Homes to DIY for

The UK's self-build housing market in the twenty-first century

James Barlow, Robert Jackson and Jim Meikle

The **Joseph Rowntree Foundation** has supported this project as part of its programme of research and innovative development projects, which it hopes will be of value to policy makers and practitioners. The facts presented and views expressed in this report are, however, those of the authors and not necessarily those of the Foundation.

James Barlow is a senior fellow at SPRU – Science and Technology Policy Research, University of Sussex.
Robert Jackson and Jim Meikle are based at David Langdon Consultancy, the specialist market, economic and management consultancy arm of Davis Langdon & Everest.

Published for the Joseph Rowntree Foundation by YPS

ISBN 1 84263 039 3

Cover design by Adkins Design

Prepared and printed by:
York Publishing Services Ltd
64 Hallfield Road
Layerthorpe
York YO31 7ZQ
Tel: 01904 430033; Fax: 01904 430868; E-mail: orders@yps.ymn.co.uk

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Acknowledgements

We would like to thank the Joseph Rowntree Foundation for providing the financial support for this research project. Numerous people contributed, as interviewees, by reading drafts of the report or attending a feedback seminar on preliminary findings. We are grateful to all who helped, and especially Ken Bartlett, Martin Bell, Mark Brinkley, Raymond Connor, Ken Dijksman, Jeff Emms, Graham Hyslop, Michael Kilcommons, Chris Lorentzen, Simon Palmer, Julian Owen and David Snell.

Stephen Hill prepared Appendix 2, based on his research on community self-build.

Data on aspects of self-build was provided by HM Customs and Excise, Plotsearch and Plotfinder.

1 Introduction

Background

Self-build is Britain's hidden housebuilding system. Every year, more than 15,000 people make a start on building their own home. Many of these, not prepared to pay for properties that they see as second best, aim to design and build homes that better suit their individual requirements.

Since the late 1970s, the number of self-build homes completed each year has risen substantially, while there has been *no* overall growth in total private sector housebuilding. Self-build has therefore captured market share from the speculative house-builders. This suggests there may be latent demand for self-build housing, perhaps reflecting consumer dissatisfaction with what is built by the speculative sector. Self-build has come a long way from the days of working class 'plotland' development in the early years of the twentieth century or low cost community self-build schemes in the 1970s and 1980s. However, the UK has even further to go before it catches up with most other European countries, the USA, Australia or Japan, where building your own home is the norm.

The self-build sector is important. It represents an alternative source of new housing supply in the UK that can increase consumer choice and stimulate the competitive environment for private housebuilding. However, very little is known about the self-build sector, even though it currently accounts for around 9 per cent of new housebuilding and the 'self-build industry' – including timber frame suppliers, architects, land search specialists, mortgage lenders and financial consultants – has a turnover of well over £2bn.

Most information on self-build is derived from market research reports and the main publications aimed at self-builders. There is a tendency in the self-build industry to make exaggerated claims about its size in order to 'talk-up' the market. The limited academic research was generally carried out many years ago or focused on specific segments of self-build. There has, in fact, been far more research on self-build housing in France (Barlow, 1992), Canada (Rowe, 1989), Japan (DTI/OSMS, 1996) and other countries (Duncan and Rowe, 1993).

What is self-build?

Many of those involved in the self-build industry dislike the term 'self-build' because it fails to capture the variation in this sector. The term is also perceived to have negative connotations – self-build housing is seen as 'down-market', often built on an *ad-hoc* basis over many years. The notion of 'individual homes' is felt to be more in keeping with the modern image that the industry now wishes to present.

For simplicity, we use the term 'self-build housing' to cover all instances where home buyers are involved in the production of their new home rather than purchasing from a speculative developer or renting from a landlord. The extent of personal involvement will vary. In some instances, it can entail self-builders physically building all or part of a dwelling themselves. At the other end of the spectrum, the self-builder might make only a few key decisions relating to land, design and construction and hand over responsibility for construction to other parties. Self-build may also be undertaken collectively, often with

groups of people pooling their expertise and resources to produce what is commonly referred to as 'group' or 'community self-build'. This form of self-build is the subject of another study undertaken for the Joseph Rowntree Foundation and is not considered in this report.[1]

Aims and objectives

The overall aim of this research project was to undertake a systematic investigation of the UK's self-build housing market in order to understand the factors that may encourage or constrain its future growth. The specific objectives were threefold:

1 To quantify and characterise the self-build market in terms of its output and geography, types of housing produced and socio-economic characteristics of self-builders.

2 To identify and characterise differences in self-build 'procurement routes' in terms of the principal players and their interrelationships, land acquisition models, and building processes and technologies.

3 To draw conclusions on the potential for the future expansion of self-build housing and to make appropriate policy recommendations.

Structure of this report

Following this Introduction, Chapter 2 presents an overview of the UK self-build market. This aspect of the work considers the various approaches to 'self-build', the scale and scope of the market in terms of its growth, dynamics and geography, and the nature and size of the self-build industry.

Chapter 3 considers self-builders and their homes. Why do people self-build, who are the self-builders and what type of housing do they build? The extent to which design and process innovation is occurring in self-build is also considered and the main trends are outlined.

Chapter 4 explores the process of self-build. How do self-builders find land, assemble a project team, obtain finance and planning consent, and manage the project? Where do the barriers to self-build lie?

Chapter 5 considers the future of self-build by looking at the potential over the next decade or so. How much could self-build grow? What might the self-build industry look like in 2015?

Finally, in Chapter 6, the main conclusions and recommendations for overcoming current barriers are presented.

The report therefore provides a snapshot of the UK's self-build housing industry at the turn of the twentieth century and identifies the direction it might take in the medium term. It should be of interest to all those who wish to see a more dynamic and innovative housing industry in the UK.

2 An overview of the UK self-build market

What is 'self-build' housing?

There are essentially three main ways in which new housing is supplied:

- *Speculative housebuilding*: where housing is initiated by a private developer who buys the land, manages the building process and sells the completed housing to a purchaser.
- *Non- or limited-profit housebuilding*: here, the scheme is initiated by an organisation such as a housing association or local authority, which buys the land, manages the building process and allocates the housing on the basis of some form of assessed need.
- *Self-build*: in this model, the individual household takes responsibility for producing its own house. In this case, the household is the initiator and consumer of the housing development. Land is bought by the household, which also manages the building process.

Britain's housebuilding is distinctive in two ways – there is very little new house construction per capita compared to most developed countries (Meikle, 1999) and speculative development for the owner-occupier market is overwhelmingly dominant. In 1999, speculative development accounted for about 80 per cent of housing completions, while self-build – according to our estimates – represented less than 9 per cent (Table 1). The speculative housebuilding industry has also become increasingly concentrated. Around two-thirds of all private sector dwellings were built by the 25 largest housebuilders in 1999; this share has steadily increased since 1988.

The structure of the housebuilding industry has implications for the level of customer choice in the housing market. Unlike many industries that have developed sophisticated production techniques and marketing methods to increase the range of products on offer, there have been few moves towards customisation in the new homes market. The era of standardised products made from standardised processes dictated by economies of scale is being replaced by mass customisation (Lampel and Mintzberg, 1996), but this revolution has largely bypassed UK housebuilders (Barlow, 1999). Most

Table 1 UK housebuilding by type of developer, 1999

Supply	Number of completions	% of total
Speculative	141,100	78.5
Self-build	c.15,000	8.4
Registered social landlord (RSL)	23,200	12.9
Local authority (LA)	400	0.2
Total	**179,700**	**100.0**

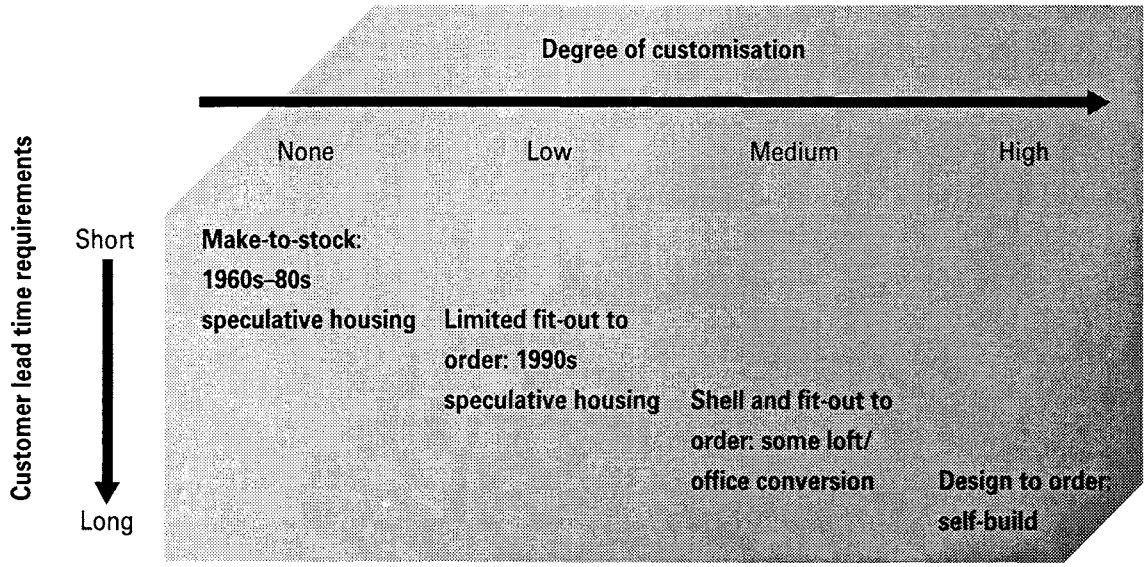
Source: derived from Department of the Environment, Transport and the Regions (DETR) Housing and Construction Statistics and authors' estimates.

housebuilding firms have tried to avoid customisation by pre-empting purchaser choice. This is achieved by ensuring they have as wide a portfolio of house types as possible (Nicol and Hooper, 1999). However, the ability to customise within a standard class of design remains limited, even in more expensive properties.

Figure 1 shows how there is a continuum within the UK's housebuilding industry from the traditional 'make-to-stock' approach to construction to bespoke, design-to-order housing.[1] The level of customer choice rises along the continuum. Under a make-to-stock strategy, houses are designed and built according to forecast orders. Customers are offered choice on the basis of alternative finished house types. From the 1960s to the late 1980s, most new speculative housing took this form. Following the extended recession in the early 1990s, housebuilders began to offer slightly higher levels of choice over the internal fit-out, providing purchasers made their decisions early enough in the development process. At this time, some small sub-markets of the speculative industry – notably the loft or office conversion market – moved towards a 'shell and fit-out' model, whereby the shell of the dwelling is designed and built according to forecast demand and customers specify their desired fit-out. Finally, there is bespoke housing, designed and built on the basis of specific customer orders with speculative forecasting having no part to play. There are differences in customisation level here – the customer has choice within financial constraints. It is this form of housebuilding that is the subject of this report.

One recent market research survey suggested that only 8 per cent of self-builders were *not* planning to do any work at all on the project. Conversely, 33 per cent claimed they were doing all or most of the construction work (Building Link, 2000). Between these two extremes, self-builders can take a variety of procurement routes.

Figure 1 Levels of customisation in UK housebuilding



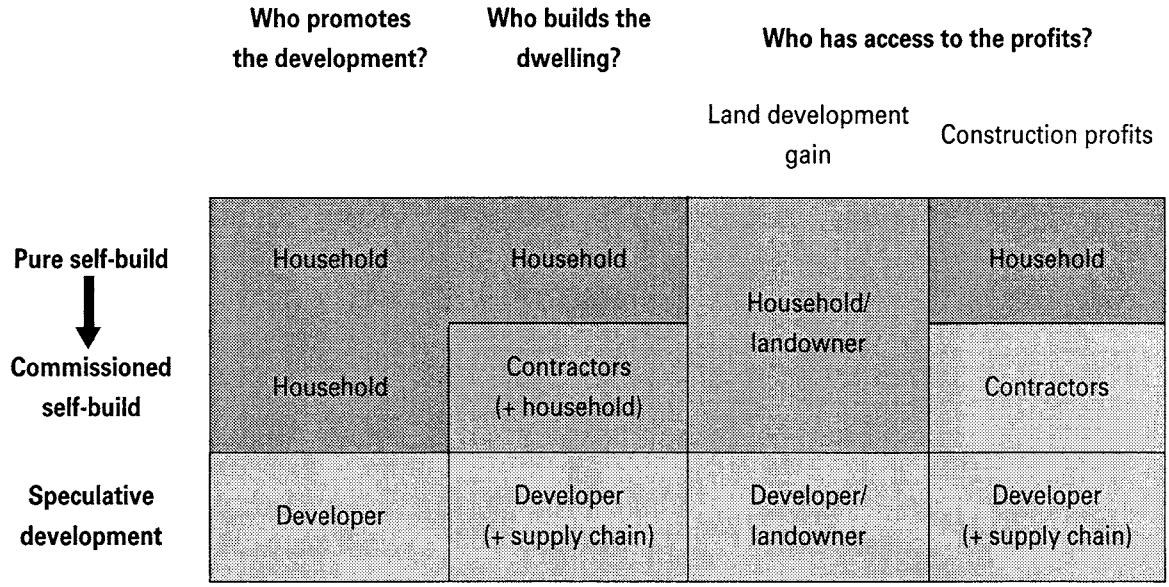
The fundamental feature that distinguishes self-build housing from other forms of housing procurement is that the self-builder takes responsibility for arranging finance, identifying and purchasing suitable land, approving design and deciding on the form of construction – the self-builder therefore makes the key decisions.

A further important distinction, which separates speculative developers from self-builders, relates to who receives the development profit. There are essentially two forms of profit in housebuilding – the development gain on the land (the increase in the value of land between purchasing an undeveloped site and selling the completed dwelling) and the construction profit (originating from the construction process itself). The key difference between speculative development and self-build is in the way profits from the housing development process are distributed. In speculative housebuilding, the developer carries the development risk and receives the development gain and construction profit, although the share of the development gain will depend on the relative strength of landowners. In contrast, the self-builder receives the development gain (subject to the same provisos regarding landowners) and may or may not receive a notional construction 'profit', depending on who builds the dwelling (see Figure 2).

Self-build procurement approaches

Self-build in the UK is characterised by a number of different approaches to procurement, although in each method the purchase of the land will be the responsibility of the self-builder. The procurement routes vary according to the roles and responsibilities of the various parties involved in the development process. To an extent, this is dependent on the level of

Figure 2 Development gains and self-build



assistance the self-builder requires, for example, how knowledgeable or experienced is the client, or what is the complexity of the proposed project? Some of the key procurement options are illustrated in Figure 3, but it should be stressed that within each of the main categories there is a range of possible relationships.

