

Reflecting uncertainty in valuations for investment purposes

A brief guide for users of valuations

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This guide is prepared for the benefit of valuers and other users of valuations to provide a general understanding of the concept of uncertainty and the methods by which uncertainty, in valuations for investment purposes, may be identified and communicated with clarity.

It is not intended to provide training in valuation techniques but rather to give valuation surveyors, and other users of valuations, a general understanding of the matters that need to be taken into account.

Uncertainty is a feature of investment in real estate regardless of geographical location and the fundamental principles are universal. Uncertainty as a concept does not vary and this guide can be applied to investment properties in all markets around the world.

Risk and return

Valuation methodology is largely focussed on estimation of Market Value, as defined by relevant international valuation standards. This definition is widely accepted and is founded on the principle that valuers are estimating the contract price that a willing buyer and seller would agree in an arm's length transaction on the open market. The valuation techniques that are employed around the world vary both in overall approach and complexity but, ultimately, all seek to represent the price at which an investment would sell for at a particular moment in time. Thus Market Value is distinguished from Investment Value, or Worth, which represents the value of a property to a particular investor, or a class of investors, for identified investment objectives, which may not necessarily be representative of the market as a whole.

Where an investment market is relatively open and transparent, information about market transactions is often publicly available and, with the principal exception of specialist (often trading based) investments, Market Value can normally be estimated with reference to other comparable investment and occupational transactions. By analysing these transactions, the valuer is usually able to use a combination of 'initial' yield and/or 'all risks' yield, coupled with an assessment of the market rental value as the pricing benchmarks.

Whilst investors normally make similar pricing judgments based on the same market evidence, there will be a wide range of other factors that drive their decision-making process. Different investors have their own decision-making processes and use different investment criteria, but for most there are just two basic questions: how much profit will the investment deliver and how likely is it that this profit will actually be delivered? In other words: what is the risk and return?

The differing views of investors toward risk and return is most evident between buyer and seller who, whilst ultimately in agreement on price (otherwise there would be no trade), are likely to have very different tolerances to risk and different expectations of return.

Reporting market value

RICS Valuation Standards (the 'Red Book') provide an internationally recognised basis for undertaking and reporting property valuations which, in addition to adopting the Market Value definition described above, reflect a strict code of conduct concerning independence and objectivity of the valuer and stringent requirements concerning knowledge and skills. They also set out the minimum content for reporting purposes. Within the parameters of these standards, the content and structure of a valuation report may vary depending upon the specific purpose of the report, but the following additional information is normally required by investors and lenders as a minimum:

1. **Property information** – description of the building, current uses, state of repair, planned maintenance, location, situation, site and environmental information.
2. **Tenant information** – details of leases and lettable floor areas. Comments on tenant covenant strength and relevant tenant activity.
3. **Planning information** – details of relevant planning applications and consents, either on site or at nearby addresses.
4. **Market information** – national and local economic factors as well as national and local property market issues.
5. **Market data** – details of market rental transactions and investment transactions.
6. **Valuation methodology** – description of the overall approach to the calculation of Market Value (e.g. income capitalisation, development appraisal, profits method, etc.).
7. **Valuation factors** – summary of the main issues that influence the calculation of the Market Value and an explanation of the input variables.

Valuation factors will normally include a discussion of the market rents that have been adopted and the yields that have been applied to the income. As mentioned above, an analysis of relevant investment transactions will provide a set of benchmark yields that can be adjusted to reflect the specific characteristics of the subject property. These results can then be used to capitalise income from the subject property and calculate the Market Value.

Adjustments to the yields of comparable investment transactions will, wherever appropriate, be covered in some detail in a valuer's report, reflecting consideration of the differences in risk and growth potential between comparable transactions and the subject property. This type of information is required in most situations, whether the subject property is a standing investment, a vacant property, a development project, or is simply owner-occupied. The income capitalisation valuation approach is therefore a growth and risk implicit model, as suggested by the use of the term 'all risks' yield to describe the capitalisation rate.

