SHARED OWNERSHIP: VALUATION ISSUES[1]

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[1] This is a draft white paper prepared independently by the author for discussion purposes.

SHARED OWNERSHIP: VALUATION ISSUES

1. Introduction

In various European countries, and elsewhere, social housing is an increasingly popular investment asset class. It attracts capital from real estate investment allocations, but also from private debt, public debt and infrastructure buckets. Debt and infrastructure investors see the asset as a source of high quality, inflation-linked cash flows. Its value is based on discounting these cash flows at an appropriate required return rate.

In the UK, traditional property valuation processes are complicating these capital markets, with a potential negative impact on the money flowing to these increasingly essential social assets.

Shared ownership, a hybrid of this type of cash flow generator and traditional owner-occupation, brings this tension into particularly sharp focus.

Shared ownership has intriguing investment features. It delivers an income stream that is the closest that residential property gets to a full repairing and insuring or triple net lease, like a lot of higher quality commercial property. Part owned by the tenant (leaseholder) but partly rented, it is akin to the private rented sector, but it is classified as affordable housing and therefore subject to grants and discounts through s106[2].

The shared ownership lease is for 999 years and is typically subject to annual rent increases based on RPI or CPI plus 0.5% or 1%. The rent is set at a rate of 2.75% of that component of the property value. The longevity of the lease plus the lack of risk supports comparisons of this asset to ground rents, and this delivers rare exposure to long-duration index-linked assets to annuity investors[3].

The availability of grants and the s106 subsidy provides an opportunity for developers and housebuilders to make profits through the sale of what is referred to as the first tranche (the initial piece sold to the tenant). Further profits may be released through future sales of other portions of the long leasehold interest to tenants via ‘staircasing’.

Sales of shared ownership portfolios have been relatively rare, usually to registered providers of social housing[4]. The recent upward movement in the long-dated yield curve and the resulting pressure on the balance sheets of not-for-profit registered providers mean that such buyers are scarce, especially for larger portfolios. Hence, despite the predominance of registered providers, shared ownership housing is arguably best funded by investors seeking to fund long-dated annuities, matching liabilities with assets.

[2] Section 106 of the Town and Country Planning Act 1990 provides for conditions to be placed on the grant of planning permission, resulting in financial responsibilities for developers such as the provision of affordable housing.

[3] Presuming no government interference in the annual indexation mechanism.

[4] According to Social Housing (July 25th 2025) 12,544 shared ownership units were traded for a total of £1.6bn between 2020 and 2024. This is around 45% of all social/affordable housing transactions between registered providers over this period.

Given that the total number of shared ownership properties is around 250,000 units against a total stock of 31 million homes, the attention given to these assets, the way they are financed and - crucially – the way they are valued, has been relatively minimal. However, shared ownership has been the only first-time buyer product common to the policies of recent governments in UK policy, and it is increasingly popular with occupiers, developers, local authorities and investors.

However, the valuation of this asset type, which supports capital investment and therefore development, requires attention. The UK has a shortage of homes, and investors need to be assured that the assets they are helping to create are fully and fairly valued in order to encourage continued capital flows. Despite this, the typical valuation approach is rooted in established approaches to the valuation of affordable/social housing. Because the market for affordable and social housing has been somewhat separated from the open market, this is likely to produce a valuation which is at a discount to the net asset value of the portfolio based on purely financial considerations. It is arguable that shared ownership, as a hybrid of an open market investment and a social asset, should not be viewed as a pure form of affordable/social housing, and yet this is the common practice underpinning typical valuation approaches. Under-valuation will lead to under-investment, a perverse and unnecessary limitation on solutions to a housing shortage.

Traditional valuation approaches typically assume that the open market vacant possession value of the house places a ceiling on the value of any affordable/social housing, and probably considerably lower than that. How could the suppressed rents delivered by affordable/social housing possibly lead to any other conclusion? Yet the triple net income stream, the impact of staircasing at open market vacant possession values and the impact of guaranteed above-inflation rent increases could mean that such a ceiling could be broken.

As owners coalesce to pool data, and to support risk analysis which will help to determine the discount rates applicable to these assets over their lifetime, these valuations may result in more investor groups becoming interested in the assets and the income streams that they generate. Without this effort, this important product may falter.

This paper sets out to critically examine current approaches to valuing interests in UK shared ownership housing and to highlight issues that require further debate. In doing this we will also look at current approaches to valuing interests in residential property, and then more specifically UK social and affordable housing, before focussing specifically on shared ownership. We also recognise that a couple of ironies lie behind the material in the paper.

The first is to do with value maximisation. Any leased commercial real estate investment will typically be worth more than an empty property if it produces an income stream in line with market rents. Hence, value-add real estate investors aim to deliver strong returns to investors by (for example) buying empty properties at a discount and leasing them up. Meanwhile, value maximisation in the residential sector is often assumed to require a vacant property, ready for a prospective owner-occupier to move in. This is because the marginal buyer in the UK housing market has traditionally been different from the commercial real estate investor. Institutional investors bought commercial real estate; owner-occupiers bought residential real estate. Now

the institutional investor is very likely to favour the residential, or living, sector as an attractive income-producing investment category. Yet the presumption remains that value maximisation in residential requires a vacant property.

The second irony is to do with valuation methods. The Pereira Gray report for the RICS published in December 2021[5] recommended that UK property valuers use DCF rather than comparable evidence of cap rates: *"I have….concluded that the discounted cash flow methodology should become the primary mechanism for deriving valuations going forward."* Academic textbooks have been promoting this approach to valuations for years. DCF valuations are standard in other places (the Nordic countries[6] for example) and standard software packages such as Argus are a useful crutch. Nevertheless, valuers are usually much more comfortable using valuation methods which directly use comparable evidence, yet in the valuation of shared ownership homes discounted cash flow is the standard approach. This does not mean there is no argument about how this should work – far from it.

Following this introductory section, the report is structured as follows. In section 2 we discuss relevant real estate valuation methods. In section 3 we then examine the rental housing sector, both private rental and affordable/social. In section 4 we move on to look at shared ownership. In section 5 we examine the valuation of shared ownership housing and the issues arising. We then draw conclusions in section 6.

2. Valuation methods

The RICS 'Red Book'

Valuation is important, because in the absence of clear and up-to-date transaction evidence of values a valuer's opinion of the most likely selling price takes the place of observable market prices. Valuations instead of transaction prices are commonly used in the calculation of balance sheets, fair share prices and annual investment performance.

Investment activity could be affected by valuations. If valuations are higher than marginal transaction prices, market liquidity dries up, as happened in 2022-3. If there is a risk that valuations are lower in retrospect than the price paid, this will lead to a loss of shareholder value and an inability to raise capital. The problem which arises is that valuations will vary according to circumstances, primarily the need for liquidity. When valuing a property asset, the valuer has to imagine how fast the sale needs to take place, as (generally) the quicker that is, the lower will be the price achieved.

Valuations in the UK are regulated by the Royal Institution of Chartered Surveyors (RICS), which, through the Red Book, has risen to the challenge of defining the assumptions that valuers should make when assessing market value. RICS members are expected to comply with RICS professional standards, including the Red Book, which are principles-based and focused on outcomes and good practice. (These standards include mandatory requirements, which use the word 'must' and must be complied with, and recommended best practice, for

[5] RICS (2022): *Review of Real Estate Investment Valuations*, RICS.
[6] IPD/KTI (2012): *Property Valuation in the Nordic Countries*, IPD and KTI.

which the key word is 'should'. It is recognised that there may be acceptable alternatives to best practice that achieve the same or a better outcome.)

Market value is defined in the Red Book as: *The estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction after proper marketing where the parties had each acted knowledgeably, prudently and without compulsion*[7].

Comparison-based valuations

Valuers are more comfortable using valuation methods which directly use comparable evidence. The most obvious of the valuation methods which use comparison is direct capital comparison (also known as the sales comparison method). This involves comparing the property which is prospectively for sale with properties with similar characteristics that have recently been sold. This method takes into account the impact that different property characteristics have on the value of a specific property. This is usually an intuitive non-scientific process performed by an experienced human being. If large quantities of relevant data are available it may, alternatively, be a more scientific process using computer-estimated equations relating property characteristics and prices. This is known as hedonic pricing, using multiple regression analysis, or (increasingly) automated valuation modelling (AVM).

In the more common human form of this process, a valuer will look at the price, or the average price per square metre, of similar recently-sold listings and then compare those prices to the property under consideration, making adjustments for differences in characteristics.

The simplified income approach

The direct capital comparison method is inadequate where a property produces an income, as it ignores key information regarding the asset's cash flow and provides no information with which to compare the value of a real estate investment to other investments like stocks or bonds. The income approach is an alternative approach to valuation which makes it easier to compare the value of different asset types.

While the direct capital comparison method bases the value of property on an analysis of sale prices of comparable properties, the income approach derives the value of property from (i) its current and forecasted income or future cash flows, and (ii) a discount rate applied to these future cash flows to estimate their current or present value[8].

Cap rates: an income /comparison hybrid

The capitalisation rate, also known as the cap rate or *K*, provides a shortcut to an income approach valuation.

[7] RICS (2024): *Red Book Global Standards*
[8] The key UK text setting out the income approach is Baum, Mackmin and Nunnington, 2018.