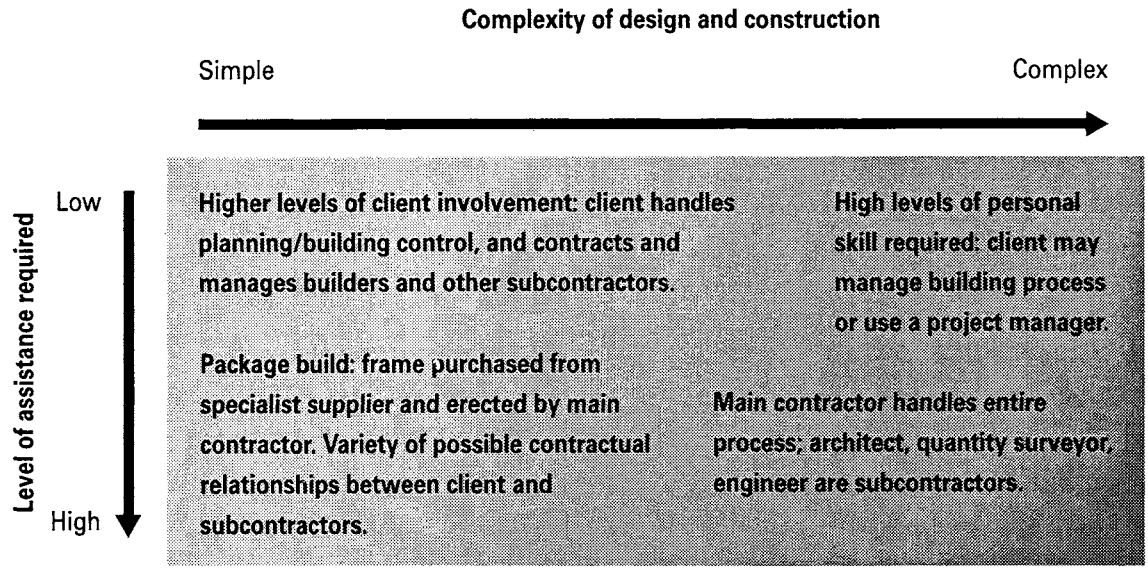
Broadly, the lighter shaded areas in Figure 3 represent instances where self-builders are more likely to be involved in a 'hands-on' way in the development process, either because they are already skilled in building or project management, or because the project is relatively simple. In other cases – where the self-builder is unskilled or the project is technically complex – the client will generally hand over responsibility to a third party. This may involve purchase of a prefabricated timber frame from a specialist package supplier (and use of main contractor and subcontractors to erect and complete the project) or use of a main contractor, architect or project manager to manage and co-ordinate the building works.

The most common construction options are:

- use of a single contractor who supplies all materials
- individual contractors undertaking different packages where (1) the self-builder supplies materials and re-claims VAT upon completion, or (2) the contractor supplies and fixes materials (VAT exempt)
- standard package deal.

Where a single contractor is employed, it is usual for them to purchase all materials. As new housing is zero-rated for VAT, all payments made to a contractor who supplies and fixes the materials are VAT exempt. Where the self-builder chooses to purchase materials and then employs a contractor to install them, the self-

Figure 3 Procurement routes in self-build

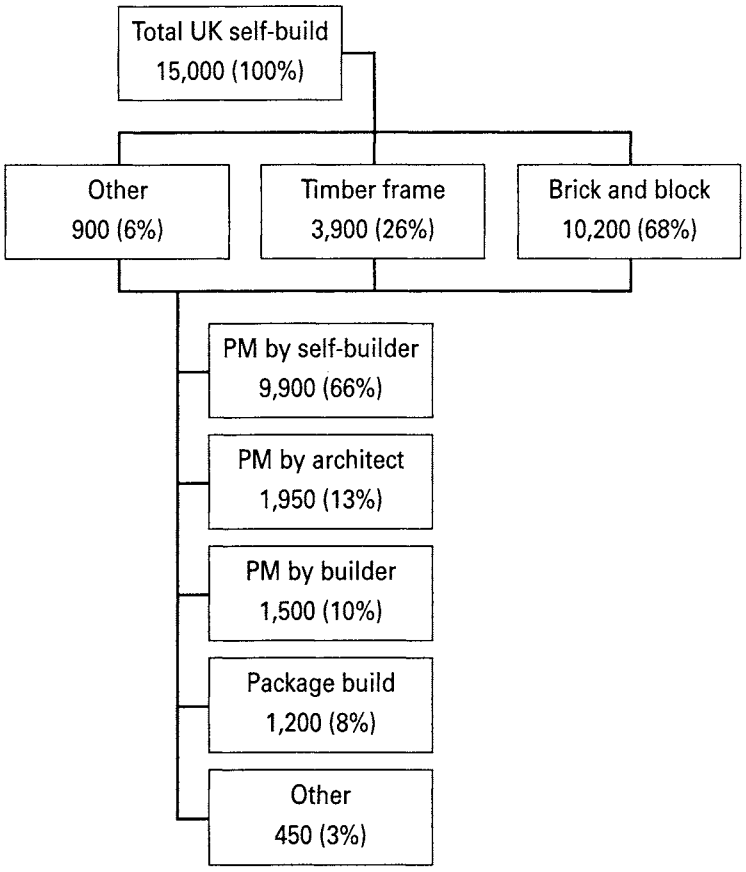


builder will pay VAT at source but be able to claim this back upon completion of the project.

Evidence from interviews suggests that the management of the self-build process can be extremely time-consuming, especially where there are materials to order and a number of different contractors to co-ordinate. Nevertheless, it is thought that around two-thirds of the self-build homes completed in 1999 were project managed by self-builders themselves, 13 per cent by architects and 10 per cent by the main contractor. Package build schemes represented a further 8 per cent of completions, but it is not known how the construction process was managed in these schemes (see Figure 4).

Regardless of which methods of procurement are followed, consultants are usually employed to provide specialist advice. Usually, some form of design service is required in order to develop the self-builder's ideas into a working scheme. The design of a self-build house can be relatively straightforward and may not be the exclusive domain of an architect.

Figure 4 Self-build output by type of construction and project management (PM) route



Source: derived from authors' estimates and Wedgwood Markham and Building Link survey data.

There are a large number of standard house designs published in various books and magazines. Self-builders commonly undertake considerable research before any commitment is made. Design ideas are often developed to an advanced level, at least in terms of concepts, and the full services of a qualified architect are often seen as unnecessary. In these cases, a draughtsman/woman will develop the self-builder's ideas into a set of detailed drawings for both building and planning consent and more detailed production drawings.

As the name implies, specialist 'package' companies provide advice and input throughout the building process. Most package companies leave the self-builder to find and purchase their own land, and commence their involvement after this has been arranged. Typically, package companies provide advice on all aspects of both design and construction, as well as the major components of the house.

Package companies normally promote a certain form of construction technique. Some supply the bulk materials necessary for masonry construction, but many are timber-frame kit manufacturers. In order to enhance sales of their kits, and to make the self-build process easier for the consumer, the manufacturer supplies the frame as well as a number of other key components of construction, such as the materials for the building envelope. The package company purchases materials in bulk direct from manufacturers and usually derives their fees/profits from the mark-up on materials purchased by the self-builder.

Usually, a package company provides a design service that develops the initial concepts of the self-builder into the detailed design and working drawings necessary to produce the finished product. As part of this design service, associated advice concerning budgeting and other financial considerations is also provided, along with general advice on land acquisition and planning issues.

There is very little information on the type of construction materials used in self-build homes. Some survey information from market research reports is available, in addition to the perceptions of experts interviewed in the course of this project. Figure 4 was developed from our own estimates of self-build completions and survey data from Wedgwood Markham and Building Link. This suggests that 68 per cent of total completions in 1999 were built in brick and block, 26 per cent were timber frame and 6 per cent were built in other materials. The share of timber-frame self-build completions is believed to be considerably higher in Scotland (see Chapter 3).

The scale of the self-build market

Like DIY, self-build has always existed, but it is only since it has had a label that its scale has become apparent. There are, however, huge difficulties in measuring the amount of self-build housing in the UK. No official data is collected and estimates of its market size currently range from around 10,000 to over 25,000 houses per year. Matters are further complicated by the exaggerated claims made by magazines trying to promote sales and stimulate interest. The myth that the self-build market is up to 25,000 homes per annum is still widely quoted. The 1997 Wedgewood Markham report, the most comprehensive market research survey on the industry, estimated that the

number of self-build completions steadily grew from around 10,000 in 1991 to 20,000 in 1997, and about 13,000 self-build homes were completed annually during the late 1980s. Our estimates suggest that about 15,000 homes were self-built in 1999, representing 8.3 per cent of total completions.

Value Added Tax and self-build housing

Most estimates are based on the number of claims by self-builders for VAT returns, available from the Construction & Utilities Branch of HM Customs and Excise (Table 2). These represent cases where the self-builder undertakes a degree of self-management of the project. No single contract is placed with a builder and the self-builder therefore pays VAT for materials at source. This VAT is then recovered on completion of the project.

The VAT claims data suggests that in the order of 11,000 new self-build dwellings are built each year. However, these figures represent the total number of accounting entries made and do not necessarily represent the total number of houses built. HM Customs and Excise points out that the total number of entries may not necessarily reflect the actual number of houses built because:

- more than one claim may be processed per claimant
- some self-builders may not be aware that they can reclaim VAT, or they cannot be bothered to fill in the forms
- some do not 'officially' want to complete the project
- in a 'co-operative' scheme, one claim may be submitted for several houses.

Importantly, there is an additional number of self-build homes not recorded in the VAT returns. These are built by self-builders who place a single contract with a builder to construct a dwelling. In these cases, the self-builder chooses and purchases land and has a direct input into design, specification and construction, but does not make a VAT reclaim, as new housing construction is zero-rated for VAT. Estimates of the numbers of self-build dwellings built in this way vary and are all based largely on opinion.

Survey of the self-build market

To attempt to quantify the current size of the self-build market in the UK we undertook a questionnaire survey directed at local authority building control departments. The survey

Table 2 Number of VAT claims for self-build housing

	Year end				
Region	03/1996	03/1997	03/1998	03/1999	03/2000
England	6,025	5,257	5,571	5,562	5,345
Scotland	1,716	1,540	1,600	1,479	1,303
Wales, West and Borders	1,852	1,794	1,645	1,671	1,480
Northern Ireland	1,604	1,791	2,099	2,198	2,125
Total	**11,197**	**10,382**	**10,915**	**10,910**	**10,253**

results were supplemented with information supplied by the National House Building Council (NHBC). Appendix 1 provides an explanation of the approach, including the methodology and results.

Based on the results of the survey and corroborating these results with VAT returns and discussions with self-build professionals, we estimate that the approximate size of the market in 1999 was in the order of 15,000 units.

The geography of self-build

Beyond the survey results, there is no readily available information on the geographical distribution of self-build housing. The received wisdom is that it is generally more prevalent in more peripheral areas where the market for speculative housebuilding is insufficiently developed. A large proportion of new housebuilding in areas such as mid-Wales or Highland Scotland (Clapham *et al.*, 1991) is self-build. Generally, there is a considerably higher proportion of single-plot dwellings in rural areas than in urban areas (Table 3). The high proportion of single-plot developments in Scotland, Wales and particularly Northern Ireland is substantiated through the VAT reclaim information in Table 2.

The dynamics of the self-build market

The heyday of 'plotland' development during the years up to World War I and in the 1920s and 1930s saw several thousand homes built. Little is known about the self-build market between the 1940s and 1970s, but one estimate suggests there were about 2,000 completions, or under 2 per cent of total private sector completions, in 1978 (Wedgwood Markham, 1994).

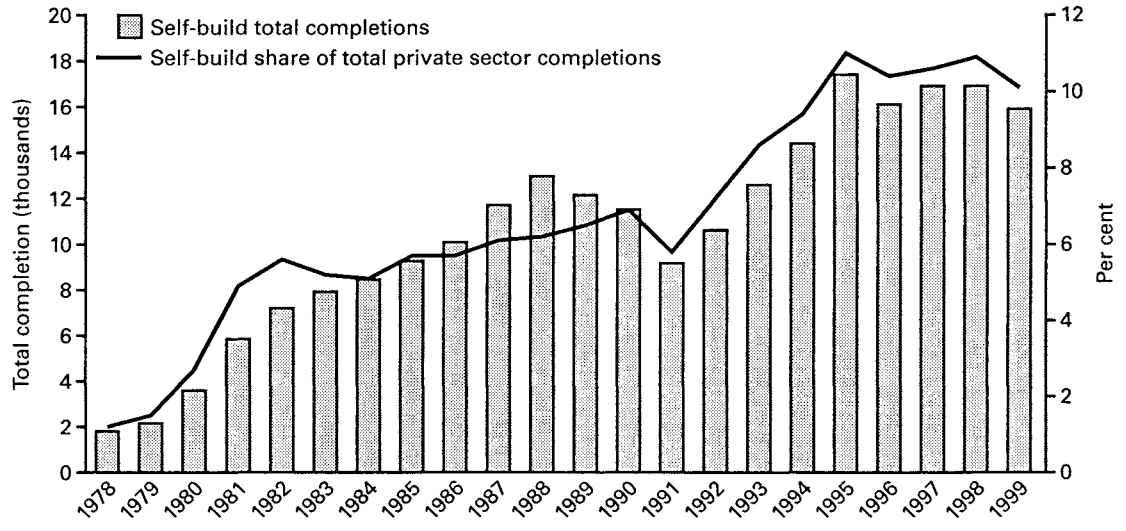
As Figure 5 shows, until 1988, the amount of self-build housing built each year rose consistently both in absolute terms and as a share of overall private sector completions. Figure 5 is based on estimates of historical data for the years preceding 1999, with estimates of

Table 3 The geography of self-build

Region	Private sector housing starts	Estimated number of self-build dwellings built (1999)*	Self-build as a % of total starts
England:			
Unitary	23,398	1,355	5.8
Metropolitan County	22,217	736	3.3
London Borough	12,632	259	2.1
District	41,837	4,541	10.9
City	5,165	288	5.6
Borough	28,496	1,943	6.8
Scotland	18,829	1,836	10.2
Wales	8,435	1,594	18.9
Northern Ireland	10,614	2,448	23.1

*Based on population – see Appendix 1.

Figure 5 Growth in self-build since the 1970s



Source: DETR Housing and Construction Statistics and estimate by Wedgwood Markham and authors.

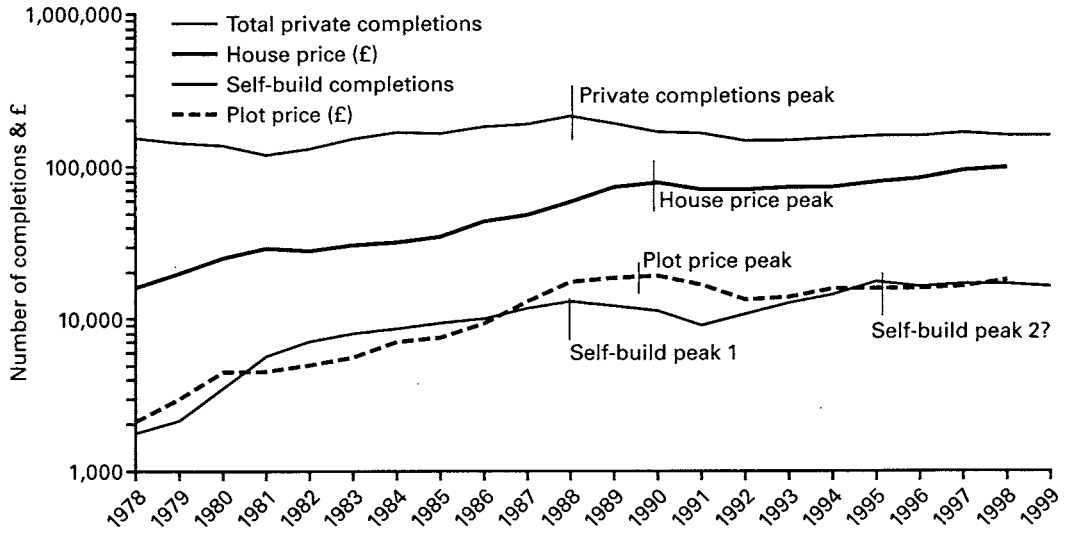
the number of self-builds in 1999 being derived from the survey methodology detailed in Appendix 1. The data for the years preceding the late 1980s must be regarded as unreliable. Some commentators believe that there were as many as 10,000 or more self-build homes built a year throughout the 20th century.

