6
Residential Land

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THIS CHAPTER is an attempt to derive the best estimate of the value of all the land used or allocated for dwellings in 1985. We are not necessarily concerned about the precise total area of land involved at this stage (a surprising small 4% of the country, according to Table 4: VII). Much of the information available to us relates to numbers of dwellings and the plots on which they stand without any direct recognition of the area of those plots. Analysis of such information provides us with a semi-independent check of an estimate obtained by multiplying spatial area and average unit value.

Our main sources of information have been two official publications: the Department of the Environment's (with other government departments) *Housing and Construction Statistics 1975-1985 GREAT BRITAIN* (DoE/SDD/WO 1986); and the Inland Revenue Valuation Office's Autumn 1985 *Property Market Report.* It is in the former that the importance of the emphasis on the number of dwellings becomes apparent — there is no other consistently reliable database covering the whole country. The latter, however, provides us with more appropriate information on land values, and this is applied first to the official numbers of dwellings and then to the national area of housing land worked out in Chapter 4.

Definition of a Dwelling

DoE/SDD/WO (1986: 150) contains the following definitions to which we have adhered:

A dwelling is a building or any part of a building which forms a separate

and self-contained set of premises designed to be occupied by a single family.

A flat is a dwelling forming part of a building from some other part of which it is divided horizontally. For the purpose of statistics of new building old persons flatlets (one or two room flats with certain shared facilities) are counted as separate one-bedroomed flats although they are not entirely self-contained. Flats include maisonettes, which are flats containing more than one storey.

A house is a dwelling which is not a flat. Houses include single storey bungalows.

Estimates of the total dwelling stock are critical to the method of calculation used and therefore the method employed by the Department of the Environment is noted in full:

> Estimates of the total dwelling stock, stock changes and the tenure distribution are based on data from the Censuses of Population, with adjustments for numeration errors and for definitional changes. English figures are based on figures from the 1971 and 1981 censuses. Estimates for Wales and Scotland prior to 1981 are based on 1971 census data and are not strictly comparable with those for later years which are based on 1981 census data.
>
> The 1981 census did not include a direct count of dwellings but estimates have been made using the information about access which was recorded for each 'household space' (the living accommodation occupied or intended to be occupied by one household). The method used was to take the number of self-contained household spaces in permanent buildings, each of which must by definition correspond to a separate dwelling, and add to that figure an allowance for shared dwellings by assuming that on average 100 'not self-contained' household spaces are equivalent to 30 separate dwellings (20 in some areas of London where sharing is prevalent). Since only a very small proportion of dwellings are shared the dwelling stock estimate is not very sensitive to the number of household spaces assumed per shared dwelling: the maximum possible error on this account represents less than 0.5% of total dwelling stock nationally and only about 1% for London, the area most affected. (All household spaces which are not in permanent buildings are assumed to be self-contained dwellings.)
>
> The tenure categories are as defined in the census reports. In Scotland dwellings rented from local authorities include those rented from the Scottish Special Housing Association. 'Other' tenures include dwellings rented with farms or business premises, those occupied by virtue of employment and those rented from housing associations.
>
> Estimates of dwelling stock by tenure from censuses involve

> additional assumptions particularly in respect of dwellings where usual residents are not present on census night (eg, absent households, vacant dwellings) and are therefore liable to wider margins of error than the estimates of total stock (1986: 154-5).

Account is taken of gains in conversions and losses by demolition and slum clearance.

Categories of Dwelling Land

There are four categories which will be included in this analysis, namely: privately owned; privately rented; local authority owned; and vacant plots intended for dwellings.

The most reliable information relates to private ownership. Local authority land is the most difficult to value and that for which the least hard fact is available. Since there is no recognised way of determining the value of dwelling land by local authorities themselves, estimates were made.

DoE/SDD/WO (1986: Table 10.1) contains information on land sold with planning permission for housing in the private sector. This information is derived from the Inland Revenue Valuation Office, which also publishes its own summary of the opinions of District Valuers. Finally, the Nationwide Building Society records site value estimates made by surveyors, using the 'residual method', during routine valuation of houses for mortgage security purposes.