As a simple starting example, assume that the price paid for a London office building, 25 Cornhill, was £200m when the passing rent was £10m. Someone has paid 20 times rent to invest in this asset. (This value is just like the price to earnings or P/E ratio used in the stock market). Another way of looking at this deal is to express the income as a percentage of the price paid – this is known as the *yield*. In this case the yield is £10m/£200m = 5%. The yield is, of course, the reciprocal or inverse of the multiplier or P/E ratio (20 = 1/5%, or 5% = 1/20. This number (5% in this case) is also known as a *cap rate*.

The terms yield and cap rate are often used interchangeably, but this can be very confusing. The term yield should be used as the *output* (from a deal); the term cap rate should be used as an *input* (to a valuation).

Mathematically, the yield is represented as: *rent, or net operating income ÷ current market value of the asset;* this is then used as evidence for the appropriate cap rate, *K*, to be used in a valuation. Its simplicity means that this term (*K*) is ubiquitous in property investment circles, the true real estate *lingua franca* for property professionals, including valuers.

The cap rate approach is not a true income approach unless the cash flow is static and perpetual, which it almost invariably is not. It is a comparison approach appropriate for income-producing real estate, using the cap rate or income multiplier as the unit of comparison.

The cap rate (*K*) can be analysed by reference to the Gordon growth model, (also known as the constant growth rate model or the dividend discount model[9]), which explains the relationship between the required total return (*IRR*) or discount rate for an investment (*R*), the expected income growth rate *G*, and the cap rate or multiplier. It helps to indicate whether the subject asset is priced properly. According to this model:

$$K = R - G$$

The higher the required return, the higher the cap rate for a given level of income growth; the greater the expected income growth, the lower the cap rate for a given required return.

The explicit income approach

The 2021 Pereira Gray report for the RICS recommended that (when valuing investment property) valuers should use DCF rather than comparable evidence of cap rates[10]. On their way to providing a DCF valuation valuers need to produce and justify (i) a cash flow and (ii) a discount rate. The Pereira Gray report is clear:

"I therefore strongly prefer the use of explicit discounted cash flows to assess the likely exchange price that a property would command in the open market. Such cash flows should account for matters such as the prospective growth rate (net of depreciation), the risk

[9] Gordon, 1962.

[10] This is somewhat wishful thinking; evidence from other countries suggests that if a valuer uses a DCF approach he/she will at the very least wish to cross-check the result with the simplified cap rate approach.

premium, and the discount rate for the derived cash flows; the discussion with the client should be all the richer for this."[11]

The market factors driving projected real estate cash flows are: *gross rental revenue* (*GRR*) plus any other income the asset can generate (say from car parking, advertising hoardings or towers) to produce *gross potential income*. From this, vacancy needs to be deducted to produce *gross effective income*. Operating expenses – repairs and irrecoverable service costs – are then deducted to leave NOI or *net operating income* (Hartzell and Baum, 2021[12]).

We can simplify this down to: *gross revenue – vacancy – opex = NOI*

Gross revenue, and therefore *NOI*, will vary primarily according to (i) market conditions (demand and supply) and (ii) the lease contract. Baum 2023**[13]** discusses rent forecasting in some length; indeed whole books have been written about it[14]. Suffice to say that for our purposes demand and supply will drive what we call estimated rental value in the UK, a combined function of inflation growth (*I*), real growth (G^R) and depreciation (*D*). The bigger valuation firms will typically have access to their research departments to estimate these variables for the more popular property investment types.

In projecting a cash flow, the potential exit value will also need to be estimated. This is usually a function of *NOI* and the exit cap rate *K* (*NOI/K*)[15]. At any point in time the expected exit cap rate can be derived from a comparable-based or long-term average approach or by reference to the Gordon growth model (see above).

$K = R - G$

where:
K = cap rate
R = required return
G = rent growth

$R = RFR^N + RP$

where:
RFR^N = nominal risk-free rate
RP = risk premium

$G = G^{R.} + I - D$

[11] RICS, 2022.
[12] Hartzell, D and Baum, A (2021): *Real Estate Investment - Strategies, Structures*, Decisions, Wiley Finance
[13] Baum, A (2023): *Real Estate Investment – A Strategic Approach*, Routledge
[14] For example**,** Brooks, C. and Tsolacos, S. (2010): *Real Estate Modelling and Forecasting,* Cambridge University Press
[15] For shared ownership residential property, however, one exit scenario is a reversion to vacant possession value: see section 4.

where:
G^R = real rent growth
I = inflation
D = depreciation

so that:
$K = RFR^N + RP – (G^R + I) + D$

In addition,
$RFR^N = RFR^R + I + RPi$

where:
RFR^R = the real risk fee rate
I = expected inflation
RPi = the inflation risk premium

so that the required return appears as: $(RFR^R + I + RPi) + RP$ or, simplifying, as $RFR^N + RP$

and, therefore:
$K = (RFR^R + I + RPi) + RP – (G^R + I) + D$

What guidance can be offered to valuers regarding the practical estimation of this required return $RFR^N + RP$? There are academic theories: the Capital Asset Pricing Model (CAPM), for example, or the Weighted Average Cost of Capital (WACC) are worth studying, but neither gets us to where we need to be because of data problems. CAPM requires enough transaction data to estimate beta (volatility relative to a market index), and the real estate market can rarely provide enough such data, while WACC requires the cost of (or required return on) equity as one of its inputs, thereby creating a circularity problem.

It is also tempting to look backwards to see what the delivered risk premium has been on real estate over time. If gilts have delivered 7% over the last 25 years and real estate has delivered 8.5% over the same period, it is tempting to suggest that the risk premium must 'be' 1.5%. This is interesting but ultimately misleading, because what we need is a forward-looking *required* return measure, not a backward-looking *delivered* return measure. Even if gilt and real estate markets were perfectly priced 25 years ago and everything has turned out exactly the way people expected, things (specifically, perceptions of risk) may have changed.

We are left with only one pragmatic way of knowing what the required return on a real estate asset is, and that is by market survey. In the US, PwC has for some time provided survey data[16] regarding the required return or IRR for a range of real estate assets. This is key market data, unfortunately absent from UK public sources. Market participants need such data to develop a confidence in these required returns.

The required return can be separated into its component parts, the risk-free rate (RFR^N) and a risk premium (RP). Ideally, the current RFR^N needs to be an automatic input into the required

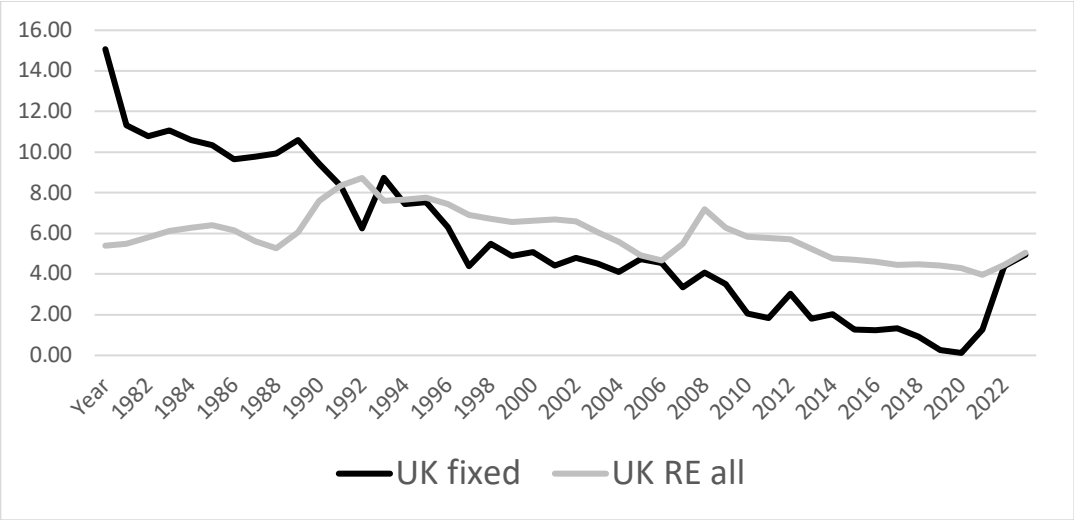
[16] https://investorsurvey.pwc.com/

return models. This is hardly controversial, but requires discussion and consensus as valuers (evidenced by the way this works in Sweden[17]) will not always want to be tied to this benchmark.

How should the RFR^N be measured? Should the RFR^N be a government gilt yield – if so, for what term? Or should it be a corporate bond yield – if so, for what term, and for what credit rating? Clearly, the latter is problematic – the credit rating will vary according to the tenant, which could be a government body. So it can be argued that valuers should begin with the government gilt yield for a duration matching the property hold period, usually (say) 10 years (and maybe longer for rental housing).

How should valuers estimate a risk premium? What variables should be accounted for? How complex can this process be and still get implemented? Discussions with valuers in the Sweden and Australia as well as the UK suggests that a very simple approach is essential to get any traction, and that some flexibility is required[18]. Arguably, the factors driving the risk premium should be (i) the certainty of expected rent and value growth (real growth plus inflation linking net of depreciation); (ii) liquidity; and (iii) the tenant default risk.