Although self-build completions fell sharply from 1988 until 1991, it is revealing that, as a share of the total private sector, the decline was far less marked. In other words, the self-build market managed to eat into the private sector market, apart from the two years immediately following the housing market slump (1990–91).

Figure 6 illustrates the relationship between various housing market indicators. There is evidence that both self-build and total private housebuilding output peaked in the same year (1988), before the peak in land and house prices. This suggests that, in the self-build case, the rise in land prices choked further growth, even though house prices were continuing to rise, presumably offering potential self-builders the possibility of releasing equity to begin their project.

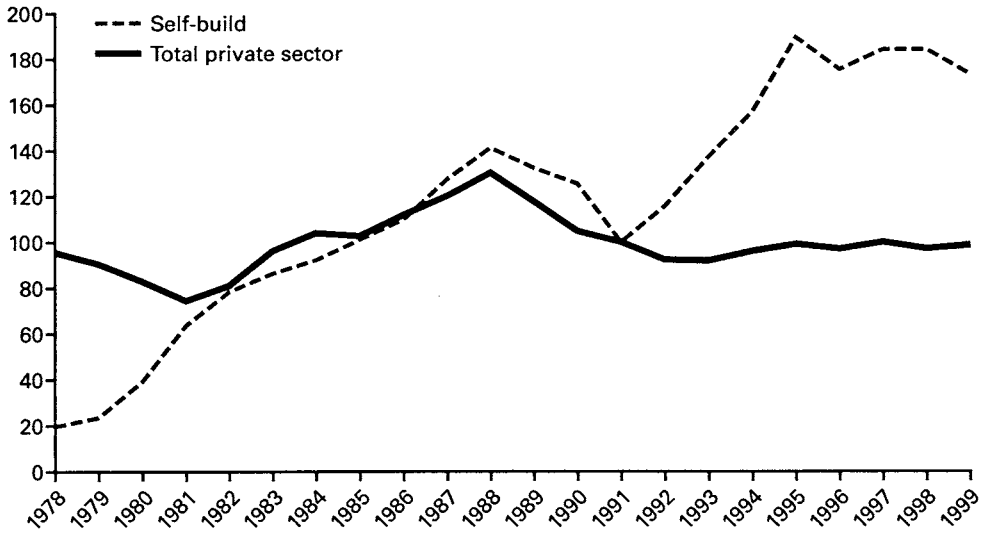
Following a short slump in output, the self-build market expanded extremely rapidly – by 1995, annual completions had almost doubled while overall private sector output remained flat (Figure 7). This is partly the result of building economics. Land prices were declining until the end of 1992 and self-builders were therefore able to pick up relatively cheap plots of land. Together with the parallel decline in construction costs, this meant that projects that had not been viable in the late 1980s became viable (Figure 8).

Figure 6 **The dynamics of the self-build market**



Source: price data from DETR; other data as for Figure 5.

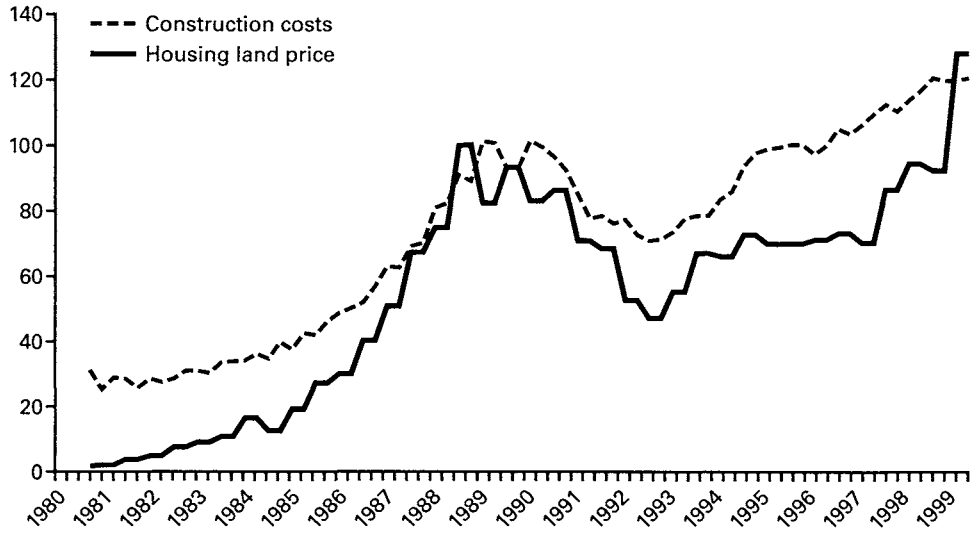
Figure 7 **Self-build has grown despite a flat private sector market**



Index: 1991 = 100.

Source: data as for Figure 5.

Figure 8 Self-build construction cost inflation



Index: 1989 quarter 3 = 100.

Source: DETR (land prices) and Building Cost Information Service (construction costs per square metre for 'one-off housing').

While the strength of the housing market plays an important part in stimulating self-build by enabling self-builders to release equity from their homes – and land price inflation dampens self-build – a number of other factors are involved in explaining the dynamics of the market. In particular, the demographics of the self-build market are thought to have changed in the 1990s, with the entry of relatively well-off households seeking more individuality from their homes. These were able to finance self-build from equity built up during the 1980s' property boom. In addition, finance for self-build became significantly more straightforward in the mid-1990s as building societies and other lenders began to identify self-build mortgages as an area for potential business expansion.

Perhaps equally important, though, was the way in which the public profile of self-build was raised during the 1990s. Many people were introduced to the idea by attention in the mainstream media, a burgeoning specialist press and regular exhibitions. *Build It* magazine, launched in 1989, was the first widely available consumer magazine dedicated to self-build. This was followed by *Homebuilding & Renovating* and *Selfbuild and Design*. The only available circulation figures are those for *Build It*, which had an average circulation of approximately 22,000 in 1999. Two large national exhibitions are held annually, each attracting as many as 20,000 visitors, along with a number of smaller regional exhibitions.

Together, all these factors have been instrumental in creating the contemporary self-build market. The outcome of the expansion in the 1990s was a large, but fragmented, industrial sector servicing the self-builder.

The self-build industry

The self-build industry is largely hidden from view, despite the number of people who attend the many regional exhibitions and the relatively large circulation figures for its specialist press. Information on the industry's total value can be derived only indirectly from market research reports or assumptions about the average cost of the various elements in a house. We have adopted two approaches in this study.

Method 1 is based on the cost estimates in the most recent market survey (Building Link, 2000). This suggested that the average land and construction cost of a self-build home in 1999 was £147,000, with the plot representing 39 per cent, materials 37 per cent and labour 24 per cent of this total. Assuming there were 15,000 completions in 1999 (see above), it is possible that the self-build industry has a turnover of at least £2.2bn (see Table 4), excluding professional fees.

To validate this figure, we have adopted an alternative approach (method 2). Again working on the basis of 15,000 completions, we calculate the industry's turnover was approximately £2.3bn. This uses our own estimates of average self-build plot prices (£44,183 – see Chapter 4), an assumed average dwelling size[2] of 150 square metres and an average construction cost of £747 per square metre in mid-1999.[3]

The similarity in total industry turnover using both methods suggests that a figure of approximately £2.3bn is a reasonably accurate reflection of the value of the self-build industry in 1999.

Table 4 The self-build economy, 1999

	1999 turnover, method 1 £m	1999 turnover, based on average land and construction cost estimates, method 2 £m
Land	860	663
Construction costs	1,345	1,681
of which:		*Breakdown not known*
Materials	816	
Labour	529	
Professional fees, tax, stamp duty	?	?
Total	**2,205**	**2,344**

Source: see text.

3 Self-builders and their homes

Who are the self-builders – from 'Arcadia for all' to 'Arcadia for some'?

In the 1920s and 1930s, there was a popular working class movement for self-build housing in southern England, described in Dennis Hardy and Colin Ward's book *Arcadia for All* (Hardy and Ward, 1984). During this time, several thousand simple homes were built by 'plotlanders', using a variety of construction materials – including old railway carriages and a variety of building techniques. The scale of development in areas such as Peacehaven on the South Downs was partly responsible for the introduction of the modern planning system. Most plotlanders were, as Hardy and Ward (1984, p. 18) put it: 'people swayed by the arguments for home ownership yet without the economic means to enter the main race'.

The tradition of working class self-build resurfaced partly in the 1970s and 1980s with the community architecture and community self-build movements. The former emerged in the wake of concerns over the lack of resident participation in local authority slum clearance programmes and was directed largely at self-help in refurbishment (Wates and Knevitt, 1987). The latter involved groups of people on low incomes building their own homes, usually on land provided by local authorities. As well as providing low cost housing, these schemes – which were organised by either local authorities or housing associations – often had parallel objectives such as retraining unemployed people.[1] It is not known how many community self-build homes were completed in the UK at this time – some estimates (Armor, 1990; NFHA, 1989; Rhoades-Brown and Fraser, 1986) suggest that in one year (1982) some 200 homes were completed by community groups.

Recent work for the Joseph Rowntree Foundation[2] explored the emerging policy and operating context for community self-build, particularly in relation to government policies for regeneration and social inclusion and anti-poverty strategies. The study found that the record of achievement was poor, with probably less than 1,000 completions over the period 1989–98 (see Appendix 2).

In the 1970s, there was also a significant sector involving groups of self-builders with a sufficient income to satisfy bank or building society demands, rather than those on lower incomes typical of community self-build schemes. Members tended to be drawn from the skilled trades.[3] Some estimates suggest that as many as 2,000 homes were built in group schemes in 1982, a quarter of completions.

Since the 1980s the picture appears to have changed. A detailed survey of self-builders was beyond the scope of this study, but it appears that today the typical self-builder is older, has a relatively high income and/or high levels of housing equity. The received wisdom is that self-builders tend to be highly motivated 'self-starters'. Many are thought to be running their own businesses or are in positions with relatively high-level decision-making responsibilities. It is also held that another large group of self-builders is involved in the building industry, estimated in one report (Wedgwood Markham, 1994) at 26 per cent of all self-builders in 1994.

The most recent market research report (Building Link, 2000) suggests that the typical self-builder in 1999/2000 was relatively well off – a third had an income over £40,000 and a quarter owned a home worth more than £200,000. Some 39 per cent of self-builders were

drawn from managerial or professional socio-economic groups. Conversely, 17 per cent had an average household income of under £20,000 and a third owned homes worth less than £100,000. Previous reports (Wedgwood Markham, 1994, 1997) identified a strong representation of A/B social classes, compared to the population as a whole, and 'demographic bulges' in self-build occurring around the 35–44 and 55–9 age groups. This therefore suggests considerable interest amongst people who are about to retire or who have taken early retirement.

The socio-economic characteristics of self-builders may have changed during the 1990s. Table 5 draws together information from three market research reports and data provided by a building society which supplied information during the course of this work. The information should be treated with caution because it cannot be assumed that the sample in each year is directly comparable. Four trends can be observed:

- The average age of self-builders is rising, perhaps because a larger proportion are retired.
- Average household income, in constant 1999 prices, has not grown (£34,500 in 1994 and £31,000 in 1999).
- The proportion of self-builders who are existing owner-occupiers is rising.
- The value of the existing home compared to the national average has grown substantially, as has the ratio between the average value of the existing house and average earnings of self-builders.

A possible explanation for these trends is that land and construction cost inflation has squeezed out less well-off self-builders, to be

Table 5 Key socio-economic characteristics of self-builders

	1994	1997	1999 (Building Link)	1999 (building society)
Average household income (£)	28,000	30,000	31,000	36,200
Managerial/Professional (%)	55	50	39	46
Retired (%)	12	14	20	N/A
Average age (years)	40	44	81% over 35 (29% aged 35–44)	39
Owner occupiers (%)	80	84	89	95
Value of existing home (£)	92,000	130,000	148,000	150,200
Ratio compared to average household income	1:3.3	1:4.3	1:4.8	1:4.1
Existing home value compared to national average (100)	126	140	161	164

Source: Wedgwood Markham (1994, 1997); Building Link (2000); and data provided by a building society.

increasingly replaced by equity-rich, retired self-builders. The latter would explain the rise in the level of existing owner-occupiers but relative stability in average household incomes.

Why do people self-build?

There are numerous reasons why people choose to self-build. In most cases, these may be highly specific to the individual self-builder, such as having time freely available to organise the project or practical skills. The process by which a self-build project is initiated can therefore be more complex than the decision to purchase conventional housing. As well as the 'normal' considerations that are made when households move house – affordability, location, size and so on – in the case of self-build, there are further levels of choices and decisions. Critically, not only do self-builders have to decide on their objectives for a final product, they also have to undertake the process of arriving at the final product.

Most commentators feel there has been a shift from those self-building because they cannot afford mainstream housing, or are not eligible for social housing, to those who are not satisfied with the existing supply of houses and want an individual property. The former, who undertake self-build either out of necessity or an opportunity, tend to be more concerned with building at a minimum price. Typically, this is a feature of rural or semi-rural areas where people who wish to remain in a community are unable to find a dwelling that suits their requirements.

Self-builders often nurture projects for many years,[4] implying that many have a degree of discretion about their housing choices. Self-builders are not necessarily driven by traditional reasons for moving. The most recent market research suggests that the key reasons for people wishing to self-build are choice over design and layout, choice over location, ability to make financial gains and personal ambition (Building Link, 2000). This category tends to desire a high level of specification – it should be stressed that self-builders usually have a totally different perception from speculative housebuilders of what is 'good' specification – and are more innovative in terms of technology and design. However, as one interviewee pointed out, self-builders' aspirations tend to exceed their achievability, especially in South East England.

Internal and external design

The main single reason for self-building is the increased control over design and layout that it gives. In one survey (Building Link, 2000), 35 per cent of respondents said that having the flexibility to design to their own specifications was the most important reason, and 82 per cent put this in their top three reasons. In both speculatively built and older existing homes, purchasers have to adapt their living patterns to suit the pre-existing design or undertake alterations. Self-builders, within financial limits, are able to design a layout to better match their individual living pattern. In addition, they are able to incorporate only those internal design features that they consider useful to suit their individual needs. The external appearance of a property is a further design consideration, although this does not appear to be a primary factor motivating households to self-build. External design is usually constrained by local planning issues and, as such, the opportunities for individual households to produce anything

original are limited. Furthermore, concern over resale value may also influence external design such that a traditional design approach usually prevails.

