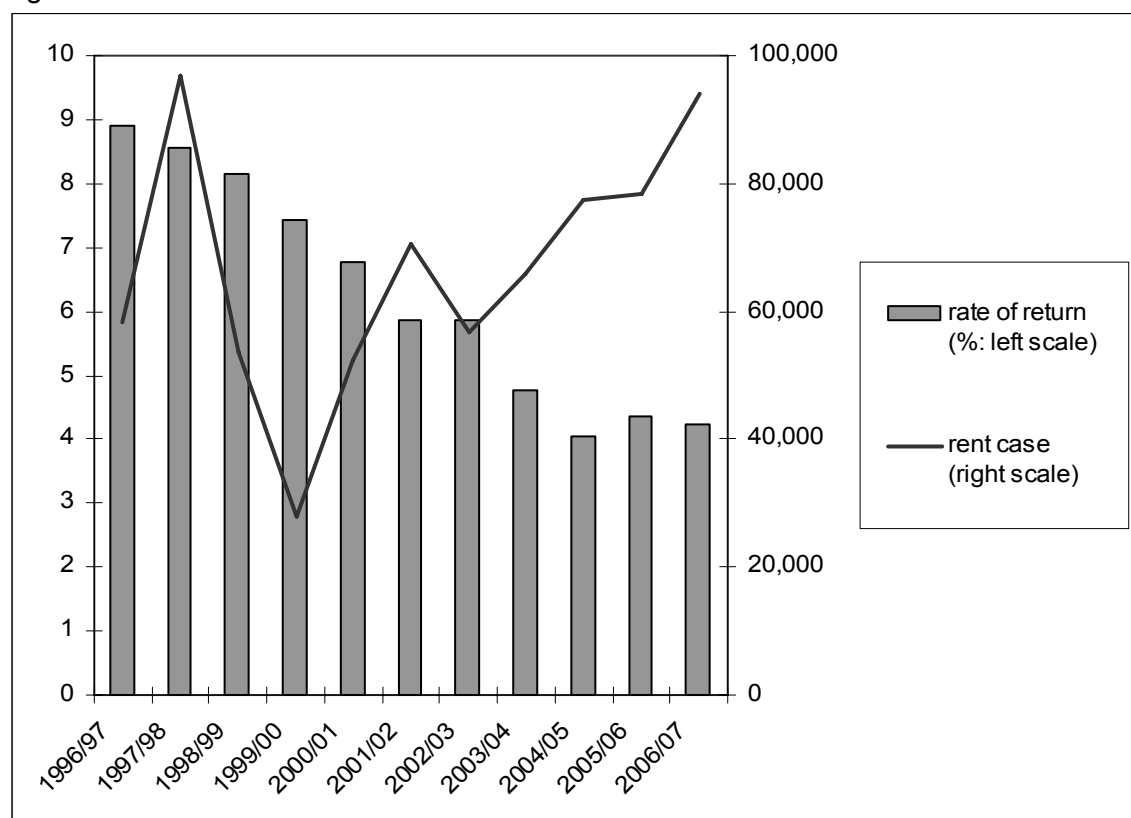
Source: As Tables 2.1 and 3.1.

Figure 5.24 Rental rate of return plus LQ house price real growth rate and rent cases: South West
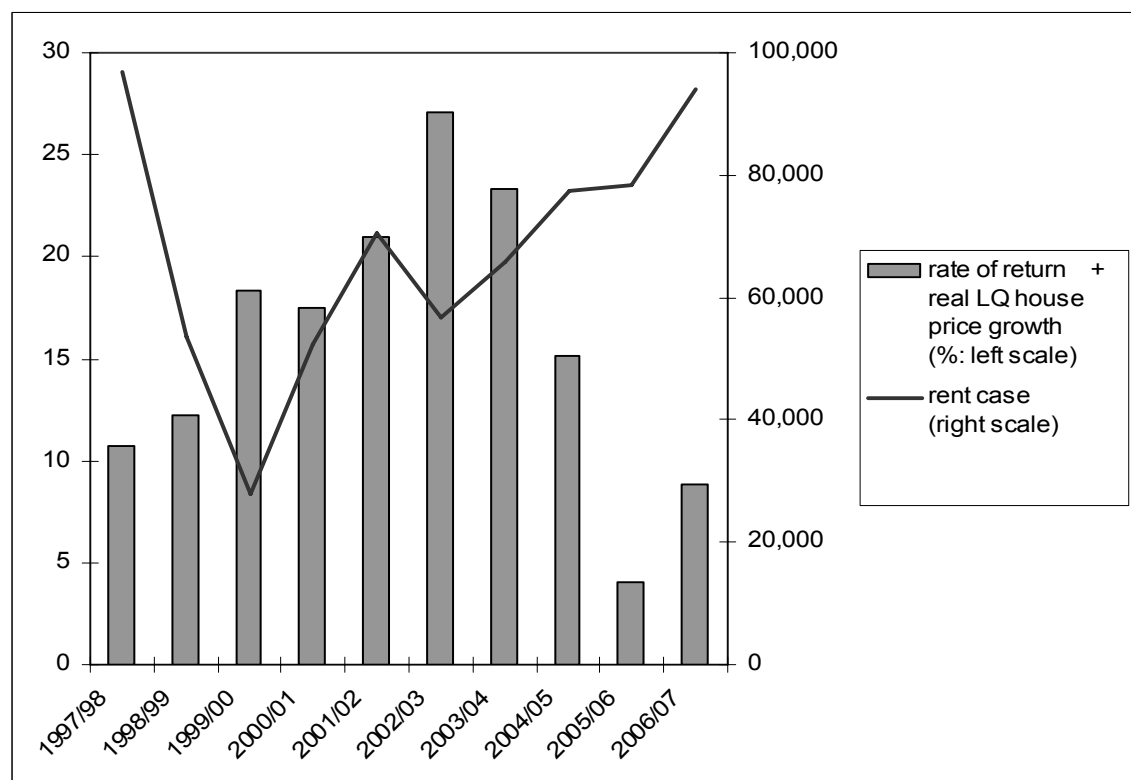
Source: As Tables 2.1 and 3.1.

Figure 5.25 Previous year's rental rate of return plus LQ house price real growth rate and rent cases: South West
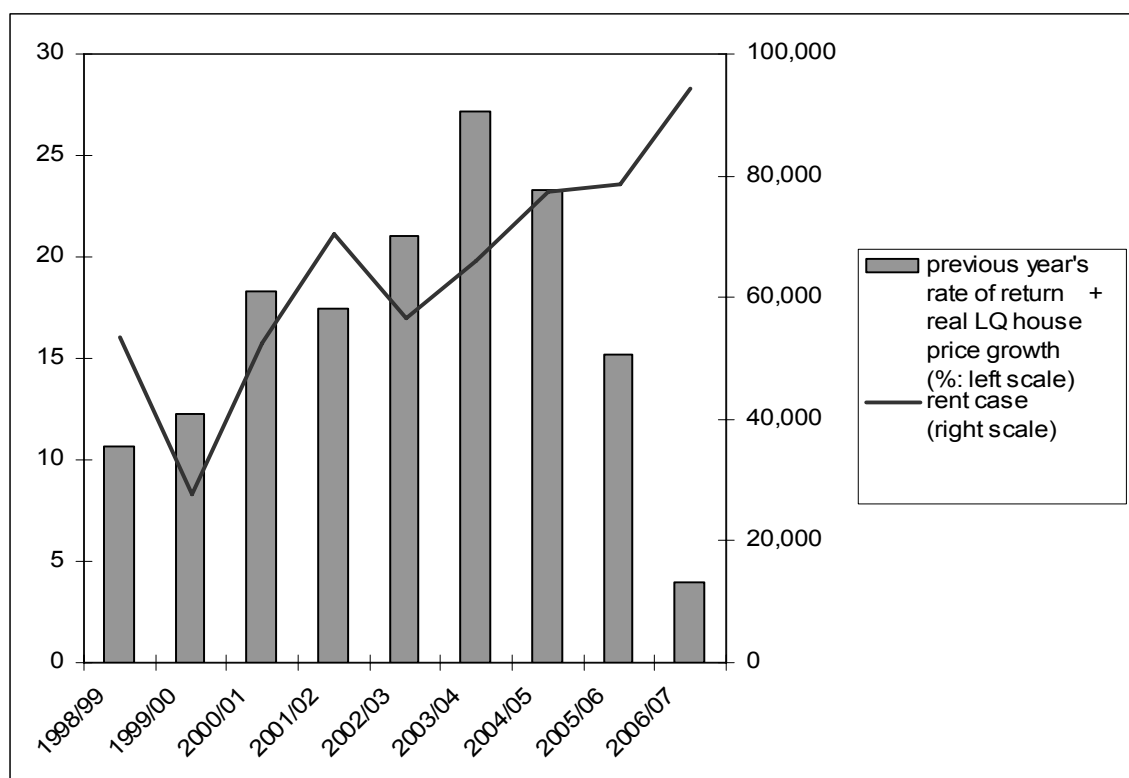
Source: As Tables 2.1 and 3.1.

Figure 5.26 Rental rate of return and rent cases: West Midlands
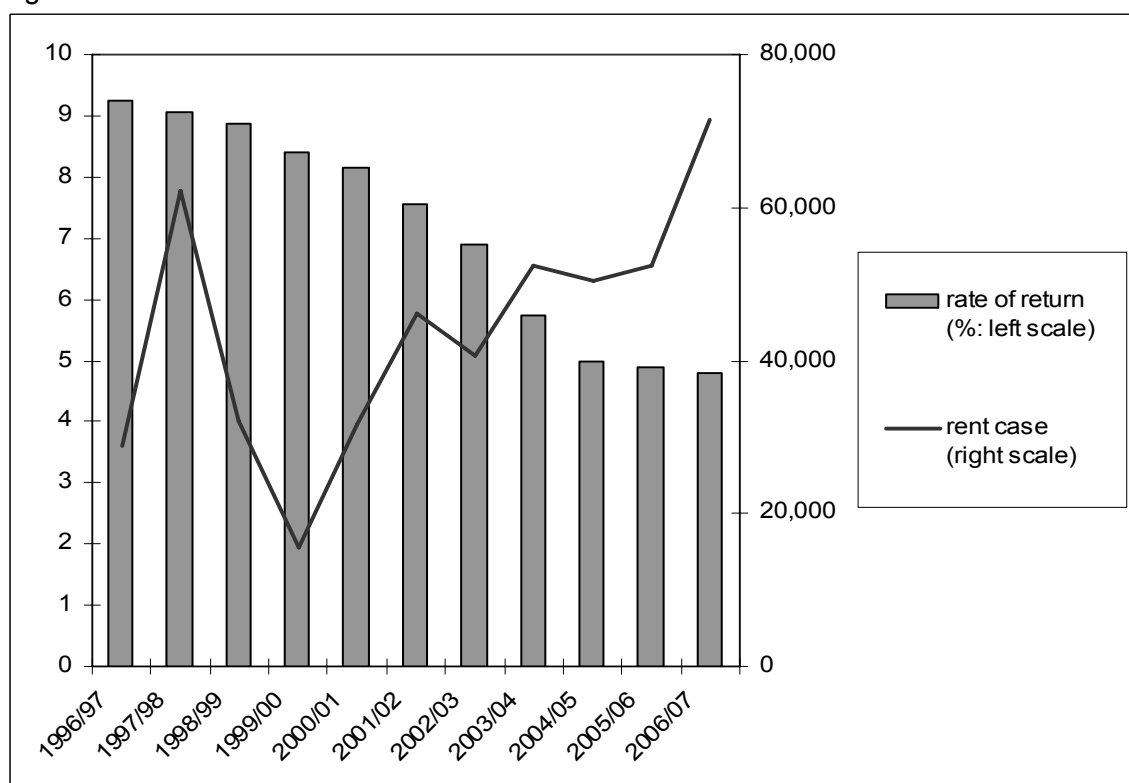
Source: As Tables 2.1 and 3.1.

Figure 5.27 Rental rate of return plus LQ house price real growth rate and rent
cases: West Midlands.
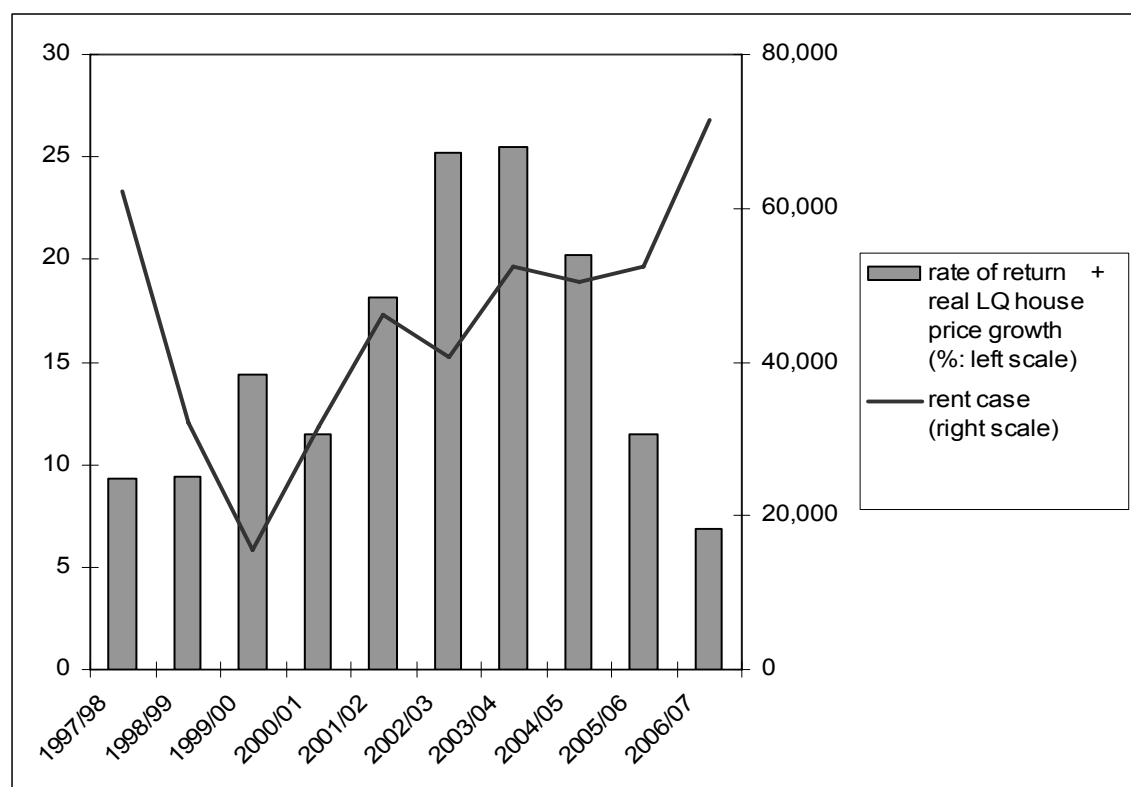
Source: As Tables 2.1 and 3.1.

Figure 5.28 Previous year's rental rate of return plus LQ house price real growth rate
and rent cases: West Midlands
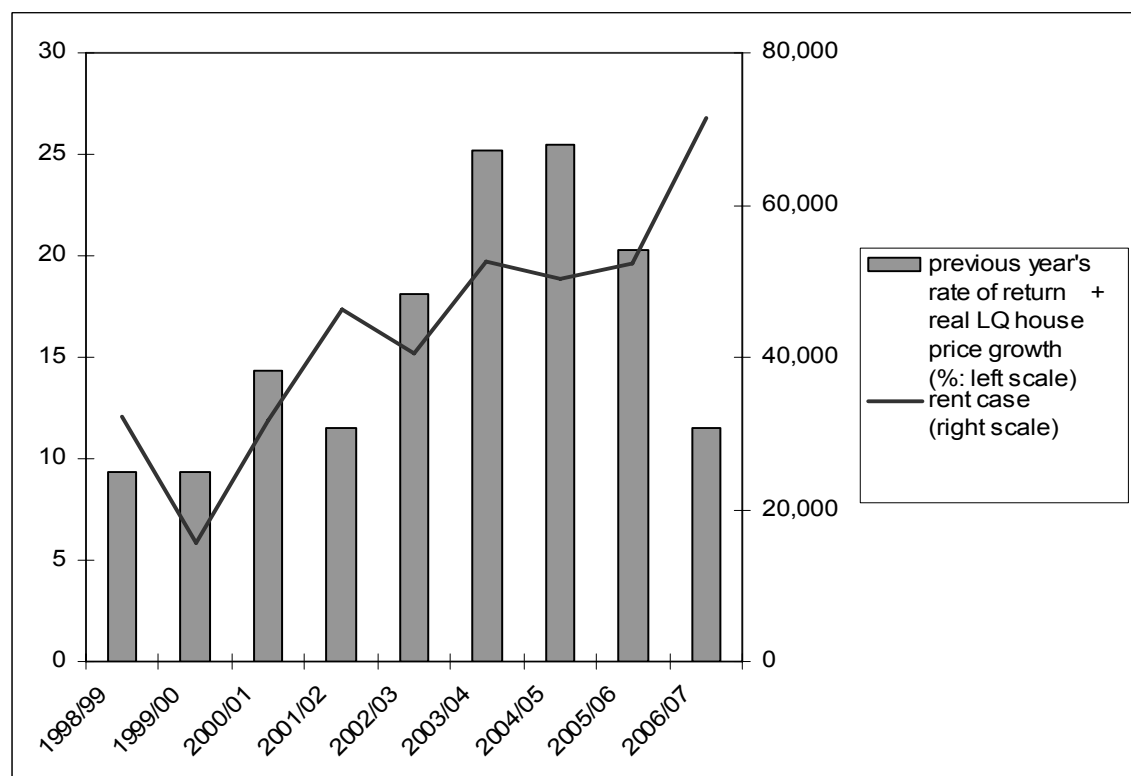
Source: As Tables 2.1 and 3.1.

Figure 5.29 Rental rate of return and rent cases: Yorkshire and the Humber
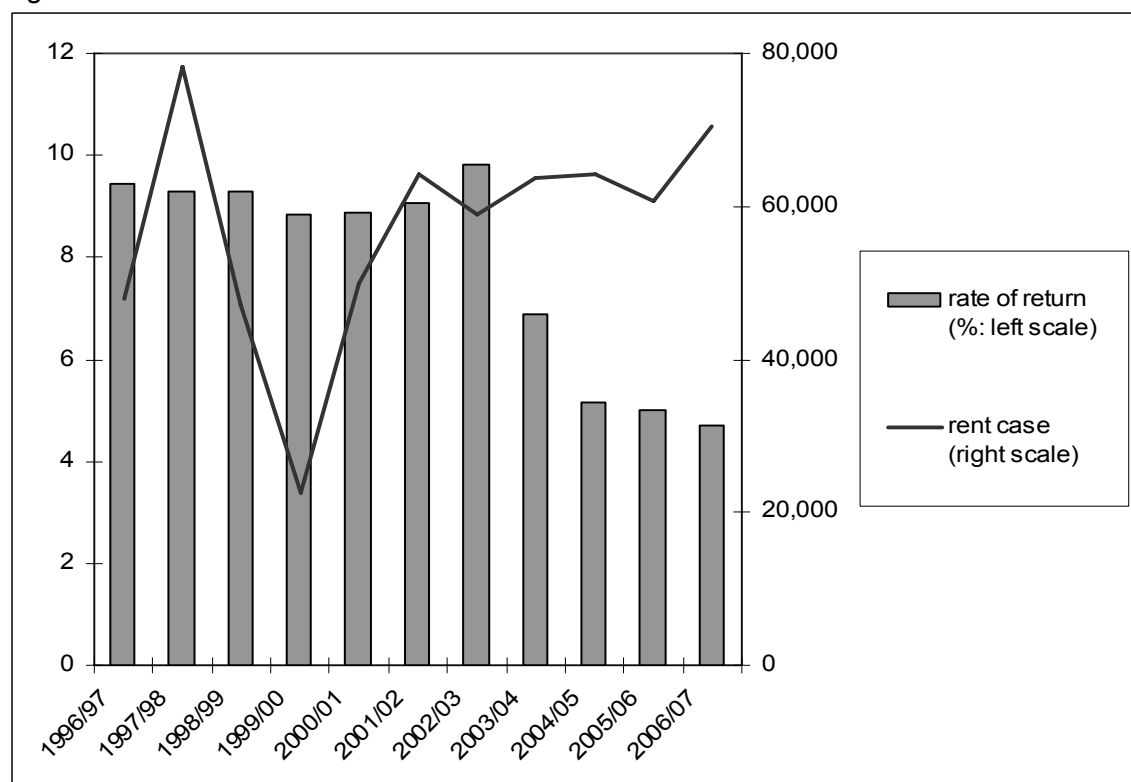
Note & Source: As Tables 2.1 and 3.1.