Figure 1: UK conventional gilt yields v property yields, 1985-2024



Source: MSCI

Figure 1 compares the yield on UK conventional 10-year gilts with the MSCI equivalent yield on UK property over the 40-year period of 1985-2024. These series are positively correlated (0.41). There is a stronger positive connection during the quantitative easing period following the 2007-9 global financial crisis. Because real estate incomes are generally not fixed, while

[17] The risk-free rate is not an input into the typical DCF approach in Sweden. The required return is typically defined as the cap rate plus inflation.

[18] There is an understandable reluctance amongst valuers to tell the market what prices ought to be. What happens when it is difficult to explain very low cap rates/very high prices for an asset? Yet this type of whistle-blowing is exactly what the Bank of England's Financial Stability Strategy and other European bodies seem to require of valuers.

gilt incomes are, a strongly positive correlation between the income multipliers applied to these income streams should not be expected at all times.

This does not mean that DCF valuations should not use conventional gilts as the appropriate risk-free rate, but that other independent variables in the valuation (specifically rent growth and depreciation) will be important in determining value in the nominal world that property professionals are most comfortable with.

Inflation-linked cash flows: a real approach

In certain real estate sectors – primarily residential and social infrastructure - rents are often formally linked to inflation. In such cases, the risk-free benchmark should be the index-linked gilt (whose coupon is a nominal yield plus RPI inflation) and not the conventional gilt yield.

In real terms, the fundamental yield relationship is given by:

$K = RFR^N + RP - (G^R + I) + D$

This presumes that the risk-free benchmark for investors is the conventional (fixed interest) gilt, which is regarded as defining the nominal risk-free rate. If, instead, the index linked gilt yield (RF^R) is used and the equation is expressed in real terms, this becomes:

$K = (RFR^R + I + RPi) + RP – (G^R + I) + D$

In this equation, the inflation terms cancel out and we are left with:

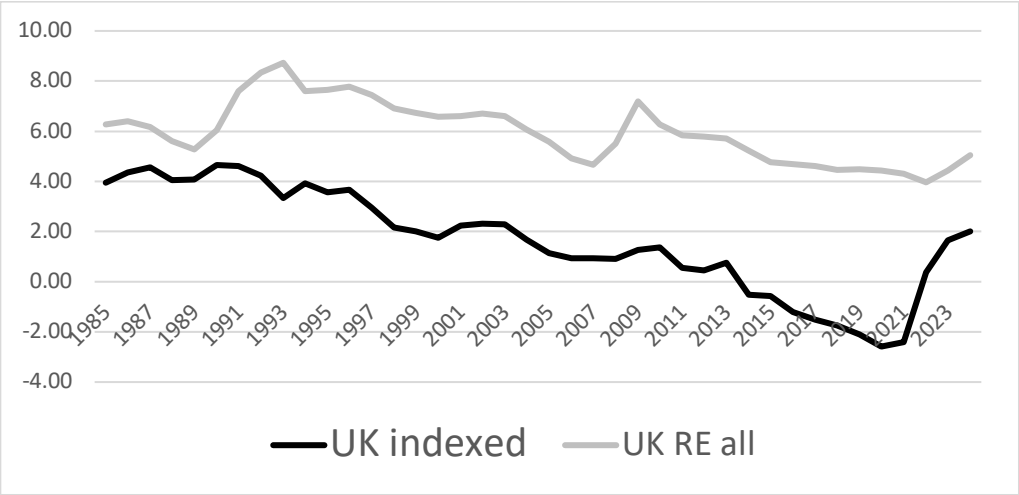
$K = (RFR^R + RPi) + RP – G^R + D$

This means that the real estate cap rate is driven by the real risk-free rate, an inflation risk premium, the asset risk premium, expected real rent growth and expected depreciation. Real estate is riskier relative to indexed bonds than it is relative to conventional bonds; the additional risk is to do with the inflation-hedging quality of the rental income. This is particularly true in the case of leases which are not formally inflation linked, but even in the case of social housing with a formal inflation-rent link government interference can damage (and has damaged) the certainty of this link. This explains the inclusion of the inflation risk premium term *RPi*. The asset risk premium, on the other hand, is likely to be driven by the certainty of expected rent and value growth, liquidity, and the risk of tenant default.

The cap rate for an inflation-linked real estate investment should therefore be explained by reference to the real risk-free rate, an inflation risk premium and a real estate risk premium, and expected real rent growth net of depreciation.

Figure 2 compares the yield on UK index-linked gilts with the MSCI equivalent yield on UK property over the same 40-year period, 1985-2024. These series are strongly and positively correlated (0.71), more so than UK conventional 10-year gilt yields and the MSCI equivalent yield.

Figure 2: UK indexed gilt yields v property yields, 1985-2024



Source: MSCI

Note that the MSCI UK property universe is a mixed bag of properties with fixed rents, rents fixed between longish reviews, regularly reviewed rents and rents formally indexed to inflation. If for the real estate assets under consideration all incomes were formally tied to inflation, an even stronger positive correlation between the income multipliers applied to these income streams would be expected.

In equilibrium, the required return or IRR on an inflation-linked real estate investment should be explained by the real risk-free rate plus an inflation risk premium and a real estate risk premium. The investment will turn out well if the cap rate or initial yield plus expected real rent growth net of depreciation exceeds this required return.

$(RFR^R + RPi) + RP = K + G^R - D$

In a nominal analysis of cap rates and required/expected returns, the benchmark risk-free rate is a conventional gilt. This is not a risk-free asset in real terms, hence the inclusion of the *RPi* term above. By extension, the real estate risk premium relative to index linked gilts will be higher than the real estate risk premium relative to conventional gilts by the factor *RPi*.

Example:

$RFR^N = 4.0\%$
$RFR^R = 1.0\%$
$I = 2.0\%$
$RPi = 1\%$
$(RFR^N = RFR^R + I + RPi = 4.0\% = 1.0\% + 2.0\% + 1\%)$
$RP = 3\%$

So (using these values) the property risk premium relative to the nominal risk-free rate would be 3%, but relative to the real risk-free rate this is 4% (*RPi + RP*).

If:
$G^R = -0.5\%$
$D = 1\%$

then:
$K = RFR^N + RP - (G^R + I) + D = 4\% + 3\% - 1.5\% + 1\% = 6.5\%$

or, in real terms:
$K = (RFR^R + RPi) + RP - G^R + D = 1\% + 1\% + 3\% - (-0.5\%) + 1\% = 6.5\%$

Valuations for lending

Real estate valuations commonly support performance measurement or provide information to potential buyers and sellers. However, valuations are also very important to lenders, supporting secured lending[19]. This increased in relevance during and after the Global Financial Crisis with the realisation that the amount of lending against property, underpinned by property valuations, is a major contributor to financial stability.

In each of the previous two UK property market downturns (the early 1970s and the early 1990s), several financial institutions had come under pressure due to the large amount of their lending being secured against property. When the capital value of the property falls below the amount lent, the loan-to-value (LTV) covenants are breached, putting those loans into default. In both the 1973 and 1990 downturns, the property valuations undertaken at the commencement of the loan came under scrutiny. Questions were asked mainly about the regulation of valuation in the UK and about the basis of value adopted for loan security valuations. In the 1970s, the UK industry response was aimed at producing formal valuation standards to develop a more structured and regulated (meaning more conservative) approach to property valuation. In the 1990s, the basis of value came under more scrutiny, and this discussion was given more impetus by the GFC of 2007-9.

Despite much discussion, the basis of valuation for loan security remains market value in most countries, although alternative long-term valuation approaches aiming at greater conservatism have been used in some countries in mainland Europe[20].

Clearly, there will be some variance between individual valuations at the date of valuation, and it is widely accepted that there is an acceptable margin of error in valuations. It has been left to the courts to decide what is a permitted margin of error when carrying out a valuation

[19] Baum, A., Crosby, N. and Devaney, S. (2021): *Property Investment Appraisal (Fourth edition),* Wiley Blackwell

[20] This may be about to change. In 2017, the Bank for International Settlements suggested an alternative basis of valuation for loan security origination and bank loan book monitoring purposes called Prudent Value, and the EU and the UK are currently proposing to implement it into their capital requirements regulations (CRR). This may take the form of an adjustment factor to market value to acknowledge any perceived under- or over-pricing within the market at any particular point in time, although how this will be judged is anybody's guess.

of property, but precedent suggests an acceptable margin of between 10% and 15%. Loan security valuations can be expected to be conservative and populate the lower end of any acceptable range.

3. Rental housing, affordable housing and social housing

Beginning in the early 2000s, technology has negatively affected the appeal of retail property as an investment; beginning in 2020, offices are similarly challenged. At the same time, demographic, lifestyle and political changes (primarily expressed through the privatization of former public services) have produced a need for new real estate formats, including private rental, affordable and senior housing; student accommodation; self-storage; co-working; medical centres; data centres; and others.

These emerging residential and social infrastructure sectors have become increasingly popular with investors, and some have matured from nowhere into core real estate investments, for example purpose-built student accommodation (PBSA). While the shift from retail to logistics has been a big story, UK sector weights have also seen a significant shift towards residential or living sectors and 'other', primarily social infrastructure: see Table 1.

Table 1: UK real estate market, sector structure

	1991	**2001**	**2021**
Retail	37%	45%	24%
Office	47%	38%	27%
Industrial	13%	13%	27%
Residential	0%	1%	9%
Other	2%	2%	14%

Source: MSCI

Residential property investment is set to be the biggest growth sector for UK institutions, with some expecting 25% allocations by 2030. This number could be even higher; in the Netherlands, residential property takes up around 50% of all institutional real estate investment.