Location

Self-builders would appear to have a limited choice in terms of location, because of the problems in obtaining suitable land (see Chapter 4). However, being able to choose the location was the most important reason for 30 per cent of interviewees in the Building Link (2000) report and 59 per cent included this in their top three reasons. At one level, there may not be suitable properties within a particular location, especially in rural areas, that satisfy a household's housing requirements. In such cases, the only viable option may be to self-build – subject to obtaining planning approval. Another instance is where an opportunity arises, perhaps because land has been made available by a relative or inherited. In these cases, location is a fixed parameter driving the entire self-build process. Aspirations towards 'country living' are another important factor behind self-build – 88 per cent of self-builders are seeking a plot in a rural or semi-rural location (Building Link, 2000).

Financial considerations

Another important reason for self-building is the belief that it is an affordable way of obtaining a larger or better house than would be the case in the mainstream property market. Although Building Link (2000) reported that the possibility of making a financial gain was the most important reason for self-building in only 14 per cent of cases, 52 per cent of respondents said it was in their top three reasons. Moreover, most of the case studies in the self-build magazines heavily promote the financial gains that have reportedly been made by self-builders. The trend towards selling the home upon completion – a function of the recent buoyancy in the property market – suggests that anecdotes about 'serial self-builders' making large profits have not been insignificant in stimulating the market. However, while the generally held consensus is that large cost savings can be made by self-building, these are often subsumed by higher specification levels. Most self-builders are motivated by 'getting more for their money' compared to what is currently available from speculative developers or the existing 'second-hand' housing stock. Better value for money is, of course, a highly subjective matter but a recurring theme expressed by self-builders is the degree of dissatisfaction with the more traditional sources of housing supply in both the existing stock and new speculative stock. The Building Link survey found that the ability to ensure a high quality of finish was in the top three reasons motivating self-builders in over a quarter of cases and ability to choose products in almost a fifth of cases.

Innovation

Self-builders often try to incorporate some element of technical innovation into their homes. In many cases, it can, however, be difficult to distinguish between higher specification and true innovation. A common example of this is self-builders who build homes with higher than required insulation standards. Although many self-builders believe this to be innovative, it is perhaps not true innovation and

could be more appropriately thought of as increased specification. Increased specification carries less risk than true innovation and, as one self-builder interviewee put it, 'I don't want to be a pioneer for anything innovative'.

There are therefore concerns about the introduction of innovative construction and design features in self-build. Nevertheless, there is interest in innovation, which falls into three categories:

- products that increase the perceived functionality of the home
- design and space planning
- construction techniques.

Products which increase the perceived functionality of the home

These include ventilation systems (64 per cent of self-builders), under-floor heating (57 per cent), central vacuuming (38 per cent) and solar panels (28 per cent) (Building Link, 2000). Another area of interest is home automation, essentially centralised control of heating, lighting and audio-visual equipment. Environmental qualities of *products* were relatively unimportant in influencing self-builders' decisions over product selection, and only 2 per cent said it was the main reason, while three-quarters placed it last.

Design and space planning

Almost all self-build projects are limited aesthetically in design, usually along traditional, conservative lines. This is in part a result of planning regulations and in part a result of self-builders' and valuers' concerns about resale values. However, over time, there have been changes in the permutations of room types and sizes in self-build homes. The rise and fall of the utility room is one aspect of this changing use of internal space. The widespread acquisition of white goods led to the introduction of the utility room in the 1970s, while the 1990s saw a decline in its size as white goods became quieter and some could be located in the kitchen. Changes in household living patterns have also had an impact – as in mainstream private housebuilding – with the decline in the importance of the dining room, and mutation of the entrance hall and staircase into the 'dining hall'. Similar patterns can be observed in speculative housebuilding, where there has also been a rise in this type of space (Nicol and Hooper, 1999). Furthermore, the growth in home-working, which may be especially prevalent amongst self-builders, has resulted in growing demand for home office space.

Rising construction and land costs have also impacted on the design and layout of self-build homes. Self-builders are increasingly seeking to maximise the use of space in their homes by including habitable lofts or basements (as described later in this chapter).

Construction techniques

While it is not unusual to find self-builders using new or non-standard approaches to construction, the national pattern of dominance by brick and block is repeated in the self-build market (see later in this chapter). There is some interest in the possibility of increasing the functionality of self-build homes by making use of alternative methods such as 'I beams', and self-builders are sometimes better informed on new products than industry professionals, as these comments illustrate:

Architects tend to be rubbish at some things ... Some haven't incorporated a new material for 20 years and most wouldn't know what super insulation and passive solar were if they jumped up and bit them.

I'm amazed at how stuck in the past many architects and builders are ... One ... had not even heard of the breathing wall. He had 'heard' of composite wood I-beams with me explaining the advantages. When I told him that people on this list had paid only £200 extra for them ... he was amazed. He was stuck in brick and block 1950s' design ... Passive solar? Rocket science to him, saying it didn't work in British latitudes ... He hadn't a clue about superinsulation either, defending his ignorance on 'buildings have to breathe'. He had 'heard' of Fermacell type of drylining, but dismissed it on cost alone; and showed total surprise when I mentioned the prefinish and that cupboards could be directly hung on it. How many people had hired this guy to build a 'state-of-the-art' house ... I don't know, but I would assume they did not get value for money in many aspects. Nice fellow though – they always are, and I'm sure that the client had full confidence in him.
(*Homebuilding & Renovating* self-build email discussion group, posted various dates).

However, while self-builders can be receptive to technical innovation, this is normally until costs become evident, at which point innovation is usually the first thing to be sacrificed in order to maintain a set floor area or number of bedrooms. Another problem is the limited experience of innovation within all segments of the British housebuilding industry. This is compounded by the fragmentation of the construction industry and its dominance by small firms.

The self-build home

There is no information on the size of the typical self-build house in square metres. The average premium under the National House Building Council's (NHBC) Solo insurance scheme (for self-builders) is £880, applicable to houses falling into the range 150–250 square metres (1,614–2,690 square feet). More information can be found on house types and numbers of bedrooms. In 1999, the overwhelming majority – 97 per cent – of self-build homes were detached and 9 per cent were bungalows (Building Link, 2000). The average home had four bedrooms, but a quarter had five or more and 20 per cent had three bedrooms.

It is hard to detect any trends, since there is no consistent data other than periodic market research. Reports by Wedgwood Markham (1997) and Building Link (2000) show a move towards smaller homes, with the share of larger projects (over 232 square metres/2,500 square feet) decreasing. This could be the result of land price inflation reducing the affordability of larger homes, although the average number of bedrooms has remained the same since the early 1990s (Table 6). It could also indicate that self-build is appealing to a wider social group. This is supported by data indicating that the proportion of self-builders from professional or managerial occupations has fallen from 55 per cent in 1994 to 39 per cent in 1999 (see Table 5). Easier access to funding may have played a part in widening access to self-build (see Chapter 4).

Table 6 The self-build home

	1994	1997	2000
Average no. of bedrooms	4	4	4
% with 5 or more bedrooms	18	25	17
% over 2,500 sq. ft	–	23	17
% brick and block	50	40	62
% timber frame	36	28	24
Estimated construction time (months)	–	10	9

Source: Wedgwood Markham (1994, 1997) and Building Link (2000).

Construction costs

There is no reliable data on self-build construction costs. We noted in Chapter 2 that the average self-build home cost £147,000 in 1999, including the price of the plot. Materials and labour represented around £90,000, not including the value of personal labour. The Building Cost Information Service (BCIS) data for one-off housing shows an average construction cost of £747 per square metre in mid-1999 (£69 per square foot).[5] There are a number of reasons why estimating self-build construction costs is difficult to achieve accurately:

- The self-build magazines include many case studies with examples of typical build costs per square foot. These figures can often be misleading, as it is not always apparent what aspects of construction these include. Furthermore, the amount of labour input provided by the self-builder varies. At one end of the spectrum, they might provide a high level of skilled labour input, whilst, at the other extreme, they might provide no labour input.
- Self-builders are often unable to estimate precisely what their final costs are because they have not recorded all items of expenditure, or the project has been carried out over a very long period, making it difficult to adjust for inflation.
- There are problems in relying on cost estimates from the package companies, which are felt by some to underestimate costs as a sales ploy.
- Distortion in the price of the major cost variables – labour and quality of materials – results in regional price discrepancies.

In the words of one commentator:

I ... am concerned at the unrealistic build costs published for general consumption at shows and exhibitions. In my experience most people can achieve a good quality build for about £55–60 per square foot. Those having a fully managed project using professional builders, expensive materials and achieving a good standard of finish throughout will have to allow £85–90 per square foot ... The greater your level of input,

management time and physical effort, the lower your build costs will be. A personal friend of mine, who happens to be a house builder, has just completed his own 2,300 sq. ft home ... with his knowledge, friends, favours and contacts, his build costs were £45 per sq. ft. For larger properties, economies of scale mean that they are relatively cheaper to build. Please treat very low claimed build costs with a large pinch of salt. They deserve an audited breakdown, distort the market and mislead genuine self-builders. (*Homebuilding & Renovating* self-build email discussion group)

Design and space planning

Given constraints on plot sizes, there is interest in finding ways of increasing the amount of internal space without impacting on the dwelling's footprint. Use of the loft for living space and a rediscovery of the basement now regularly feature in the self-build press. Around 30 per cent of active self-builders' projects now include loft rooms and 14 per cent include basements (Building Link, 2000). Excavation costs, reinforcement and waterproofing details tend to make basements relatively expensive, but they are increasingly seen as a way of building more space than planners would otherwise allow.[6]

Construction techniques

There is relatively little data on the type of construction used for the typical self-build home other than through market research reports. Most self-build homes are built in brick and block, and against the national trend the use of this approach appears to have grown in recent years (Table 6). The main reason for adopting brick and block is said to be its perception of quality. Timber frame is preferred when speed of construction is important.[7] Nevertheless, the proportion of self-build projects using timber frame systems – around a quarter – is substantially higher than the national average (12 per cent in 2000).[8] This trend may continue as control over the thermal efficiency of housing tightens in 2001 and again in 2002. It is currently unclear whether traditional brick and block can meet these standards without further reducing window area or increasing masonry wall thickness to aesthetically unacceptable levels, although new lightweight concrete block systems may overcome these problems.

There are significant regional variations in the type of construction used by self-builders. Reflecting the pattern in mainstream housebuilding, timber frame is far more important in Scotland than elsewhere in the UK. In contrast, brick and block is the dominant approach in Northern Ireland.

4 The self-build process

Self-build is not easy. Although there is a large self-build industry providing advice and services, projects can be frustrated in a number of ways. Frustrations include sourcing product information, comparing products and the need to acquire technical knowledge. However, two problems stand out: finding and buying a site, and the planning process. Other issues include finance and the reliability of contractors.

Finding and buying a site

Sources of land for self-build

The received wisdom is that finding and buying the right plot for self-build is generally regarded as the most important barrier faced by people wishing to build their own home. However, the main problem is not the availability of land, but finding the right site and managing its acquisition along with all the other inputs to the self-build process. As many interviewees pointed out, the question is how far people are prepared to move to find a plot.

It is likely that perceptions of the difficulties of land acquisition outweigh their reality. Market research carried out in early 2000 (Building Link, 2000) reports that 57 per cent of those who were seriously considering self-building expected to face problems in finding or buying land, but a smaller proportion (45 per cent) of those who were engaged in construction had *actually* experienced problems. Moreover, finding a suitable plot is less time consuming than might be expected, particularly when compared to the problems faced by those attempting to buy a home in a buoyant housing market. Although 27 per cent of respondents took more than a year, 39 per cent found a plot within three months.

Self-builders find land from a variety of sources, including land auctions, local architects and surveyors, local developers who wish to dispose of surplus plots and family, friends and local contacts. Estate agents predominate as a source,[1] but many have suggested that estate agents in fact restrict the flow of land to the self-build market because they often advise landowners to sell as a single block to a developer and informally tender sites to housing developers. This allows estate agents to receive a double fee, from the transaction with the landowner and from the sale of the completed houses.

Land-finding agencies

Most land-finding agencies are supported or directly run by the self-build magazines. These provide information and advice to subscribers, and also search for sites and encourage landowners to sell. Land-finding agencies rely on a network of professionals to provide information on plots in return for free advertising.

Plot developers

In recent years, a few specialist plot developers have emerged, importing lessons from North America, Australia and continental Europe. These companies purchase or option larger sites, with or without planning consent, and prepare a development brief that is agreed with local planners. As with speculative housebuilding, the land price reflects the infrastructure cost and development risks. The brief sets out the development criteria, including acceptable house types. Providing the proposed self-build homes meet these parameters, full planning consent is granted. The degree of freedom to change design subsequently depends on the

nature of the brief and on the views of the planning officer. The site is then fully serviced and individual plots are sold to self-builders. The largest of these companies aimed to sell 70 plots on ten sites in 2000.

Package housing companies

Package companies sometimes allow potential self-builders to take over the contract and plot of clients who do not wish to proceed with their self-build project. These companies also occasionally act as 'quasi developers', buying a site and offering their products to self-builders, who are able to customise the interior to a limited degree. Generally, though, plot development is seen as too much of a diversion from their core business of manufacturing and selling timber-frame kits or other structural components. There are also examples of very expensive self-build schemes organised by developers. In one case, a site near Tunbridge Wells is being developed with ten self-build homes standing in 2–3 acre plots.

Local authorities and new towns

Another source of plots is via local authorities and the Commission for New Towns (now English Partnerships). Some local authorities have provided serviced sites, although this is not generally pursued as a matter of policy and depends on appropriate sites coming forward.

Milton Keynes is regarded as a paradigm for this approach, which results in up to 100 self-build homes annually. English Partnerships identifies sites where self-build is preferred and sells serviced plots with a detailed development brief. This is not intended to be overly prescriptive and does not prevent the construction of package homes. Individuals and developers are allowed to bid for the plots, but the latter are not permitted to have more than four schemes in progress at the same time. During less buoyant times, land is sold by private treaty. When more than one party are interested in a plot, there is a requirement to go to tender. Plots are tendered with a guide price, rather than a reserve price. In mid-2000, bids were typically received within one month of plots going out to tender. These are informal, rather than legally binding, and require a £500 deposit. Ten per cent of the price is paid on exchange, with the balance when full planning consent is granted. There is a requirement to complete the scheme within 18 months and English Partnerships monitors the completed house design against what was originally approved for development.

English Partnerships suggests that the revenue generated from land sales is lower when plots are sold for self-build rather than speculative development because residential densities are lower. Self-build plots were selling for £450,000 to £850,000 per acre (at April 2000 prices).

Farming and rural enterprise land

Under some circumstances, self-builders can develop agricultural land if it can be proven that it is necessary for the proper maintenance and running of a viable agricultural enterprise or an approved rural industry. Approval for a self-build home is not automatic and new enterprises are required to demonstrate a successful track record and that it is necessary for them to live in a new dwelling on the farm before a dwelling is approved.

Replacement dwellings

Although there is no available data, it has been suggested that most self-build developments in

South East England involve the replacement of existing low quality bungalows and houses built in the years immediately after World War II in the absence of planning laws. These dwellings have come onto the market as their occupants have died and they are frequently situated on large plots by current standards. This source of supply may grow as other parts of the housing stock built in the 1950s and 1960s become obsolete. The high land values in parts of England (see below) mean that demolition costs are far outweighed by the benefits of larger plots and the savings in the cost of providing services and other infrastructure.