Risks in the 'all risks' yield

Use of the 'all risks' yield (and this term may include the initial yield, the equivalent yield or the reversionary yield) is widely accepted for the purposes of analysing transaction evidence, but it may serve to mask some of the fundamental assumptions that investors are making about properties.

Income and capital growth assumptions, and their relationship with perceived levels of risk, are central to the investor's decision-making process. The higher the probability of an investment failing to deliver anticipated cash flow returns (i.e. the higher the risk), the higher the return that the investor will demand.

In financial markets, government bonds have been widely used as a benchmark for the purpose of comparing the returns of different financial products including property returns. These bonds are a form of debt, issued by government, which are guaranteed to be repaid at a fixed date and with a fixed rate of interest.

The following three scenarios outline and discuss the principles. All areas are expressed in square metres and monetary items are in 'currency units' (CU). Areas and prices have been rounded.

Scenario A	
Address	Office A, Main Street, Town A
Construction year	1990
Tenant	Government Department
Floor area	1860 sq m
Lease term	20 years, triple net, with 5 yearly rent reviews to market rent (10 years unexpired term)
Rent	CU300 000 pa (CU161 per sq m)
Market rent	CU300 000 pa (CU161 per sq m)

Consider the example of the office property summarised in Scenario A. On the face of it, this investment appears to be very similar to a ten-year government bond, which might – by way of illustration – offer a yield of 4%. However, if the same investment is purchased by an investor at an initial yield of 6% (CU4 725 000), this would suggest that the investor is anticipating additional risk in the property's cash flow, over and above that of a government bond. In fact, all investment properties can be seen to carry an additional risk premium because of their illiquid nature (i.e. the time and cost of individual transactions) but there are other factors to consider. In the example above, additional uncertainties in the cash flow might include:

- the age of the building and the uncertain impact of obsolescence on the ability to relet the building at the end of the lease;
- the uncertainty of a potential period of vacancy at the end of the lease, particularly in terms of timing and cost;
- the uncertainty of economic and political issues which may affect occupational demand and market rents, particularly at the end of the lease;
- the uncertainty attached to future investment demand and the effect that this can have on overall pricing (market risk).

If we consider Scenario A as transactional evidence, it is straightforward to identify the presence of these uncertainty factors but it is not possible to accurately analyse the impact of each one individually on cash flow. Therefore, any adjustment to initial (all risks) yield, to reflect the differing characteristics of an individual property, relies largely on the skill and experience of the valuer.

On the other hand, investors tend to take a more quantitative approach, by assessing the price (Market Value) of a property in the same way as a valuer, but also by assessing the worth of the property, using their own views of the market and investment criteria. By applying measures to individual items of uncertainty, such as those listed above, investors will conduct a risk analysis exercise so as to assess whether they are prepared to accept the inherent uncertainties at the price that is being demanded.

The risk analysis techniques used by investors for this assessment vary widely but are usually based upon an explicit cash flow approach. Depending on the nature of a particular investor, analysis may vary from a basic 'upside, downside, best case' approach to a more detailed sensitivity analysis of individual input variables (for example, rental growth, rental values, vacancy periods, exit yields, etc.), use of risk scoring models, or even a sophisticated probability analysis such as the Monte Carlo method.

The same approach is normally adopted by banks when providing debt finance. However, unlike investors, banks focus less on the risk of being unable to obtain a particular return on the investment and more on:

- risk of the cash flow being insufficient to cover the interest payments; and
- risk of the residual value of the investment (at the maturity of the loan) being insufficient to be able to repay the outstanding balance of the loan.

A detailed discussion of the various risk analysis techniques is beyond the scope of this guide, but it is important to understand that, for these techniques to work properly, they all require a sound fundamental understanding of underlying uncertainties within any cash flow prediction.

Absolute uncertainty	Uncertainties can be identified but there is no knowledge of the probabilities of their occurrence
Partial uncertainty	Uncertainties can be identified but the probabilities of their occurrence can only be determined in some situations
Uncertainty	Uncertainties can be identified and the probabilities of their occurrence can be determined in all situations
Absolute certainty	There are no uncertainties

Risk and uncertainty

In the context of property investment, risk may be defined as the probability that an expected cash flow (or target rate of return) is not realised. In other words, risk is a measurement of the uncertainty in a cash flow and uncertainty arises from a lack of knowledge and information.