The value of anything in the market place is what someone is prepared to pay for it. The greater the number of similar transactions there are the more reliable the indication of current values. For housing there is a buoyant and widespread market, with a large amount of publicly available detail.

The Press abounds with horror stories about rises in the prices of properties: *The Sunday Times* (3 January, 1988) states that in London 'an ordinary Victorian terrace house last year increased in value by £137 a day'. This is primarily an increase in land value. The increase is fastest and greatest in the South East, but it is also occurring in desirable areas in other parts of the country. The commuting boundaries for London have been ever widening, related largely to travelling convenience; as a consequence house prices are increasing rapidly in entirely new areas like Grantham.

The desire for positional wealth has increased the demand for country mansions, manor houses and large properties often scorned in earlier years; this, for example has made the Cotswolds a very expensive area.

The rate of increase in values was not as great in 1985 as in the ensuing years. Apart from the fact that it was the latest year for which complete figures were available when study commenced, this makes it a suitable (i.e. relatively normal) year for investigaion.

Private Sector House Building Land: The DoE's Data

DoE/SDD/WO (1986: 105-109) gives details of transactions for the purchase of land designated for private and public sector housing and consisting of four or more plots. The explanatory notes are as follows:

> Data on transactions for land intended to be used for housing is taken from a return completed by Inland Revenue District Valuers using information taken from stamp duty records (the *Particulars Delivered*) and other sources. Table 10.2 provides summary information on all the transactions reported from 1981. Table 10.1 provides information for transactions used in the construction of the index of housing land prices. These are, broadly, restricted to private sector purchase of sites with planning permission for a known number of plots (i.e. dwellings in the case of flats) (p. 155).

These tables are a direct indication of the value of house building land, as they relate to site value alone. However, only Table 10.1 includes average figures and may therefore be used for the calculation of totals. This table, which contains only those transactions suitable for the construction of a constant average building density price index, will produce conservative estimates for three reasons:

1 It does not include building sites for under four dwellings, which, especially those for one dwelling, normally fetch higher prices.

2 It does not include 'sites where the housing density is exceptionally high, [i.e.] above ... 60 dwellings per acre in London, 30 in the rest of the South East and in most of the conurbations,

and 18 elsewhere' (Evans 1974: XIV). Such sites tend to be the highest value sites of all.

3 The figures must on average represent the start rather than the mid-point of the year, as a footnote to the table states: 'Transactions are reported on average about 9 weeks after the completion of sales. The lag between agreement of price and completion varies considerably, but about three months is thought to be typical.'

Table 6: I gives the total number of dwellings for each region and country together with the number of plots purchased in 1985 (already having planning permission and in transactions consisting of four plots or more) and their 'simple average' and median prices per plot. The number of plots purchased bears a similar ratio to the number of existing plots in each case except two, and in two cases there were exceptionally high purchase prices. The anomalies are:

East Midlands: there was an exceptionally high number of purchases for this particular year but the prices were not distorted.

The South East — Greater London: prices were exceptionally high and there was a very low number of purchases. This is not unexpected and is only noted because it has a significant influence on the total figure.

Rest of the South East: there was an average amount of land purchased but the prices were exceptionally high (£15,000 per plot against an overall average of £8,315 in England and Wales).

The significantly higher prices per plot and per hectare are clearly seen in the average figures for the South East. The higher priced plots are not analysed in the published figures except in the totals and therefore the incidence of higher priced areas within regions or countries are not disclosed. However, the main influence is within the South East and therefore the use of averages per region and per country should not produce a large distortion.