The attractions of the rented residential sector to investors are very clear. UK demographics suggest a continued growth in demand to at least 2050. A de-centralised and often dysfunctional planning system coupled with the rising price of materials and concerns about embedded carbon means that building new stock where demand is greatest is often very difficult. And, while leases/tenancies are typically shorter than for commercial real estate, rent growth closely related to inflation can be expected. This is particularly attractive to investors with inflation-linked liabilities.

The UK residential investment market can be split primarily into student housing, market rental housing (including multi-family [flats] and single-family rental (or SFR) and various types of subsidised housing, of which social rented housing, affordable housing and shared ownership are sub-categories) - see Table 2.

Table 2: UK residential real estate market, sector structure

Sub-sector	Weight (%)
Multi family	27.3
Single family	1.7
Student housing	58.6
UK affordable housing	3.7
Other specialist types	1.7
Ground rent	5.0
Unclassified	2.1

Source: MSCI

Market rental housing

Market rental housing has been very popular in countries such as the Netherlands, Germany and the US (where it is known as multi-family rental). Until the 1956 Housing Subsidies Act, UK institutions were investors in rented housing, but in the period for 1960 to 2010 these institutions did not build substantial portfolios of rental housing, leaving the individual buy-to-let landlord room to operate. This reluctance, explained by historical political interference and public relations risks, started to change in the aftermath of the GFC as UK fund managers like Hermes, M&G and CBRE IM launched residential funds. Meanwhile US investors 'discovered' a whole new investable sector known as single family rentals[21] which several European businesses are now trying to emulate. This move into the residential sector by fund managers was followed by a series of measures pushing private landlords out of the space[22].

Meanwhile, the granularity of the single family sector and the difficulty of buying up unbroken blocks on the secondary market has led institutional funds towards the build-to-rent or BTR sector, where the planning system has severely limited growth. Given the demand for money to get into the sector, this is a classic bottleneck.

Given that rent growth closely related to inflation can be expected from market rental housing, valuations based on discounted cash flow could use either the nominal

[21] REITs such as American Homes For Rent and Invitation Homes plus other investors such as Pretium Partners have each acquired more than 50,000 residential units in the secondary market since 2010.

[22] Before 2017, a landlord's mortgage interest was 100% deductible against rent earned, encouraging interest-only mortgages (never a good idea). Now that tax break has effectively been removed. Before 2022, the interest rates charged for these landlord's mortgages (if variable rather than fixed) was around 3%; now it is more likely to be around 5.5%. In combination these two changes – plus inflation in management and repair costs - have been enough to convert what was a monthly profit to a monthly loss for many investors. The Renters (Reform) Bill introduced by the Government in May 2023 is designed to bring in a better deal for renters, including abolishing 'no fault' evictions so that landlords can only evict on fault-based grounds and in reasonable circumstances. Now the Leasehold and Freehold Reform Act of 2024 is designed to limit freeholders' rights, making it cheaper and easier for leaseholder tenants to extend their lease or buy the freehold.

(conventional) gilt yield or the real (index-linked) gilt yield as a benchmark for the required return.

Where the conventional gilt yield is used as a benchmark for the required return, the cash flow would grow at a nominal rate including inflation, discounted at a nominal rate which already reflects some risk that inflation is not as expected (*RPi*):

$RFR^N = (RFR^R + I + RPi)$

The required return or target IRR (*R*) is then adjusted by a property risk premium which covers all the usual property risks (unexpected OpEx, unexpected CapEx, voids, and the risk that rent growth is not as expected:

$R = RFR^N + RP$ *or* $(RFR^R + I + RPi) + RP$

Where the real or index-linked gilt yield is used as a benchmark for the required return, the cash flow would grow at a real rate excluding inflation, discounted at the real risk-free rate plus a property risk premium*:*

$R = RFR^R + RPi + RP$

Affordable and social housing

Affordable housing is a broad term used to describe a collection of government schemes where properties are offered at below market value, either for sale or rent. Affordable housing may also be targeted to address a specific need, such as specialist housing for vulnerable, older or disabled people, known as “supported housing”.

Confusingly, affordable housing is both an umbrella term for affordable, intermediate and social housing, and a specific sub-category. The affordable homes sub-category describes homes let at rents of up to 80% of local market rents.

Social rent homes, a sub-category of affordable housing, are for people on low incomes. Rents are set by the Regulator of Social Housing through the National Rent Regime[23] in England. The formula rent is a maximum rent that registered providers may charge, based on national average rents adjusted by local earnings and property values, often leading to rents set at around 50% of market rents, although this could be more in higher value areas.

Intermediate rentals start at a 20% discount to market rent and may have a different but specific discount to market, for example some keyworker housing.

The majority of affordable housing (using the umbrella term) is owned and managed by registered providers (RPs). There are three main types of RPs: not- for-profit RPs (known as Housing Associations), for-profit RPs and local authorities. The activities of RPs are overseen by the Regulator of Social Housing. Local authorities are often responsible for allocating

[23] https://www.gov.uk/government/publications/rent-standard

affordable housing for rent via nomination agreements[24]. In many instances, they will require that a local connection is demonstrated for someone to be eligible for a home. In some cases, applicants must have lived in the local area for a minimum of two years and these homes may be offered to applicants who can demonstrate family ties to the local area, or to people who previously lived in the area.

The supply of affordable housing in the UK is supported by the planning system. On the grant of planning permission (which can be assumed to be profitable for the developer or landowner) land is typically set aside for affordable housing as a planning condition under s106 of the Town and Country Planning Act 1990 and this land is sold or transferred to a registered provider; alternatively, the developer builds the affordable units and sells or pre-sells them to an RP at a price which reflects the planning restriction on rents charged. There are limits on the sale of these assets in the open market at open market prices.

(Not all new affordable housing is built on land 'set aside' as part of bigger, commercial developments [traditionally via Section 106 agreements]. Increasingly, housing associations are doing their own land-led deals and developing whole sites themselves with a mix of social/affordable rent, shared ownership and build for sale.)

In addition, subsidies are often available to support the development of affordable units. Capital subsidies may take the form of grants or forgivable loans that reduce the amount of financing a borrower needs to obtain from a conventional lender. Because a capital subsidy does not need to be paid back, it reduces the amount that must be borrowed or obtained through an equity investment by a private party to develop a rental property. Lower debt service levels allow a project to deliver lower rents and still be economically sustainable.

Grants to buy land and build homes are paid to registered housing providers by the Government's agency, Homes England. These typically cover around 30-40 per cent of total costs (less in high-cost areas like London and the South East and more in low value areas) with private borrowing and other sources of finance making up the rest. For most large-scale social housing builders, these 'other sources' are largely cross-subsidies generated by building homes for private sale.

The Homes England grant stays with the property. The grant remains on the title and is repayable if the property is sold out of the sector. If the owing RP sells to another RP, the liability for the grant transfers at nil cost. It is possible that the units will be saleable in the open market in the longer run if these restrictions fall away over time.

The larger registered providers are typically financed by grants, from Homes England or the Greater London Authority, by equity in the form of surplus cash flow, and by debt, often in the form of bonds. For example, in a low interest rate environment, Hyde issued £400m of bonds in August 2020 carrying a coupon of 1.75%. In the more recent higher-rate markets, Sovereign Housing Association issued a long-dated bond in early 2024 priced at around 5%, the UK conventional gilt yield (around 4%) plus a 1.08% margin.

[24] An agreement negotiated between the Council and an RP which guarantees the Council's ability to access RP-owned new build accommodation and re-lettings for the benefit of applicants on the Council's Housing Register.

Hence the economics of affordable housing providers are based on house acquisition prices suppressed by the planning restriction; grants; and loans used at reasonably low interest rates, supported by the guaranteed and indexed nature of the rent income.

Say, for example, Alpha Housing Association (AHA) is able to buy completed units from a housebuilder at a unit price of £160,000, 80% of the unrestricted market value of £200,000. Assume market rents are around £8,000, or 4% of open market value. Assume AHA can win a grant of 30% of this cost of £160,000 from Homes England. Its required equity injection per unit is then £112,000. If the rents it earns are limited to 50% of unrestricted market levels, delivering a £4,000 social rent, it earns a yield of £4,000/£112,000 = 3.57% compared to 4% for an open market operator. This lower return might be justified by the not-for-profit nature of the RP, or by lower interest rates paid on its bonds, or both. Given these numbers, it is not out of the question that a for-profit RP might compete in the market for this stock.