As we cannot predict the future with certainty, investments will always contain an element of uncertainty. To help to understand this, it is useful to consider the full spectrum of uncertainties that might exist within a particular investment. Based on research provided by Hargitay and Yu (1993), this spectrum can be categorised in four levels as above.

Absolute uncertainties, for which there is no knowledge, cannot be measured and so these potentially represent the highest level of risk in a cash flow. At the opposite end of the spectrum, **absolute certainty** is a risk-free cash flow. In reality, most property investments display characteristics of uncertainty that lie between these two extremes. Understanding where an investment lies within this spectrum is an important part of most property investment strategies and reference is often made to ‘core investment strategy’ (a mixture of **absolute certainty** and **uncertainty**), ‘core+ investment strategy’ (some certainty but with a higher level of uncertainty) and ‘value add investment strategy’ (**partial uncertainty**).

The extent to which an investor will accept higher levels of uncertainty within a cash flow therefore depends upon their wider investment strategy, market knowledge and expertise. However, most investors will also develop specific risk management plans which are designed to remove, or at least mitigate, as many of these uncertainties as possible.

In Scenario A, the investor may have already made an allowance within the purchase price for the possible need to refurbish the building at the expiry of the current lease, in order to attract a new tenant. This will not remove the uncertainty of building obsolescence and future vacancy, but it will allow the investor to assess the impact on his target return and to decide whether this is acceptable.

Lenders of debt finance will also have an interest in understanding the uncertainties within a particular investment cash flow, which will be used as security for a loan. However, although lenders may consider the same uncertainties as investors, their respective measurements will be influenced by a very different set of criteria.

For example, in Scenario B below, the lender is providing new debt finance, secured against the same office building as in Scenario A above. At the maturity of the loan, in five years time, there will only be a remaining lease term of another five years, but this may be of less concern to the lender than to the investor. The reason for this can be found by looking more closely at the terms of the loan in relation to the investor’s cash flow.

Scenario B	
Loan period	5 years
Sum advanced	CU2 835 000
Loan to value ratio	60%
Interest rate	5% pa
Interest cover ratio	Minimum × 1.5 (rent/interest)
Amortisation rate	2% pa of sum advanced

The Scenario B cash flow shows that, at the loan maturity date, the original advance will have been reduced by amortisation to CU2 565 675, representing a loan to value ratio of 56%, down from 60% at acquisition. Even allowing for a (theoretical) small fall in the Market Value over the term of the loan, the probability that the investor (the borrower) is unable to repay or refinance the loan remains low and the ability of the investor to finance interest payments has remained comfortably above minimum requirement (1.5 interest cover ratio) throughout the loan period. Despite a shortening of the unexpired term of the occupational lease, the lender's cash flow therefore, has few uncertainties, a low probability of default, and consequently a 'low risk' profile.

Scenario B cash flow					
Year	1	2	3	4	5
Acquisition price (6% IY)	-4 725 000				
Acquisition costs (5.8%)	-274 050				
Income	300 000	300 000	300 000	300 000	300 000
Sale price (6.5% IY)					4 584 892
Sale costs (1.5%)					-68 773
Net ungeared cash flow	-4 699 050	300 000	300 000	300 000	4 816 119
Debt received	2 835 000	0	0	0	0
Debt arrangement fee & legal costs, etc.	-31 894	0	0	0	0
Debt amortisation	-42 525	-56 700	-56 700	-56 700	-56 700
Debt interest	-140 687	-137 852	-135 017	-132 182	-130 764
Debt repayment	0	0	0	0	-2 565 675
Net geared cash flow	-2 079 156	105 448	108 283	111 118	2 062 980
Interest cover ratio	2.13	2.18	2.22	2.27	2.29
Loan to value ratio	60%				56%

On the other hand, whilst the investor's cash flow remains positive, the shorter unexpired lease term has already had a negative impact on the value of the investment at maturity date, to the extent that the investment has returned a geared internal rate of return (IRR) of only 3% per annum, probably lower than the investor's original target. The uncertainty surrounding the potential cost of maintaining a vacant building, necessary refurbishment costs and the level of rent achievable for a new letting will be of growing importance to the investor if an acceptable return is to be delivered in the medium term.