Before moving on it is worth looking briefly at the comparison between purchases of land with planning permission, as given in DoE/SDD/WO (1986) Table 10.1, and the combined figure which

Table 6 : I
Selected DoE housing statistics for 1985

Region or country	*Stock of dwellings (Dec. 1985)*	*Plots purchased*	*Price per plot with planning permission*	
			Average	*Median*
North	1,238	850	3,798	3,500
Yorkshire and Humberside	1,944	2,443	4,165	3,250
East Midlands	1,537	4,332	3,767	2,427
Greater London	2,805	1,542	14,914	11,833
Rest of South East	4,065	6,170	15,339	13,541
East Anglia	796	1,505	7,183	5,000
South West	1,824	2,892	8,222	6,643
West Midlands	2,004	3,220	7,318	5,447
North West	2,518	3,047	4,817	4,700
Wales	1,120	838	3,563	3,191
England and Wales	19,851	26,839	8,315	5,375
Scotland	2,045	—	3,762*	NA
Great Britain	21,896	—	8,053*	NA

* Estimated from Building Societies' average new house price and assuming land value to be 11% of the total as in North (*Regional Trends* 1987:66). A notional 1600 plots for Scotland has been assumed to enable an approximate figure for Great Britain to be calculated.

includes land designated for private housing but without planning permission, and for public housing, as given in Table 10.2 (see Table 6:II). Table 10.2 also gives the spread in prices paid per hectare for each region and country as indicated by the lower and upper quartiles and the median (see Figure 6:I).

Figure 6 : I
Spread of housing land prices in England and Wales, early 1985

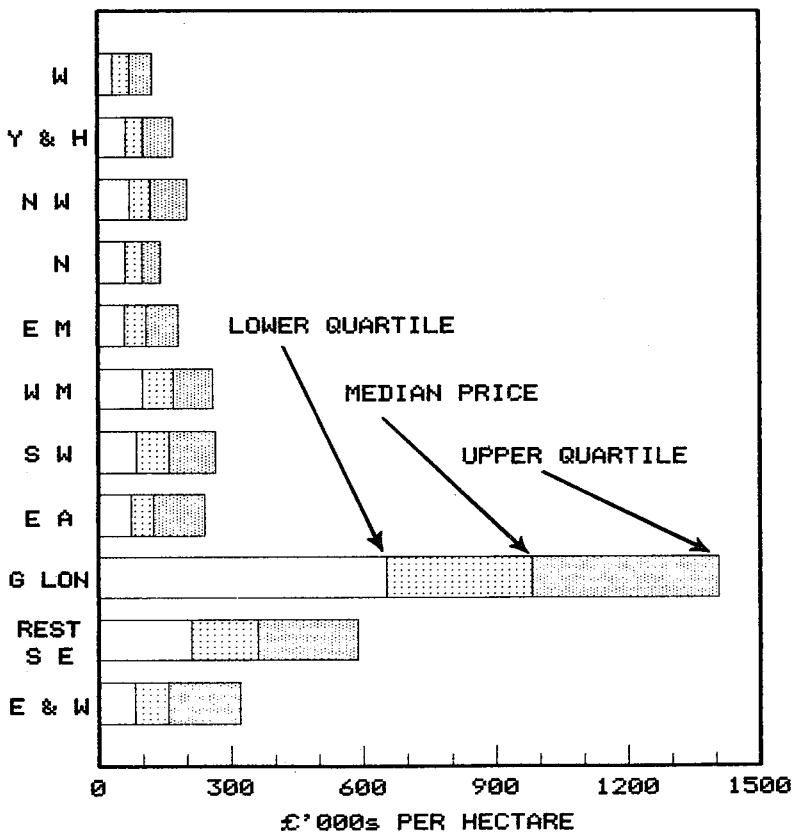


Table 6 : II
The DoE's median housing land prices in early 1985

Region or Country	*Hectares purchased*		*Median price (£'000/ha)*	
	Private only, with planning permission	*All sectors, with and without permission*	*Private only, with planning permission*	*All sectors, with and without permission*
North	37	125	92	100
Yorks. and Humber.	94	177	86	102
East Midlands	177	431	69	108
East Anglia	82	223	95	125
Greater London	28	81	771	983
Rest of South East	269	589	329	361
South West	125	289	172	160
West Midlands	143	359	131	170
North West	132	289	94	118
Wales	40	161	74	72
England and Wales	1,125	2,725	129	158

Only in the South West and Wales is the median price per hectare including land without planning permission lower than that for land with planning permission. In both areas the upper quartile is also exceptionally high relative to the lower quartile. These two facts would suggest that there is a limited amount of land which is fetching much higher prices, presumably in certain desirable areas. This relatively high upper quartile is also apparent in the East Midlands, East Anglia and the South West, which suggests that those parts within commuting distance/time of London are going up in price more rapidly. This distortion does not show in Greater London where all the prices are very high and the differentials are lower.