At current numbers the cost of debt might exceed the initial rental yield, but in the regulated affordable sector, especially the social housing sector, rent increases are formally linked to inflation (albeit with the occasional breaking of this link) and the rising yield will reduce this financial pain. Given this link, the real or index-linked gilt yield is clearly to be preferred as a benchmark for the required return. The cash flow would grow at a real rate and should be discounted at the real risk-free rate plus an allowance for inflation risk[25] and a property risk premium*:*

$R = RFR^R + RPi + RP$

The quantum of the property risk premium should be limited by the implicit government backing of the tenant's ability to pay rent and the inflation peg. Government intervention in 2015 and 2023[26] must have damaged investor confidence in the cash flow and raised this premium, but this unique feature of affordable housing nevertheless opens up the possibility that the real and nominal discount rate applied to social housing could be lower than would be applied any other property investment sector[27] other than commercial property let on long indexed leases to government tenants*.*

Valuing affordable and social housing

Market value is defined in the RICS Red Book as: *The estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction after proper marketing where the parties had each acted knowledgeably, prudently and without compulsion[28].*

[25] Mainly, the risk that the rental income will fail to match inflation through government policy changes.
[26] In the 2015 budget, Chancellor Osborne announced that social rents would fall by 1% every year for four years; from April 2024 higher than expected inflation rates led to a maximum rent increase of 7.7% for 2024-5.
[27] See Appendix 2.
[28] RICS, 2024: *Red Book Global Standards*

However, there are additional assumptions which valuers have been encouraged to make when valuing social housing[29], leading to a specific basis of valuation known as EUV-SH (existing use value for social housing)[30]. This was initially designed as valuation for lenders, and is therefore likely to be conservative.

EUV-SH has been in use for over 25 years, devised to support privately-financed transfers of local authority housing stock. The definition is built upon the principles of market value, assuming a hypothetical sale, by either a mortgagee in possession or a registered provider (RP), to another RP, on the strict assumptions that the stock will continue to be let at affordable rents in perpetuity and managed in accordance with the regulator's requirements.

The definition was recently updated in the latest edition of the Red Book, which came into effect in January 2019, to reflect regulatory changes arising from the Housing and Planning Act 2016. It reflects the constraints of this regulated sector, in particular the levels of rent at which properties may be let, which must remain affordable. According to the Housing Finance Corporation: "it typically, therefore, produces opinions of value which are considerably lower than market value with vacant possession (MV-VP). The difference is greatest in areas of the country with high market values and market rents; and smaller in areas of the country with low market values and rents. Indeed, in extreme conditions, with failed property markets, there are areas of the country where there is little, if any, identifiable difference between EUV-SH and market value. However, in high value areas, such as parts of London, EUV-SH might be as low as 20% of MV-VP".

The established methodology for arriving at an opinion of EUV-SH is a discounted cashflow. The key assumptions underpinning EUV-SH are, in more detail, as follows.

a. that the property will continue to be let by a body pursuant to delivery of a service for the existing use

b. the vendor would only be able to dispose of the property to organisations intending to manage their housing stock in accordance with the regulatory body's requirements

c. that properties temporarily vacant pending re-letting should be valued, if there is a letting demand, on the basis that the prospective purchaser intends to re-let them, rather than with vacant possession and

d. that any subsequent sale would be subject to all the same assumptions above

As a consequence, we effectively have three valuation bases for residential property. EUV-SH is defined above, assuming the continued use of the property for social housing so that any value that may be attributed to a sale of a property with vacant possession for any use over and above social housing is to be disregarded.

[29] See Appendix 1 *UK VPGA 7 - Valuation of registered social housing providers' assets for financial statements (EUV-SH)*

[30] Based on https://www.thfcorp.com/wp-content/uploads/2020/09/THFCInvestorRelationsWebsite150419.pdf

MV-VP is market value of the vacant property. It is tempting to add "for owner occupation", as this appears to be the common assumption. Yet as the private rented sector grows in size and attractiveness to institutional investors, the marginal buyer is more and more likely to be such an investor or a REIT, and the professional investor's approach to value will most likely be the discounted present value of the expected income stream.

MV-T is market value as tenanted. The assumed approach behind this basis of valuation is only applicable to loan security valuations. There is no published definition of MV-T in the RICS Red Book. This is because a definition is unnecessary, as it is essentially Market Value. MV-T differs from EUV-SH in that the purchaser is assumed to be operating outside the regulated sector and is therefore free to approach the properties in an unrestricted commercial way.

The same house could, therefore, have three values: the EUV-SH (restricted) valuation, probably using a discounted cash flow; its value as vacant for owner occupation, using direct capital comparison; and the discounted present value of the (unrestricted) expected income stream subject to a tenancy.[31] Valuers will naturally be careful to align with the RICS Red Book: see Appendix 3.

4. Shared ownership[32]

What is shared ownership?

Shared ownership is a form of affordable housing which is uniquely designed to offer an affordable route to home ownership. This includes.

Most shared ownership leases are granted by housing associations and are usually in a format approved and grant-supported by Homes England. Rents are typically regulated and initially limited at 2.75% of the price paid for the unit. Homes England-approved shared ownership leases must include seven core clauses relating to the following issues.

- Alienation – restrictions on sales and prohibition on subletting.
- Rent review – rent to be reviewed annually in line with RPI plus an amount, typically ranging from 0.5% to 1.0%.[33]
- Service charge – a service charge contribution must be paid.
- Mortgage protection – a clause designed to protect the mortgagee's security, given their first legal charge over the property.
- Staircasing – clause allowing leaseholder to purchase additional shares of equity.

[31] Whether this is the same as MV-T is open to argument. It appears that it is commonly assumed that MV-VP will probably exceed MV-T, and certainly exceed EUV-SH.
[32] This section refers mainly to England. There are different rules on shared ownership in Northern Ireland, Scotland and Wales. Shared ownership is not confined to the UK: see, for example https://www.aera.nz
[33] Rent increases under new leases are being changed to CPI plus 1%, rather than the previous standard of RPI plus 0.5%.

- Pre-emption – the landlord has a right of first refusal if the property is sold.

- Stamp Duty Land Tax – the leaseholder has an option to pay SDLT on either, the initial sale price and the rent, or on the full market value of the property.

A home can be part-bought through the shared ownership scheme if intending occupiers cannot afford all of the deposit and mortgage payments for a home that meets their needs. They buy a share of the property (typically in the range 10% to 40%) and pay rent to a landlord for the remaining proportion. If the property is a flat, they also usually pay a monthly ground rent and service charges. Shared ownership homes are generally open to anyone and can be applied for directly, subject to affordability checks. In practice, access to shared ownership is often limited through S.106 agreements to people on defined maximum incomes.

Mortgages are used to buy the occupier share alongside a minimum deposit, usually between 5% and 10% of the share being bought. Crucially, occupiers can buy more portions of the home in the future at market value, meaning the most likely selling price of the vacant property. This is known as 'staircasing'. As occupiers buy more shares, they pay less rent, the amount of rent paid being based on the landlord's share.

Shared ownership homes are offered by RPs (called 'providers' or landlords). All shared ownership homes (houses and flats) are leasehold properties, the standard lease now being for 999 years. The RP charges a rent set at 2.75% of the cost of the unit. This is presumed to result in below-market rents, although it should be noted that average rental yields in the UK are not much higher, currently averaging around 3.6%.

The typical perspective of a for-profit investor in shared ownership homes is as follows[34].

The value of shared ownership units is linked to the private 'for sale' market. The shared ownership tenant will usually acquire a 25%-50% share (minimum of 10%) of a home through a combination of a deposit and a small mortgage, and will pay rent to a landlord on the remainder (50%-75%) which is typically calculated at 2.75% of the open market vacant possession value.

This is much cheaper than a mortgage on currently typical terms. The landlord pays a price at a significant discount to market value compensate for the lower yield earned. Over time, shared ownership tenants can acquire additional shares in the part of the property they do not own over time based on the property's value at the time, exposed the investor's capital receipts to price growth in the 'for sale' market, which has been strong largely due to the lack of supply. Furthermore, protection for the landlord is provided by the entry price discount as the landlord of part typically acquires its share of these units at a 30-35% discount to open market vacant possession value, meaning that there is a sizeable buffer to falling house price values, and an upside for investors.

[34] Derived from an anonymised investment committee paper.

The rental income for the investor, if set well below market levels, is a disbenefit. But that will not be the case when viewed over the long term as long as the income growth assumptions are high enough and the discount rate assumptions are low enough.

Financing shared ownership

RPs have sophisticated Treasury policies and tailor their finances to operational needs. Most will use a mix of bank debt and corporate bonds, along with grant funding and internal resources.

Typically, a large RP will raise funds from the bond market at relatively low rates (say 4.5%-5% in 2024, a premium of 0.5%-1% over the government 10-year gilt yield) secured on the value of their existing stock. Funding will be at the portfolio level, but for the purposes of illustration let us assume a startup housebuilder/RP transfers affordable units at a price of £220,000 and the occupiers buy a £25,000 share. The investor contributes £195,000 per unit. Assume Homes England provides a 35% grant (£68,250 per unit) to the buyer, who borrows the rest (£126,750) at 4.5%. That incurs an annual interest charge of around £5,700 annually. The RP charges a rent set at 2.75% of the £195,000 investment or £5,362, almost breaking even. Rent increases will be set by reference to CPI plus 1%. These increases deliver a growing income to be balanced against the fixed bond coupon.

Tenants reside on what are effectively full repairing and insuring leases, although the current shared ownership model creates the opportunity for certain expenditure to be passed on to the landlord for a limited period. New leases are for 999 years with rents rising annually. From 12 October 2023 annual rental increases for new shared ownership leases will be based on CPI plus 1% (although there have been several historic variations on this theme, and many current shared ownership leases have different escalation provisions, often RPI-based). Existing shared ownership leases based on RPI + 0.5% can continue in the meantime, but RPI is to be phased out as a measure of inflation by 2030.