Figure 5.30 Rental rate of return plus LQ house price real growth rate and rent cases: Yorkshire and the Humber

Source: As Tables 2.1 and 3.1.

Figure 5.31 Previous year's rental rate of return plus LQ house price real growth rate and rent cases: Yorkshire and the Humber

Source: As Tables 2.1 and 3.1.

5.4 Trends of private rental rates of return at the LA level

Rages of rental rates of return

Table 5.3 sets out the range of the rental rates of return for the LA areas of England from 1996/97 to 2006/07. The median of the rental rates of return was 4.50% in 2006/07. This was 4.89 points lower than in 1996/97 when it was 9.39%. The variation across LA areas was less in 2006/07. The standard deviation was 0.76, as compared with 1.77 in 1996/97, while the range from the lowest to the highest declined to 6.44 points from 12.85 in 1996/97. Figure 5.32 illustrates how the variation across the LA areas has declined. 2006/07 saw outliers with the lowest values for the first time partly due to the narrowing range of the middle cohort between lower and upper quartiles, which is expressed as a length of a box in the figure.

Table 5.3 Ranges of the rental rate of return price at the LA level: % and %-point for range and change

	Median	Std. Deviation	Maximum	Minimum	Max. – Min.
1996/97	9.39	1.77	18.29	5.44	12.85
1997/98	8.97	1.68	16.96	6.19	10.77
1998/99	8.54	1.58	16.66	5.73	10.93
1999/00	8.02	1.56	15.98	5.09	10.89
2000/01	7.26	1.91	19.11	4.75	14.36
2001/02	6.35	2.29	21.63	3.91	17.72
2002/03	6.18	2.59	29.99	3.87	26.12
2003/04	5.19	1.87	19.72	3.30	16.42
2004/05	4.49	1.31	16.48	2.67	13.81
2005/06	4.71	0.89	11.46	3.10	8.36
2006/07	4.50	0.76	8.58	2.14	6.44
Change: 96/97 – 06/07	-4.89	-1.01	-9.71	-3.30	-6.41

Source: As Table 5.1.

Figure 5.32 Distribution of the LQ house prices for English LA areas
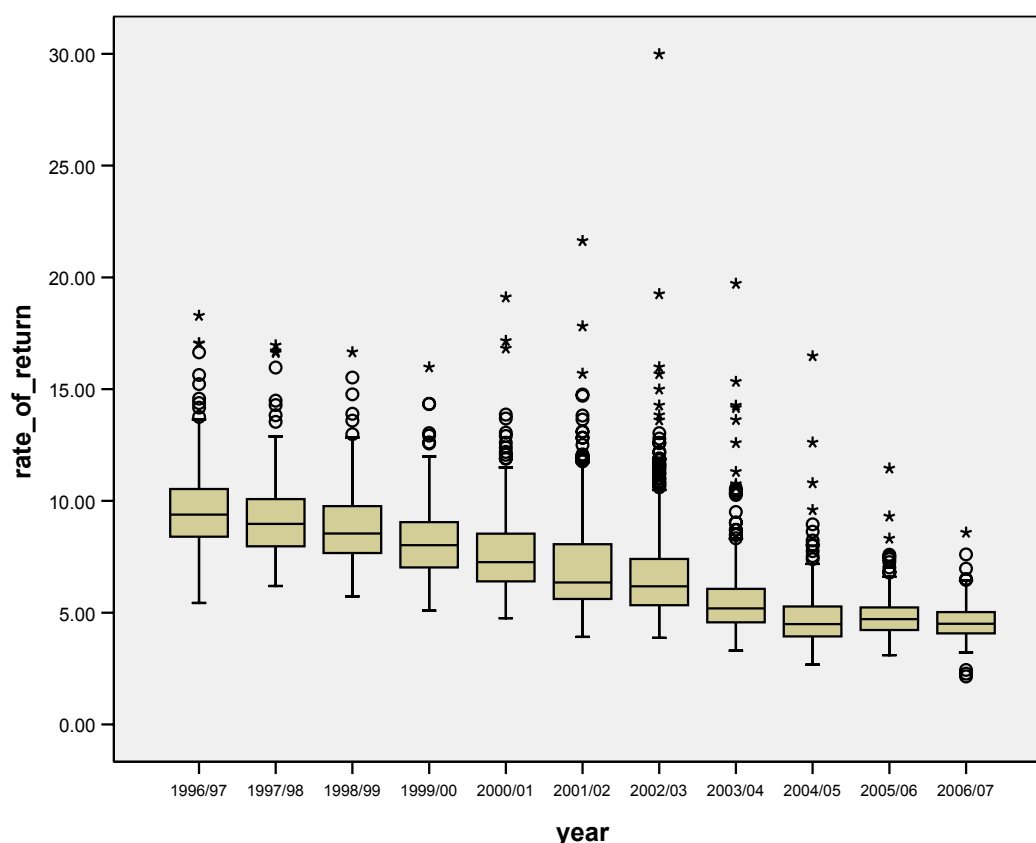
Source: As Table 5.1.

Figures 5.33 to 5.40 plots the private rent and LQ house prices across LA areas in 2006/07. The notation for the figures follows that for Figure 5.4, where three regions (London, the North East and the North West) had rental rates of return higher than the national level. This is confirmed in Figures 5.35, 5.36 and 5.37 where many of the LA areas plotted above the national equivalent level.

However, in the North East and North West, all LA areas were situated in a low rent area (i.e., below the X axis) whereas almost all London's LA areas were in a high rent area. This means that in the two northern regions rents were low but

considering their property values they appeared high. On the other hand, regardless of house price consideration, rents in London were high.

Figure 5.33 Position of LA areas by rent and house price: East
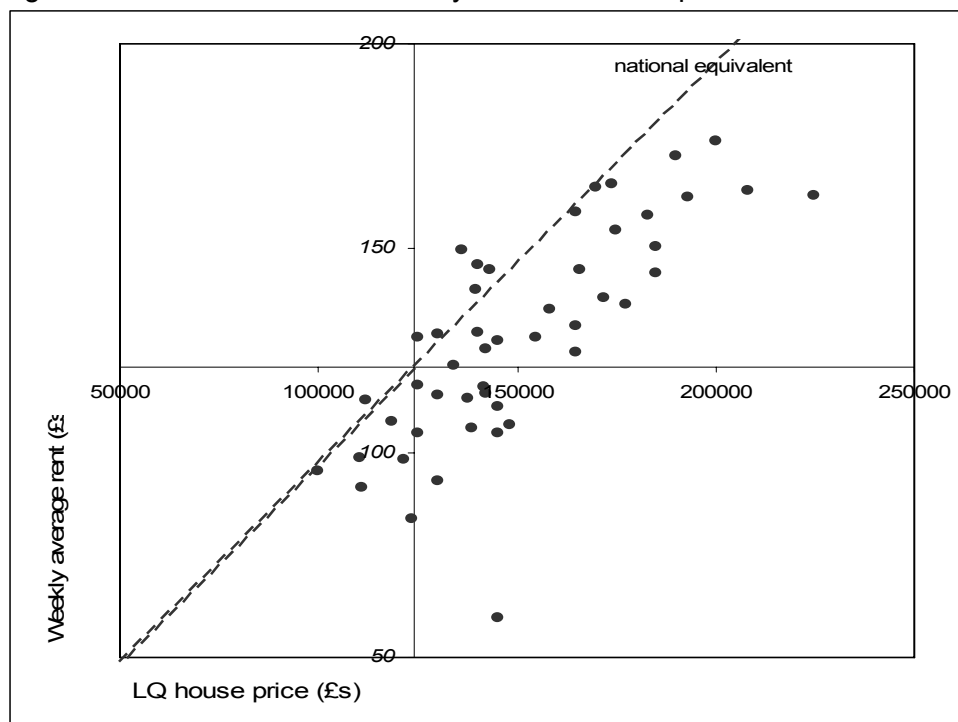
Source: As Tables 2.1 and 3.1.

Figure 5.34 Position of LA areas by rent and house price: East Midlands
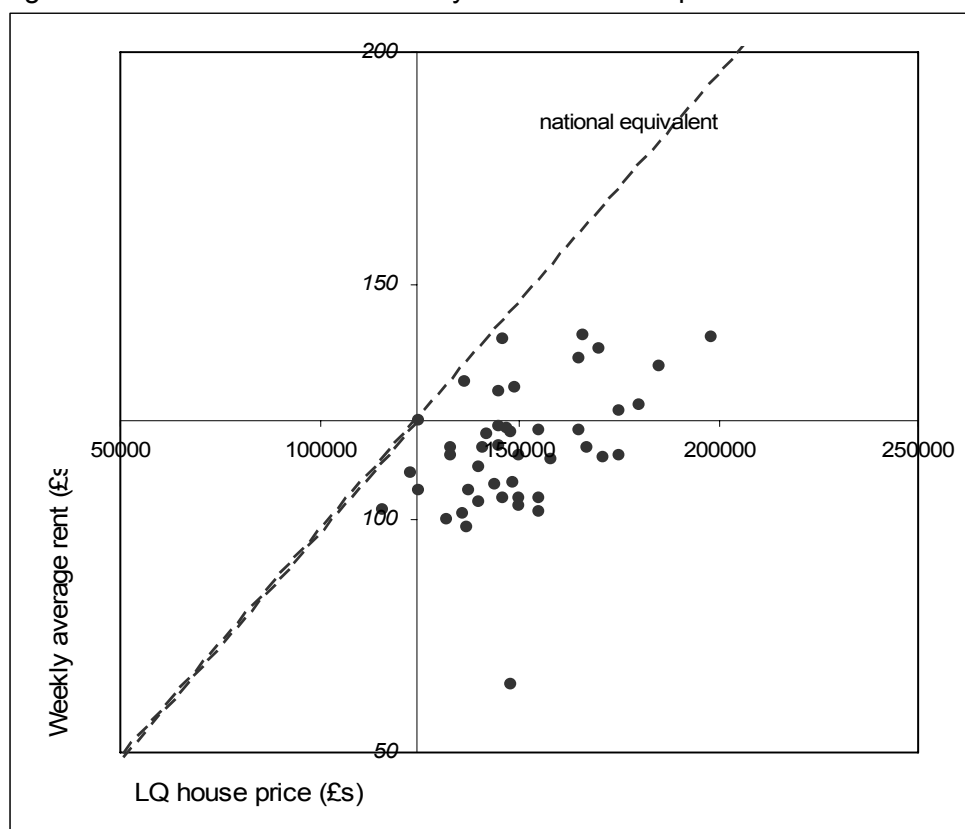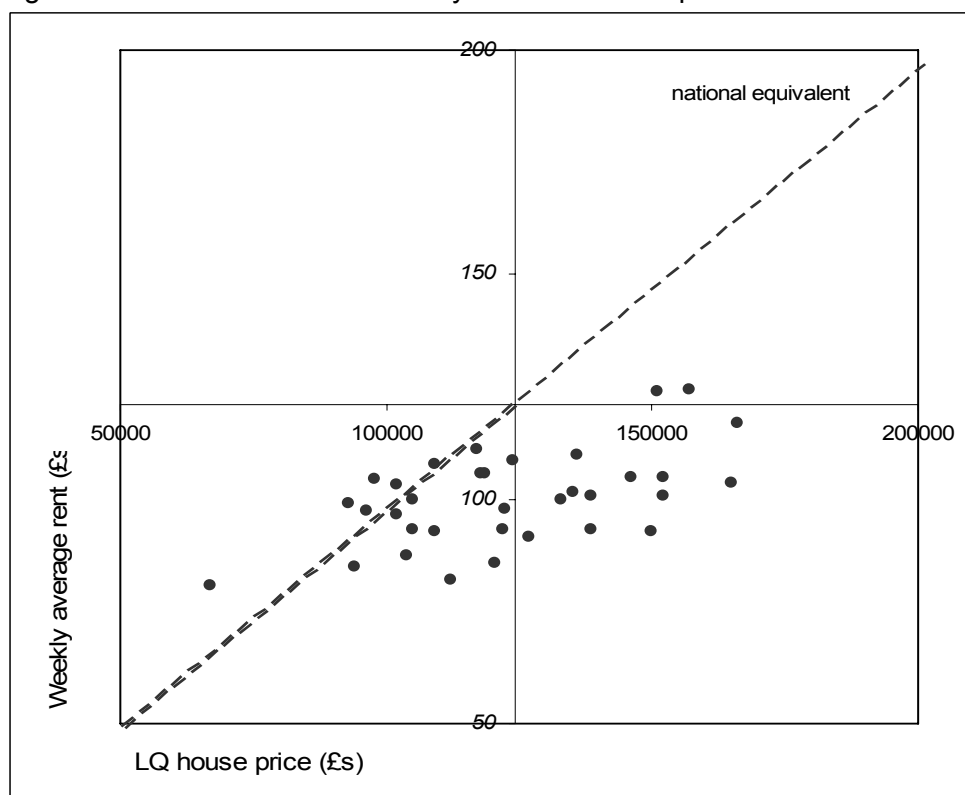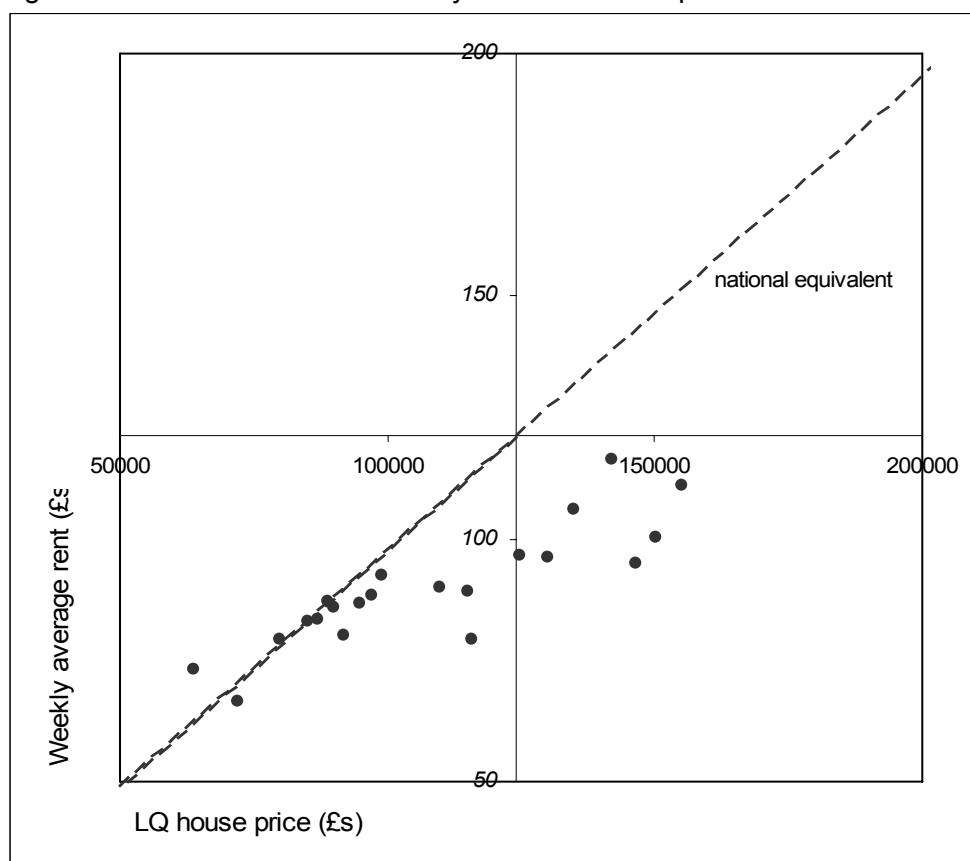

Source: As Tables 2.1 and 3.1.

74
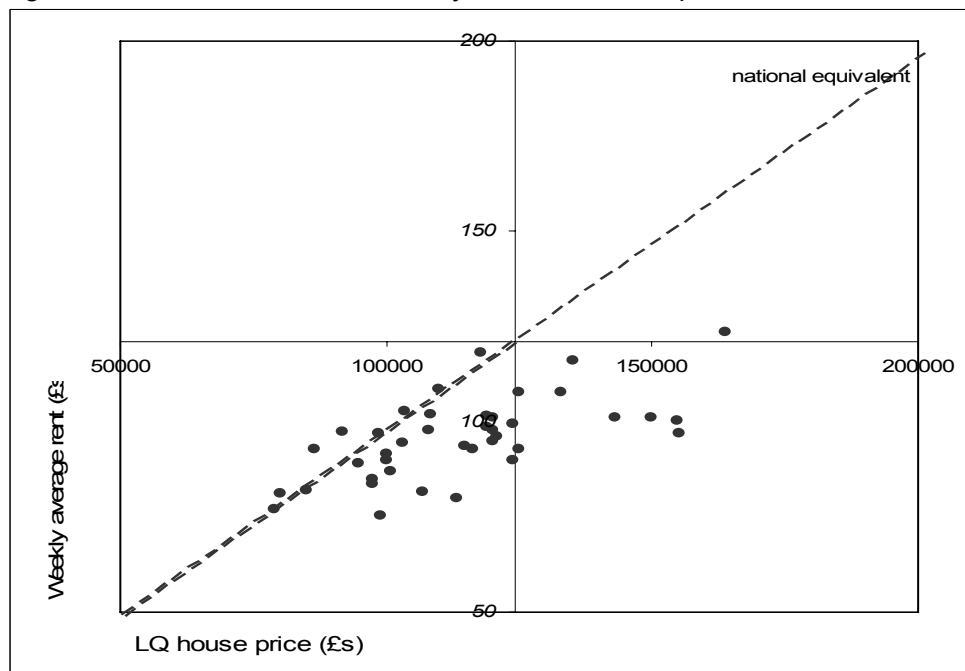
Figure 5.35 Position of LA areas by rent and house price: London
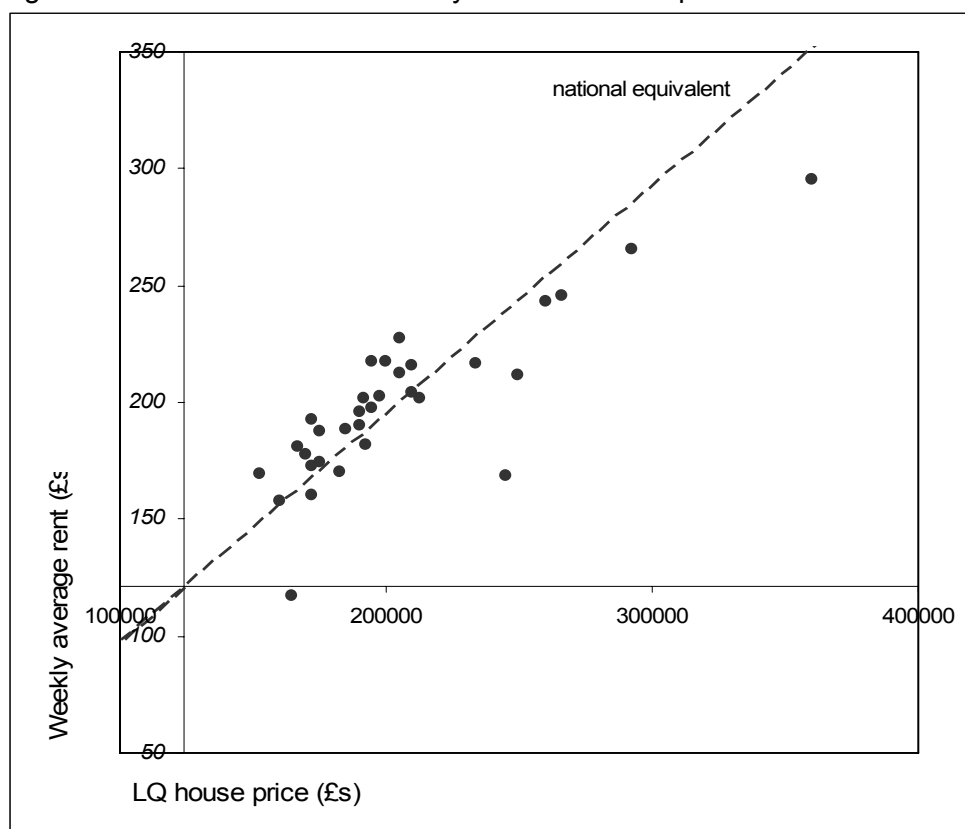
Source: As Tables 2.1 and 3.1.