However, Scenario C demonstrates that the lender is not always insulated from underlying uncertainties of the asset level cash flow. In this example the same office property is now assumed to be occupied by two tenants:

Scenario C	
Address	Office A, Main Street, Town A
Construction year	1990
Tenant 1	Government Department
Floor area	930 sq m
Lease term	20 years, triple net, with 5 yearly rent reviews to market rent (10 years unexpired term)
Rent	CU150 000 pa (CU161 per sq m)
Market rent	CU150 000 pa (CU161 per sq m)
Tenant 2	National Corporate
Floor area	930 sq m
Lease term	10 years, triple net, with 5 yearly rent reviews to market rent (2 years unexpired term)
Rent	CU140 000 pa (CU150 per sq m)
Market rent	CU200 000 pa (CU215 per sq m) following refurbishment

In this scenario, an additional lease to the National Corporate has been introduced, with only two years to run. The investor has acquired the property for a lower sum of CU4 200 000 (6.5% initial yield) and the lender is advancing proportionately the same loan, on the same terms. However, uncertainty exists for both the investor and lender.

If the National Corporate tenant vacates the property at lease expiry, the interest cover ratio on the loan will fall to 1.25 in year 3, which will breach terms of the loan agreement. Moreover, it is likely (all other things being equal) that the Market Value of the property would fall to such an extent that the loan to value ratio would rise above 75%, possibly triggering a second breach of the loan agreement. However, the biggest concern will be the effect of refurbishment and vacancy costs, which result in a net cash outflow during the third year.

The uncertainty of length of vacancy period, the extent of necessary refurbishment costs and probability of finding a good quality tenant at the anticipated rent and lease terms, are all issues that both investor and lender will try to measure. In cash flow Scenario C, the vacant offices are refurbished and relet at CU215 per sq m, after a void period of 12 months and a 9-month rent-free period. Under this scenario, the investor achieves a geared IRR of around 12% but this is only one of a number of possible outcomes, some of which may be less favourable and the relatively high return reflects these possibilities.

Scenario C cash flow					
Year	1	2	3	4	5
Acquisition price (6.5% IY)	-4 200 000				
Acquisition costs (5.8%)	-243 600				
Income	290 000	290 000	150 000	202 030	358 121
Void costs and agents fees			-75 000	-15 000	
Refurbishment cost			-306 792		
Sale price (6.25% IY)					5 692 077
Sale costs (1.5%)					-85 381
Net ungeared cash flow	-4 153 600	290 000	-231 792	187 030	5 964 817
Debt received	2 520 000	0	0	0	0
Debt arrangement fee & legal costs, etc.	-28 350	0	0	0	0
Debt amortisation (2% pa)	-37 800	-50 400	-50 400	-50 400	-50 400
Debt interest	-125 055	-122 535	-120 015	-117 495	-116 235
Debt repayment	0	0	0	0	-2 280 600
Net geared cash flow	-1 824 805	117 065	-402 207	19 135	3 517 582
Interest cover ratio	2.32	2.37	1.25	1.72	3.08
Loan to value ratio	60%				40%

The investor will have adjusted the asset pricing to reflect the uncertainties (an increase of 50 basis points in the initial yield) and, in doing so, will have considered outcomes from a variety of possible scenarios by using different levels of rent, vacancy period, refurbishment cost, lease length, tenant covenant and exit yield. By attaching probabilities to these outcomes, the investor is able to perform risk analysis. However, practical measures such as early negotiations with the National Corporate for a renewal of the lease and the allocation of capital for future refurbishment, will also be adopted as part of the investor's strategic business plan.

The lender will try to protect his position by careful drafting of terms for the loan agreement. For example, the lender may agree to fund a proportion of refurbishment costs, but might also require additional interest payments in year 2 (a 'cash sweep'), in the knowledge that the National Corporate tenant may not renew the lease.