This reform brings shared ownership rents into line with the limit that normally applies to annual rent increases in other forms of social housing. Given that RPI has historically out-performed CPI by around 1%, and that index-linked gilt coupons are set by reference to RPI, this means that income escalation for shared ownership housing will roughly match income escalation for index-linked gilts. This further supports the case for applying a real risk-free rate based required return to the real cash flow.

Maintenance expenses incurred by the landlord (essentially servicing the common parts in apartment blocks) are fully recoverable through a service charge.

Shared ownership: empirical evidence

Milcheva, Damianov and Williams[35] produced the first data-driven analysis of the shared ownership (SO) market in 2023. Their conclusions included the following.

[35] Milcheva, S., Damianov, D., and Williams, P. (2023): *The Maturing Shared Ownership Market: A Data-Led Analysis*, UCL

- Since the Affordable Homes Programme (AHP) 2016-21, SO starts per year have been increasing rapidly, averaging about 18,000-23,000. This contributes between 6-11% to the total supply of new housing stock depending on the region, with the highest supply in London and the South East.

- The average value of SO properties is £275,000. The average occupier share is around 40%, worth about £110,000, with an average mortgage amount of £90,000. The average rent payable by a SO part-owner ranges between £300 and £400 per month.

- SO mortgages are half the size of those of a conventional mortgage. SO buyers typically have about half the income of open-market buyers and are, in general, not able to afford a property on the open market in the same location. This makes SO the main gateway to home ownership for households on incomes between £30,000-47,000, who otherwise would not have been able to access the mortgage market.

- Initially, assuming no staircasing, monthly housing costs of SO are lower than home ownership with a mortgage or renting on the open market, subject to certain assumptions outlined in the report.

- The mortgage market for SO loans is small and concentrated among a limited number of lenders. Lenders to SO homes are covered by the Mortgage Protection Clause (MPC) in the SO lease, reducing their exposure to credit risk and shifting the costs of repossession to the RPs.

- LTV ratios for SO loans are around 80-90% of the value of the share purchased, which is 5-13 percentage points higher than for conventional mortgages.

- Struggling SO owners first stop paying rent before they go in mortgage default. The lender will normally agree to set up a capitalisation arrangement with the RP to cover rent arrears until the SO owner is able to resume making rental payments.

- Between 2013 and 2018, the share of monthly rent arrears out of total rent roll has been fairly steady at c.2%. The Covid-19 pandemic saw this share doubling.

- Repossessions happened in less than 1% of total stock between 2009 and 2019 and clearly remain a last resort.

5. Valuing shared ownership interests

EUV-SH has been in use as the basis for the valuation of social housing for over 25 years. The definition is built upon the principles of market value, assuming a hypothetical sale, by either a mortgagee in possession or a registered provider (RP), to another RP, on the strict assumptions that the stock will continue to be let at affordable rents in perpetuity and managed in accordance with the regulator’s requirements.

For shared ownership housing, where staircasing is possible, this definition seems excessively narrow, given that the vendor could dispose of the property via staircasing to the tenant (who might then sell it back to the investor/landlord at the market value of the vacant property).

Proponents of EUV-SH are understandably protective of the social benefits of a valuation method which does not put tenants at risk of significant rent rises, preserves their security of tenure and standards of management and repair, and retains the stock within the regulated sector. However, in May 2023, CBRE produced a blog/note[36] which suggests that the market valuation of the investors' share in the shared ownership sector might be too low, inhibiting the supply of housing units. How should we think about the value of these assets? Clearly, we should focus on the present value of the investor' expected income stream.

The present value of the rent

The investor's approach to the value of shared ownership housing will be the discounted present value of the most likely expected income stream. This should also be the valuer's approach, supported as appropriate by relevant comparable evidence.

The investor's expected income stream is the initial rent growing at the prescribed rate (going forward, this is usually CPI plus 1%). There may be adjustments to this driven by an allowance for uncollected rents, irrecoverable (albeit very limited) OpEx or service costs and anticipated CapEx (in the event of default and vacancy). The discount rate should be the yield on the appropriate tenor of government gilt, adjusted upwards to account for risk. As a check, the expected real income stream should be discounted at a real required return based on index-linked gilt yields, which provide evidence of the price paid for very similar, albeit superior, income streams. What is that required return?

The differences in security of these income streams that make index-linked gilts superior are to do with risk and liquidity. Shared ownership housing is inferior in liquidity to index-linked gilts. We have good albeit indirect evidence of the market price for this, as RP bonds are issued at an observable premium over government bonds. Shared ownership housing is also of greater risk than index-linked gilts. This is primarily due to the tendency of governments to change the rent increase mechanism. It can of course be argued that the covenant risk of shared ownership housing is much greater than for a government security, but this factor begins to fall away for large, diversified portfolios.

In the L&G/Croydon case (Appendix 2), a lease and leaseback arrangement which is not directly comparable to a shared ownership investment, L&G appear likely to have earned a risk premium over the indexed government bond of 2-3 per cent for a portfolio of social housing. At current index linked gilt yield rates (say 1% for a 20-year issue), this would imply a yield of 3-4%, or a nominal discount rate (IRR) of 5-6%. Conversations with valuers in this sector suggested that these rates are lower than they would be comfortable with, so that their EUV-SH valuations of shared ownership assets would be lower than my EUV-SH valuations. While the Croydon guarantee might justify a lower premium than a group of individual

[36] CBRE (2023): *Reviewing Affordable Housing Sector Valuations to accelerate the delivery of new homes*, May 31 2023

tenants, these indexed and effectively government-backed income streams are very valuable liability matches for a range of investors with real liabilities.

In a nominal approach, the income stream would be projected in nominal terms and discounted back at a nominal rate. This requires a forecast of inflation. Using the L&G/Croydon example, rents are assumed to rise at 2% annually. The appropriate discount rate would be the yield on the appropriate tenor of fixed government bonds, around 4% currently, plus a lower risk premium than was used in the real analysis, say 1-2%, again suggesting a nominal discount rate of 5-6%.[37]

Despite concepts like the capital asset pricing model, there is no reliable science that can be applied to measuring the appropriate risk premium, and in the L&G/Croydon example the investor (presumed to be an L&G annuity fund) would have taken a view. If, however, the entity which owns the income stream issues a corporate bond secured on that income then the market will determine a price (the required total return) for that income, allowing a risk premium to be backed out.

Staircasing and marriage value

This analysis ignores staircasing. Is this a further benefit to investors, or a problem? For a profit-motivated investor, if the value of the investor's share in the SO unit is believed to be lower than MV-VP, then staircasing is (in theory at least) a benefit[38]. If the value of the investor's share in the SO unit is believed to be higher than his/her proportionate share of MV-VP, then staircasing is not a benefit other than as a device to amortise capital invested.

In the UK housing market, the marginal buyer has traditionally been believed to be a prospective owner occupier, so that a tenanted property might be thought to be worth less than vacant possession (MV-VP) value. In such circumstances, the eviction of that tenant might lead to an increase in market value. However, where the marginal buyer is an institutional investor, any well-leased real estate investment will be worth more than an empty property if it produces an income stream in line with market rents.

Through one lens, if you buy an empty house and lease it up you destroy value; through another lens, you create value.

Occasionally, but increasingly rarely, occupied commercial estate can suffer a value impairment if the tenant has the right to occupy the property at a lower than market rent, set (for example) under a long old lease. In such cases the owner of the freehold interest or reversion (B) might make an offer to buy out the tenant's leasehold interest (C), especially if the property can be let at a market rent and its resulting full market value (A) exceeds B+C. If this is the case, *marriage value* [A-(B+C)] is said to be created or realised. Property professionals are familiar with this, although the opposite phenomenon of break-up value is also recognised.

[37] Note that in section 2 we used an example where the property risk premium (*RP*) relative to the nominal risk-free rate was 3%, but relative to the real risk-free rate this was 4% (*RPi + RP*)].

[38] This is subject to the financing of the portfolio and the need to support bond issues by a non-declining portfolio value.

Back to staircasing: this is a tenant option over which the investor has no control. Given that the tenant has the right to buy the remainder at MV-VP, the value of the tenant's interest has to be his current share of MV-VP less costs.

Value = MV-VP – cost of staircasing (proportion of MV-VP value being acquired plus transaction costs)

If the value of the investor's share is greater than the relevant proportion of MV-VP, there is negative marriage value. This suggests that long term shared ownership could be in the interests of all parties. A portfolio of shared ownership properties can be worth more than the proportional VP value, even ignoring the potential portfolio effect.

Reinvestment of staircasing receipts

If a portfolio of shared ownership properties is worth more than the proportional VP value, staircasing at VP value is not attractive to the investor. If that investor has issued bonds to finance the purchase of a shared ownership portfolio, staircasing would eat away at the capital value of the assets against which the loan is secured. The concept of a wasting asset is not strange to real estate owners and valuers, exemplified by leasehold interests.

However, it is natural for the investor to want to re-invest staircasing proceeds back into the portfolio, difficult though this might be, thereby maintaining the capital value and security of the asset base. The ability to do this will increase the value of the entity holding the assets, as it will optimise the terms offered (and/or avoid penalties imposed) by the lender.