Figure 5.36 Position of LA areas by rent and house price: North East
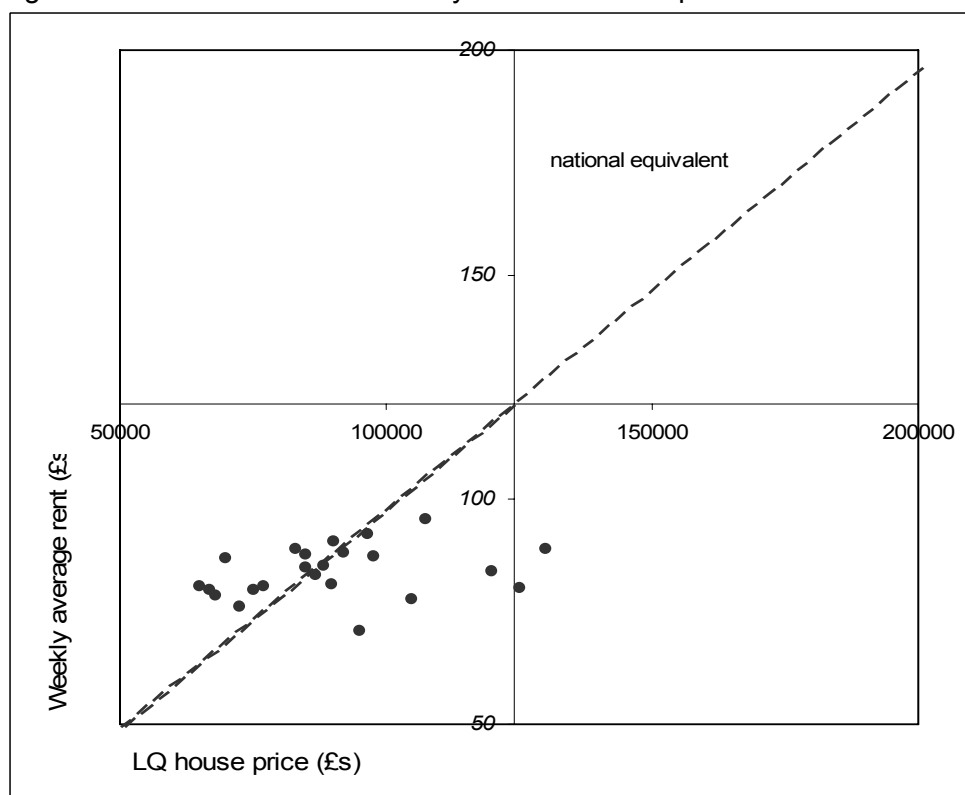
Source: As Tables 2.1 and 3.1.

Figure 5.37 Position of LA areas by rent and house price: North West
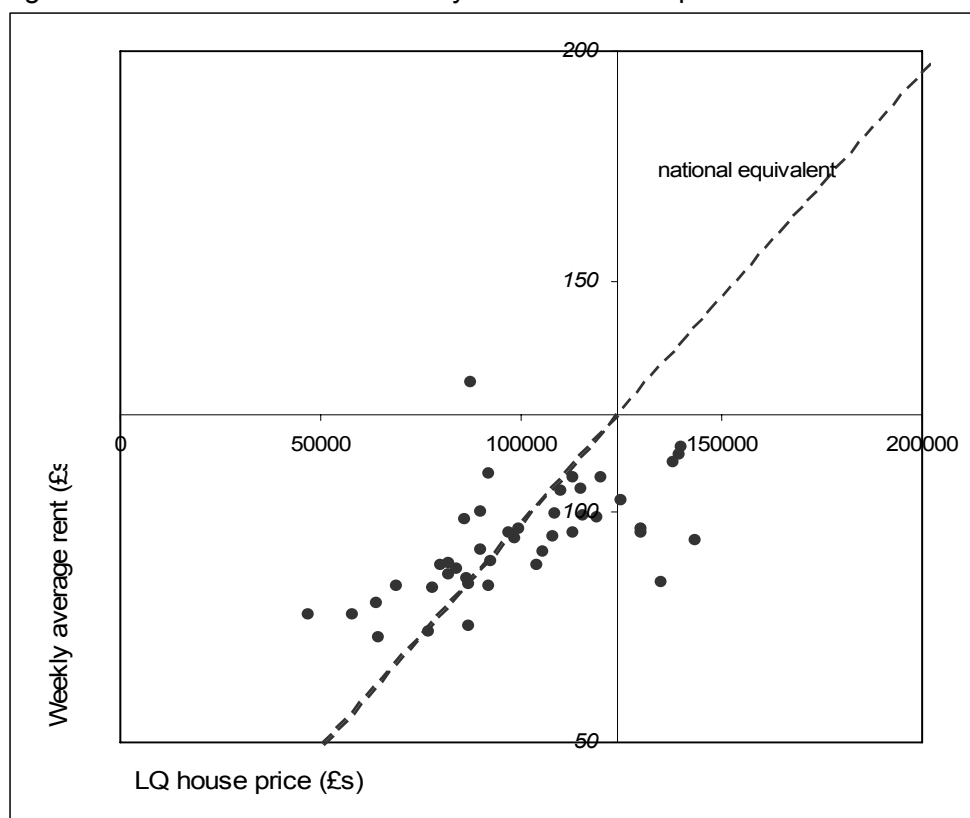
Source: As Tables 2.1 and 3.1.

Figure 5.38 Position of LA areas by rent and house price: South East
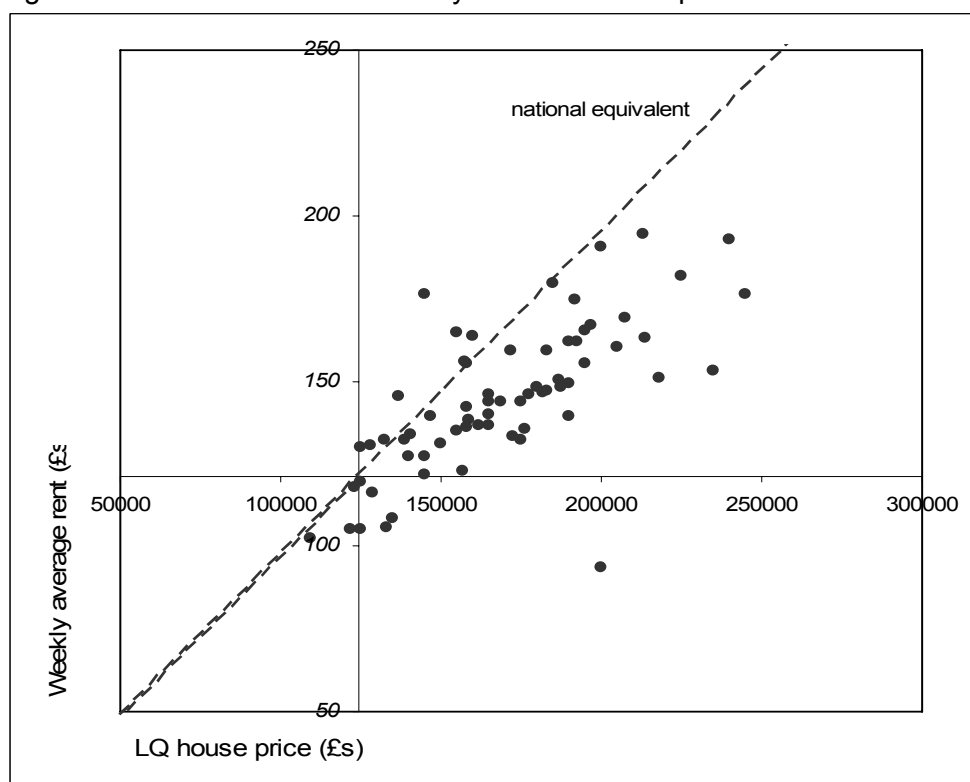
Source: As Tables 2.1 and 3.1.

Figure 5.39 Position of LA areas by rent and house price: South West

Source: As Tables 2.1 and 3.1.

Figure 5.40 Position of LA areas by rent and house price: West Midlands

Source: As Tables 2.1 and 3.1.

Figure 5.41 Position of LA areas by rent and house price: Yorkshire and the Humber

Source: As Tables 2.1 and 3.1.

LA areas with a high/low rental rate of return

Table 5.4 lists the ten LA areas with the highest rental rates of return in 1996/97 and 2006/07 respectively. In 1996/97, Burnley had the highest (18.29%), followed by Manchester (17.06%) and Pendle (17.04%). Of the ten LA areas, seven were on the list of LA areas with the lowest LQ house prices (Table 3.6). By region, six were in the North West and three were in London while the remaining one was in the North East. Nine were categorised as urban LA areas and the remaining one was rural.

Four LA areas on the list in 1996/97 were still there in 2006/07, with Burnley (11.46%) and Pendle (6.97%) being the first and third highest. St. Helens (7.61%) was the second. Half of these ten LA areas were on the list of LA areas with the lowest LQ house prices (Table 3.7). By region, five were in the North West and three were in the North East. All ten LA areas were categorised as urban except Sedgefield.

Table 5.4 Ten LA areas with the highest rental rate of return

LA area	Region	Rural/ Urban	Return %	LQ house price £	Rent £
1996/97					
Burnley	NW	Urban	18.29	18,000	63.30
Manchester	NW	Urban	17.06	22,500	73.81
Pendle	NW	Urban	17.04	19,000	62.26
Hyndburn	NW	Urban	16.64	20,000	64.01
Newham	Lon	Urban	15.63	39,000	117.24
Blackburn with Darwen	NW	Urban	15.22	22,500	65.87
Barrow-in-Furness	NW	Urban	14.57	20,200	56.61
Waltham Forest	Lon	Urban	14.38	42,500	117.51
Hackney	Lon	Urban	14.17	48,000	130.82
Easington	NE	Rural	13.76	22,000	58.20
2006/07					
Burnley	NW	Urban	8.58	47,000	77.58
St. Helens	NW	Urban	7.61	87,500	127.97
Pendle	NW	Urban	6.97	58,000	77.73
Hyndburn	NW	Urban	6.50	64,000	80.00
Middlesbrough	NE	Urban	6.46	70,000	87.01
Hartlepool	NE	Urban	6.44	65,000	80.55
Blackburn with Darwen	NW	Urban	6.31	69,000	83.78
Slough	SE	Urban	6.31	145,000	176.03
Stoke-on-Trent	WM	Urban	6.28	67,000	80.87
Sedgefield	NE	Rural	6.18	67,000	79.63

Source: As Table 5.1.

Table 5.5 lists the ten LA areas with the lowest rental ate of return in 1996/97 and 2006/07 respectively. In 1996/97, Castle Morpeth had the lowest (5.44%), followed by Rutland (6.47%) and Rushcliffe (6.54%). Of these ten LA areas, two (Castle Morpeth and Alnwick) were on the list of LA areas with the lowest average rents (Table 2.6) but none of them had the highest house prices (Table 3.6). By region, three were in the East Midlands; two each were in the North East, the West Midlands and the South West, while the remaining one was in Yorkshire and the Humber. All ten LA areas were categorised as rural.

Four LA areas from 1996/97 remained in the list in 2006/07. South Norfolk had the lowest rental rate of return (2.14%) due to its relatively low average rent.[21] This was followed by Teignbridge (2.27%) and Guildford (2.43%). None of the ten LA areas were listed on the lowest rent or the highest house price tables. Three LA areas were in the East Midlands and two were in the West Midlands. All were rural LA areas.

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[21] For the lowest three LA areas' moderate average rent in 2006/07, see the explanation of Table 2.11.

Table 5.5 Ten LA areas with the lowest rental rate of return

LA area	Region	Rural/ Urban	Return %	LQ house price £	Rent £
1996/97					
Castle Morpeth	NE	Rural	5.44	49,950	52.21
Rutland	E Mid	Rural	6.47	51,500	64.06
Rushcliffe	E Mid	Rural	6.54	52,500	65.99
Derbyshire Dales	E Mid	Rural	6.65	49,500	63.29
Alnwick	NE	Rural	6.87	39,000	51.51
Bromsgrove	W Mid	Rural	6.99	55,000	73.98
Cotswold	SW	Rural	7.07	59,950	81.54
Hambleton	Y & H	Rural	7.09	51,000	69.58
Malvern Hills	W Mid	Rural	7.11	51,000	69.74
East Dorset	SW	Rural	7.12	64,000	87.65
2006/07					
South Norfolk	E Mid	Rural	2.14	145,000	59.77
Teignbridge	SW	Rural	2.27	148,000	64.67
Guildford	SE	Rural	2.43	199,950	93.61
South Shropshire	W Mid	Rural	3.22	150,000	92.97
Derbyshire Dales	E Mid	Rural	3.25	155,000	96.81
Eden	NW	Rural	3.27	135,000	84.82
Malvern Hills	W Mid	Rural	3.27	165,000	103.79
Alnwick	NE	Rural	3.34	125,000	80.38
Rutland	E Mid	Rural	3.36	154,950	100.24
Ryedale	Y & H	Rural	3.37	146,625	94.94

Source: As Table 5.1.

LA areas with the largest/smallest declines in rental ates of return

Between 1996/97 and 2006/07, all English LA areas experienced decreases in their rental rates of return, but with varying extents of change. Table 5.6 lists ten LA areas with the greatest decline in rental rates of return for the observation period. Manchester had the largest decline of 12.02 percentage points – from 17.06% in 1996/97 to 5.04% in 2006/07, followed by Hyndburn (10.14 points or 16.64% to 6.50%) and Pendle (10.07 points or 17.04% to 6.97%).

The rapid reductions in the rental rates of return in the listed LA areas were the result of sharp increases in house prices and/or modest rises in rents. By region, six LA areas were in the North West while three were in London. All of them were categorised as urban areas.

Table 5.6 Ten LA areas with the largest decline in rental rate of return

LA area	Region	Rural/ Urban	Rate of return (%)		Change 96/97 to 06/07		
			1996/97	2006/07	Rate of return (%-point)	House price (%)	Rent (%)
Manchester	NW	Urban	17.06	5.04	**-12.02**	342.2	30.6
Hyndburn	NW	Urban	16.64	6.50	**-10.14**	220.0	25.0
Pendle	NW	Urban	17.04	6.97	**-10.07**	205.3	24.9
Newham	Lon	Urban	15.63	5.57	**-10.06**	348.7	59.9
Burnley	NW	Urban	18.29	8.58	**-9.70**	161.1	22.6
Waltham Forest	Lon	Urban	14.38	5.19	**-9.19**	311.8	48.5
Blackburn with Darwen	NW	Urban	15.22	6.31	**-8.91**	206.7	27.2
Lewisham	Lon	Urban	12.60	3.70	**-8.90**	275.0	10.1
Barrow-in-Furness	NW	Urban	14.57	5.85	**-8.72**	219.3	28.3
Brighton and Hove	SE	Urban	13.05	4.41	**-8.65**	317.7	41.1

Source: As Table 5.1.

Table 5.7 lists the ten LA areas with the smallest declines in rental rates of return for the same period. Castle Morpeth had the smallest decline of 1.80 percentage points – from 5.44% in 1996/97 to 3.64% in 2006/07; followed by Rushcliffe (3.04 points or 6.54% to 3.50%) and Rutland (3.10 points or 6.47% or 3.36%). These LA areas saw relatively moderate increases in house prices (in percentage terms). This was the cause of their fairly moderate reductions in rental rates of return. Of the ten LA areas, four were in the East Midlands and two were in the North East. Eight were categorised as rural areas while two were urban.

Table 5.7 Ten LA areas with the smallest decline in rental rates of return

LA area	Region	Rural/ Urban	Rate of return (%)		Change 96/97 to 06/07		
			1996/97	2006/07	Rate of return (%-point)	House price (%)	Rent (%)
Castle Morpeth	NE	Rural	5.44	3.64	**-1.80**	140.2	60.9
Rushcliffe	E Mid	Rural	6.54	3.50	**-3.04**	185.7	53.0
Rutland	E Mid	Rural	6.47	3.36	**-3.10**	200.9	56.5
Bromsgrove	W Mid	Rural	6.99	3.73	**-3.26**	165.5	41.6
Kensington and Chelsea	Lon	Urban	7.54	4.27	**-3.27**	189.7	64.1
South Cambridgeshire	E	Rural	7.31	3.99	**-3.32**	198.3	62.9
Berwick-upon-Tweed	NE	Rural	7.18	3.86	**-3.32**	171.4	46.0
Derbyshire Dales	E Mid	Rural	6.65	3.25	**-3.40**	213.1	53.0
Blaby	E Mid	Urban	7.69	4.22	**-3.47**	195.6	62.1
East Dorset	SW	Rural	7.12	3.65	**-3.47**	209.4	58.6

Source: As Table 5.1.

5.5 Trends of private rental of return for urban and rural areas

Table 5.8 sets out the estimated rental rates of return for urban and rural LA areas. In 2006/07, the rental rates of return were 5.02% for the urban group and 3.95% for the rural group. This compares with 11.45% and 8.40% in 1996/97 for the two groups. The decline in rental rate of return was 6.43 points for the urban group and 4.45 points for the rural group. Although this estimate could contain some errors (see the note for Table 3.10), the trend showed continuous declining patterns in both groups of area except in 2005/06. Comparisons between the two groups show that the rural rental rate of return has been lower than the urban equivalent for the whole period but that the difference between them has narrowed.