Investment uncertainty

The uncertainties within an investment cash flow are of importance to both investor and lender. Whilst measurement of these uncertainties can be particularly complicated – and is beyond the scope of this guide – the fundamental starting point is identification of these uncertainties and their parameters (i.e. by how much they can vary).

Uncertainty will vary over time as particular factors become easier or more difficult to assess. However, it is important to understand that measurement of uncertainty (risk analysis) is conducted at a fixed point in time (the present), even though the uncertainties themselves are to be found in the future.

Discussion of uncertainties referred to in the earlier examples of Scenarios B and C has been limited to those that are likely to have greatest impact upon cash flow. However, there are a wide range of other uncertainties which can also have an impact upon delivery of an anticipated cash flow. The more common uncertainties are discussed below but the list is not exhaustive and different properties will be subject to different uncertainties, which are often determined by the individual characteristics of a property and its location.

1. Economic, financial and political uncertainty

Economic uncertainty will always exist to some extent, and it will drive fluctuations in the occupational demand for property. However, there may be times when this uncertainty is particularly acute, for example, when the economy is in recession. Financial uncertainty may have a similar impact by reason of rapid movements in the cost of money, inability of companies to access funding for business expansion or, in the case of property investment, inability to finance new acquisitions and refinance existing investments. Political uncertainty may arise as a result of a potential change in government or government policy and associated legal and tax implications.

2. Legal and regulatory uncertainty

Possible changes in the law, either by statute or case law, as well as other regulatory changes, may affect the way in which businesses can operate (for example, changes in health and safety) and the way that property can be used or developed (for example, more restrictive planning laws or policies). Most legal and regulatory changes take time to be implemented, which allows investors to make necessary preparations, but the consequences of these changes can often be uncertain.

3. Physical uncertainty

Physical uncertainty may take several forms, all of which are related to the fabric of a property. This may be something as simple as movement in levels of non-recoverable running costs in a multi-let building or timing of a particular non-recoverable capital expenditure, but it is more often associated with problems of building obsolescence. Building obsolescence is normally physical, as is the case with many older buildings, where plant and machinery may be rendered obsolete by technical advances and increasing costs of maintenance and repair.

However, obsolescence may also occur where continued use of a building becomes unviable for simple economic reasons, rather than for technical reasons. Economic obsolescence often occurs in specialised buildings which might become surplus to requirement and which cannot be readily used for other purposes. A good example of this is where the production process at a specialised industrial property is relocated in order to take advantage of cheaper labour costs elsewhere, leaving behind an operational building for which there is little or no occupational demand. This type of uncertainty is often closely linked to wider political and economic factors (as highlighted above) and demonstrates the interrelationship that exists between many uncertainties.

Also at a wider level, environmental uncertainties, such as soil contamination and subsidence, can often be readily measured and remediated, albeit at a cost, but others, such as non-fluvial flooding, and even earthquake, are highly unpredictable (representing almost 'absolute uncertainty').

4. Occupational uncertainty

Occupational uncertainty is one of the biggest uncertainties within a cash flow, particularly in the case of older properties with up to three or four tenants (as discussed earlier in relation to Scenario C). Lenders and investors will often look carefully at the probability of each tenant exercising a break option or not renewing at lease expiry, or even going into administration or liquidation. Often this is done with reference to the corporate credit scores from the main credit rating agencies, which analyse the likelihood of the default of an individual business in the short term.

However, this approach does not always reflect the property decision-making process of a business, and a wider understanding of the tenant's operational requirements is also needed to make a full assessment of probability of future vacancy. Property professionals are well placed to provide advice regarding occupational requirements of many national and regional businesses and it is an area in which lenders, in particular, regularly require assistance.

5. Leasing uncertainty

Leasing uncertainty will exist in all situations where there is an anticipated, or actual, vacancy and can include issues such as:

- variations in levels of occupational demand;
- variations in length of marketing and letting periods;
- variations in quality of new tenant covenants;
- variations in precise terms of the lease (e.g. length, rent review provisions, repairing obligations or indexation);
- variations in rent, and any rent concessions.

