

Homebuilding market study

Annexe O - Calculation of residual land values

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O.1 CALCULATION OF RESIDUAL LAND VALUES

O.1.1 Valuing land can be an involved process¹ and the more complex the challenges of developing a particular site the more complex the process of valuing it becomes. Adair *et al*² describe valuing urban regeneration land as one of the most challenging tasks faced by land valuers. This is because of:

- the nature and extent of the factors which affect valuation e.g. planning, rental growth etc
- the changing of UK government policy with regards to the use of contaminated land and the standards required
- the scarcity of information on development projects, and
- the potential volatility of land prices.

O.1.2 Land has value because of the use to which it can be put. Residential land is more valuable than farmland which in turn is more valuable than contaminated land with no planning permission. It follows that land values are a residual; the value left after the cost of putting land to a particular use (such as building homes or growing grain) is subtracted from the revenue generated from the land when it is in that use. A homebuilder assessing the value of a piece of land therefore has to estimate the value of the homes that can be built on the site and the cost of building them.

O.1.3 The expected value of the homes that can be built on a given site, the gross development value (GDV), is influenced by the precise planning permission which has been granted. The overall density and the balance between flats and houses, starter and family properties will all influence

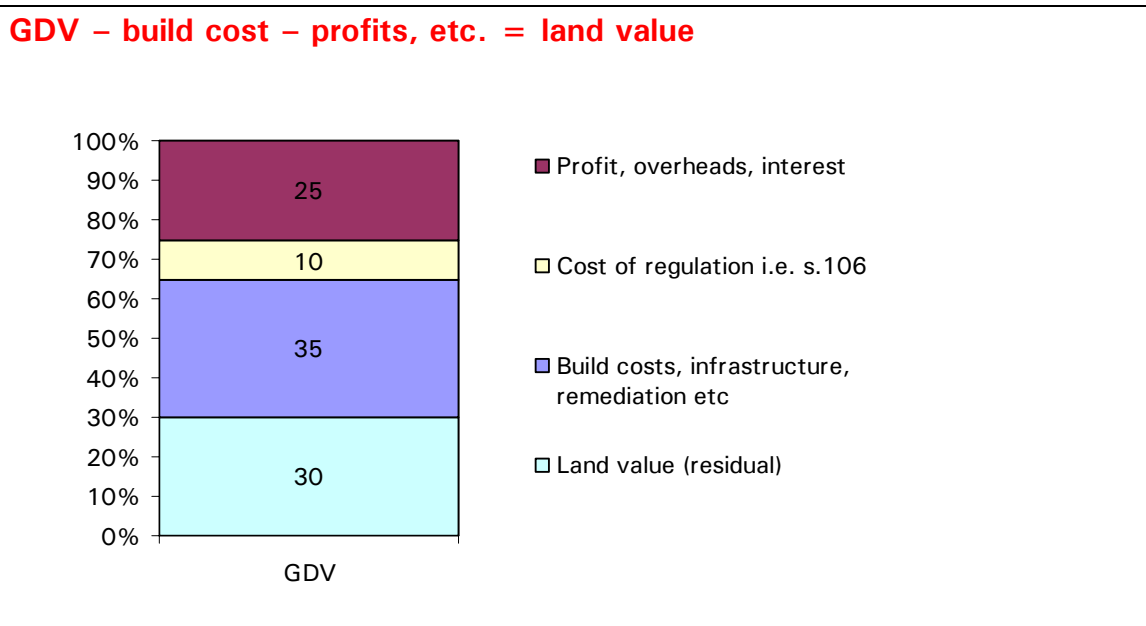
¹ Interview with a land valuer.

² Adair, A., Huchison, N.E., Burgess, J., Roulac, S., 2005, The appraisal of urban regeneration land: a contemporary perspective allowing for uncertainty, *Journal of Property Investment and Finance*, Vol. 23, No. 3, pp 213-233

the GDV of a development. Most important, however, are the prevailing economic conditions. When property prices are high GDVs will be boosted. In a downturn, like the current economic conditions, the position is reversed, falling property values put downward pressure on GDVs.