Table 5.8 Rental rate of return by urban-rural classification: % or %-point

	Urban		Rural		Urban – rural
	Return	Change	Return	Change	
1996/97	11.45		8.40		3.04
1997/98	10.56	-0.88	8.08	-0.32	2.48
1998/99	9.73	-0.83	7.75	-0.33	1.98
1999/00	8.72	-1.02	7.11	-0.64	1.61
2000/01	7.81	-0.90	6.44	-0.67	1.37
2001/02	7.00	-0.81	5.69	-0.75	1.31
2002/03	6.54	-0.45	5.51	-0.18	1.03
2003/04	5.52	-1.02	4.39	-1.12	1.14
2004/05	4.90	-0.63	3.78	-0.61	1.12
2005/06	5.17	0.27	4.07	0.29	1.10
2006/07	5.02	-0.15	3.95	-0.12	1.07
1996/97 – 2006/07		-6.43		-4.45	

Source: As Tables 2.12 and 3.12.

Figures 5.42 to 5.47 present the number of rent cases with the rental rate of return plus LQ house price real growth rate, or with a previous year's sum of the two rental rates by urban-rural classification. As observed at the national level in Figures 5.1 to 5.3, the movements of rent cases were not consistent with trends for rental rates of return for both groups.

Figure 5.42 Rental rate of return and rent cases: Urban LA areas
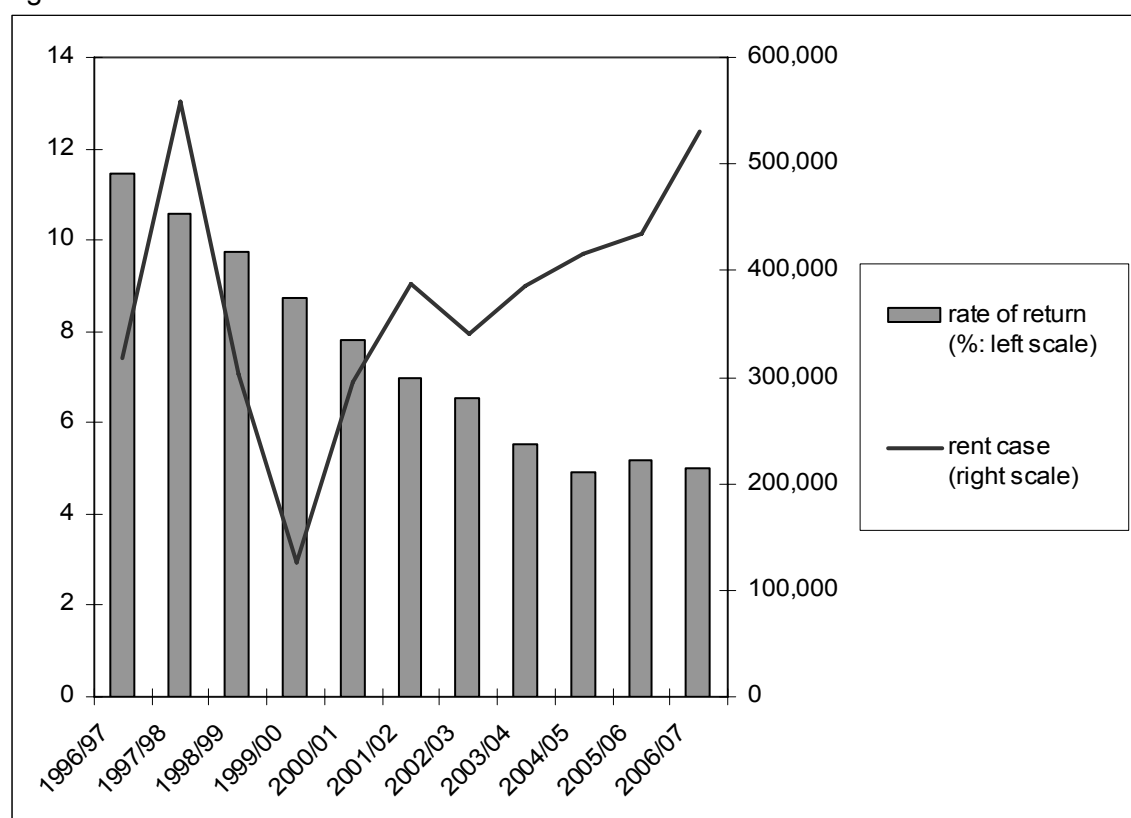
Source: As Tables 2.12 and 3.12.

82

Figure 5.43 Rental rate of return plus real LQ house price real growth rate and rent
cases: Urban LA areas
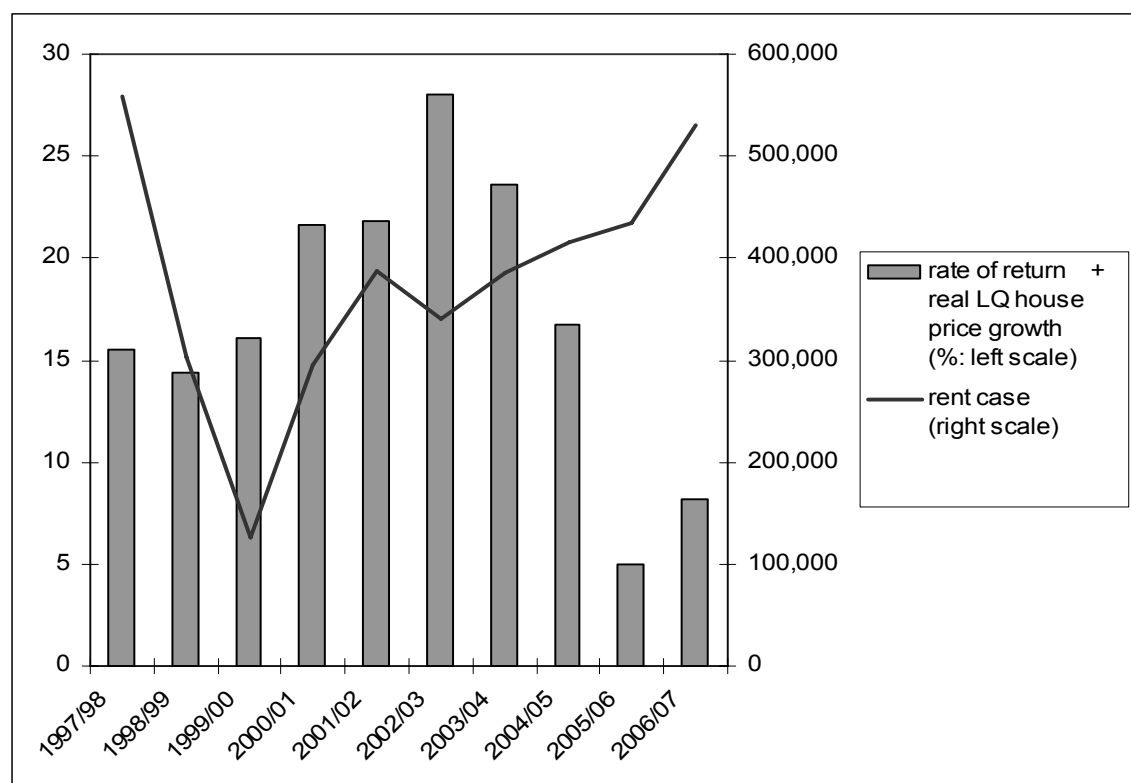
Source: As Tables 2.12 and 3.12.

Figure 5.44 Previous year's rental ate of return plus real LQ house price real growth
rate and rent cases: Urban LA areas

Source: As Tables 2.12 and 3.12.

83
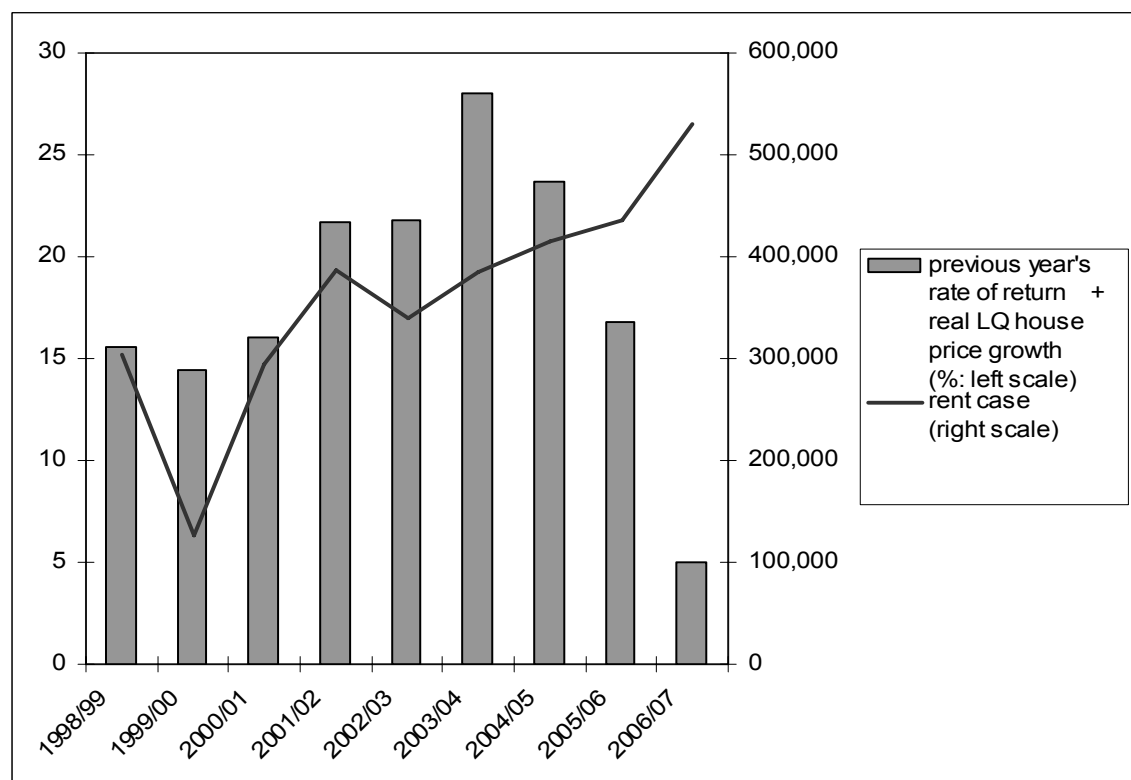
Figure 5.45 Rental rate of return and rent cases: Rural LA areas
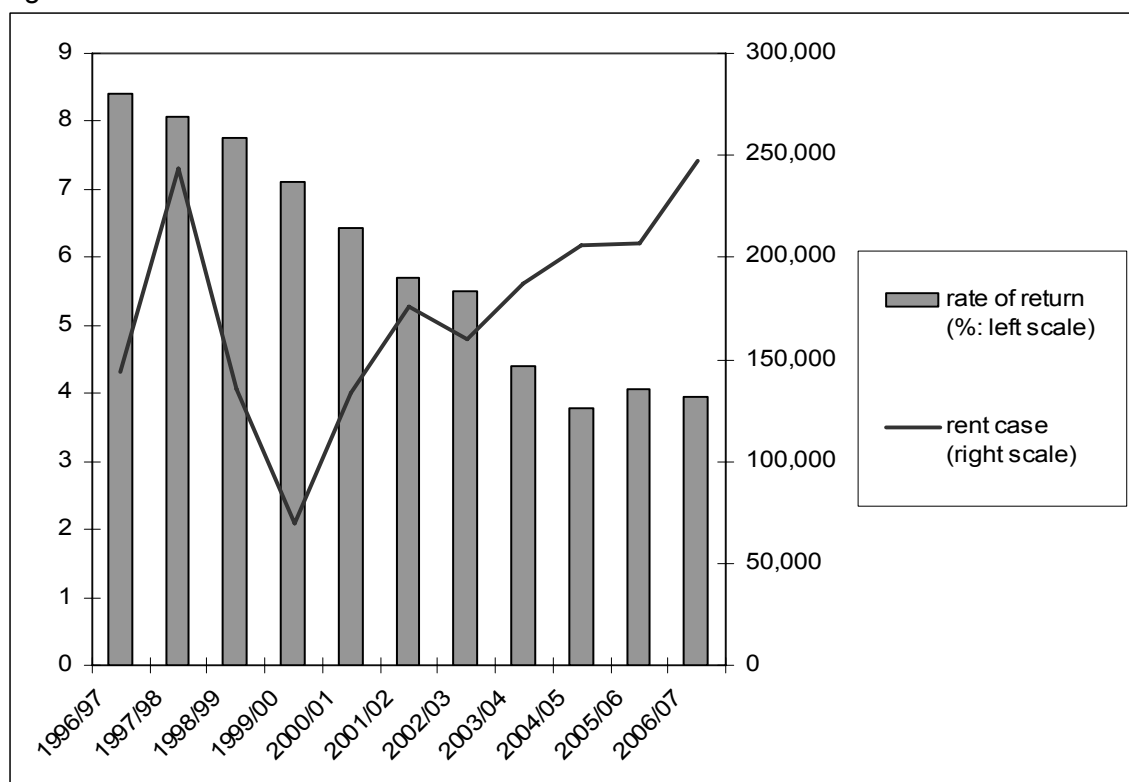
Source: As Tables 2.12 and 3.12.

Figure 5.46 Rental rate of return plus real LQ house price real growth rate and rent cases: Rural LA areas
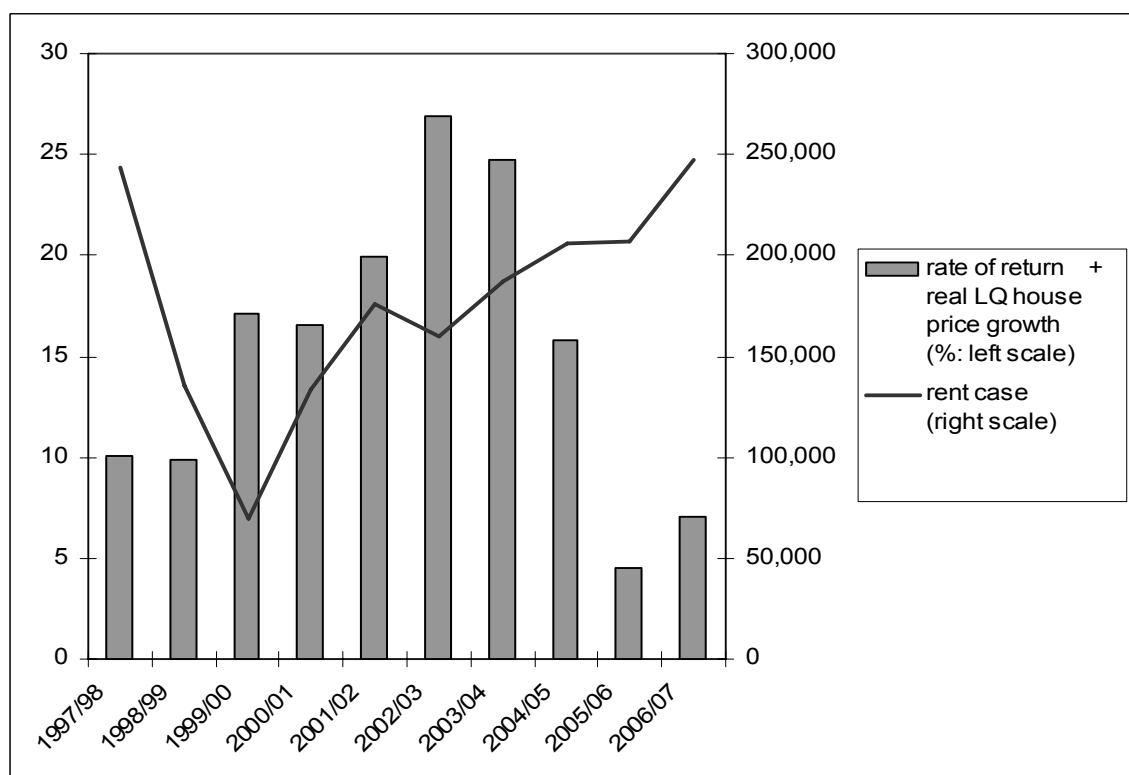
Source: As Tables 2.12 and 3.12.

Figure 5.47 Previous year's rental rate of return plus real LQ house price real growth rate and rent cases: Rural LA areas
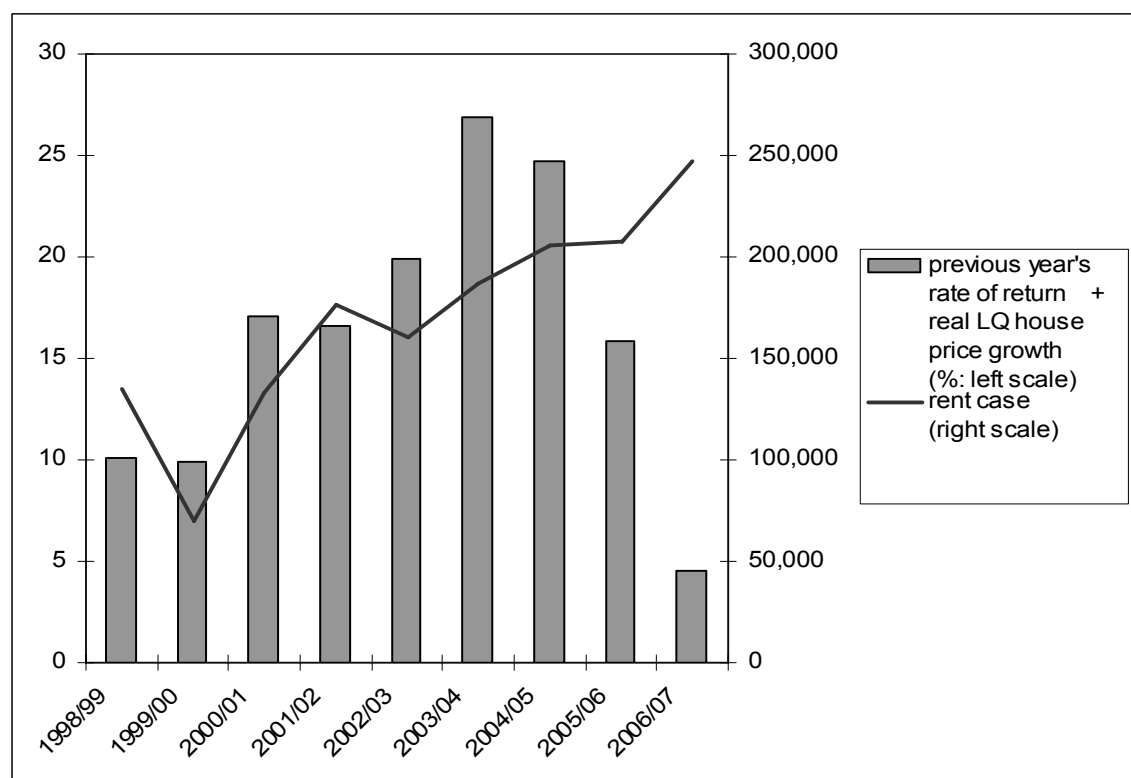
Source: As Tables 2.12 and 3.12.

Figures 5.48 and 5.49 plot private rents and LQ house prices by urban and rural LA areas in 2006/07. The following six figures (Figures 5.50 to 5.50) show the same relationship for breakdowns of the six urban and rural categorisations. The notation for these figures is the same as that for Figure 5.4.

Roughly speaking, the urban LA areas were scattered along with the national equivalent line while the most of rural LA areas were located under the benchmark line. This means that taking each LA's house price level into consideration, rents in the urban area were kept more or less at the national level, while those of rural area remained low. As a result, the urban LA areas kept their rental rate of return around the national average, whereas many of the rural LA areas held a lower rental ate of return.