The generally higher prices for land without planning permission imply either speculation, the desire of builders or developers to build up land banks, or their anticipation of building in greater densities.

The Value of Land Associated with the Purchase of New Dwellings through the Nationwide Building Society

The Nationwide Anglia Building Society (formerly the Nationwide Building Society) publishes quarterly the regional and UK weighted average prices of the houses on which it provides mortgages. Their UK average prices for new dwellings in 1985 were about 10% higher than the equivalent figures (i.e. at mortgage approval stage) given by the Building Societies Association (Fleming and Nellis 1987 : 28).

The Nationwide Anglia also keeps a list of unweighted (i.e. simple) average prices of new properties and their average site values. In the 4th quarter of 1985 the average UK new property price was about 16% higher than the BSA figure, but this bias was partially offset by the fact that the average price of the dwellings for which building societies *and* banks provided loans was 7.5% higher than the average price of the dwellings for which building societies alone provided loans (DoE/SDD/WO 1986 : 110). At the same time the average UK new house site value was about 40% higher than the GB average given in Table 6 : I. There are two obvious reasons why this should be so:

1 Site value, here, includes the costs of site preparation and servicing. Taking off 18% for these (*The Estates Gazette*, August 22, 1987), notwithstanding Hallet's claim that they amount to half of all site values (1979 : 86), leaves it 12% higher.

2 The Table 6 : I figure actually applies to the start of 1985. The Nationwide figure is about 18% lower than the figure for the start of 1986.

Thus, the Nationwide Anglia data appears generally to confirm the DoE data, but its utility is reduced by the fact that it is not strictly limited to site values. As would be expected, the inclusion of the cost of site works, which is fairly uniform regionally, serves to lower the regional variation of the proportion of site values to total values (21%-29%) compared with the DoE data (11%-34%) given in *Regional Trends* (1987 : 66).

The District Valuers' Assessment of Land for Residential Development

The Valuation Office's six-monthly *Property Market Report* has a chart which summarises the views of the 160 District Valuers on the value of the land used for residential development in their areas. The information is presented in the form of average values by region of three categories of site — small sites, bulk land and sites for flats or maisonettes. The averages of these categories for England and Wales are also calculated, excluding London.