O.1.4 The cost of a development can vary dramatically. The costs of construction can be increased by the need to demolish existing buildings or necessary land remediation. There may also be unusual costs (sometimes called abnormal costs), such as moving power lines. Having deducted these costs a homebuilder will set itself a target margin and deduct this from the GDV as well. The required margin is typically between 20 per cent and 25 per cent on speculative residential development. The residual is the value of the land, the maximum amount a homebuilder will be prepared to pay for a site. For an illustrated example of the residual valuation method see Box 1.

Box 1 Illustrative example of residual land valuation method



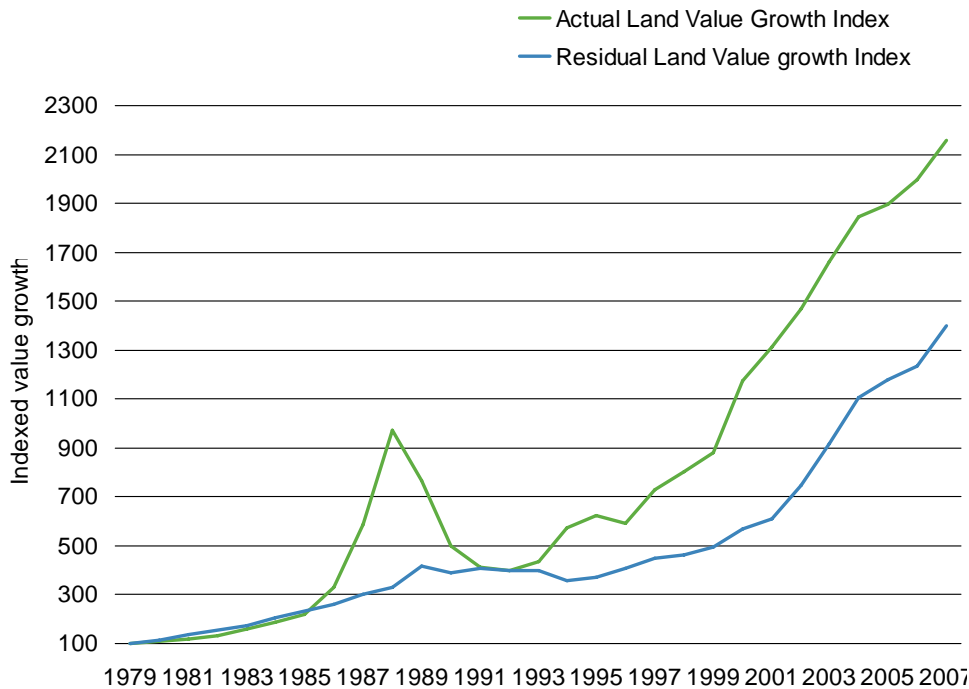
O.1.5 To a certain extent, all of the elements in Box 1 are variable. A number of individuals explained to us that the only variable element is land values. It is our view that this is not strictly true. Certainly, land values

are more variable and more easily varied than any of the other elements but that does not prevent other elements being variable to a greater or lesser extent.

- O.1.6 As discussed, GDVs are affected by the general economic conditions. They are also affected by the properties a homebuilder chooses to build (and also the type of property that they are permitted to build). Obviously, a homebuilder will seek to maximise GDV but, crucially, different homebuilders will take different views on how GDV can best be maximised. Financially successful homebuilding requires some business skill and some homebuilders are more successful than others.
- O.1.7 The homebuilder's margin is also not absolutely invariable. Some homebuilders will accept a lower margin on a particular development if they consider it to be less risky. One land valuer suggested to us that competition for land had become so fierce prior to the market downturn of late 2007 that some homebuilders were accepting a lower margin in order to bid more for land. In support of this view, there is some evidence that since the early 1990s actual land value growth has exceeded residual growth, see Figure 1.
- O.1.8 The value of the land can also vary depending on who buys it. For example, a self builder is unlikely to require any margin in order to undertake a development so might be able to pay more for a plot of land than a speculative homebuilder.³

³ Strictly speaking, in economic terms, a self builder will be willing to pay more for a plot than a homebuilder if he or she has not priced in their development risk.