Most of these uncertainties can be measured simply in terms of the spread of possible outcomes, with the most improbable outcomes being at the top and bottom of each range.

6. Market uncertainty

Market uncertainty (which is often also referred to as 'investment uncertainty') exists at both investor and occupier levels and, in many ways, the two are interrelated. However, in both cases uncertainty lies in the extent to which future market movements can be accurately predicted.

In periods of strong economic growth, it is often more straightforward to predict future increases in occupational demand. However, the extent to which this will drive increases in occupational rents will depend upon the level of supply of a particular property type in a particular location. Accurate forecasting of changes in rental values will therefore often depend upon the underlying reliability of market data and knowledge of the demand/supply dynamics.

Strong upward movements in occupational demand will normally drive similarly strong upward movements in investor demand, in anticipation of rising income returns. Increases in investor demand may also drive capital values upward if there is a particular shortage of available investment product. In turn, this may attract other investors who are seeking to benefit from short-term capital gains but who may push capital values to levels of return which are not sustainable by occupational demand increases. This is often the cause of an investment 'bubble' which, in itself, is another source of uncertainty as it is not based on market fundamentals.

Periods of economic contraction present a far greater challenge, not just because rental values and investment values may be falling but because the volume of market data may be limited, or even non-existent. This lack of data can make an assessment of current market conditions difficult and an accurate assessment of future market conditions almost impossible. These types of markets will display high levels of investment risk, but are often attractive to the more sophisticated and experienced investors that are best equipped to manage this risk.

Market uncertainty is therefore fuelled by inaccurate or incomplete market data. The weaker the data, the greater is the uncertainty and the higher is the risk of incorrectly judging market movements and investment returns.

7. Valuation uncertainty

Valuation is a vital part of the investment process and various methodologies will be used to price particular types of investment. As part of the acquisition process, the investor will use a valuation as the basis of a calculation of worth. Lenders will use it largely as a benchmark for drafting loan agreement terms. Whether these valuations are undertaken internally or externally, the degree of certainty of accuracy of valuation may vary under certain circumstances.

Whilst a valuation will always reflect the uncertainty issues in previous sections 1 to 6 above ('normal uncertainty'), the fact that it is fundamental to both the investor's and lender's decision-making processes, means that any variation in accuracy of valuation could have an impact upon future investment performance. The valuation, particularly if it is used for pricing purposes, may therefore be regarded as an uncertainty in its own right.

This point has been recognised by RICS in the Red Book Guidance Note 1 ('Valuation certainty'), which discusses matters that may affect valuation certainty/uncertainty, and reporting of these, in more detail.

The interrelationship between various uncertainties listed above is important to understand and often requires explanation in the context of valuation reporting. For example, economic uncertainty may have an impact on occupational uncertainty and physical uncertainty may have an impact on leasing uncertainty.

Investment uncertainty and the valuation process

The primary function of any valuation report is to report the Market Value of an investment and, as has been discussed previously, there is a certain level of information that most investors and lenders will normally expect as part of any valuation process.

Nevertheless, whilst experienced investors may have a detailed understanding of a particular property market or investment, this may not always be true of lenders, who often rely on external advisers to provide essential information on property issues. The valuation report will normally be used to support work of internal underwriting teams, much of which involves risk analysis using detailed mathematical models.

Risk analysis is a very subjective process and measurement of this type of uncertainty is not conducive to a standardised approach, with most lenders developing their own internal models. For this reason, lenders do not usually seek third party advice regarding the analysis of risk, and it is certainly not within the skill set of most valuers to provide this type of advice. However, valuers do have a useful role to play in identification of investment uncertainties and provision of relevant data that lenders can use to measure and assess those uncertainties in their own way.

The internal models which lenders employ to measure investment uncertainties are invariably based around cash flow analysis of underlying investments. As has been demonstrated previously in Scenarios B and C, it may also be necessary for valuers to use cash flow analysis to understand the issues that are most important to lenders. Cash flow analysis has the advantage of clearly identifying the main components of the 'all risks' yield, so that impact of a selection of uncertainties can be clearly demonstrated.