Figure 5.48 Position of LA areas by rent and house price: Urban LA areas

Weekly average rent (£s) (y-axis)

LQ house price (£s) (x-axis)
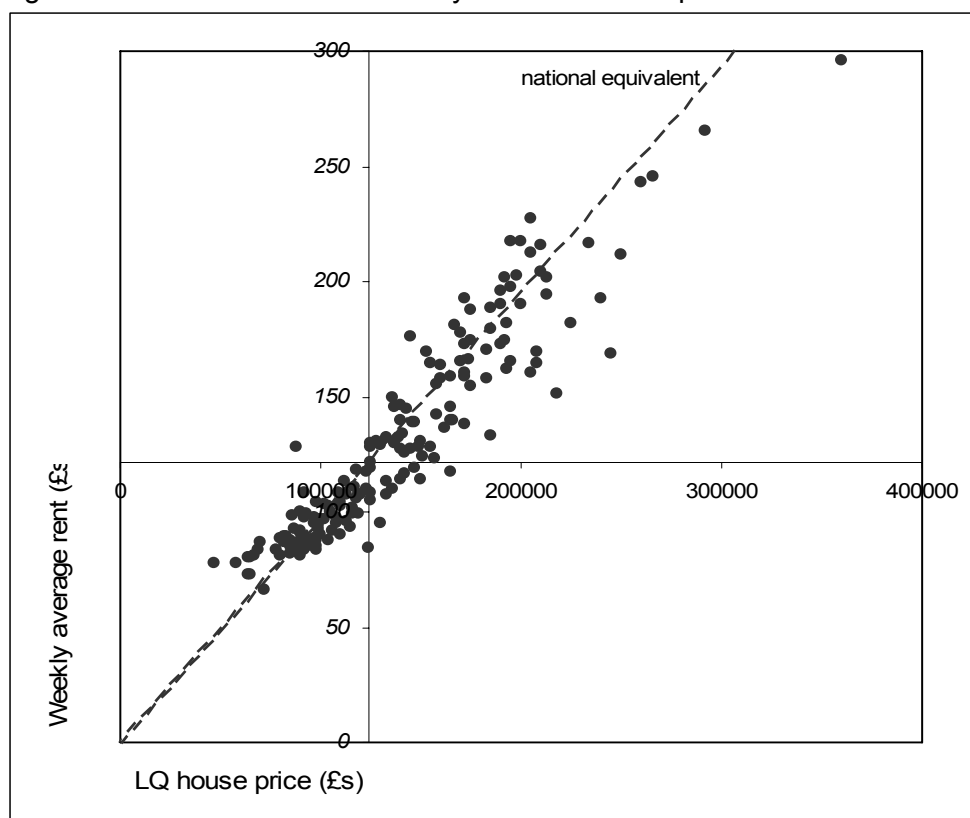
Source: As Tables 2.12 and 3.12.

Figure 5.49 Position of LA areas by rent and house price: Rural LA areas

Weekly average rent (£s) (y-axis)

LQ house price (£s) (x-axis)
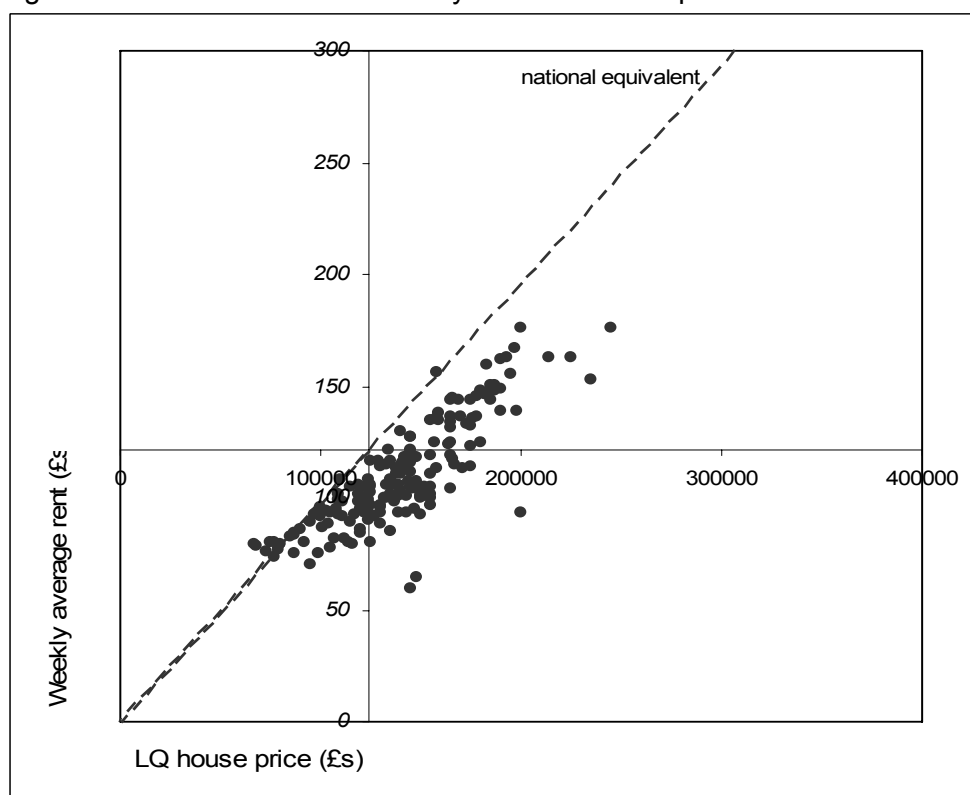
Source: As Tables 2.12 and 3.12.

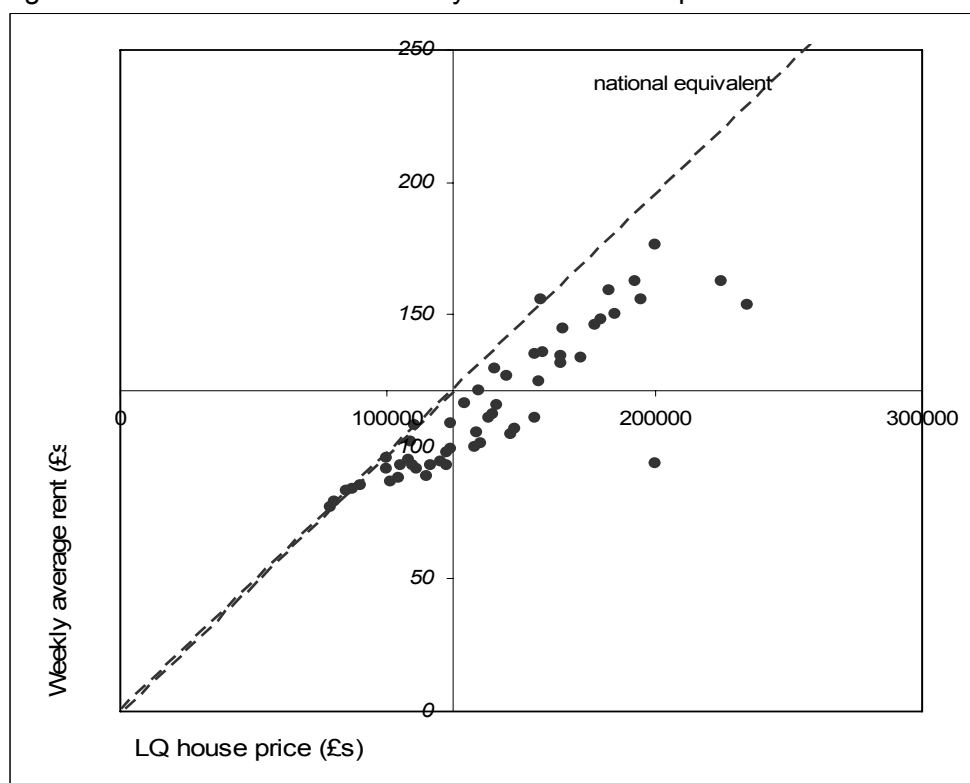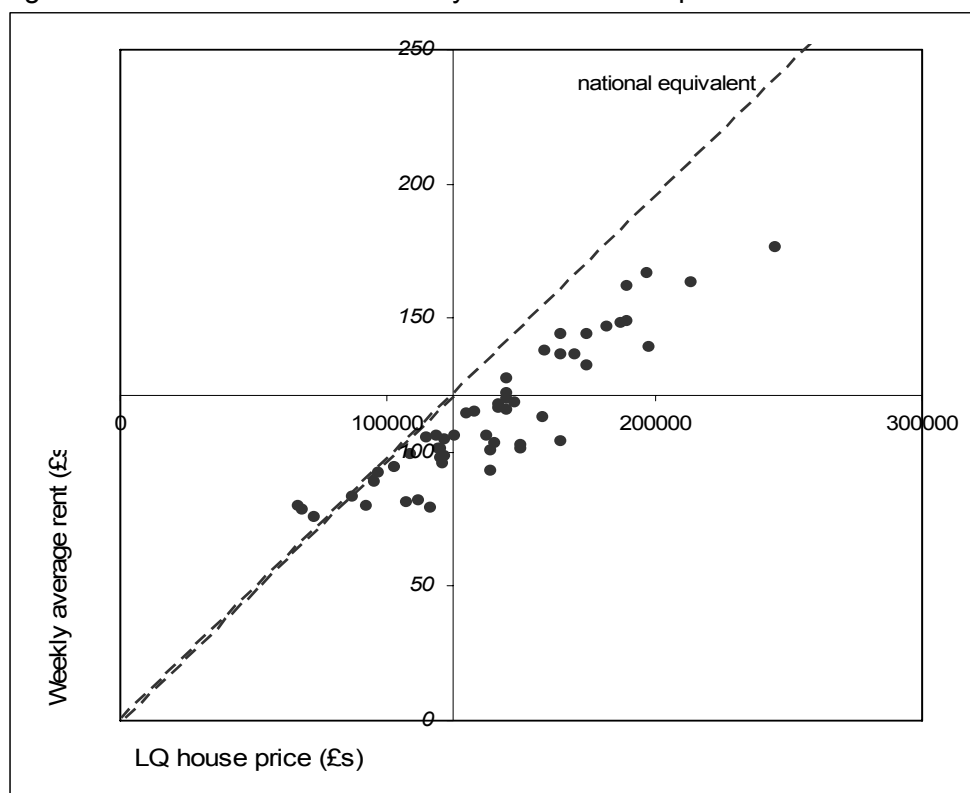Figure 5.50 Position of LA areas by rent and house price: Major urban LA areas
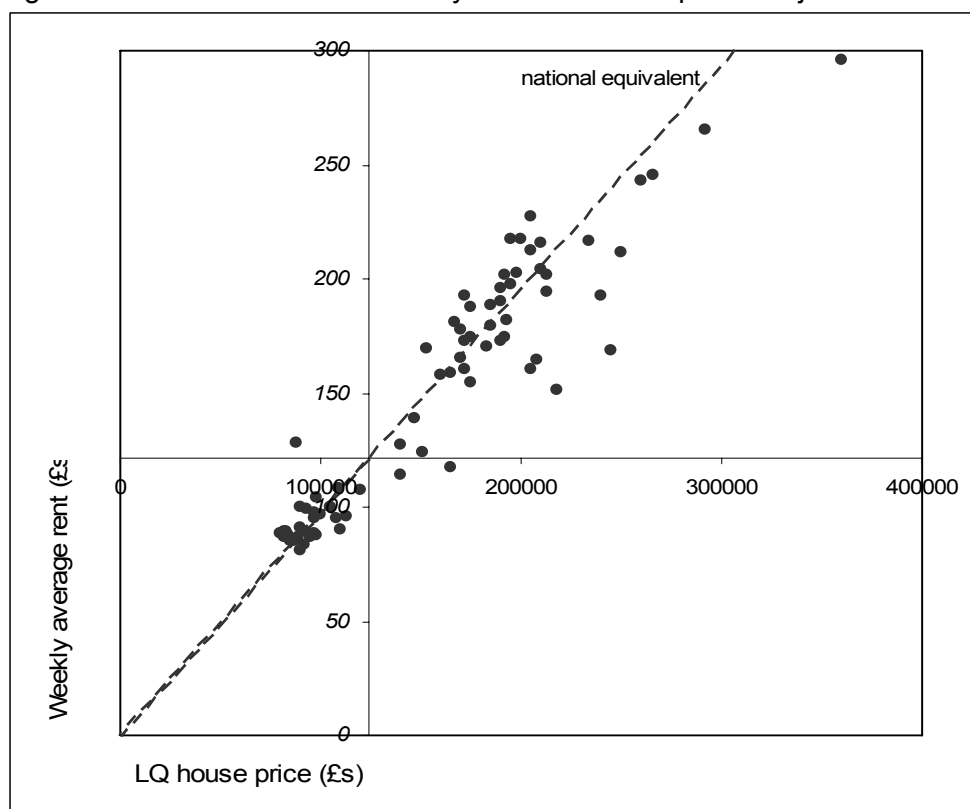
Source: As Tables 2.12 and 3.12.

Figure 5.51 Position of LA areas by rent and house price: Large urban LA areas
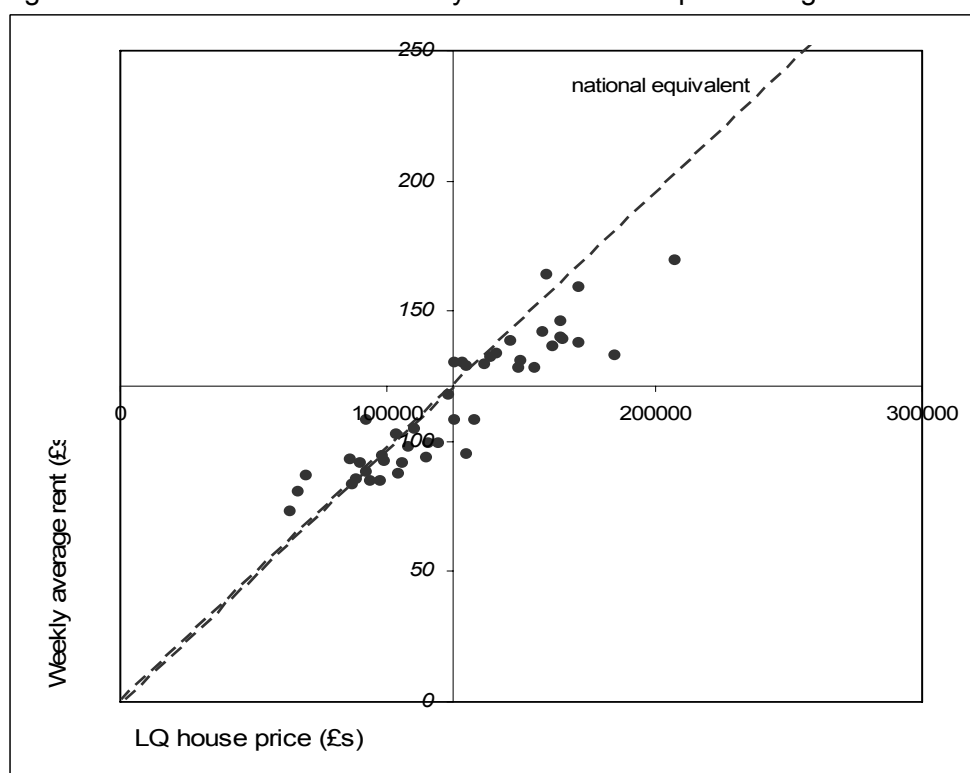
Source: As Tables 2.12 and 3.12.

Figure 5.52 Position of LA areas by rent and house price: Other urban LA areas
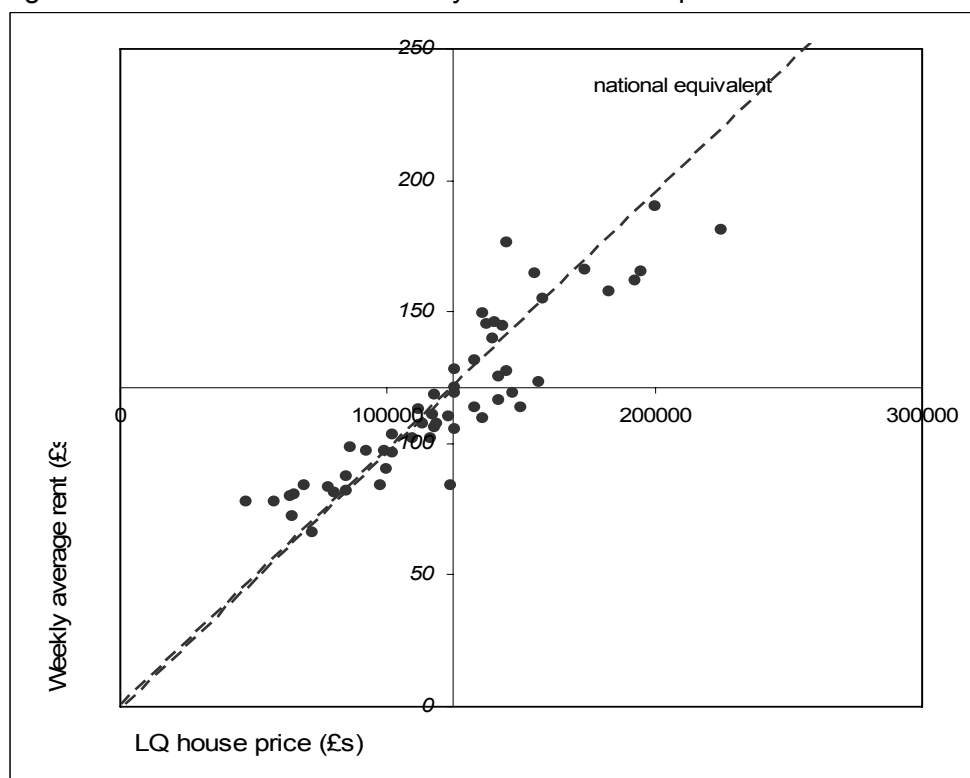
Source: As Tables 2.12 and 3.12.

Figure 5.53 Position of LA areas by rent and house price: Rural-26 LA areas

Source: As Tables 2.12 and 3.12.

Figure 5.54 Position of LA areas by rent and house price: Rural-50 LA areas

Source: As Tables 2.12 and 3.12.