The self-build land market

To what extent is the land market for self-build in competition with that for speculative or housing association development? Unlike speculative housebuilders, self-builders are not generally in a position to 'land bank' by purchasing land outright for future development or taking out an option subject to planning consent. Building societies do not provide finance solely for land purchase and impose time limits within which self-builders must start construction once funds have been released. Nevertheless, we saw in Chapter 2 how there is a relationship between self-build output and peaks in land and house prices, with inflation slowing the self-build market until prices have stabilised or fallen (see Figure 6). The land price index in this figure is for *all* housing land, suggesting that there is in fact a degree of competition between the two sectors.[2]

Self-builders are unlikely to be in competition with large- or even medium-sized speculative housebuilders, which are more likely to concentrate on larger sites. However, a huge number of small-scale speculative housebuilders develop sites with one or two plots. This can be a source of both competition and supply for the self-builder. Plots can be picked up by self-builders from builders who have fallen into financial difficulties. Moreover, in some circumstances, speculative builders' financial targets mean they drop out of the bidding for sites, although these will tend to be suitable only for groups of self-builders.

It is important to recognise that the value of a plot of land will be significantly different to a self-builder than it would to a speculative developer. A self-builder is likely to see the value in terms of their own individual circumstances – for example, being located close to family, schools, or the workplace. Such circumstances might encourage a self-builder to pay over the going 'market' value for the land. In this case, while the self-builder stands to benefit from the development profits (see Figure 2), it is not necessarily the prospect of making a profit that is the driving force behind the development. Furthermore, self-builders can take a longer-term view of the value of land as, unlike developers, most self-builders are unlikely to consider selling their house until several years after completion.

Geographical differences in the land market

The general consensus amongst self-build commentators is that land supply is polarising the self-build market, such that only the well off can afford to build in South East England. There is certainly a huge difference in self-build plot prices around the UK. Table 7 shows that the average plot price in South East England in early 2000 was more than double the national average. The next most expensive region, South

Table 7 Regional variations in self-build land prices, early 2000

Region*	Average plot price (£)	As per cent of national average (= 100)	No. of observations
UK average	44,183	100.0	4,938
South East England	92,621	209.6	371
South West England	61,377	138.9	386
Central England – non metropolitan	51,105	115.7	552
Northern Ireland	43,061	97.5	367
Major metropolitan areas	42,243	95.6	308
Northern England – non-metropolitan	35,280	79.8	332
Eastern England	30,860	69.8	622
Scotland – central belt	30,498	69.0	277
Wales	25,082	56.8	801
Scotland – outside central belt	23,204	52.5	672

*Definitions of regions:
South East England: Bedfordshire, Berkshire, Buckinghamshire, Cambridgeshire, Essex, Hampshire, Hertfordshire, Kent, London, Suffolk, Surrey, Sussex.
South West England: Cornwall, Devon, Dorset, Somerset, Wiltshire.
Central England – non-metropolitan: Cheshire, Derbyshire, Gloucestershire, Hereford and Worcester, Leicestershire, Northamptonshire, Nottinghamshire, Oxfordshire, Shropshire, Staffordshire, Warwickshire.
Major metropolitan areas: Greater Manchester, Merseyside, West Midlands, Yorkshire – South, Yorkshire – West.
Northern England – non-metropolitan: Cumbria, Durham, Lancashire, Northumberland, Yorkshire – North.
Eastern England: Lincolnshire, Norfolk, Yorkshire – East.
Scotland – central belt: Central, Fife, Lothian, Strathclyde.
Scotland – outside central belt: Borders, Dumfries and Galloway, Grampian, Highlands.

Source: Authors' estimates, derived from data provided by Plotsearch.

West England, was 39 per cent higher and the cheapest region, Scotland outside the Glasgow-Edinburgh belt, was slightly more than half the national average.

Northern Ireland, the fourth most expensive region at just under the national average price, is an interesting case. The self-build market here is extremely buoyant, and represents around a quarter of total annual housebuilding. Recent years have seen an extremely rapid rise in land prices, reflecting the rapid expansion of self-build, but land supply has been restricted because of tighter planning policy in some areas. In early 2000, the price of plots with outline planning permission ranged from £30,000 in the rural west to £150,000 for a half-acre plot in parts of Belfast or along the shore of Belfast Lough.

Statutory legislation and building warranties

The planning process

Planning impinges on self-build through the effects of broad policy on the location of new homes, especially in the countryside, and through the impact of local planning practice.

National planning policy guidance, in the form of PPG3 (Housing)[3] and PPG7 (Countryside)[4], provides the framework within which the self-build market operates. The guidance contains statements which can be interpreted both favourably and negatively in relation to self-building. For example, PPG3 states that local authorities should:

- plan to meet the housing needs of the whole community, and provide greater choice and a better mix in terms of housing size, type and location
- aim to provide a choice of sites that are both suitable and available for new housing
- create mixed and inclusive communities which offer a choice of housing and lifestyle.

When taken with PPG3's statement that policies should enable households to move to more appropriate housing as their personal circumstances change, elements of the guidance could be interpreted in such a way as to *favour* self-build as a plank in a genuinely plural approach to housing provision.

On the other hand, self-build is *constrained* by other government planning objectives. PPG3 emphasises that development in the countryside will be dependent on the capacity of existing urban areas to accommodate extra housing, leaving it to local authorities to adopt the 'most sustainable approach'. It is argued that locating significant amounts of extra housing in villages may not be a particularly sustainable option, although small increments may be possible. The Environment, Transport and Regional Affairs Committee report on PPG3[5] emphasises that 'executive-style housing, which is likely to be bought by commuters, should not be built in villages' (para. 89). There is, however, an acceptance (in PPG7) that new housing is required in rural areas to sustain healthy economic activity and viable communities. This allows that sensitive infilling or minor extensions to groups of houses may be acceptable.

Housebuilding in open countryside is strictly controlled under both PPG3 and PPG7. The latter states that isolated new houses require special justification and that mere unobtrusiveness is not a good argument for granting planning consent. PPG7 does, however, note that such housing could be justified in exceptional circumstances if it is of exceptionally high quality and enhances its setting. In the words of the guidance: '... each generation would have the opportunity to add to the tradition of the Country House which has done so much to enhance the English countryside' (para. 3.21).

Whether trends in the rural economy will undermine some of the arguments against single dwelling construction in open countryside is a moot point. Much depends on future patterns of employment and the impact of agricultural restructuring. The current guidance accepts that the range of industries that can be successfully located in rural areas is

widening, and stresses the need for local authorities to bear in mind the role of small-scale enterprises in promoting healthy economic activity in rural areas. To achieve this, authorities should identify suitable sites for future employment use and PPG7 suggests that residential use could be a subordinate part of the business use. However, while the need for small-scale rural enterprise is recognised, this almost certainly does *not* include well-off professionals working from home in expensive self-build homes. It is, however, possible that the guidance will evolve to take account of emerging trends in home-working and the decline of farming in some areas – limited development of housing on former farms might become possible, although this could fall foul of sustainability criteria.

National planning guidance is, of course, interpreted by local authorities, which adopt their own locally specific policies and practices when dealing with planning applications. Self-build has a resourcing impact on local planning authorities. Planning departments are often under considerable stress and processing a self-build planning application is regarded as relatively resource intensive, compared to applications for speculative or housing association development. There is, therefore, a perception that it is administratively preferable to allocate larger housing sites than to pursue proactive policies that favour self-build. The infrastructure requirements are also easier to determine on larger sites.

Local planning policies can vary considerably. For instance, some local authorities have strict policies on replacing dwellings and require that any replacement does not exceed the original dwelling's size by more than a specified proportion, typically 20 or 30 per cent, plus any permitted development rights. Other authorities simply look at proposals on their merits. There is, however, concern that many still use outdated concepts of 'over-development'. This includes not only recommending refusal on the grounds that the volume of the house will be greater than the dwelling it is replacing, but also because of the addition of habitable loft space or basements. Some planning authorities have argued that, if a basement is part of a dwelling and it is habitable, in order to keep the total volume or area the same, the above ground element should be reduced by the same amount.

There is also concern about attitudes towards the external design of self-build homes and notions of architectural aesthetics. Planners are felt to go for safe, hybrid views of house design, reflecting perceptions of a local vernacular that may well be totally inappropriate. It is also suggested that planning authorities are more 'dictatorial' over design issues in the case of the self-builder, compared to speculative developers who may be building similar sized housing in the same area.

As we have indicated, Northern Ireland has a proportionately far larger self-build sector than England, Scotland or Wales. Here, the Northern Ireland Planning Office and each county's development plan set the planning framework. In areas defined as green belt or high rural amenity, planning consent for self-build is granted on the basis of need. In the rest of Northern Ireland, policies regulate the design of self-build homes and aim to prevent ribbon development, but self-build in open countryside is permitted. There is, however, some tension between the desire of more rural local

authorities to promote self-build and that of the Northern Ireland Planning Office to control less sustainable patterns of housing development. Strategic planning policy for rural areas is likely to become more restrictive in the future and to promote higher levels of brownfield development. Paradoxically, it has been argued that this may – in the short term – favour self-build, as Northern Ireland housebuilders are felt to be prejudiced against brownfield development.

Building control

Like the planning process, ensuring that a new dwelling meets the requirements of the current building regulations is also a statutory process. However, unlike the planning process, building control is much more prescriptive. On the other hand, unlike the grant of planning consent, building control is subject to a degree of competition in that there are a number of 'approved inspectors', besides local authorities, who are able to provide building regulation certification.

The fundamental purpose of the building regulations is to ensure that new dwellings meet a basic minimum standard in terms of health, safety and energy consumption. Interviews conducted during the course of this work indicated relatively few problems to self-builders in terms of meeting the requirements of the building regulations. Problems may, however, arise when self-build projects include innovative or non-standard aspects of construction. This perhaps reflects the fact that building control departments deal predominantly with mainstream construction.

Building warranties

Virtually all new dwellings completed by the private sector are endorsed by some form of warranty. This provides a guarantee – for a set period – under which defects will be rectified by the agency providing the warranty. The three most common forms of warranty are schemes operated by the National House Building Council (NHBC), Zurich Municipal Insurance and certification by a qualified architect.

Warranties are significant as these provide evidence that a dwelling is structurally sound. Banks and building societies seek security on their loan advance. Part of this security is provided by insisting that dwellings have sufficient buildings insurance cover and insurance companies require a recognised form of warranty before offering cover. Even where a self-builder finances their dwelling entirely from housing equity or other assets, it is highly unusual for no buildings insurance cover to be required and this therefore results in almost all self-builders seeking a warranty. Furthermore, obtaining a warranty is important should the property be offered for sale. Although warranties are not a statutory requirement, market and commercial pressures therefore make this an essential requirement for almost all self-builders.

Self-build finance

Availability and type of finance impact on many aspects of self-build: the ability to obtain land at the right time and in the right location, the type of house built and the organisation of the building process, and even the willingness to

engage in self-build in the first place. Until relatively recently, finance was seen as a major barrier to the development of the self-build sector in the UK. This is, however, changing. While the majority of mortgage lenders regard self-build as resource intensive, with consequently high management costs, some have set up specialist self-build divisions. These argue that self-build is good business because of the generally low loan-to-value ratio and the low level of risk. The main risk for a lender is being left with a half-built property, which could be completed and sold. Risks are low for a number of reasons:

- Customers tend to be financially sophisticated and highly motivated, with higher than average incomes, and are therefore less likely to fall into arrears.
- Self-build proposals are subject to close scrutiny to ensure they are financially viable.
- Staff are given specific training on self-build to make sure they can evaluate the proposition.
- Lenders monitor their internal exposure limits regularly.

While a number of specialist mortgage products are advertised to self-builders, most lenders are not seen as committed and many have been in and out of the market. Many self-builders put together a deal with their existing lenders. Another problem is that, even when lenders are committed at a strategic level, policies are not always pursued with such commitment at branch level.

Nevertheless, some building societies have begun to address the specific needs of self-builders. The Norwich and Peterborough developed its self-build business extensively after 1995 and the sector has moved from being seen as niche lending to an integral part of the business. Self-build represented around 8 per cent of the society's total lending in 1999. The Bradford and Bingley is also closely involved in self-build, which represents up to 5 per cent of its total lending.

In the past, timing the release of funds in relation to the project development process was especially problematic for self-builders because of the way this influences cash flow. Lenders would restrict the release of funds to the mortgagee's solicitor in equal amounts at certain key stages in the development process (e.g. acquisition of land, construction of the first floor, first fix, completion). Release of funds would be dependent on the valuer's estimate of the rise in the property value at each stage. Lenders have addressed this problem by ensuring stage payments are made in a more flexible way and are paid as a percentage of costs rather than final value. The latter is problematic because it makes the total final loan unpredictable. Stage payments – apart from costs for the land – are released directly to the mortgagee or to a savings account for rapid clearance. Another improvement has been to release initial funds once outline, rather than full, planning consent has been obtained, although the first full stage payment is not made until full planning consent. One lender releases up to 95 per cent of the costs of materials on delivery, reducing the impact on the self-builder's cash flow. Another has raised

the proportion of the land cost covered by the loan from 70 to 85 per cent.

One remaining problem is the proportion of the total costs that most lenders are prepared to lend. While this has generally risen as lenders have become more adept at identifying self-build risks, the proportion is lower than for people buying housing in the mainstream owner-occupier market. Most lenders cap the mortgage at 75 per cent of the property value and pay in arrears to reduce the risk. Above this cap, indemnity protection is usually required, although this can bring the loan up to 95 per cent of the property value.

While the availability of mortgage finance may have eased in recent years, most self-builders, and especially first time self-builders, experience problems estimating the final cost of projects. A common problem that self-builders encounter is that the initial budget is calculated on the basis of the total finance that is available – usually comprising equity in an existing property, finance available through a mortgage, plus any other sources of finance such as personal savings and inheritance. This provides the self-builder with a maximum budget. From this, the cost of acquiring the land is subtracted. The remaining amount is then allocated to building costs. However, while there is information about 'typical' build costs, as we have noted, these can be misleading and can often lead to inappropriate budgeting. Typical problems include difficulties in anticipating unknown costs, the effect of contractors' 'hidden extras', failing to budget for items and the general lack of knowledge of prices and possible discounts. A common problem is that many self-builders want to build the maximum amount of space within their overall budget. This can lead to a failure to allocate sufficient funds to cover items such as landscaping, services connection and allowances for contingencies.

Managing the cash flow throughout the course of the construction phase has always been a major problem for self-builders. The majority of self-build projects involve a household selling an existing property. A common scenario is to employ the equity accumulated in an existing property to purchase the land. However, this requires the existing house be sold before purchase of the land. Without a bridging loan, self-builders are required to live in temporary accommodation – often a caravan or some other form of mobile home on the site itself. Availability of the short-term finance that many self-builders need remains a problem, although some lenders now take the view that you might have to support two mortgages for a short time only and are therefore prepared to be more flexible over payments during this period.

5 Raising the level of self-build in the UK

Why is it important to stimulate the self-build sector?