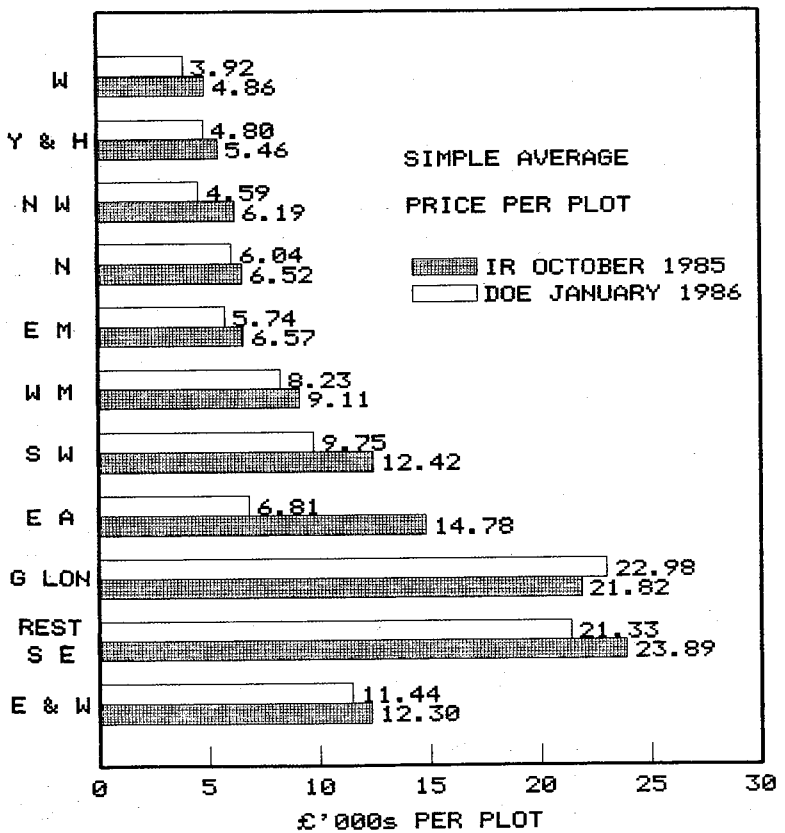
For purposes of comparison with the DoE data it would seem to be necessary to look at bulk land only. The England and Wales average value per hectare for small sites as at 1 October 1985 (IRVO no. 44:19) was 21% higher than for bulk land, and the average for sites for flats or maisonettes was 51% higher. If London had been included both might have been expected to be even higher relatively. Despite their exclusion, however, the District Valuers' still managed to produce an England and Wales average without London of £267,000/ha compared to the DoE's average with London of £198,000/ha.

This huge gulf between the figures can be entirely explained by differences in temporal and spatial coverage:

1 There is roughly an eight month gap between the effective mid-point of the DoE's '1985' period and the effective date of the District Valuers' assessment. Taking two-thirds of the increase in the DoE average between 1985 and 1986 to close the gap raises the average by 21% to £239,857/ha.

2 The DoE average excludes land bought without planning permission for housing and land bought by the public sector. There were nearly twice as many of these transactions alone recorded by the DoE, in its Table 10.2, as there were transactions used for calculating the average, in its Table 10.1. The median in Table 10.2 was 22.5% greater than the median in Table 10.1. Assuming that the average can also be raised by the same percentage gives us a final adjusted average for England and Wales of £293,825/ha. The District Valuers' average, including London (deducible from Figure 6:II), is £293,707/ha.

Figure 6 : II
Housing land prices in England and Wales



We are drawn to the conclusion, therefore, that the data in the *Property Market Report* is more appropriate than the DoE's for use in calculating the residential land value of Britain. It does not include Scotland, but neither does the DoE's. Bulk land alone will be used, because the proportionate contribution of other sites is not known. This must lead to considerable under-estimation, but if mid-1985 rather than late-1985 figures are required (for comparison with the national income, say) then the under-estimation will be reduced.

An interesting sidelight on the difference between the two sets of figures is provided by Vallis's research for the 1960s, referred to in Appendix 1. Vallis found the median transaction price per hectare for residential land in England in the mid-1960s to be £24,463. From 1969 to 1971 such prices in England and Wales were almost identical to simple average prices per hectare (Evans 1974 : xvii). Applying the DoE's private sector housing land price index to Vallis's figure raises it by almost 18 times to £437,000/ha in October 1985. One would expect this result to be on the large side for two reasons — it is not restricted to bulk land, and it hugely over-represents London and the South East. Nevertheless it would appear to support the use of the Inland Revenue's rather than the DoE's set of figures.

Figure 6 : II compares the Inland Revenue information with that from the DoE for 1986 (DoE 1987 : Table 10.1). It can be seen that the only major divergence between the two sets is over the values for East Anglia (the smallest region), which suggests that the District Valuers spotted the incipient land price explosion there before it actually registered in the prices of transactions.

The main problem with using the IR data is that it is given for land areas only. The average prices per plot in Figure 6 : II have therefore been calculated by dividing the values per hectare of bulk housing land (see Table 7 : IV) by the average number of plots per hectare in the transactions recorded in the DoE/SDD/WO's Table 10.1 (1986 : 105-107).