Figure 5.55 Position of LA areas by rent and house price: Rural-80 LA areas
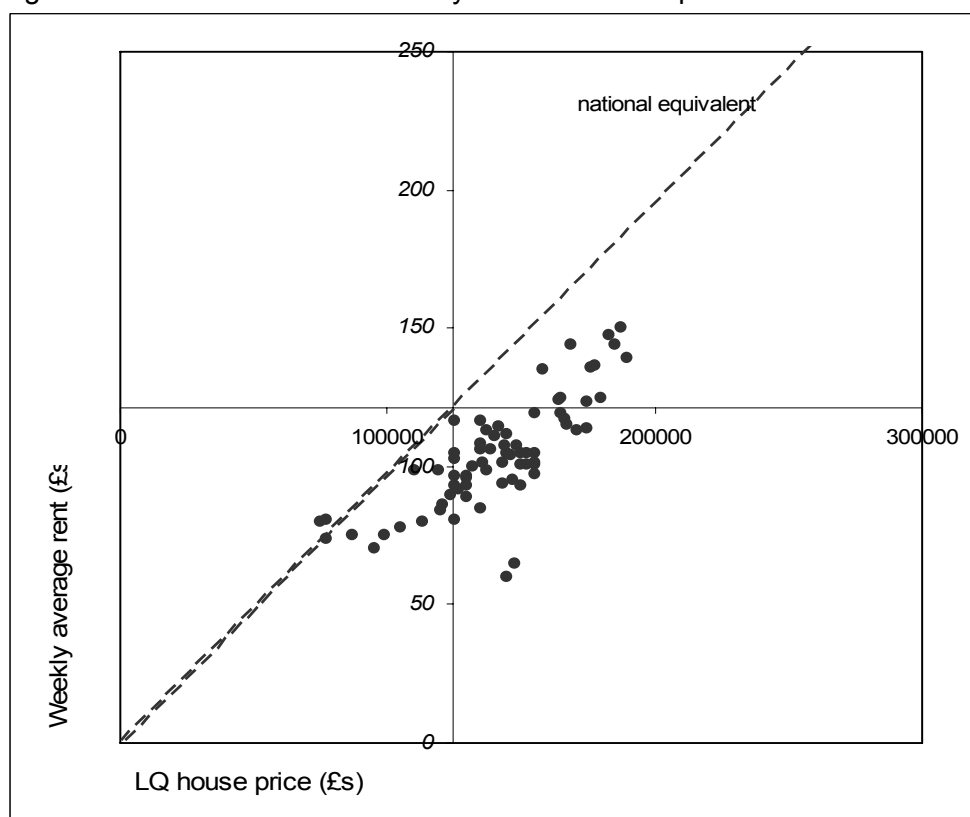
Source: As Tables 2.1 and 3.1.

5.6 Private rental rates of return for LA areas with high/low increases in rents

Table 5.9 sets out the rental rates of return for LA areas with high and low increases in rents. The grouping methodology is the same as in Section 4. In 2006/07, the rental rate of return was 4.72% for the high group and 4.60% for the low group. This compares with 9.58% and 10.35% in 1996/97, for the two groups. The decreases in the rental rates for the observation period were: 4.86 points for the high group and 5.75 for the low group. The rental rates for both groups declined over the period except in 2006/07 when the high group showed a marginal upturn.

Table 5.9 Rental rates of return: LA areas with high/low increases in rents (%, %-point)

	High		Low		High – low
	Return	Change	Return	Change	
1996/97	9.58		10.35		-0.77
1997/98	9.03	-0.55	10.02	-0.33	-0.99
1998/99	8.58	-0.45	9.65	-0.37	-1.07
1999/00	7.82	-0.76	9.08	-0.57	-1.26
2000/01	7.09	-0.73	8.88	-0.20	-1.79
2001/02	6.29	-0.80	8.62	-0.26	-2.33
2002/03	6.02	-0.27	8.49	-0.13	-2.47
2003/04	5.19	-0.83	6.78	-1.71	-1.59
2004/05	4.60	-0.59	5.29	-1.49	-0.69
2005/06	4.83	0.23	5.10	-0.19	-0.27
2006/07	4.72	-0.11	4.60	-0.50	0.12
1996/97 – 2006/07		-4.86		-5.75	

Note: LA areas with fewer rent cases or without corresponding figures between the comparison points were excluded. These are simple averages of the constituent LA areas' figures.
Source: As Tables 2.1 and 3.1.

Figures 5.56 to 5.61 present the number of rent cases with a rental rate of return, plus the LQ house price real growth rate or a previous year's sum of the two rental rates for high and low groups. As seen in the figures at the national level (Figures 5.1 to 5.3), the movements of house price cases and rental rates of return were not in line with one another.
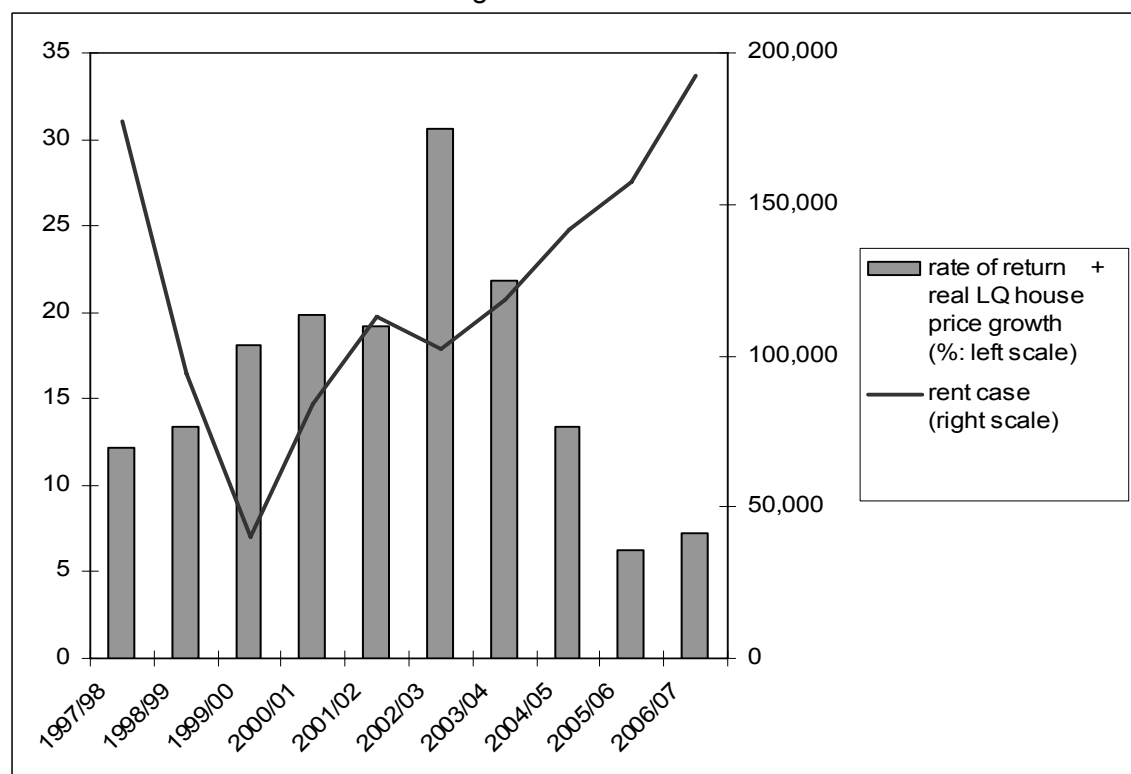
Figure 5.56 Rental rates of return and rent cases: LA areas with high increases in rents
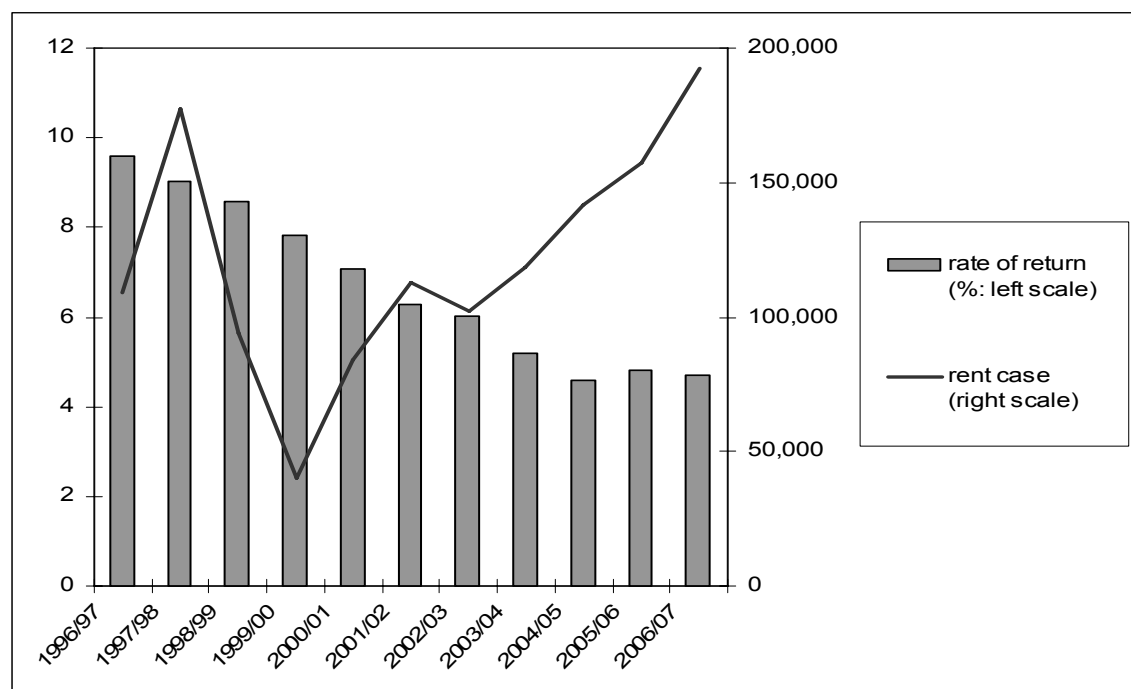
Note: LA areas with fewer rent cases or without corresponding figures between the comparison points were excluded. House prices were estimated by Dataspring, based on the methodology for Table 3.10.
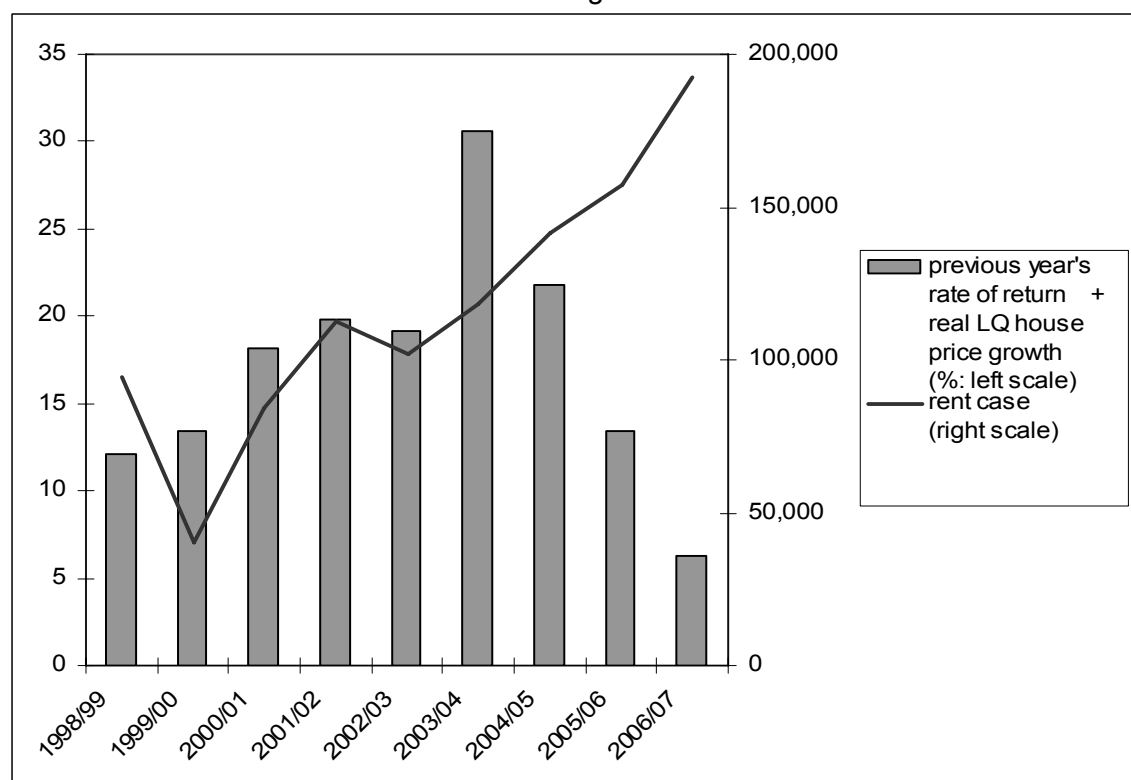
Source: As Tables 2.1 and 3.1.

Figure 5.57 Rental rates of return plus LQ house price real growth rate and rent cases: LA areas with high increases in rents.
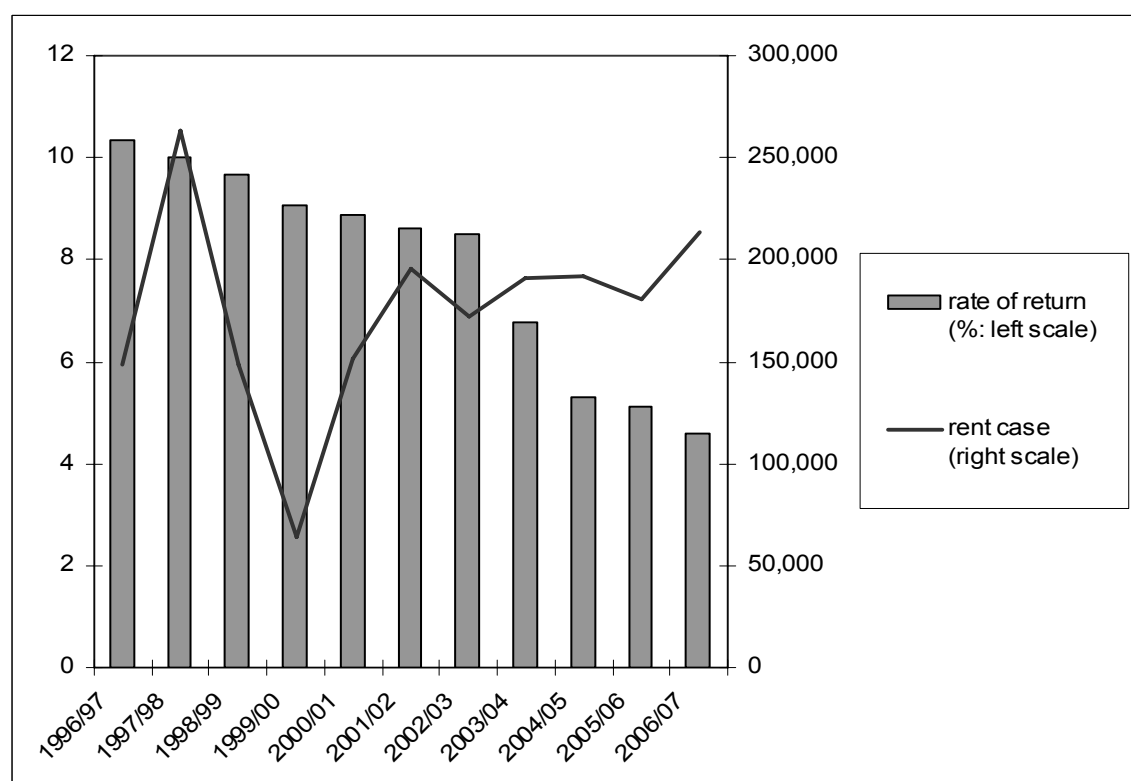

Source: As Figure 5.56.

Figure 5.58 Previous year's rental rate of return plus LQ house price real growth rate and rent cases: LA areas with high increases in rents
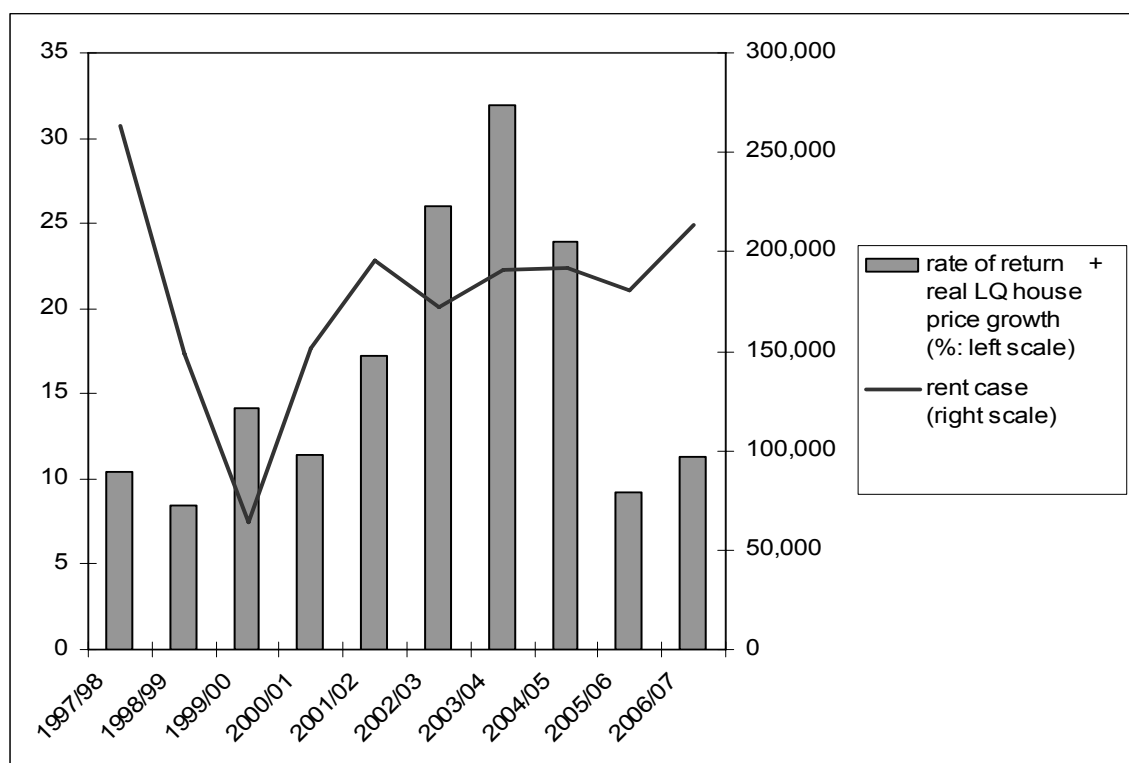

Source: As Figure 5.56.

Figure 5.59 Rental rates of return and rent cases: LA areas with low increases in rents
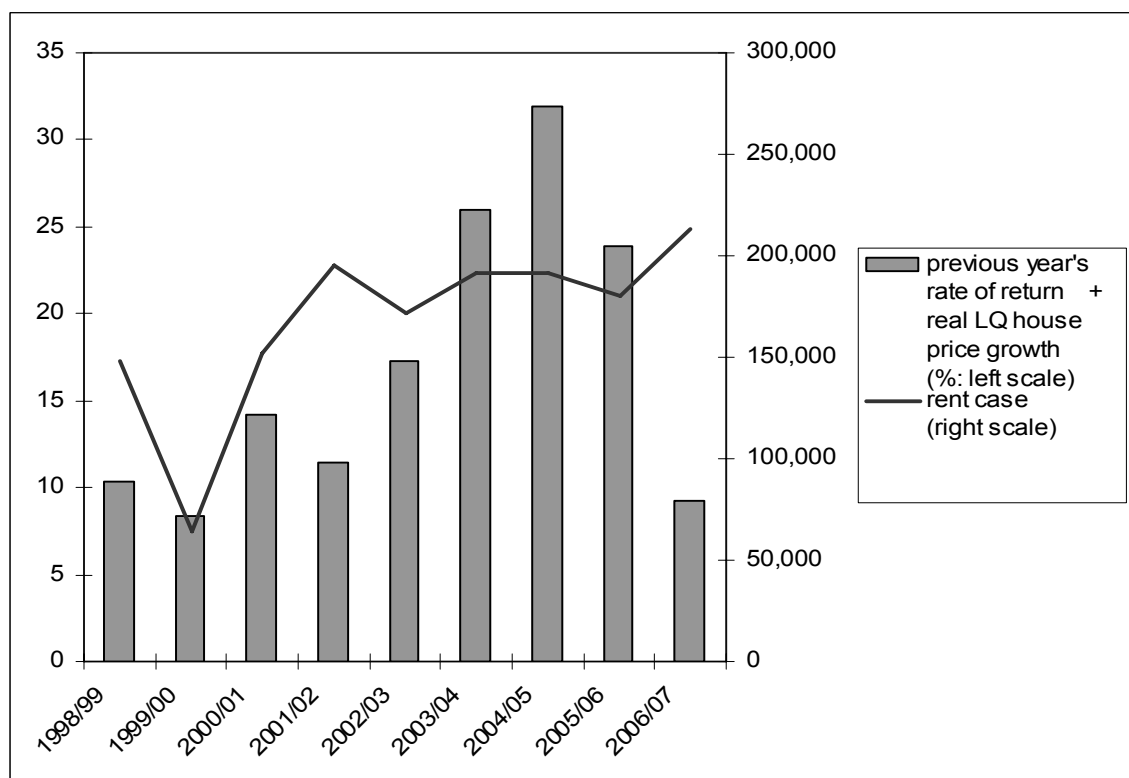

Source: As Figure 5.56.