The opening decade of the twenty-first century is seeing rapid change in the social, economic, technology and policy landscape for housebuilding in the UK. The pattern of demand and supply is changing with shifts in demography and household living patterns. The home is being asked to fulfil new roles and functions. Government – via the Urban Taskforce, associated policy guidance (Urban Task Force, 1999) and the Housing Forum[1] – has sought to develop strategies for improving the supply of housing. The regulatory environment is also changing, following the publication of PPG3 and the introduction of amendments to the Building Regulations to strengthen the environmental performance and quality of housing.

What is the place of self-build housing in this emerging context? At present, the political environment does not favour self-build – self-builders are too diffuse to constitute a political force. Locally, the sector is too fragmented to make representations to planners when local plans are under revision. Politicians feel there is more of a need for affordable housing than indulging people's individual housing whims. Self-build should not, however, be ignored. Its benefits lie in the contribution it can make to meeting the emerging housing needs of the early twenty-first century.

Self-build can help to increase consumer choice in the supply of new housing

The projected rise in additional households between 1996 and 2016 translates into an annual housebuilding requirement that is similar to the average in the 1990s. However, this does not necessarily mean that the demand for new housing will remain the same as today. Housing demand is influenced by housing costs, changing aspirations, confidence in the owner-occupier housing market and the way we use space in the home. Unfortunately, housing which is built today often only partially fulfils people's needs and expectations. We argued in Chapter 2 that, while customers in many industries have benefited from the introduction of 'mass-customisation' because they have been able to exercise greater choice and purchase goods which match their requirements more closely, this has not been the case in speculative or social housebuilding. Until recently, housing developers have been less than customer focused – households face a limited choice in the ways they can secure a new home or in house types. Speculative and social housebuilders do not use sophisticated customer-requirement capture techniques, and housing design is separated from production planning and co-ordination.

In contrast, self-build is a less 'passive' act than buying a fully completed dwelling since it potentially requires the purchaser to make more decisions about layout, style, fixtures and fittings. Under a self-build system, there is therefore a closer relationship between people's requirements and the type of housing offered because of the direct link between consumer and producer.

Self-build can stimulate innovation in the mainstream housebuilding industry

There has long been an undersupply of new housing in the UK compared to other advanced industrial countries and the elasticity of new housing supply is poor (Bramley *et al.*, 1995).

This is due to the housebuilding industry's competitive strategies, its slow rate of technical innovation and the lack of trained building labour, as well as the constraints arising from shortages of land. It has long been argued that the speculative housebuilding industry's competitive focus on land acquisition and land banking has demotivated it from product and process innovation (Ball, 1983, 1996; Clarke and Wall, 1996).

The housebuilding industry is not standing still. Interest in innovation in the housebuilding process and its products is greater now than at any time in recent decades. Moves are being made towards the use of standardised and pre-assembled components, influenced partly by the need to meet higher environmental standards and partly by shortages of labour skilled in 'traditional' building techniques such as bricklaying. Housebuilders are beginning to embrace the Internet as a tool for both selling homes and managing the development process.

While this is to be welcomed, it must be stressed that improving the efficiency of speculative housebuilding through technical innovation is only part of the story. The construction cost generally forms a relatively small element of the overall house price. In speculative housing development, the final sales price is derived from what the market will bear, based on the construction and land cost, together with expected profits. Reducing the construction cost may simply result in higher profit margins for developers or feed though into higher land prices. In contrast, producers in highly competitive consumer goods industries are forced to innovate to reduce production costs below selling prices in order to raise profitability.

Self-build essentially decouples the land development process from the construction process. As we noted in Chapter 2, the distribution of the gain in land value is different under self-build – where the household is also the developer – from speculative development. Most of the cost-reducing opportunities are unique to the self-build sector – self-builders have greater control over the production process and, because they own the site and the dwelling, are able to retain the savings. These arise partly from the level of personal labour provided by households themselves and partly because profits and overheads paid to intermediaries in the development process may be avoided, depending on the form of procurement.

The importance of this is twofold. First, self-build presents opportunities to reduce the costs of housing procurement or to obtain larger and higher quality housing for the same given expenditure as speculatively produced housing. In short, it can provide increased value for money for consumers. Second, more diversity in housing supply routes and a larger self-build sector may have a long-term effect on the speculative housebuilding industry's propensity to innovate.

Self-build can help meet the need to improve environmental challenges

About 80 per cent of land transferring from rural to urban uses is for housing. Where and how to accommodate household growth, but at the same time protect the countryside, is foremost in the current planning policy debate. Increased concern about environmental sustainability has shifted planning policy in favour of demand management, resulting in

policies seeking urban consolidation and the redevelopment of existing brownfield sites at higher densities. However, what is usually overlooked in the current policy debate is the very low replacement rate of the existing stock, especially in the private sector.[2] As well as forcing many households to remain in inadequate housing, this may well be storing up problems for meeting future environmental standards.

While there is great concern over the incremental encroachment of urban development growth in the countryside, self-build may paradoxically help to meet the twin demands of replacing the inadequate existing housing stock and building sustainable communities. In particular, with appropriate planning and funding mechanisms, self-build may help in three ways, by:

- stimulating infilling in the existing built environment
- promoting the scrapping and redevelopment of poor quality, privately owned individual homes
- spreading development across more rural areas in small batches in existing communities rather than in very large greenfield sites.

All these – especially the last – need to be tested in terms of environmental sustainability.

How far can the self-build market grow?

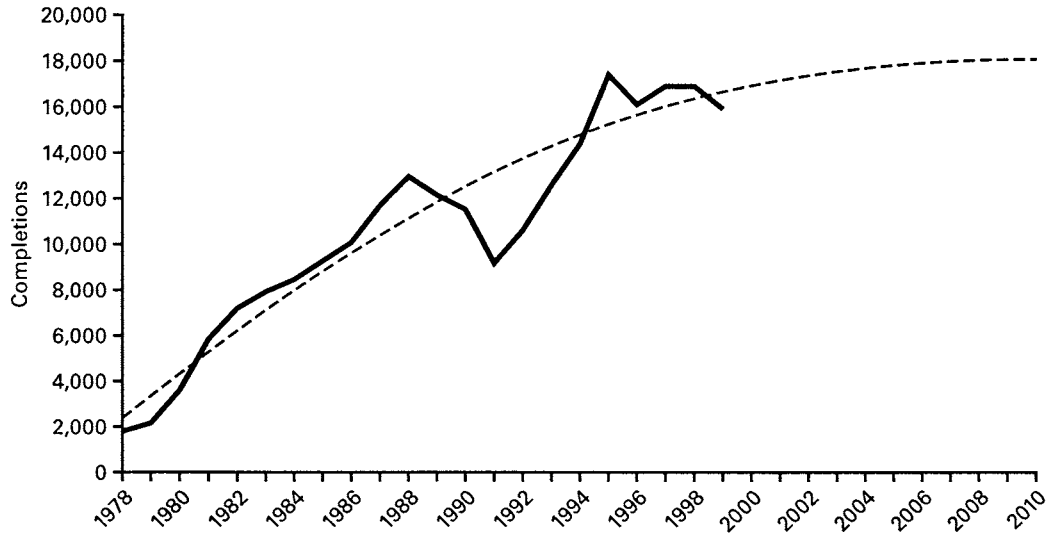
In the mid-1990s – when the self-build sector began to reach a degree of maturity – completions stabilised at around 9 per cent of the UK's new homes market. Other things being equal, taking the trend since 1978 forwards until 2010 suggests that the sector could stabilise at around 18,000 homes per annum (Figure 9). Other things are not, of course, equal. The housing market changes, planning policies are adjusted, people's aspirations evolve. How far could the self-build market grow if the current major barriers to its expansion were overcome? We should recall that in other countries – with a different planning and land context – self-build accounts for up to two-thirds of all completions.

If new housing production in the United Kingdom increased to higher levels than currently, but still less than the EU average, total housebuilding could be 200,000 units per annum. If 80 per cent of this was speculative construction for the owner-occupied and rental markets, and self-build accounted for 8 to 10 per cent, this would suggest a self-build market size in the order of 16,000 to 20,000 units per annum. This represents a maximum in the absence of changes which overcome the major current hurdles. What, then, would need to be put in place to grow the self-build market further?

Overcoming the barriers to expansion

Chapter 4 discussed the principal barriers to self-build that exist in the UK – access to land, problems associated with the planning system and the availability of finance. Together, they lead to an image problem for self-build, a fact which has not been mitigated by the considerable attention in the mainstream media in recent years. There is a need to dispel the myth that the self-builder actually builds the entire house. In this respect, the term carries negative connotations. Of course, many self-builders enjoy the DIY element in self-build.

Figure 9 Trend in self-build completions to 2010



$R^2 = 0.9038$.

Source: authors' estimates.

There will always be a core of 'hobby' self-builders, but the current market is probably saturated. Further expansion will come only with increased ease and awareness. Nevertheless, as one expert commented, 'the door has been opened' and the possibility of building higher specification and more energy-efficient housing could be an important attraction for the public.

So, would more people build their own homes if the process were easier? Only a radical change in the supply system would encourage those who are attracted by the choice available through self-build, but who are put off by the organisation and time required. This will require two fundamental changes to the current picture: the flow of land to the self-builder needs to be improved and the level of concern needs to be reduced. The former will partly involve changes to planning policy and practice. The latter requires a modernisation of the self-build industry.

Land and planning

In Chapter 4, we discussed how planning problems relating to self-build are the result of both planning policy and the process of obtaining detailed planning consent. The planning system could be amended in three ways to make it easier for the self-build market to develop.

Greater flexibility is needed in planning practice

All developers demand greater certainty in the development process and self-builders are no exception. Planners should not make special allowances for self-builders, but there needs to

be greater awareness of the particular development requirements of the self-build process, notably the need for clear and consistent guidance and requirements, and an understanding of the problems of timing the various phases of the project. The procedure for obtaining planning consent therefore needs to be simplified and speeded-up. Other anomalies in current planning practice should be addressed, notably those relating to the use of space within the home and the quantity of space within the dwelling envelope.

The scope for local authorities to act as enablers for self-build needs to be explored

There are a variety of potential mechanisms which could ensure local authorities perform a more proactive role in the promotion of self-build:

- Local authorities could identify and provide a register of potential self-build plots, with ownership details. Housing plots over 0.5 acre are already identified in local registers, but most self-build plots are below this threshold.
- Local authorities could play a role in site assembly and servicing. As we have seen, some already provide serviced sites, although this is generally not pursued as a matter of policy. Mechanisms for enabling local authorities to acquire and sell land as part of housing provision need to be explored. These could include powers to use covenants to promote self-build, accompanied by planning briefs to define the design and other requirements. Some plots could be sold on a shared-ownership basis.
- There are serious problems in finding ways of replacing outdated owner-occupier or privately rented housing. In many such areas, land assembly needs to be facilitated. 'Land pooling' has been mooted as a way of allowing individual property owners to pool their property rights to allow redevelopment – which could include self-build – to occur on an amalgamated site.[3]
- Use of s.106 agreements by local authorities to allocate proportions of sites for self-build is probably not feasible. Planning law does not allow interference in who is going to build a house and attempts to use this route would probably be overturned in the courts. Self-build is not analogous to affordable housing because, in the case of the latter, s.106 agreements relate to the *occupier* of the dwelling. In contrast, the self-builder is both the *developer* and the *occupier*, and it would not be possible to guarantee that the house was not sold as soon as it was completed. There would also be severe problems in defining the term 'self-builder' or 'self-build'.

Strategic planning policy needs to be reviewed

There is huge concern over incremental growth, and some have suggested that it may be politically expedient to allocate small batches of new homes attached to towns and villages spread across the local plan area, rather than in large sites or town extensions. While this may favour the self-builder, there are two potential problems. First, it is administratively easier for planners to allocate and deal with large sites, especially given current resourcing constraints.

Second, larger housebuilders are almost certain to lobby vigorously against such an approach. However, some relaxation of infill policies in greenbelt areas – hinted at in PPG7, but not pursued – could aid the development of small sites, some of which would be suitable for self-build, and ease pressure for larger schemes. Local authorities could also be directed by planning policy guidance to achieve a balance between single- and multi-plot sites in their local plans.

The orthodoxy that all development in the countryside is wrong also needs to be reviewed. A relaxation of the presumption against development in rural areas is becoming all the more necessary as farming patterns change. Any future abandonment of marginal farmland will increase pressure for its transfer into other uses in order to provide rural employment. Pressure could grow from 'hobby farmers' for the construction of new houses associated with smallholdings. Any policy development in this direction should, however, be tested against environmental sustainability criteria. These will need to balance the environmental costs of more diffuse housing development patterns against changing working and travel patterns.

Reform in other areas

Would a quality assurance scheme to monitor the quality and service provided by small builders for self-build make a difference? Current government trials for an assured builders' scheme have faced huge problems, with effectively no take-up by the building industry. Both NHBC and Zurich Municipal provide a warranty scheme that monitors construction standards. Under these schemes, and architect certification, only the quality of construction on site is monitored. What is currently lacking is an extension of such services to provide self-builders with an element of quality control for the other services they need, such as selecting a contractor or supplier. As both NHBC and Zurich currently offer a warranty service, it is possible to see how they might offer an extension of their service to extend quality control to the off-site procedures involved with self-build. However, it is probable that few self-builders would see the tangible benefits associated with such a scheme; unfortunately, it is only when things do not go according to plan that the need for this service becomes obvious.

Modernising the self-build industry

The self-build industry may be relatively large, but it is highly fragmented. Large manufacturers dip in and out of self-build, depending on their faith in the market. The challenge is to make self-build easier and less time consuming. There are analogies here with the do-it-yourself industry, where DIY outlets have expanded markedly, making many DIY tasks easier and more accessible to the average person.

In the short term, it is not tenable that there will be significant change in the planning system and the flow of land to self-build is unlikely to ease. Bringing down self-build construction costs could therefore make a real difference – unlike speculative building, building process innovation to reduce costs does not merely result in higher profits for developer or landowner.

There may be scope for making greater use of new building technologies that utilise prefabrication. While these may not necessarily result in a lower per square metre construction

cost, they speed up the construction process and therefore offer benefits in terms of cash flow. The problem is that self-builders and small builders are individually too small to constitute an attractive business proposition and therefore achieve economies of scale. However, housebuilders have invested heavily in factories to produce the cassette and large panel timber-frame systems which are beginning to replace the classic frame/panel approach. It is possible that these companies will seek an additional market for their investment by targeting self-build. Block producers are also developing new systems for the self-build market.

While there may be some scope for short-term change by existing players in the self-build industry, more radical solutions will require major innovation. Modernisation will require the development of stronger 'intermediaries' in the self-build process. These would act as 'systems integrators', bringing together self-builders and the suppliers of the key inputs to the self-build process.

Systems integrators *could* be drawn from existing players, but there is no evidence that they are positioned to achieve, or are even seeking, such a role:

- Timber-frame package companies, for example, derive their profit from manufacturing and selling kits. In the current market, it is unlikely they will wish to divert their attentions from mainstream housebuilders who are increasing their use of this technology.
- Architects and other consultants are not in a position to become stronger intermediaries because they are too small and are unlikely to possess the skills.
- Builders' merchants see self-build as a premium market and expect to obtain higher margins than from other types of purchaser. At present, they show no inclination to move into this area. However, moves by housebuilders to directly purchase materials from suppliers may stimulate merchants to consider new roles.