Local Authority Housing

There is no source of information which enables us to value the land under local authority dwellings. In any case the land is not available on the open market under free market conditions and the constraints on its use would be expected to lower its value. There would therefore seem to be little point in attempting to obtain official valuations even if they were recorded by local authorities. Local authority land held for future house building would also be recorded at values which would be uninformative.

There are exceptions to the low esteem in which council house property is often held. In London there are opportunities for capitalising on the land price boom which have given considerable windfall gains. In Battersea and Chelsea even high rise flats have taken on a new lease of life and have become desirable properties with attractive views across the Thames and the City. Record figures have been achieved in very short times. On September 23, 1987, the London *Evening News* reported the case of a 77-year-old pensioner who bought his 6-bedroom semi in Purley for £22,000 in June 1986 and sold it nine months later for £105,000. More typically a 3-bedroom semi bought in 1981 sold for £75,000 six years later. An apartment with a good view could sell for £130,000. These properties are here recorded in the private ownership category and carry the average land value estimates used in our calculations.

In *Regional Trends* (1987) Tables 3.1 and 3.4 give the total stock of dwellings and the breakdown by tenure, 'owner occupied', 'rented/local authority' and 'rented/other'. In the case of 'rented/other' with no information to the contrary, site values have been taken as the average for the region. However, in the case of 'rented/local authority' we can make an adjustment related to density of dwellings. DoE/SDD/WO (1986 : 86) gives the average number of dwellings per hectare for tenders accepted as 45.8 in England and Wales, with small variations between the regions. The figures used in Tables 6 : I and 6 : II show that the 1,125 hectares bought with housing planning permission represented 26,839 plots, giving 23.8 dwellings per hectare. On a rough deduction it is not unreasonable to take local authority housing plots at half the value of privately owned plots. This could also be considered as a compromise

position encompassing both council houses in very undesirable areas and new land purchases for which higher prices will have to be paid. Some local authorities, for example, have given high rise blocks of flats to property developers for nothing in return for refurbishment of other properties retained in local authority control; whilst on the other hand council house building has been priced out of contention because of high land prices. The land cost per hectare of tenders accepted by local authorities in England and Wales in 1985 was higher than the equivalent private sector cost (DoE/SDD/WO: 82, 88, 107).

Total Value of Residential Land

Table 6: III gives for the total number of dwellings in each region or country the percentage split in ownership as stated in *Regional Trends* (1987: Table 3.4). In calculating the land value we have taken the IR figure for each region or country as given in Figure 6: II for owner occupied dwellings and 'rented other'. In the case of local authority rented dwellings we have taken the 50% figure as explained above.

This gives a total figure for Great Britain of £239.6bn, of which £28.9bn is attributed to local authority residential land.

Our final estimate is for land already purchased for the purpose of dwellings. Large property development companies carry large land banks; even smaller companies are interested in buying land as far ahead as their financial resources will allow in order to profit by the steady rise in land values. For this reason it is very difficult to estimate how much land is held for this purpose at any given time. Whilst the amount of land purchased in England and Wales for dwellings in the private sector was recorded as an average of 2,387 hectares from 1981 to 1985 representing 56,800 plots, the number of houses completed was twice this figure, averaging 134,500 from 1983 to 1985. About a tenth of the amount of land was purchased for the public sector and the number of dwellings completed has declined steeply from 98,500 in 1980 in England and Wales to 35,200 in 1985. We have therefore taken an arbitrary figure equivalent to the sum of purchases made in the last three years, in this way making some allowance for the stocks of land which have

Table 6 : III
Regional and national residential land value aggregates

Region or country	*Stock of dwellings*			*Total housing land values (£ bn)*	*Local authority share (£ bn)*
	% owner occupied	*% rented l.a.*	*% rented other*		
North	55	34	11	6.70	0.11
Yorks. and Humberside	62	29	10	9.08	1.32
East Midlands	66	24	10	8.89	1.07
East Anglia	66	22	13	10.47	1.15
Greater London	55	29	17	52.33	7.59
Rest of S. East	70	20	10	87.39	8.74
South West	69	18	12	20.62	1.86
West Midlands	63	28	9	15.70	2.20
North West	65	26	9	13.56	1.76
Wales	67	23	10	4.81	0.55
Scotland	41	50	9	10.00*	2.50
Great Britain				239.55	28.85

Formula used for calculation per region and per country:
(Privately owned % + rented other % + 0.5 rented l.a. %) × stock of dwellings (Table 6 : I) × average plot price (Figure 6 : II).