Figure 5.60 Rental rates of return plus LQ house price real growth rate and rent
cases: LA areas with low increases in rents

Source: As Figure 5.56.

Figure 5.61 Previous year's rental rate of return plus LQ house price real growth rate
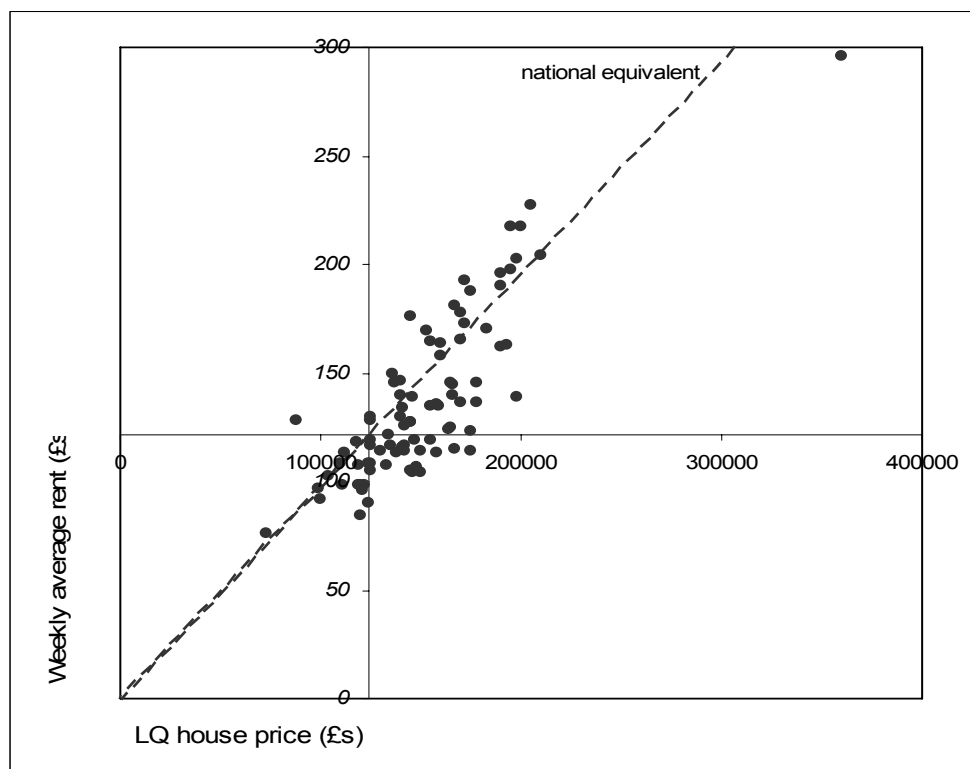and rent cases: LA areas with low increases in rents

Source: As Figure 5.56.

Figures 5.62 and 5.63 show the trend of private rents and LQ house prices for these
two groups of LA areas in 2006/07. The notation in these figures is the same as that
for Figure 5.4.

Partly because of high rents resulting from rapid rent increases, nearly half of the LA areas in the high group had rental rates of return above the national level (Figure 5.46). The low group also contained several LA areas with higher rental rates of return than the English average, but the majority were located below the national equivalent line (Figure 5.47). In particular all the LA areas with house prices higher than the national standard were situated blow the benchmark line, suggesting that their slow rent growth made their rents low relative to their high house prices resulting in their failures to reach the national level of rental rate of return.

Figure 5.62 Position of LA areas by rent and house price: LA areas with high increases in rents

Source: As Tables 2.1 and 3.1.

Figure 5.63 Position of LA areas by rent and house price: LA areas with low
increases in rents
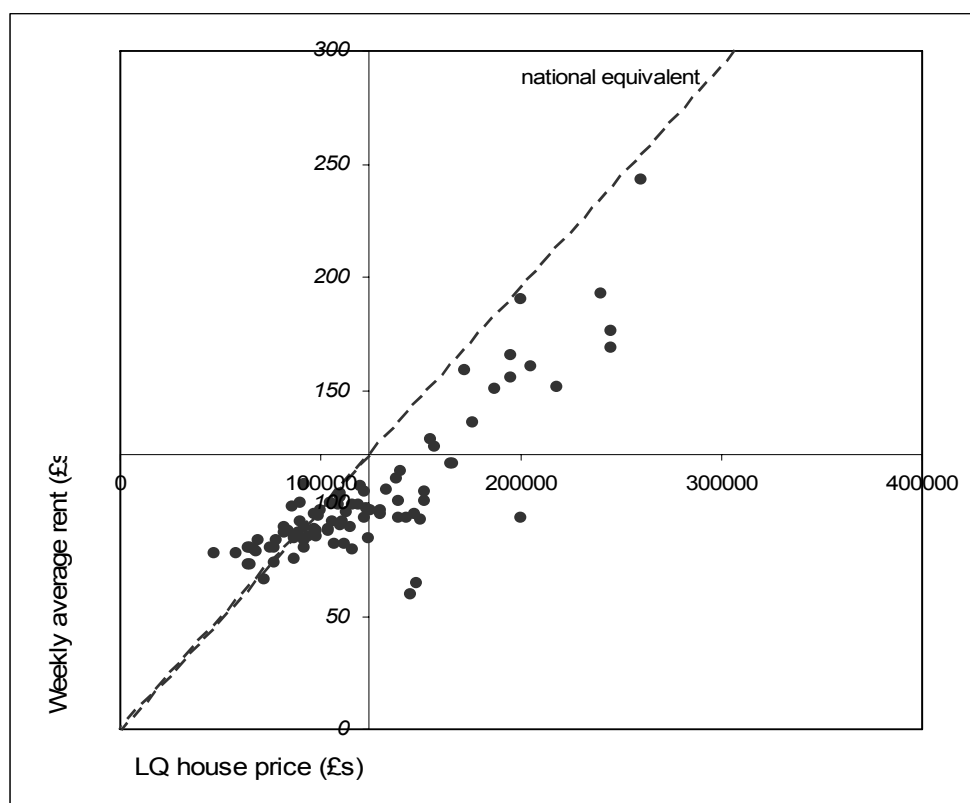
Source: As Tables 2.1 and 3.1.

5.7 Private rental rates of return for LA areas with high/low house price increases

Table 5.10 sets out the rental rates of return for LA areas with high and low house price increases. The grouping methodology is the same as in Section 4. In 2006/07, rental ates of return were 4.50% for the high group and 4.85% for the low group. This compares with 10.38% and 9.46% in 1996/97 for the two groups. The decrease in rental rates of return for the observation period was greater for the high group (5.88 points) than for the low group (4.61 points).

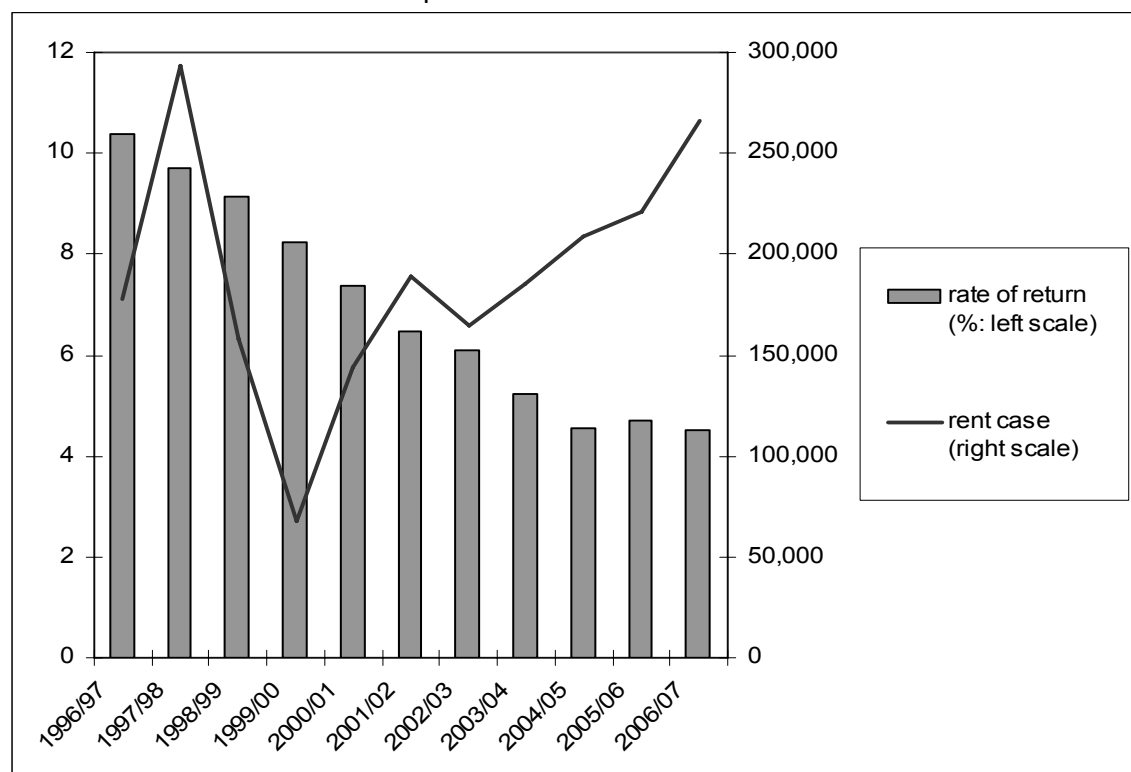Table 5.10 Rental rates of return: LA areas with high/low increases in house prices (%, %-point)

	High		Low		High – low
	Return	Change	Return	Change	
1996/97	10.38		9.46		0.92
1997/98	9.69	-0.69	9.35	-0.11	0.34
1998/99	9.14	-0.55	9.15	-0.20	-0.01
1999/00	8.24	-0.90	8.76	-0.39	-0.52
2000/01	7.36	-0.88	8.71	-0.05	-1.35
2001/02	6.48	-0.88	8.56	-0.15	-2.08
2002/03	6.09	-0.39	8.48	-0.08	-2.39
2003/04	5.22	-0.87	6.65	-1.83	-1.43
2004/05	4.55	-0.67	5.27	-1.38	-0.72
2005/06	4.71	0.16	5.13	-0.14	-0.42
2006/07	4.50	-0.21	4.85	-0.28	-0.35
1996/97 – 2006/07		-5.88		-4.61	

Note: Simple average of the constituent LAs' figures. LA areas with fewer rent cases or without corresponding figures between the comparison points were excluded.

Source: As Tables 2.1 and 3.1.

Figures 5.64 to 5.69 present the number of rent cases with a rental rate of return, plus the LQ house price real growth rate or a previous year's sum of the two rentral ates for high and low groups. As seen in the figures at the national level (Figures 5.1 to 5.3), the movements of house price cases and rental rates of return were not in line with one another.

Figure 5.64 Rental rates of return and house price case: LA areas with high increases in house prices
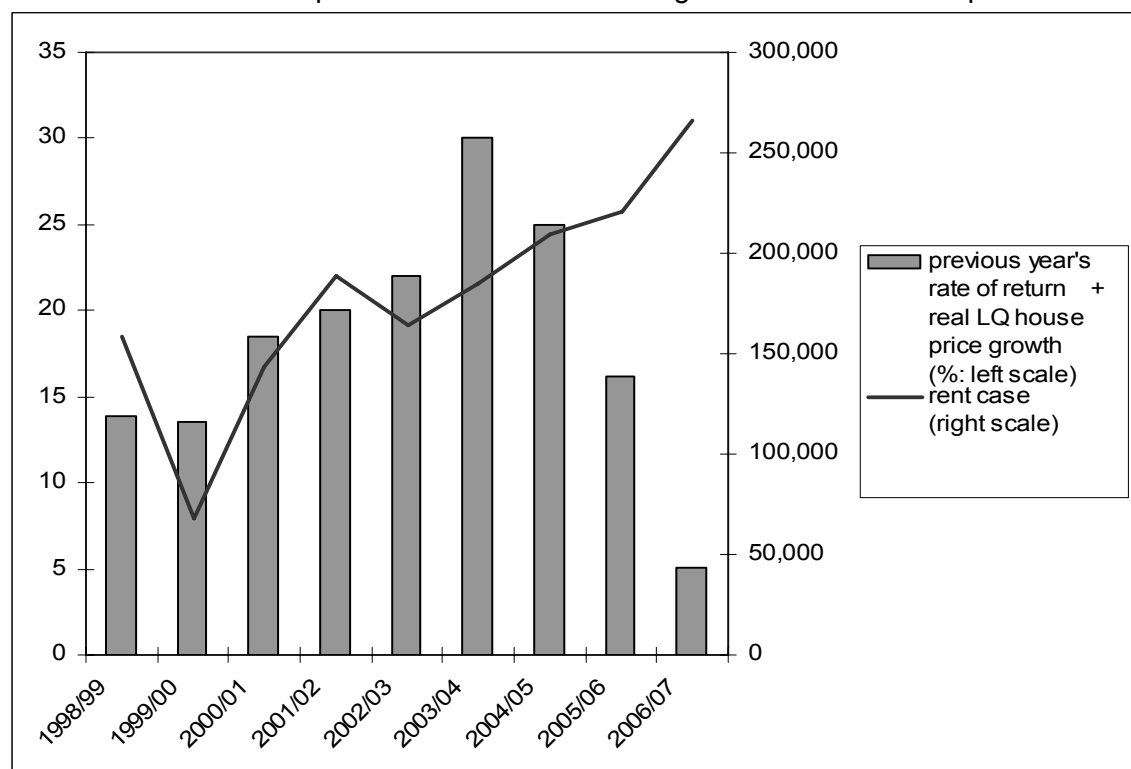

Source: As Figure 5.56.

96

Figure 5.65 Rental rates of return plus LQ house price real growth rate and house price case: LA areas with high increases in house prices
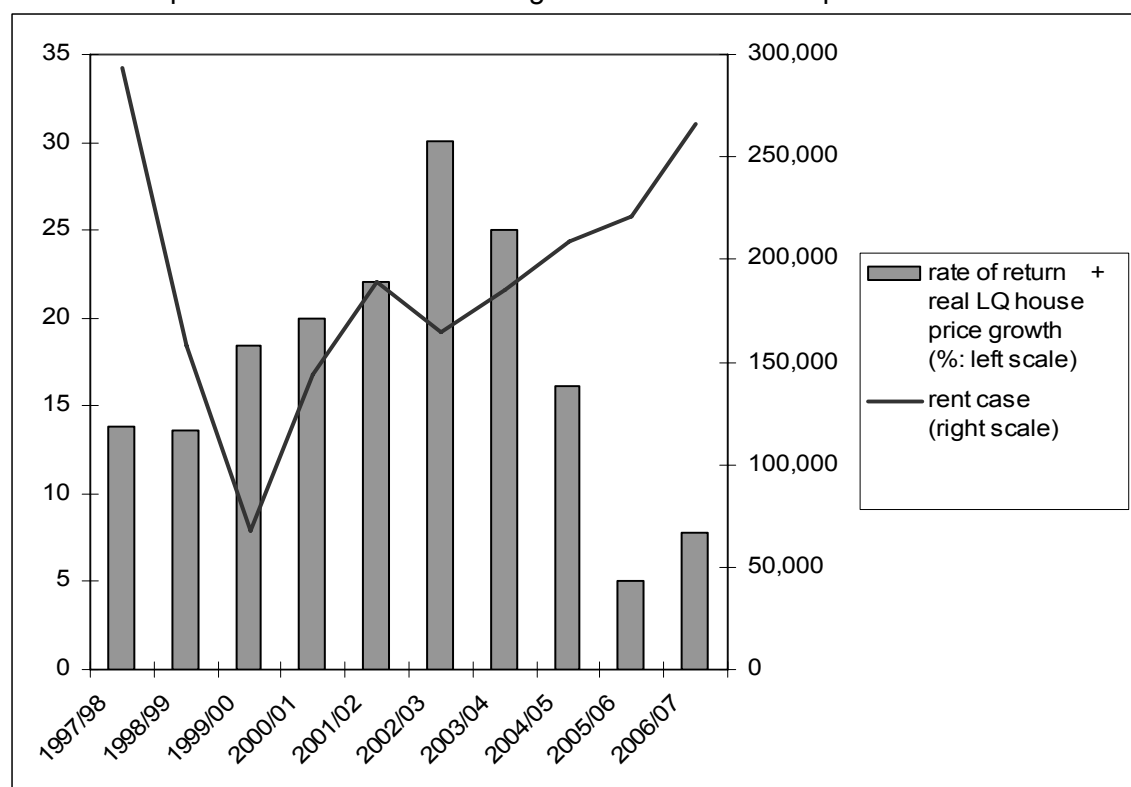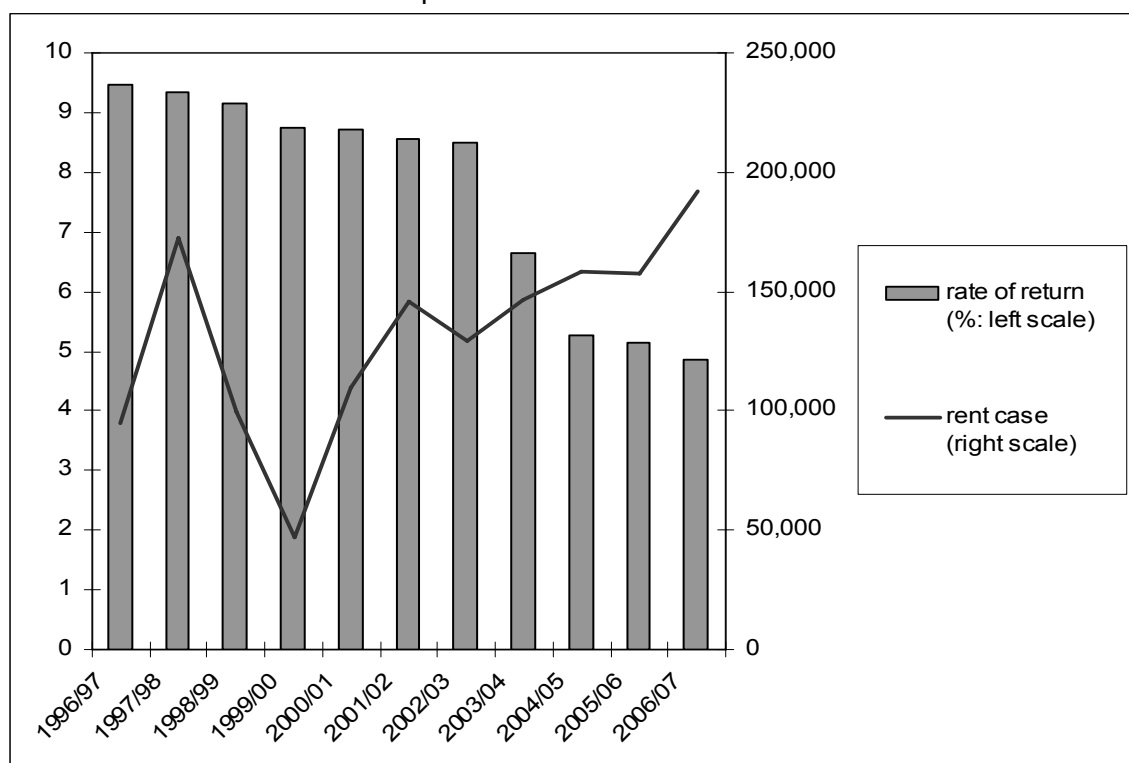

Source: As Figure 5.56.