One emerging model, which may evolve into a form of systems integrator, is the Internet-based self-build intermediary. These intermediaries are beginning to overcome the problem faced by most self-builders of restricted knowledge and diffuse sources of information. Using advanced IT, they have moved beyond the simple provision of information on available plots. One company is using data-mining tools to monitor all single-plot planning applications and is channelling the information rapidly to subscribers. Another links individual self-builders to a single buying co-operative with arrangements with builders' merchants and manufacturers throughout the UK. This company also facilitates the purchase of sites for up to four dwellings by introducing groups of self-builders who then co-develop. There is intense competition between self-builders for single plots, but no self-builders and few small local builders compete for sites of six to ten plots. There may therefore be scope for extending this model to these sites, although this would probably require new funding mechanisms, as the financial risks and planning requirements are greater.

Other options for systems integration rely on a move by mainstream housebuilders into self-build. This could take several forms:

- Housebuilders could offer a land intermediary service to self-builders, either by setting aside land in certain locations which is then sold on an individual plot basis or by providing a project management or contracting service. The economics of this are unclear, but land sales could provide a rapid return on capital, depending on the book value of land.
- Another option – which has already emerged – is for larger housebuilders to take small local builders under their wing and provide finance, advice and guidance. At present, levels of customisation are no greater than in mainstream housebuilding, and this model is simply seen as a way of experimenting with specification levels to inform the core business. However, it could evolve into a quasi self-build model, with local builders acting as contractors for self-builders being provided with finance by their larger partners.

A third option also involves a form of quasi self-build, whereby homes are produced on a mass customisation basis, with standard house types customised, largely internally, to purchasers' requirements. This relies on the introduction of 'agile production' techniques, which are able to carefully manage the supply chain to allow configuration of the dwelling once a purchaser has been identified and is ready to proceed.

Self-build today, self-build tomorrow: two scenarios

Martyn and Carole, 2001

Martyn is an electrical engineer in his late 50s. His wife Carole had wanted to move closer to their children in the East Midlands for several years. The opportunity arose when Martyn was offered early retirement. Aware they would both be growing older, they were unhappy about buying an old house, which might need significant upkeep. Neither liked the new, speculatively built homes which they had occasionally visited and slowly the idea of building their own home grew. With this in mind, Carole had, over the years, begun to build up her knowledge of the self-build market, visiting shows, subscribing to the magazines and gathering product information. Slowly, Martyn and Carole's dream home started to take shape. Martyn retired and the search for a suitable plot began. It was not hard to identify four areas that they decided would be suitable. Finding land was another matter. Local developers had a stranglehold on land in the areas they were interested in – landowners preferred to sell to them because it was quicker and easier. After a two-year search, they found a half-acre infill plot with outline planning consent on the edge of a small village.

The landowner was prepared to take a deposit whilst a scheme was worked up and submitted to the local planning authority. Carole had been talking to architects for much of the previous two years, but had yet to make a choice. She felt some failed to understand their

requirements, while others pushed timber-frame kits manufactured by specific companies. Eventually, though, they hired a local architect who had designed self-build homes in both timber and brick and block construction. The preliminary design was duly submitted to the local planning authority, only to be turned down because it was felt to be too large for the site. A protracted wrangle followed and eventually a compromise between Martyn and Carole's aspirations and the planners' requirements was reached. Using money inherited from Martyn's mother, they paid the balance on the plot.

Martyn had firm views on the structural options for building their home. He had spent some time in the USA and was initially interested in using a steel frame. The architect had no experience of steel-frame housing and tried to talk him out of it. This decision in fact proved to be easy when he discovered the costs involved and the lack of organisation in the residential steel frame industry. Martyn and Carole spent some time investigating the other options. Brick and block was cheaper, but they felt timber frame would allow them to build a more energy-efficient house.

Selecting a timber-frame supplier was, Martyn now says, a 'nightmare'. Few suppliers were prepared to meet all their requirements and the architect's design for the roof was so complicated that a structural engineer specialising in timber had to be found. Eventually, after talking to 12 suppliers, they chose a Swedish company. Martyn and Carole now agree they perhaps had overly high expectations and concede their standards are 'exacting'. However, Martyn was amazed that what he felt were relatively standard features could cause such headaches.

Detailed project planning and meeting the building regulations took a further six months. Finally – three years after they first saw the plot – Martyn and Carole were able to start building. Their own house had been sold three months previously, providing what Martyn hoped was sufficient capital to cover the construction costs, and they were living in rented accommodation in the nearby market town. The plan was to build a small flat over the garage, which they could live in whilst the house was being built. By this time, relations with their architect were poor and Martyn had decided to project manage the scheme himself. The couple were planning to carry out much of the internal work, with Martyn drawing on his skills in electrical engineering.

Unfortunately for them, by the time they were ready to appoint contractors, a housebuilding boom was underway. Building contractors were busy. Furthermore, groundworks contractors were worried about building a basement. Construction costs had already soared since they first planned their project. An uneasy time followed when they searched for a main contractor. Luckily, a local builder had recently lost a job when another self-builder felt he was unable to proceed. As the groundworks neared completion, it became apparent that there would be a month's delay on the delivery of the frame. By now, Martyn and Carole were living in the new flat above the garage and the delay was not a major setback. The frame arrived and was erected. Plasterers and plumbers were appointed, introduced by the groundworks contractor. A team of

bricklayers came and went, lured by the prospect of high earnings on a nearby speculative site, but Carole and Martyn's house has begun to take shape. Martyn thinks it will be another 18 months before the home is fully complete.

Sarah, 2015

Sarah moved to South Wales when she was appointed as managing director of a firm developing software for knowledge management systems. Unable to find any suitable housing in the locality, she decided to self-build.

During the opening years of the twenty-first century, Britain's housebuilding industry began to change radically. On the surface, the industry of 2015 is not so different from that of 2000. It remains dominated by names familiar in 2000, despite the mergers that led to the creation of a 'housebuilders' super league'. And most owner-occupier housing is developed in the same way it was in 2000 – housebuilders secure land, push a proposal through the planning system and sell the housing speculatively. However, this housing is built using agile manufacturing techniques and internally customised around standard house types. Layouts are flexible and can be reconfigured when the house is sold. Housebuilders use greatly improved information systems to gather data on customer experiences and complaints. The portfolios of standard floor plans are therefore updated more frequently.

Sarah could have chosen a home from this sector. A mid-sized developer was starting an exclusive scheme of live–work homes on a high-density redevelopment site in the local market town. She liked the overall design concept and the internal layout would have been fully customised to her requirements. The developer was even proposing to substantially reduce the purchase price to people who signed up with the full package of entertainment, healthcare, energy and communications services that were being offered. However, Sarah wanted to make an impression – her company was growing rapidly and she would be spending time working and entertaining clients from home. She also wanted the space for a family. The obvious solution was to self-build.

The 'pure' self-build sector grew rapidly after the early 2000s and now accounts for around 20 per cent of the new homes market. There are several options for self-builders. Mainstream housebuilders now operate in regions that were once dominated by self-build because there was an undeveloped market for speculative housing. Some of their activities involve the provision of serviced plots to self-builders. Other firms offer a 'housing systems integration' service – these include self-build specialists, major home products retailers and materials suppliers. Systems integrators provide a full service for self-builders from land acquisition and financing to construction. They work directly with suppliers of housing components, mortgage lenders and networks of local experts, and use data-mining technology to rapidly acquire information on planning applications for small sites. Some operate through shopping malls and high street shops. Others are Internet-based companies. There is also widespread use of the Internet for on-line ordering, tracking and construction management, and organising bulk purchase of materials and services for groups of self-builders.

A wide range of technical approaches to building the home is available. Timber frame dominates, but lightweight steel frame and prefabricated concrete systems have recently increased their market share because they are perceived by the public – rightly or wrongly – to be 'better' in terms of lifetime embodied energy costs. Whatever the technology, the internal fit-out is built to allow maximum flexibility. Changes to design choices can be accommodated late in the construction programme and the use of modular cabling and other services means room layouts can be reconfigured when needs change. Drawing on their relationships with different parts of the housebuilding supply chain, systems integrators are able to put together the best package for their customers. Sarah has chosen timber frame, because she likes its 'traditional' feel, with a brick-effect wall cladding system made from recycled concrete.

Finding land proved slightly harder than she expected. The UK has a stronger planning system than in the 1990s. The defining principle is one of local control of resources and land use policy, within a broad enabling framework of national and EU policies. Local authorities have long been required to undertake regular capacity studies to assess the progress of brownfield land development and recycling of the existing built stock. To promote development in existing urban areas, Government has adopted a combination of coercive measures and incentives.

Nevertheless, there is also flexibility in the planning system. Local authorities are able to adopt their own density and space standards, with guidance from the centre. In rural areas, a major effect of this increased flexibility is the strong differentiation between areas in terms of policy objectives and their land use impacts. Some local communities favour diversification of land use, including the repopulating of areas via self-build; others prioritise the preservation of residential amenity, although this tends to be couched in terms of the need to maintain local farming.

Sarah had expected there to be more land available in the countryside surrounding her workplace. The local farming economy had been weak for many years and there was concern to bring skilled workers – most of whom spend considerable proportions of their time working from home – into rural areas. A few months before she was due to move to the area, Sarah contacted three housing systems integrators and chose one whose designs and approach she liked. The search for a suitable plot began, but competition was fierce. The stock of readily convertible buildings in the area's major cities was falling and most brownfield land had been used. This was leading to pressure on the more rural areas, both from speculative housebuilders and other self-builders. Landowners were asking higher prices.

The time to move arrived, but Sarah had yet to find a plot. She resigned herself to moving to a rented flat and, faced with less pressure, was able to find land two months after she started in her new job. Using a loan from her mortgage lender, she purchased the plot. Working with an architect introduced by the systems integrator, she designed her new house over three weekends, partly using virtual reality from her home computer. The planning process was relatively speedy. The local authority has a range of design parameters for self-build homes

in this type of rural setting and, providing these and various sustainability criteria are met, planning consent is straightforward.

The remainder of Sarah's loan is earmarked for the construction and fit-out of the home. Unlike the twentieth century, the fit-out part of the loan lasts for a much shorter period than the loan for the land and building structure. This reflects the speed at which people change their home interiors.

Building Sarah's new home is fast. Start and ends date are agreed, and the various components and sub-systems are ordered. There are no delays and eight weeks after the initial groundworks, Sarah moves in.

6 Conclusions and recommendations

The UK self-build industry is worth over £2bn annually and has captured market share from the speculative housebuilders during the 1990s. Self-build housing is important because it represents an alternative route by which people can obtain a new home. The UK is unique in the way in which the supply of new housing is dominated by speculative housebuilding. Self-build is able to deliver new housing that is more in tune with people's specific housing requirements. Moreover, the lack of competition is detrimental to product and process innovation in housebuilding.

Currently, around 15,000 new self-build homes are completed each year. We believe that the market could grow to around 20,000 completions or a tenth of all new homes built annually. But, to achieve this, barriers to its expansion will need to be overcome. These relate to land and planning, finance and the structure of the self-build industry itself. In short, the self-build sector needs to be overhauled and modernised.

Land, planning and finance

Finding land *per se* is not the principal problem – juggling the purchase of the plot, the planning process, sale of an existing property and start of construction is the main hurdle to self-build. A more flexible approach to finance and planning would go a long way to overcoming this hurdle.

While it has become easier for self- builders to raise finance for their scheme, the market is still seen as marginal by all but a few lenders. Even those with specialist self-build divisions are not always fully committed. The key problem is the lack of appropriate short-term finance, which means that self-builders often need to live in temporary accommodation while their home is being built. Forms of finance which allow self-builders to 'land bank', buying plots when they become available and holding onto them until they are ready to start building, are also needed. Appropriate safeguards against land speculation would need to be built in, but this would help to ease the land availability problems that arise when the property market heats up.

Planning affects self-build because policies influence the location of new homes, especially in the countryside, and because of the impact of local planning practice. We accept that there need to be appropriate spatial policies that influence the location of new development and its sustainability. The problem is, however, the bias in the current system towards larger developers. The complaint that planning authorities favour larger sites because self-build has resourcing implications remains to be tested. However, the benefits of a shift towards small-scale development and greater diversity in types of housebuilding – including self-building – should be given closer attention. A more flexible approach to single-plot or small-scale development in the countryside should also be considered in view of changing patterns of agriculture – and the consequent need to find ways of maintaining rural environments – and the shift towards higher levels of home-working. The latter may well balance any potential negative effects of more dispersed population in transport sustainability terms. The equation is complex, but the research should be carried out.

Most of the planning problems faced by self-builders relate to the uncertainties in the process by which planning consent is obtained. Of

course, this affects all developers. The problem for self-builders, though, is that they are unlikely to have the financial cushion to ride out delays in the planning process. There is certainly a perception – true or false – that self-builders are given a 'harder' time by planners, although it has to be said that self-builders can also be extremely demanding and have very high expectations. While it is not possible to treat self-builders as a special case in the planning system, clearer guidelines about self-build in local planning policies would alleviate some of the uncertainties in current planning practice.

Modernising the self-build industry

Reforming the planning and finance system for self-build is only part of the picture. Modernisation of self-build will also require the development of an industry which is less fragmented and makes full use of the lessons on supply chain management and mass customisation which are now spreading through other manufacturing industries.

There is a clear need for stronger intermediaries or 'systems integrators', standing between the self-builder and the suppliers of the various inputs, including land. There are several ways in which intermediaries could emerge over the next decade. Some may be drawn from existing players such as the timber-frame package companies or materials suppliers, although as yet most show no inclination to move into this role. It is more likely that the emerging Internet-based companies, which match customers to plots and suppliers of other self-build inputs, may evolve into a system integration role.

Whether mainstream housebuilders will view self-build as a possible niche market is a moot point. The current consolidation in speculative housebuilding will result in larger and financially stronger companies. These are already introducing new construction approaches and some have invested heavily in factories producing prefabricated housing systems. Some may therefore seek additional markets – sales to self-builders or housing associations – for this investment. It is possible, although none have yet shown any inclination to do so, that mainstream housebuilders will become more closely involved in self-build by setting up a land intermediary service or setting aside land for self-build on major sites. Providing finance, advice and guidance for small specialist local builders may provide them with access to the financial benefits of self-build, without the risks of direct involvement. Finally, the UK's speculative housebuilding industry may eventually move towards a Japanese-style mass customisation approach, delivering individually customised homes from standardised components and building sub-systems.

The potential market size of self-build is similar to current social housing output; yet there is a far greater research emphasis on the latter. Existing statistical information is very limited. Self-build is excluded from official construction output data and there is no reliable time-series on annual completions. Definitional problems could make the latter problematic, but the DETR should seek ways of including at least some data on self-build in its official statistics.

This report has shed some light on the contemporary self-build industry in the UK, but more work is needed on self-builders

themselves. More detailed research is needed on the socio-economic characteristics of *existing* self-builders, and those who are actively thinking about it, to supplement the market research surveys. Research on the *untapped* market is also needed. Only in this way will it be possible to fully gauge the contribution that self-build could make to the UK's housing system.

Notes

Chapter 1

1 For details, see Chapter 3.

Chapter 2

1 This draws on work carried out by the Logistic Systems Dynamics Group, Cardiff University as part of an Engineering and Physical Sciences Research Council (EPSRC)–DETR LINK project carried out with SPRU, University of Sussex.