It has been argued that the opportunity to reinvest staircasing receipts should be reflected in the valuation of the shared ownership portfolio. However, reinvestment opportunities are not relevant to an asset valuation. This may influence the value of the entity holding the assets, but not the value of the assets themselves. So this would explain part of the share price of a shared ownership REIT, but not the asset value of its portfolio. To assume otherwise would be a special assumption (an assumption that either assumes facts that differ from the actual facts existing at the valuation date or that would not be made by a typical market participant in a transaction on the valuation date).

A recommended approach

More transparency regarding market transactions of shared ownership housing is clearly needed, because (for good or bad) valuers will typically prefer to use cap rates where they can. However, cap rates will be too blunt and explicit DCF valuations of expected cash flows will be essential where there are variations in the rent escalation rates, or in levels of passing rent relative to market rental value, and (maybe) where non-typical staircasing rates are expected for any particular reason.

However, implied cap rates can be backed out from DCF valuations and balanced against market evidence. We can establish the appropriate cap rate for a model shared ownership portfolio from market comparables. Let us assume we have a standard portfolio leased at £1m

which is 2.75% of the relevant proportion of MV-VP, rents escalating at CPI + 1%, and comparable evidence of a sale of a portfolio with similar characteristics at a cap rate of 5%.

Compare this with the yield on long duration index linked gilts – say 1%. This exposes a total risk premium of (5%-1%) = 4%, a combination of *RPi* (an inflation risk premium) and *RP* (a property risk premium). Compare this with the yield on long duration conventional gilts – say 4%. Given that *K= RFR+Rp -G*, and G = CPI plus 1%, say 2%, this exposes a total risk premium of 3%[39].

Comparing these two analyses, we derive an inflation risk premium of 1%, a property risk premium of 3%, a cap rate of 5%, a required nominal return of 7% and a required real return of 5% for a standard SO portfolio.

Now we can run a nominal DCF using the appropriate expected cash flow and discount rate, within which the required return is based on the required nominal return and adjusted as appropriate for additional risk. Staircasing should be assumed at a rate justified by market evidence. The holding period should align with the investor's expected holding period: this is likely to be 10 years or longer. An exit capitalisation rate will need to be assumed.

We would then run a real explicit DCF, projecting the real cash flow and discounting at a risk-adjusted rate derived from the yield on index-linked gilts. We would reconcile the valuations derived from these two approaches, and back out the implied cap rate. This can be balanced against market comparables and adjustments made as appropriate.

6. Conclusions

For investors, shared ownership has clear advantages over market rental residential. The occupying co-owner takes responsibility for most of the costs of maintenance[40], and in the case of flats a service charge is there to cover the landlord's costs of maintaining the common parts. The vacancy risk and the associated cost of voids and re-letting is much lower for a co-owner than for a free market buy-to-let landlord. Staircasing offers a phased exit at full market value with vacant possession.

For occupying co-owners, shared ownership can also have clear advantages over market rental residential. While maintenance costs may be higher than in private rental, security is greater and staircasing is a free option (in the financial sense). Compared to owner-occupation, the need for a deposit is much lower. The total cost of shared ownership relative to owner occupation will oscillate depending on interest rates and other variables.

This is important because it seems that shared ownership housing is potentially undervalued, for several possible reasons.

[39] 5% = 4% + Rp -2%; RP = 3% (the property risk premium).

[40] But note House of Commons, LUHC Committee, 2024: *The Government should as a matter of urgency explore the implications of changing the terms of shared ownership leases delivered under current and previous iterations of the Affordable Homes Programme so that shared owners only ever have to pay service charges for repairs and maintenance proportionate to the size of share they own* (Paragraph 37).

EUV-SH does not rely primarily on comparable evidence of the value of traded shared ownership units[41]. Yet there is growing evidence of open market trades between for-profit operators (albeit in small numbers relative to the market as a whole) which is creating some tension between valuers and investors and between the (smaller) for-profit and not-for-profit sectors.

The prices of transfers between RPs might reasonably be seen to impose an apparent value ceiling, yet these prices are not open to detailed scrutiny. The real and nominal discount rates applied to social housing should reflect a very predictable cash flow, especially in real terms, and the quantum of the property risk premium should be limited by the implicit government backing of the tenant's ability to pay rent. There appears, however, to have been little analysis or detailed discussion about what the risk premium should fairly be. More transparency about market transactions is needed, and in particular the relationship between the market cap rate, the required return and the expected income growth needs to be openly debated, both in nominal and in real terms.

Just as there is a lack of agreement amongst valuers about the relevance of conventional gilts to DCF-based market valuations, there is a similar lack of consensus about the connection between index-linked gilt yields and the value of an indexed cash flow secured against social housing. Growing government demands on how RPs maintain and invest in their properties, including building safety, damp, mould and condensation, and decarbonisation, has forced a squeeze on operating surpluses. Nevertheless, it is possible that the real and nominal discount rate applied to social housing could be lower than would be applied any property investment sector other than commercial property let on long indexed leases to government tenants.

There also appears to be a presumption that vacant possession value for a potential owner-occupier sets another value ceiling. This ignores the enormous unsatisfied demand for rental housing as an investment: the marginal bidder might well be an institutional investor seeking to earn a real rental revenue.

Because rents are initially typically set at below-market levels, it seems logical to assume that *pro rata* capital values for shared ownership interests must also settle at below prices paid for vacant properties by prospective owner-occupiers. The RP rent set at 2.75% of the cost of the unit is presumed to result in below-market rents, but average rental yields in the UK are not much higher, and indexation means that some SO property is now over-rented[42]. The guaranteed and index-linked nature of the income plus the impact on operating expenses and vacancy risk of the shared financial interest of the occupier might in principle compensate for this lower initial rent.

Valuers are required to assume that *the vendor would only be able to dispose of the property to organisations intending to manage their housing stock in accordance with the regulatory body's requirements* – and this does not include the occupier. Yet occupiers can buy more portions of the home in the future at market value, meaning the most likely selling price of the vacant property. And the landlord has a right of first refusal to buy at vacant possession

[41] See Appendix 4.

[42] 'Over-rented' means that the rent passing exceeds the (unrestricted) open market rent.

value if the property is sold by the occupier after staircasing to 100% ownership. This is a valuable option, especially if the case can be made that the present value of shared ownership cashflows can exceed vacant possession value.

It is not difficult to argue that long term shared ownership is in the interests of all, as it delivers often unrecognised value for both parties to the arrangement. Given the need for more social housing, any undervaluation could have an unfortunate negative impact on housing supply.

Any calls for a review of this approach should be supported. The enormous unsatisfied demand for rental housing as an investment, and the poorly understood relevance of financial markets and liability matching to the value of a cash flow secured against social housing, means that EUV-SH may be inappropriate for the shared ownership sector.

Appendix 1: UK VPGA 7 - Valuation of registered social housing providers' assets for financial statements (EUV-SH)

Valuations of social housing for financial statements of registered social housing providers are undertaken on a basis of either: existing use value for social housing (EUV-SH) for housing stock held for social housing; or fair value in accordance with IFRS 13 for housing stock that is classified as surplus assets.

EUV-SH is an opinion of the best price at which the sale of an interest in a property would have been completed unconditionally for a cash consideration on the valuation date, assuming:

a. a willing seller

b. that prior to the valuation date there had been a reasonable period (having regard to the nature of the property and the state of the market) for the proper marketing of the interest for the agreement of the price and terms and for the completion of the sale

c. the state of the market, level of values and other circumstances were on any earlier assumed date of exchange of contracts, the same as on the date of valuation

d. that no account is taken of any additional bid by a prospective purchaser with a special interest

e. both parties to the transaction had acted knowledgeably, prudently and without compulsion

f. that the property will continue to be let by a body pursuant to delivery of a service for the existing use

g. the vendor would only be able to dispose of the property to organisations intending to manage their housing stock in accordance with the regulatory body's requirements

h. that properties temporarily vacant pending re-letting should be valued, if there is a letting demand, on the basis that the prospective purchaser intends to re-let them, rather than with vacant possession and

i. that any subsequent sale would be subject to all the same assumptions above.

Appendix 2: RICS professional guidance

International standards[43]

Globally recognised high-level valuation principles and definitions are now embodied in the International Valuation Standards (IVS) published by the International Valuation Standards Council (IVSC). RICS has long been a supporter of the development of such universal standards, and not only fully embraces them itself, but also proactively supports their adoption by others around the world.

RICS Valuation – Professional Standards 2014, commonly referred to as the Red Book, formally recognises and adopts the IVS by requiring members to follow them. It also complements the IVS by providing detailed guidance and specific requirements concerning their practical implementation.

Member and firm conduct is underpinned through the application of the Rules of Conduct and the Global Professional and Ethical Standards and is assured through a well-established system of regulation. The whole ensures the positioning of RICS members and regulated firms as the leading global providers of IVS-compliant valuations.

RICS guidance notes

This is a guidance note. Where recommendations are made for specific professional tasks, these are intended to represent 'best practice', i.e. recommendations that in the opinion of RICS meet a high standard of professional competence.

Although members are not required to follow the recommendations contained in the guidance note, they should take into account the following points.

When an allegation of professional negligence is made against a surveyor, a court or tribunal may take account of the contents of any relevant guidance notes published by RICS in deciding whether or not the member acted with reasonable competence.