Figure 5.66 Previous year's rental rate of return plus LQ house price real growth rate and house price case: LA areas with high increases in house prices

Source: As Figure 5.56.

97

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Figure 5.67 Rental rates of return and house price case: LA areas with low
increases in house prices

Source: As Figure 5.56.

Figure 5.68 Rental rate of return plus LQ house price real growth rate and house
price case: LA areas with low increases in house prices

Source: As Figure 5.56.
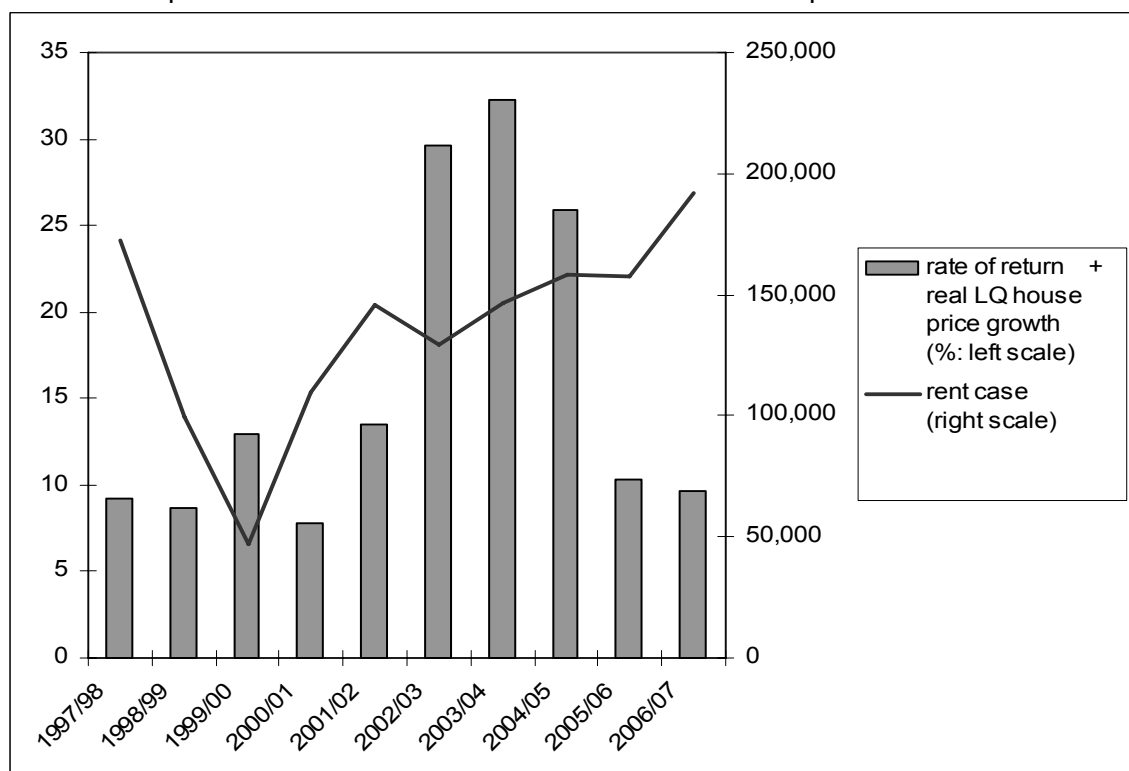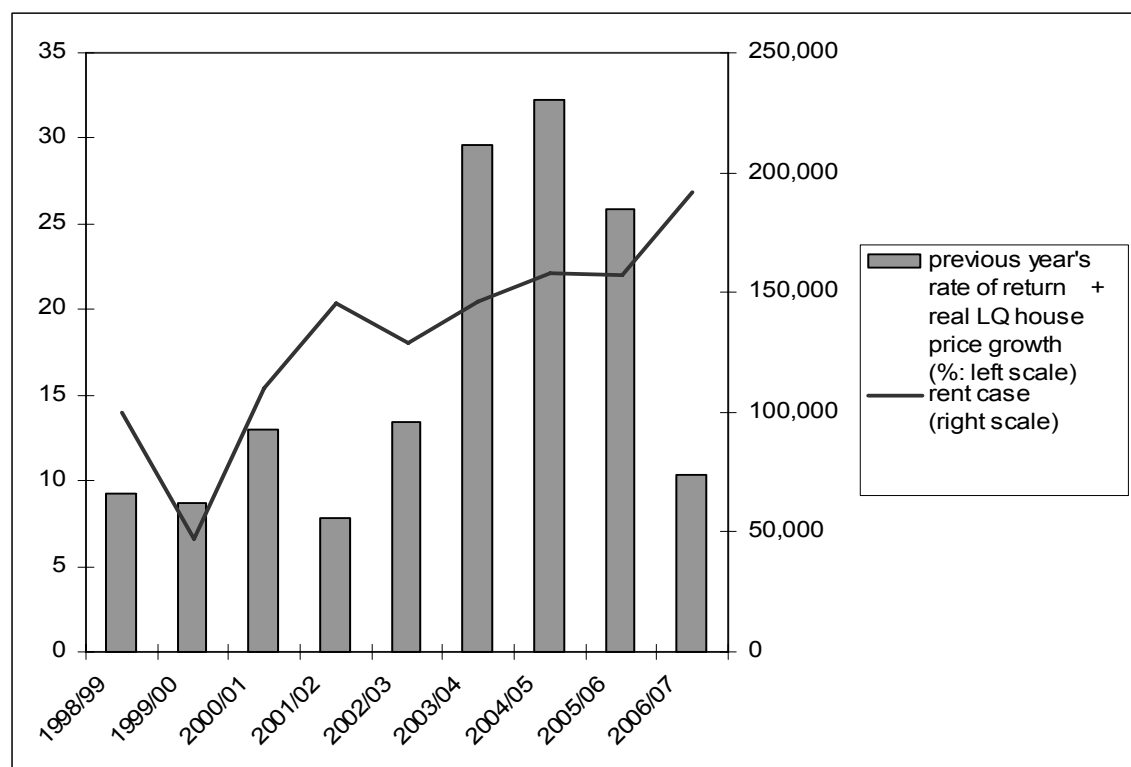
Figure 5.69 Rental rates of return plus LQ house price real growth rate and house
price case: LA areas with low increases in house prices

98

Source: As Figure 5.56.

Figures 5.70 and 5.71 plot average private rents and LQ house prices of these two groups of LA areas in 2006/07. The notation in these figures is the same as that for Figure 5.4. LA areas with high house prices were more likely to have higher rental rates of return than the national standard in the high group (Figure 5.52) while those with low house prices were more so in the low group (Figure 5.53).

Figure 5.70 Position of LA areas by rent and house price: LA areas with high house price increases
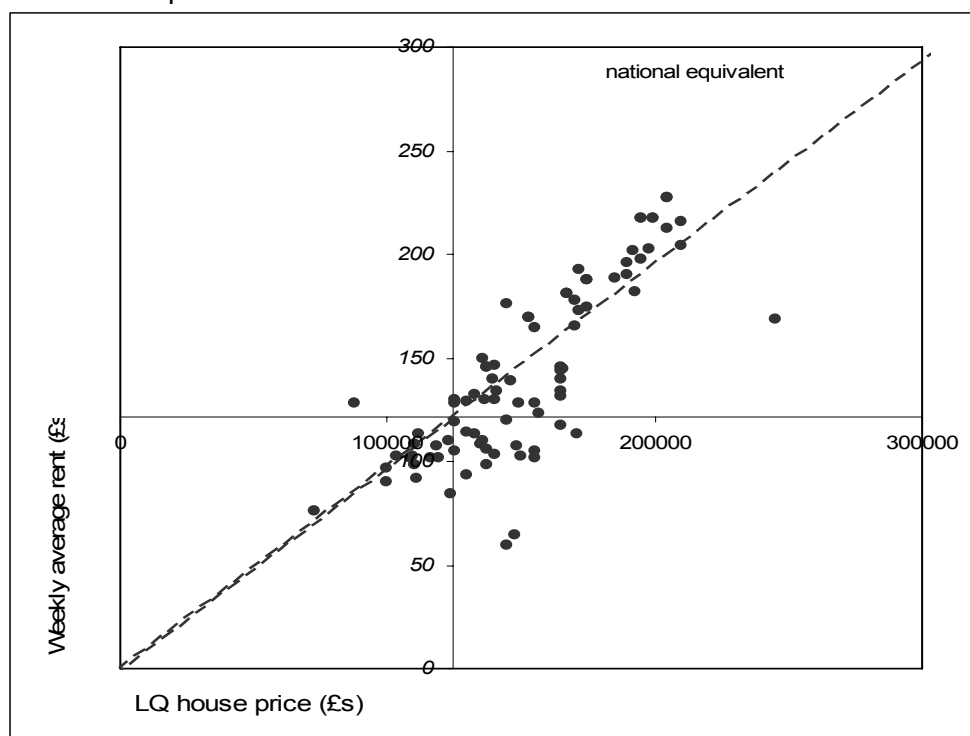
Source: As Tables 2.1 and 3.1.

Figure 5.71 Position of LA areas by rent and house price: LA areas with low house price increases
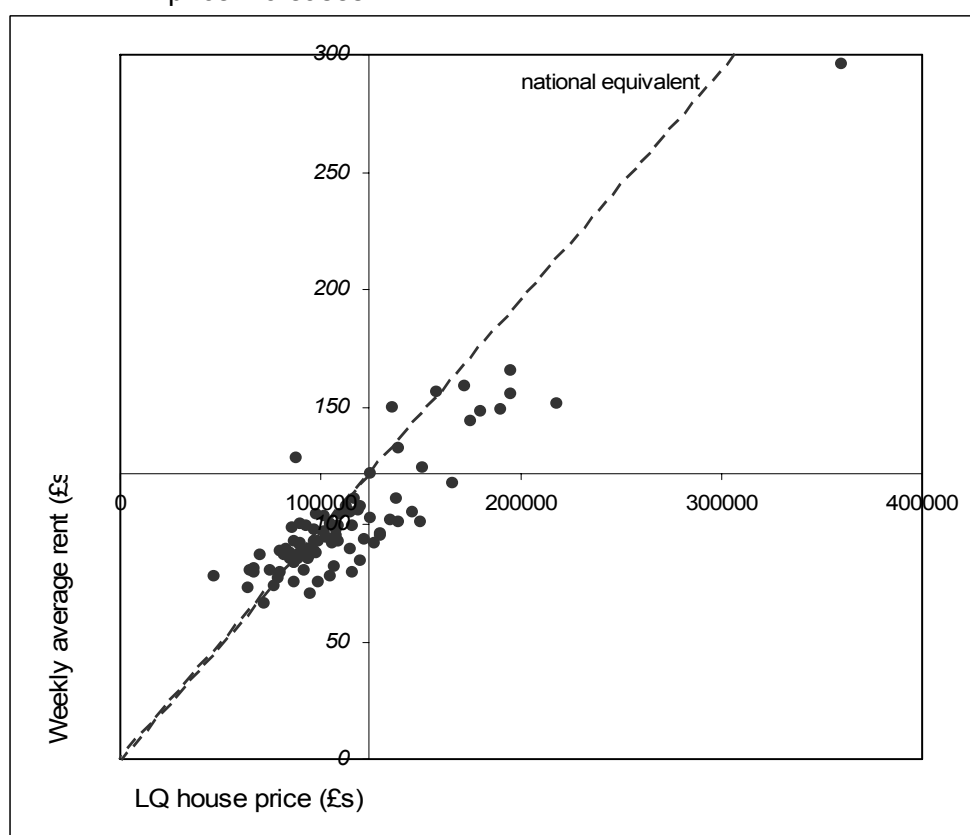
Source: As Tables 2.1 and 3.1.

6 Summary and Conclusion

Over the period of 1996/97 to 2006/07, average private rents in England increased except from 1998/99 to 1999/00. Overall, private rents in all nine English regions followed the national trend. At the lower geographical level, the majority of LA areas in England also saw consistent increases.

In the same observation period, average private sector house prices, measured by the average of LQ house prices, rose sharply. All regions also witnessed increases in private sector house prices, without exception. Private sector house prices rose in almost all LA areas, while some LA areas, particularly in London, showed significant increases.

As the basic trends of private rents and house prices were consistent with one another during the period, the correlation between private rents and house prices was significantly positive and the former could be expressed by the latter using a linear equation form.

The correlation and a similar linear relationship can be observed across all regions, but the relationship was relatively weak in the North East. This casts some doubt on whether private rents can be satisfactory explained solely by house prices. However it also suggests some specific factors are operating in the North East (or possibly in lower demand areas which are concentrated in the North East). The analysis therefore also examined the groups of LA areas with lower rent growth and with lower house price growth. Further research is necessary on whether there were other variables affecting the relationship between private rents and house prices.

The private rental rate of return, measured by rent divided by LQ house price, continuously decreased for the observation period except in 2005/06, when it remained almost unchanged. This overall declining pattern has arisen, despite the fact that both variables increased in the period, private house prices (the denominators) grew higher than rents (the numerators) in relative terms, almost throughout the observation period. These decreases in rental rates of return were observed in all regions with some exceptions notably in the North East.

Despite the overall declining pattern of rental rates of return, the supply of private rental properties, measured by rent cases, did not show a downward trend for the observation period. The inconsistency between the two variables suggests that private sector landlords are expecting another type of return from their property investment, i.e., capital gains. In some cases, rental rates of return and LQ house price real growth rates seem to be moving in tandem with rent cases since 1999/00, with perhaps a one year lag.

To clarify this point, further research is required, but if private landlords' investment decisions are depending largely on speculation of capital gains, this will provide uncertainties for private rental tenants. As some as predicted, the upward trend of property prices is coming to an end, this may affect private rental property supply, leading a shift of rent level. Taking into account this uncertainty in the private sector, the role of the social sector will be indispensable for the sustainable development of the rental property market.

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Appendix 1

Average private rents for LA areas in NUTS3 Surry area

	Rent (£)	Stock
Elmbridge	183.10	1,385
Epsom and Ewell	176.31	775
Guildford	95.42	35
Mole Valley	144.42	729
Reigate and Banstead	147.38	1,178
Runnymede	151.48	870
Spelthorne	163.78	913
Surrey Heath	148.28	501
Tandridge	161.01	884
Waverley	151.59	855
Woking	157.78	1,067
NUTS3 Surrey average/total	**159.74**	**9,192**

Average private rents for LA areas in NUTS3 Devon CC area

	Rent (£)	Stock
East Devon	108.79	2,456
Exeter	103.14	2,547
Mid Devon	103.28	1,448
North Devon	98.03	3,560
South Hams	110.09	1,587
Teignbridge	71.23	184
Torridge	95.27	2,324
West Devon	101.96	1,024
Devon CC average/total	**101.92**	**15,130**

Average private rents for LA areas in NUTS3 Norfolk area

	Rent (£)	Stock
Breckland	101.11	1,789
Broadland	101.20	1,178
Great Yarmouth	91.98	3,423
King's Lynn and West Norfolk	94.55	2,185
North Norfolk	91.91	1,863
Norwich	86.45	8
South Norfolk	52.03	27
Norfolk average/total	**94.99**	**10,473**

Appendix 2

Official Bank Rates

Year	Date	Rate	Change (%-point)
1996/97		6.25%	
1997/98	06-Jun-97	6.50%	0.25
	10-Jul-97	6.75%	0.25
	07-Aug-97	7.00%	0.25
	06-Nov-97	7.25%	0.25
1998/99	04-Jun-98	7.50%	0.25
	08-Oct-98	7.25%	-0.25
	05-Nov-98	6.75%	-0.50
	10-Dec-98	6.25%	-0.50
	07-Jan-99	6.00%	-0.25
1999/00	04-Feb-99	5.50%	-0.50
	08-Apr-99	5.25%	-0.25
	10-Jun-99	5.00%	-0.25
	08-Sep-99	5.25%	0.25
	04-Nov-99	5.50%	0.25
	13-Jan-00	5.75%	0.25
	10-Feb-00	6.00%	0.25
2000/01	08-Feb-01	5.75%	-0.25
2001/02	05-Apr-01	5.50%	-0.25
	10-May-01	5.25%	-0.25
	02-Aug-01	5.00%	-0.25
	18-Sep-01	4.75%	-0.25
	04-Oct-01	4.50%	-0.25
	07-Nov-01	4.00%	-0.50
2002/03	06-Feb-03	3.75%	-0.25
2003/04	10-Jul-03	3.50%	-0.25
	06-Nov-03	3.75%	0.25
	05-Feb-04	4.00%	0.25
2004/05	06-May-04	4.25%	0.25
	10-Jun-04	4.50%	0.25
	05-Aug-04	4.75%	0.25
2005/06	04-Aug-05	4.50%	-0.25
2006/07	03-Aug-06	4.75%	0.25
	09-Nov-06	5.00%	0.25
	11-Jan-07	5.25%	0.25

Source: Bank of England

Appendix 3

Building society& bank basic mortgage rate (%, %-point)

Year	Quarter	Rate	Change from the previous Q
1996	Q1	7.48	
	Q2	7.17	-0.31
	Q3	6.93	-0.24
	Q4	7.03	0.10
1997	Q1	7.22	0.19
	Q2	7.66	0.44
	Q3	8.36	0.70
	Q4	8.51	0.15
1998	Q1	8.61	0.10
	Q2	8.61	0.00
	Q3	8.88	0.27
	Q4	8.01	-0.87
1999	Q1	6.91	-1.10
	Q2	6.82	-0.09
	Q3	6.77	-0.05
	Q4	7.14	0.37
2000	Q1	7.65	0.51
	Q2	7.65	0.00
	Q3	7.62	-0.03
	Q4	7.60	-0.02
2001	Q1	7.27	-0.33
	Q2	6.81	-0.46
	Q3	6.54	-0.27
	Q4	5.66	-0.88
2002	Q1	5.64	-0.02
	Q2	5.65	0.01
	Q3	5.68	0.03
	Q4	5.64	-0.04
2003	Q1	5.49	-0.15
	Q2	5.49	0.00
	Q3	5.30	-0.19
	Q4	5.58	0.28
2004	Q1	5.81	0.23
	Q2	6.08	0.27
	Q3	6.59	0.51
	Q4	6.60	0.01
2005	Q1	6.59	-0.01
	Q2	6.64	0.05
	Q3	6.42	-0.22
	Q4	6.40	-0.02
2006	Q1	6.40	0.00
	Q2	6.40	0.00
	Q3	6.66	0.26
	Q4	6.97	0.31
2007	Q1	7.17	0.20

Note: As at the end of quarter.
Source: National Statistics.