2 There is no reliable information on the average size of self-build dwellings.

3 Based on the Building Cost Information Service (BCIS) data for 'one-off' housing. This data is based on a small sample size and may be biased towards larger and more upmarket self-build housing because it is based on schemes involving a quantity surveyor.

Chapter 3

1 In the 1960s, the architect Walter Segal developed a timber-frame construction system which, in some quarters, has become synonymous with self-build housing. The prototype of the system was built in the garden of Segal's own home in North London. The system is timber framed and designed so that all components can be handled and erected by a maximum of two people with minimum construction skills. Over the past 30 years or so, the system has been used for individual homes, community self-build schemes and there are even examples of contractor-built projects. It is not possible to be precise about numbers, but it is likely that a total of 300–400 Segal system dwellings (or variants thereof) have been constructed.

2 By Capital Action, in conjunction with the Community Self Build Agency, Community Self Build Scotland, and the Walter Segal Self Build Trust. For further information, contact Stephen Hill at Capital Action: ca@capitalaction.co.uk

3 We are grateful to Carol Dair for these points.

4 In one survey, 45 per cent of those who were actively looking for or had already found a site had decided to self-build more than two years previously (Building Link 2000).

5 See Chapter 2, note 3 for caveat.

6 Although the attitude of planning departments to basements is said to vary considerably and there are reports of planning authorities regarding the addition of a basement as an over-development of the site.

7 Figures from Building Link (2000).

8 NHBC figures.

Chapter 4

1 Forty-two per cent of Building Link survey respondents found their land this way.

2 Available land price data is imperfect.

3 Department of the Environment, Transport and the Regions *Planning Policy Guidance Note 3: Housing* (available at www.planning.detr.government.uk/ppg3/).

4 Department of the Environment, Transport and the Regions *Planning Policy Guidance Note 7: Countryside* (available at www.planning.detr.government.uk/ppg7/).

5 The Environment, Transport and Regional Affairs Committee report is referred to in: Department of the Environment, Transport and the Regions *The Government's Response to the Environment, Transport and Regional Affairs Committee's Report, Planning Policy Guidance Note 3: Housing* (available at www.planning.detr.government.uk/response/ppg3/index.htm).

Chapter 5

1 www.thehousingforum.org.uk

2 Report of the Joseph Rowntree Foundation Housing Land Inquiry (forthcoming).

3 Report of the Joseph Rowntree Foundation Housing Land Inquiry (forthcoming).

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Appendix 1: Research method

The research involved a combination of desk-based research, a postal survey of local authorities, research interviews and case studies.

- Desk-based research drew on information from relevant trade bodies, existing market research and two data sources (data on self-build schemes from HM Customs and Excise and data on self-build plots from Plotsearch and Plotfinder – see text for details). In order to gauge innovation trends, an email discussion forum for self-builders was monitored for the duration of the project. Information on new products and processes was also found in the specialist magazines for self-builders and at the self-build exhibitions.
- A survey of local authority building control departments was conducted in order to provide more detailed information on the number of self-build completions (see below).
- Research interviews were carried out with key informants from the self-build sector. These included six mortgage lenders, the self-build 'media' (editors of the three main magazines and two specialist writers), three self-build planning and other consultants, Association of Self-build Architects, English Partnerships, the Northern Ireland Planning Executive, National House Building Council, five kit homes suppliers, a specialist land assembly company, one local authority building control department, two Internet-based information suppliers and two land-search specialists.
- Interviews with nine self-builders were conducted to provide information on decisions regarding the inclusion of design, product and process innovation. These were largely selected from the email discussion forum (see above).

The main findings, including policy recommendations, were presented in two feedback seminars for experts in the self-build market.

Survey of local authority building control departments

There is no standard procurement route that is followed in self-build. However, in order to comply with relevant legislation, all new dwellings constructed must receive detailed planning consent and building regulation approval, regardless of whether or not they are built by a self-builder or other developer.

Detailed planning consent and building regulation approval are two entirely separate functions. In broad terms, the former relates to *what* can be built and the latter relates to *how* a dwelling can be built in order to comply with relevant technical standards. We considered it more appropriate to scrutinise building regulation approvals as a measure to estimate the number of self-build dwellings, because obtaining planning consent can be unpredictable. Once planning consent is obtained, this usually adds significant value to a piece of land. The cost of applications for planning consent is usually only a fraction of the total development cost and what could be a substantial gain. However, an approval for planning consent does not necessarily imply

that the site will be developed immediately – planning consent remains current for up to five years. The actual development of a site can lag behind for several years. Developers – particularly self-builders – who initially purchase a site and then wait for a period of time to arrange finance for construction may compound this situation.

Obtaining building regulation approval is somewhat more straightforward than obtaining planning consent and as such it is unlikely to present any obstacles for self-builders. In addition, building regulation approval usually involves an element of detailed technical design to produce working drawings. A self-builder is unlikely to undertake this unless an imminent start on site is anticipated.

Only a relatively small proportion of total building regulation approvals are going to be for self-build dwellings. However, we have assumed that a large proportion of all single-plot housing developments (comprising a single detached dwelling) are likely to be self-build schemes. Not all single-plot dwellings will fall into this domain. Some speculative developers are likely to be in this market, especially small local builders. The effect of this on the survey results is considered below.

The target population for the survey was every local authority in the UK. A simple questionnaire was designed, which asked for the number of single dwellings that gained building regulation approval for the years 1997, 1998 and 1999. A further question asked for an estimate of the type of construction technology employed for such dwellings, distinguishing between masonry construction and timber-frame construction.

To encourage responses to the questionnaire, a summary of the project and its objectives was included in the May 2000 edition of *Building Control*, published by the Institute of Building Control and circulated to its members – the vast majority of who are employed by local authority building control departments. The questionnaire was sent out on 25 May 2000 and a response was requested by 7 June 2000. A subsequent letter followed up those authorities that had not responded to the questionnaire. Each questionnaire was addressed to the head of building control services (or equivalent).

Table A1.1 indicates the final response rate. Some of the 186 returned questionnaires contained incomplete information and it was necessary to devise a method for estimating the number of self-build houses constructed in 1999

Table A1.1 Response rate to questionnaires sent out

Region	Number of questionnaires sent out	Number of questionnaires returned	Response rate (%)
England	352	148	42
Scotland	32	15	47
Wales	22	11	50
Northern Ireland	26	12	46
Total	**432**	**186**	**43**

and apply this to 1997 and 1998. Table A1.2 provides details of the returned questionnaires that contained information on the number of single dwellings constructed in 1999.

The 161 completed questionnaires returned represented a response rate of 37 per cent from all local authorities in the UK. To estimate the total number of single dwellings constructed in 1999, the results from the responding local authorities were related to their total population (based on 1996 Census data) and grossed up accordingly. This information is shown in Table A1.3.

The same methodology was also applied to all local authorities in England using private housing starts as the measure on which to base the estimate. This information was obtained from the DETR Local Housing Statistics England, No. 128. It should be noted that private housing starts used in this analysis relate to the financial year 1998/99, while the questionnaire asked for approvals in the calendar year 1999. This slight inconsistency is considered unlikely to influence the validity of the results. The estimated total number of single dwellings constructed in England in 1999, based on private housing starts, is presented in Table A1.4.

The results presented in Tables A1.3 and A1.4 indicate that the number of single-plot dwellings constructed in 1999 is in the order of 18,000. Two features are evident. First, there is a considerably higher proportion of single-plot dwellings in rural areas compared with urban areas. Second, the high proportion of single-plot developments in Scotland, Wales and particularly Northern Ireland is substantiated through the VAT reclaim information in Table 2.

In addition to local authorities, the National House Building Council (NHBC) also has a role as an approved inspector. This enables it to approve applications for building regulation approval in certain parts of the UK. The NHBC highlighted that it acted as the approved

Table A1.2 Response rate by completed questionnaires returned.

Region	Number of questionnaires sent out	Number of completed questionnaires returned	Response rate (%)
England			
Unitary	46	15	33
Metropolitan County	36	18	50
London Borough	32	8	25
Districts and County			
District	128	43	34
City	14	6	43
Borough	96	40	42
Scotland	32	10	31
Wales	22	9	41
Northern Ireland	26	12	46
Total	**432**	**161**	**37**

Table A1.3 Estimated total number of single dwellings constructed in 1999 (based on population)

Region	Population (millions)	Population represented by completed questionnaires (millions)	Response rate by population represented in returned sample (%)	Total number of single dwellings in the returned questionnaire sample	Estimated total number of single dwellings constructed in 1999
England					
Unitary	8.1	2.6	32	521	1,608
Metropolitan County	11.2	5.4	48	423	874
London Borough	7.1	1.7	24	75	308
Districts and County					
District	11.8	3.9	34	1,810	5,390
City	1.6	0.7	44	149	342
Borough	9.2	3.9	42	978	2,306
Scotland	5.1	1.5	30	647	2,179
Wales	2.9	1.1	37	704	1,892
Northern Ireland	1.6	0.8	53	1,545	2,905
Total	**58.6**	**21.8**	**37**	**6,852**	**17,804**

Population data based on ONS PP1 97/2, 28 August 1997.

Table A1.4 Estimated total number of single dwellings constructed in England in 1999 (based on private housing starts)

Region	Private housing starts (1998/99)	Private housing starts represented by returned questionnaires	Response rate by private housing starts represented in returned sample (%)	Total number of single dwellings in the returned questionnaire sample	Estimated total number of single dwellings constructed in 1999
England					
Unitary	23,398	8,663	37	521	1,407
Metropolitan County	22,217	11,460	52	423	820
London Borough	12,632	2,925	23	75	324
Districts and County					
District	41,837	13,904	33	1,810	5,446
City	5,165	1,890	37	149	407
Borough	28,496	10,697	38	978	2,605
Total	**133,745**	**49,539**	**37**	**3,956**	**11,009**

Private housing starts taken from DETR Local Housing Statistics – England, 1998/99.

inspector for 682 single-plot developments in 1999; therefore the estimate of the maximum number of single-plot dwellings rises to around 18,500. It is accepted that a number of self-build dwellings will not necessarily be single plot, particularly in the case of community self-build. However, the number of such developments is small enough to render these insignificant.

Having established an estimate of the number of single-plot developments in 1999, this can be used as a guide to the *maximum* number of self-build dwellings constructed in this year. It is important to stress that not all single-plot developments will involve self-build because of the following:

- Small local builders, with local knowledge, may develop a site as a speculative or semi-speculative developer.
- Small- or even medium-sized regional builders might buy a site for development and build at a slow rate (less than one dwelling per year) to release cash flow.
- Medium- or large-sized national housebuilding companies might buy a very large site and initially build a single show home for advertising purposes.

The above list is not exhaustive, but probably the most important to consider are small local builders. These have the financial resources to compete with the individual self-builder for single-plot pieces of land. Medium- or large-sized housebuilders/developers are unlikely to be interested in bidding for a single plot, especially where this requires significant local knowledge to identify it.

Highlighting how small local builders can compete against the self-builder raises the issue of where the boundaries between self-build and speculative development blur. A small local builder might purchase the land and start to build a house as a speculative development, but, at some stage, the builder might sell the scheme to a purchaser who then gives instructions about the remaining work (finishes, layouts). In this way, what started life as a speculative development becomes a self-build.

It is therefore impossible to precisely quantify the exact size of the self-build market in the UK. We can, however, be confident about the *minimum* number of completions, represented by the VAT reclaims (c. 11,000) and the *maximum* number based on the survey results presented above (18,500). The true number will lie somewhere between the two, depending on precisely how the term 'self-builder' is interpreted.

Based on discussion and feedback from those engaged in the self-build market, a figure of 15,000 units per annum has been assumed for 1999.

Appendix 2: Community self-build

In 1999, the Joseph Rowntree Foundation jointly commissioned a study into the future of community self-build, together with the principal self-build promotional agencies: Community Self Build Agency, Community Self Build Scotland, and the Walter Segal Self Build Trust. The Young Builders' Trust also participated in the study's Steering Group, although it differentiated itself from the other members as being a promotional agency not for self-build housing, but for skills and personal development.

The study consisted of semi-structured interviews with over 60 practitioners, policy makers and opinion formers, in central and local government and the voluntary sector, with an interest in self-build. The main aim of the study was to establish the emerging policy and operating context for self-build, particularly in relation to government policies for regeneration, social inclusion and anti-poverty, both in England and Scotland.

The study found overwhelming support for the principles of community self-build and the quality of personal outcomes for individual self-builders that were possible. Community self-build was seen as an ideal vehicle for achieving many of the Government's 'joined-up' social policy objectives. However, most recognised that self-build housing was a highly complex process, and that the record of achievement over the previous decade was deeply flawed, with probably less than 1,000 completions. The main concerns of interviewees were as follows:

- Too many promotional agencies competing for scarce resources, and without a sufficiently clear justification for maintaining separate identities.
- Unhelpful and competing promotional messages from the agencies, which led to the widely held perception, whether justified or not, that they were only interested in promoting their own 'one true way'.
- Lack of clarity about the function of the agencies in England, and the difficult relationship they had as promoters and enablers alongside Registered Social Landlords, who had the actual responsibility of funding and project managing the self-build schemes.
- The inhospitable culture of Registered Social Landlords, post-1998 Housing Act, with their focus firmly on increasing production quickly, the proliferation of design and build contracting, with an associated deskilling of the client function, and the lack of interest in housing solutions tailored to individual need and choices.
- Institutional prejudice in many enabling organisations against the idea of using public resources to create a private asset.

However, it was recognised that, in the period immediately preceding the study, the effect of these factors was diminishing. A range of new opportunities for the idea of community self-build was opening up and the pace of production was beginning to hot up. This was partly the result of a growing number of Young Builders' Trust (YBT) schemes.

The main prospects for renewed action to promote self-build were focused on:

- diversification away from new-build forms of housing, to include rehabilitation, especially in regeneration programmes, and in areas of low-demand housing
- a more catholic approach to tenure, covering publicly funded, rented and shared ownership, as well as higher but sub-market ownership and rental projects, especially for key workers
- more variety in self-build approaches, ranging from full self-build carried out by self-builders themselves through to self-finishing, with self-builders acting as trainees/employees of a contractor
- considerable improvement in the project management and financial control of self-build schemes by Registered Social Landlords
- greater transparency and regulation of the valuation of 'sweat equity' or voluntary effort
- greater emphasis on Registered Social Landlords facilitating self-build as part of a wider programme of promoting consumer choice and control
- convergence of self-build techniques with emerging technology, especially following the introduction of more prefabrication into the housebuilding industry
- more collaboration, at a regional level, with other voluntary sector organisations concerned with anti-poverty strategies, and community enterprise and development
- more focused political engagement at a regional level, responding to the particular characteristics of local labour and housing markets
- building a more robust national profile with a clear message, in partnership with other national voluntary sector and representative organisations.

In respect of all these proposals and recommendations, the situation in Scotland was markedly more advanced than in England, despite the much later foundation of Community Self Build Scotland. Both government and voluntary agencies in Scotland acted as if community self-build was already more firmly embedded in mainstream housing provision, even if it represented only a small part of total output. Its capacity to contribute to regeneration, and to provide a pathway out of poverty, was much more widely appreciated.