Figure 1 Residual greenfield land value growth



Source: Savills Research, Nationwide, Davis Langdon

O.1.9 The cost of regulation can, of course, be varied by public authorities. In particular, section 106 requirements (see Glossary) can be varied even on a site by site basis (for more detail on section 106 agreements see Annexe I).

O.1.10 The degree of variation in the factors described above means that the residual land values are highly variable. Two residential developments relatively close to one another might have dramatically different land values as a consequence of these variations. Land values also rise and fall over time. From 1996 to 2006 land prices rose about 330 per cent⁴ while the cost of construction rose by about 50 per cent⁵ and house prices rose about 180 per cent.⁶ Since the start of 2007 however, land

⁴ For residential land with planning permission in England. Source: CLG live table 563

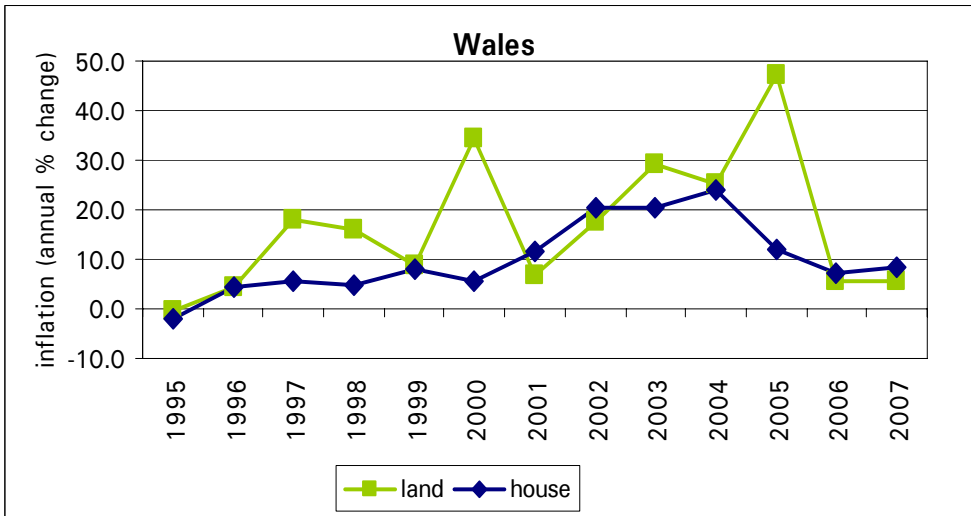
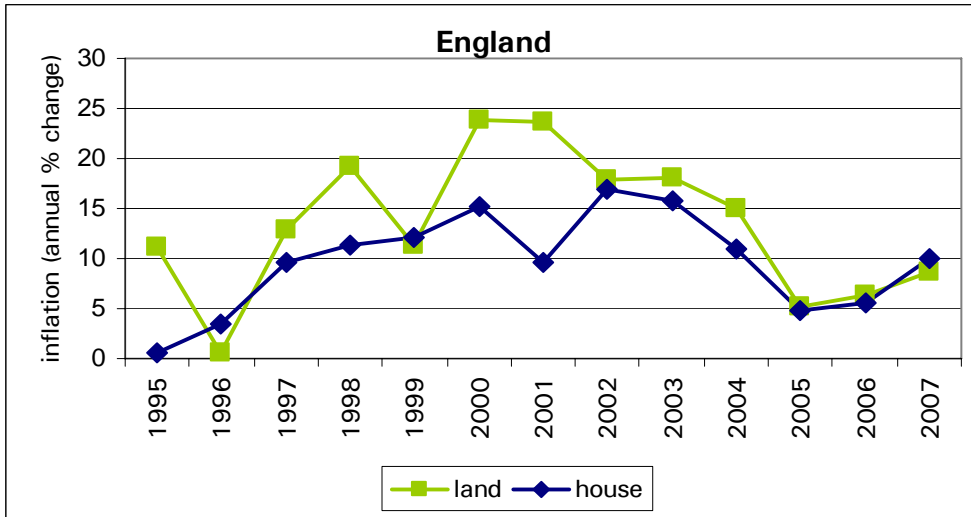
⁵ Figure for Great Britain. Source: Table 5.2, construction statistics annual 2007