In the opinion of RICS, a member conforming to the practices recommended in this guidance note should have at least a partial defence to an allegation of negligence if they have followed those practices. However, members have the responsibility of deciding when it is inappropriate to follow the guidance.

It is for each member to decide on the appropriate procedure to follow in any professional task. However, where members do not comply with the practice recommended in this guidance note, they should do so only for good reason. In the event of a legal dispute, a court or tribunal may require them to explain why they decided not to adopt the recommended practice.

[43] Extract from RICS (2016): *Valuation of Land for Affordable Housing*, 2nd edition

Also, if members have not followed this guidance, and their actions are questioned in an RICS disciplinary case, they will be asked to explain the actions they did take and this may be taken into account by the Panel.

In some cases there may be existing national standards that may take precedence over this guidance note. National standards can be defined as professional standards that are either prescribed in law or federal/local legislation, or developed in collaboration with other relevant bodies.

In addition, guidance notes are relevant to professional competence in that each member should be up to date and should have knowledge of guidance notes within a reasonable time of their coming into effect.

This guidance note is believed to reflect case law and legislation applicable at its date of publication. It does however relate to an area where government policy and legislation is constantly evolving, and members are therefore expressly reminded of their responsibility to establish if any changes in case law or legislation after the publication date have an impact on the guidance or information in this document, and its application to valuation advice or services they are providing.

Appendix 3: Shared ownership valuation – extract from new RICS professional standard[44]

A shared ownership product relates to an initial sale of a percentage of the equity of the property. Additional shares of the property are then bought over time, and this is known as staircasing. Depending on the terms of the shared ownership lease, there may be restrictions on the timing and amount of staircasing.

The starting point for the valuation of shared ownership tenure is to make an informed judgement regarding the unrestricted market value of the initial equity stake that will be sold to the prospective shared ownership purchaser. Best practice involves employing the comparable method of valuation; collating sales evidence; and taking due regard of location, quality and specification of assets, date of transaction and any incentives offered by the vendor. It is for the valuer to use their judgement to make the necessary adjustments when setting out their opinion of value for the proposed shared ownership unit, assuming it were available for sale on the unrestricted open market. Once an opinion of market value for the respective unit types has been formed, the valuer will then adopt a proportion of the full unrestricted market value to represent the initial equity sale.

The lump sum receivable from the initial equity sale is added to the net annual rent, capitalised at an appropriate discount rate and charged on the retained equity. Typical market practice involves a minimum threshold of 25% initial equity sale adopted; however, recent changes permit a 10% minimum equity stake. Market evidence should be gathered to confirm what a current stake may be at the point of valuation. The rent charged on the retained equity (still owned by the RP) is limited to a rent that is equated to a percentage of the initial value of the retained equity stake, and market norms should be assessed. The retained equity rent is usually no more than 2.75%, which corresponds to grant funding requirements.

If it is assumed that staircasing will occur and that net receipts will be reinvested by an RP, this capital should be built into the cash flow and discounted back at an appropriate rate. Staircasing, or the process by which additional tranches of equity are acquired by the shared owner from the RP over time, may in some instances be subject to restrictions.

Restrictions on a site-specific basis would typically be set out in an S106 agreement relating to a site with the benefit of planning permission. The valuer should therefore review the S106 agreement to identify any such restrictions and reflect them in their valuation.

In forming a view on shared ownership value and to avoid an overstatement of value, it is important for the valuer to pay close attention to any applicable affordability criteria, or income thresholds set out in prevailing planning guidance or s.106 agreements pertaining to the subject site.

For example, in general terms, income eligibility for shared ownership in London is currently a £90,000 household income in accordance with the Major's policy; however, at individual

[44] (from RICS (2024): *Affordable Housing Development – Valuation Considerations*, RICS professional standard, England and Wales (first edition, intended to replace RICS Valuation of Land for Affordable Housing, second edition)

Borough level, lower income thresholds often apply and may vary depending on such factors as the number of bedrooms. Therefore, local planning policies and supporting guidance should be thoroughly researched prior to making assumptions in this regard. Outside of London, the income eligibility cap is currently £80,000 but may be subject to amendment. Where the position is not clear, it may be advisable to model a number of different income thresholds.

A further important factor to consider is service charge costs. Along with mortgage repayments for the initial equity tranche and rent paid in connection with the unsold equity, service charge costs are also met by the shared owner. These will not be reflected in the valuation, but valuers should be aware of service charges as they will be included in calculations of 'total housing costs' for the purposes of meeting affordability criteria.

It is therefore helpful for the valuer to undertake a final cross-check that considers whether the total 'housing spend' (mortgage repayments on the equity tranche acquired, rent payable in relation to the unsold equity and service charge) is affordable to household incomes within the prescribed eligibility categories. If affordability criteria are breached – a household income higher than that prescribed as the threshold would be required to afford the subject shared ownership property – one or more of the three key components making up the value of the shared ownership units should be revisited and potentially reduced….

…The market or comparable approach is based on comparing the subject asset with identical or similar assets for which transactional information is available.

However, affordable housing is not easily comparable as by its very nature it is subject to local restrictions, conditions and eligibility requirements. These vary due to many factors, including geography, local authority jurisdiction, planning policies, tenure composition and prevailing market conditions. The value of private housing is driven by market supply and demand dynamics, and the specification and amenity offering of the specific asset. This can be largely ascertained through interpretation of comparable evidence. The value of affordable housing, however, is a product of many more complex policy and tenure-driven issues that need to be fully understood collectively to provide reliable and accurate valuation advice.

Adopting the comparable method of valuation to assess transactional evidence can be less reliable for affordable housing. Affordable housing is, by its very nature, restricted relative to private residential, in order to ensure it remains affordable. Therefore, while the market approach and comparable method of valuation are relevant to affordable housing valuation – and indeed play a critical role, particularly in informing opinion of value for the first tranche sale for shared ownership tenure (which is discussed in more detail later in this standard) – it should not be the primary default position.

Opinions on affordable housing values based on estimated 'proxy' values expressed as a proportion or percentage of private values, £ per square metre or foot 'rates' for completed affordable homes, or affordable housing land values by plot may in some instances provide useful final cross-checks. In isolation, however, such values should be treated with caution as they may be unreliable, introduce significant risk and do not constitute best practice. Such

approaches can result in an unfounded and unrealistic assessment of value that should not be relied upon or replace RICS guidance, where a DCF valuation is the preferred method.

There may be circumstances where the valuer may deviate from the preferred method, but this should be explained in their report. For example, some local authorities will require affordable housing to be sold at specific ‘transfer prices’, which are based on explicit proportions of market values or specific unit rates (often a rate per square metre). Research should be undertaken in each valuation to ascertain whether these or other specific circumstances apply.

References

Baum, A. (2023): *Real Estate Investment: A Strategic Approach*, Routledge

Baum, A., Crosby, N. and Devaney, S. (2021): *Property Investment Appraisal,* fourth edition*,* Wiley Blackwell

Baum, A., Mackmin, D. and Nunnington, N. (2018): *The Income Approach to Property Valuation,* seventh edition, Routledge

Baum, A and Xiong, Q. (2019): *Finance for Housing in England: money and the market, investment, affordability and tenure*, Said Business School, University of Oxford

Brooks, C. and Tsolacos, S. (2010): *Real Estate Modelling and Forecasting,* Cambridge University Press

CBRE (2023): *Reviewing Affordable Housing Sector Valuations to accelerate the delivery of new homes*, May 31 2023

Gordon, M.J. (1962): *The Investment, Financing and Valuation of the Corporation*, Irwin, New York, reported in Brigham, E. (1982) *Financial management: theory and practice*, (Fourth Edition), Dryden Press

Hartzell, D and Baum, A (2021): *Real Estate Investment - Strategies, Structures*, Decisions, Wiley Finance

House of Commons Levelling Up, Housing and Communities Committee (2024): *Shared Ownership Fifth Report of Session 2023–24*

The Housing Finance Corporation (2019): *Social Housing Valuation Methodology* https://www.thfcorp.com/wpcontent/uploads/2020/09/THFCInvestorRelationsWebsite150419.pdf

IPD/KTI (2012): *Property Valuation in the Nordic Countries*, IPD and KTI.

Milcheva, S., Damianov, D., and Williams, P. (2023): *The Maturing Shared Ownership Market: A Data-Led Analysis*, UCL

UK government (2024): *Rent Standard and Guidance*, www.gov.uk/government/publications/rent-standard

Petty, R (2023) *Rumours of the death of EUV-SH are exaggerated*, Social Housing

PWC: https://investorsurvey.pwc.com/

RICS (2016): *Valuation of Land for Affordable Housing*, second edition

RICS (2022): *Review of Real Estate Investment Valuations*

RICS (2023): UK VPGA 7: *Valuation of registered social housing providers' assets for financial statements*

RICS (2024): *Red Book Global Standards*

RICS (2024): *Affordable Housing Development – Valuation Considerations*, RICS professional standard, England and Wales (first edition, intended to replace RICS Valuation of Land for Affordable Housing, second edition)

Savills (2019): *Shared Ownership*, Savills Research Spotlight

Social Finance (2023): *A more consumer-focused shared ownership model which will result in increased demand and supply*, www.socialfinance.org.uk

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Please do not rely on this paper as a source of professional advice. The views of these interviewees have been taken into account, but do not all coincide with those of the author, who retains responsibility for any remaining factual errors and all opinions.