* Assumes an average plot price in Scotland as in the North.

been held for longer periods. The figure used is almost certain to be an underestimate. CSO statistics give us the number of hectares purchased for England and Wales in the private sector and the number of *transactions* in the public sector. The purchases in 1983 to 1985 in the private sector add up to 8,007 hectares; adding a tenth for the public sector gives 8,800 hectares. To allow for Scotland in order to arrive at a Great Britain figure requires the figure to be increased in proportion to the number of houses completed, i.e. 168.4 to 186.7, giving a final figure of 9,756 hectares.

At the GB average price per hectare for private sector land of £277,000 per hectare we arrive at a land value of £2.7bn.

Adding this figure to that arrived at above gives us a total of £242.3bn. Even though the number of houses under construction is considered well below that required to meet our needs it is in excess of the amount of land currently being purchased for future dwellings. It is not surprising that since 1985 land values have been escalating rapidly.

This figure does not include vacant land which may be used for housing. For our present purposes it is sufficient to refer to Table 8:IX in Chapter 8, and add 6.7bn, raising the grand total capital value of GB residential land to £249bn.

A Check by the Spatial Method

The IR data may be used directly to provide a semi-independent check of the total arrived at via plot numbers. Multiplying the average price per hectare — £277,000 assuming Scottish prices were the same as those in the Northern region, and weighting them in proportion to housing stock — by the area of housing land calculated in Chapter 4 — 920,000ha — produces an aggregate value of £254.8bn. This figure includes vacant land that was once used for housing, and so is directly comparable with the figure of £249bn above. There is no need to calculate the area of residential land occupied by local authority dwellings as its value per hectare — not per plot — has been taken to be roughly the same as for private land.

National Wealth Estimates: A Check by the Residual Method

The CSO's estimates of National Wealth (Bryant 1987) give Personal Sector Wealth for 1985 as £1,165bn, residential buildings comprising £527.8bn of this. However, after including the intangible value of private sector housing tenant rights the total of privately owned land and buildings becomes £563.7bn.

The CSO capital stock estimates of replacement cost based on the perpetual inventory method (reliability given as less than 80%)

give a total value of privately owned housing buildings as £376.8bn. The land value is supposedly obtained by difference:

	563.7
	376.8
	£186.9bn i.e. 33.1% of gross value

If the gross capital stock estimate is 10% too high, which would not be unlikely (see Chapter 8), then the land value becomes £221bn, compared with the equivalent figure of £211bn in Table 6:III, which excludes Northern Ireland.

The figure for all residential buildings in the National Balance Sheet including tenants' interests is made up as follows:

Personal sector	556.1
Industrial and commercial	7.6
Central government	1.7
Local authorities	127
Public corporations	2.7
	£695bn

The CSO's private land-to-buildings ratio of 1-to-3 gives a land value of £232bn. M. C. Flemming (1986:313), in his authoritative survey of statistical sources, comments on the figures in the National Balance Sheet (before they were somewhat improved — Bryant 1987:113): '... the estimates are again open to very wide margins of error. The land and buildings elements in particular are regarded as the least reliable parts and indeed have been referred to as being "rather shaky" (Pettigrew, 1980, pp. 97 and 99). In general the figures should be regarded as providing no more than indicators of broad order of magnitude.' Nevertheless, this alternative method, which is equivalent to the test applied in Chapter 8 for commercial and industrial land, and considering the likely overstatement of replacement costs, certainly indicates that our figure of £249bn must be 'in the right ball park!'