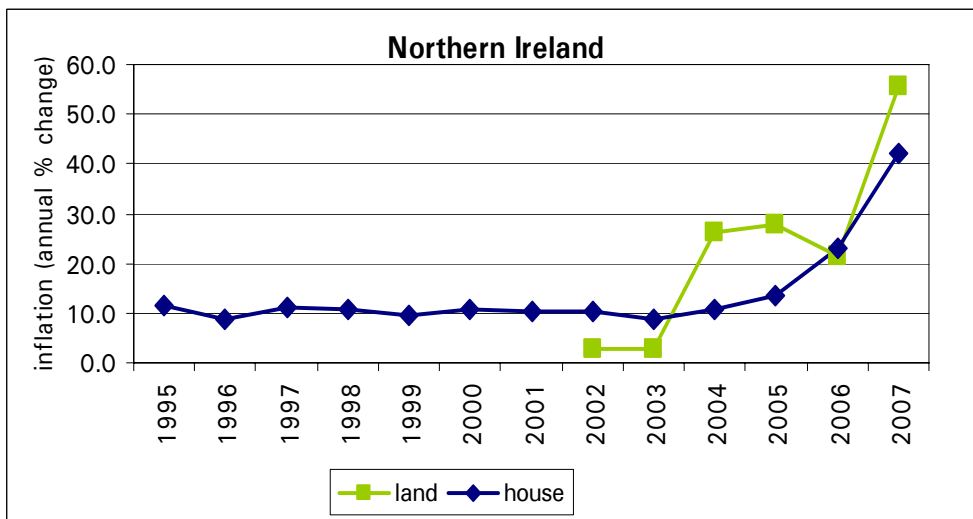
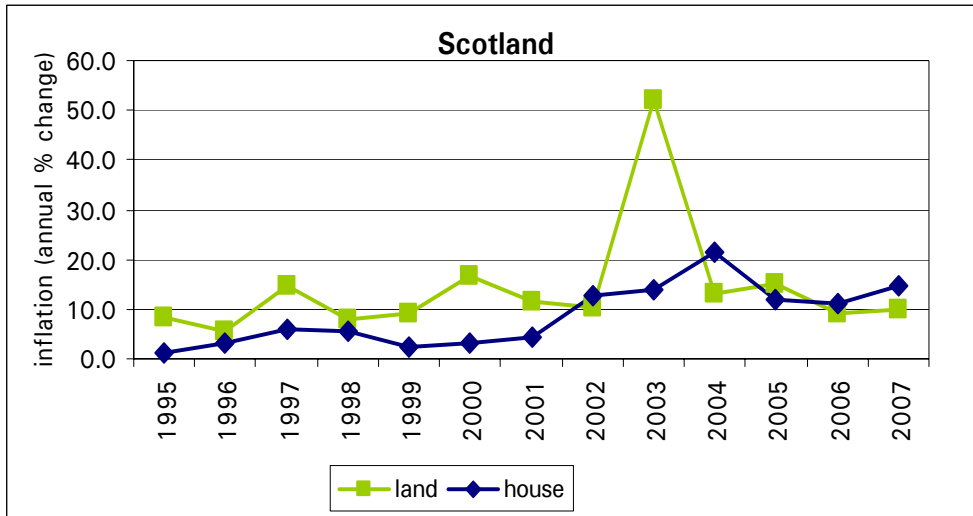
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⁶ Figure for Great Britain. Source: CLG live table 593

values have fallen significantly. Figure 2 below shows house and land price inflation.

Figure 2 House and land price inflation





Sources: House price inflation: CLG live table 593, Housing market: mix-adjusted house prices index. Land price inflation: England; CLG live table 563, Housing market: Average valuations of residential building land with outline planning permission. Wales, Scotland and Northern Ireland; Valuation Office Agency, Property Market Report, January 2008.