The level of detail required for reporting of uncertainties will vary from property to property, but emphasis should be placed on those uncertainties that will have biggest impact upon forecast cash flow and the borrower's ability to service interest and capital payments on the loan. This can be demonstrated very effectively by modelling the 'worst case' scenario of each of the principal uncertainties.

Cash flow analysis also has the advantage of allowing lenders to model possible 'residual' (or 'exit') value scenarios at the date of loan maturity, in order to assess probability of repayment of the outstanding loan balance. Some lenders already routinely ask for this information in the form of a Market Value on the basis of a variety of Special Assumptions that reflect their view of the anticipated letting position at maturity date (for example, Market Value on the Special Assumption that unexpired terms of all existing leases have been reduced by five years).

Valuers can more usefully demonstrate the impact of uncertainties by including this exit value within their cash flow analyses, so that a variety of exit possibilities might be modelled. However, care should be taken to explain the basis of calculation of exit values, particularly the capitalisation rate that has been adopted. Care should also be taken to present exit values in the context of discussion and explanation of the investment uncertainties and not to allow this to be regarded as a formal forecast of Market Value. Reporting of uncertainties should therefore be included in a clearly defined section of the valuation report.

Effective communication of uncertainty

Many of the uncertainties that have been described in earlier sections of this guide will be issues that are routinely considered by valuers. Often, it will not be necessary to explain these uncertainties in the valuation report, either because they are not considered to be significant or, more commonly, because they are already well known to the client (as in the case of regular valuations for a unit trust, for example).

As lenders will usually have the greatest need to understand investment uncertainty, this advice should be provided in terms that are both clear and concise and preferably also with reference to the principal terms of the loan. In the examples used in Scenarios B and C, cash flow analyses provide a very clear numeric view of the most probable impact of uncertainties. However, as the very nature of uncertainty means there may be a variety of possible cash flow outcomes, it is necessary to consider using other additional methods to communicate this variance.

Measurement of uncertainty, otherwise known as risk analysis, has been the subject of many academic studies. In a property context, 'Monte Carlo' analysis is the most well known, although the Property Risk Scoring model (Hutchison, Adair and Leheny) is a simpler alternative which ascribes a numeric representation of risk using weighted assessments of individual uncertainties. However, models such as these may not be fully transparent and lenders (as well as RICS) are not keen on seeing them introduced into valuation reports.

More popular amongst lenders is the use of a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats). This is a relatively simple way to set out uncertainties in the context of both positive and negative investment factors. Using the example of Scenario C, the SWOT analysis might be presented as follows:

Scenario C – SWOT analysis	
<p>Strengths</p> <ul style="list-style-type: none"> Established city centre location Fully let to two, high quality, tenant covenants. FRI leases Current income is slightly reversionary 50% of the income is secured for a further 10 years Occupational demand in the city centre is currently good and rents are rising steadily for good quality accommodation Investment demand is focussing more on regional office centres such as Town A 	<p>Weaknesses</p> <ul style="list-style-type: none"> The building is over 20 years old and will require refurbishment in the short term National Corporate is known to be consolidating its operations at a new office in Largertown and is likely to vacate at lease expiry in 2 years The increasing supply of offices in the town over the next two years may restrict rental growth in the medium term The value of the investment may fall in the short term, as the expiry of the National Corporate lease approaches The need for refurbishment, coupled with the reduced income, may place stress on the borrower's ability to service the interest and amortisation payments
<p>Opportunities</p> <ul style="list-style-type: none"> Vacancy of the lower office floors will provide the opportunity to upgrade these areas and refurbish the common areas An increased rent of between CU195 and CU225 per sq m could be achieved for the refurbished offices When relet, the increase in investment value is likely to significantly reduce the loan to value ratio 	<p>Threats</p> <ul style="list-style-type: none"> Commodity prices are increasing rapidly and refurbishment costs are difficult to predict over the next 2 years Planned reductions in central government spending may impact future occupational demand from the public sector A trend toward shorter occupational leases, of up to 5 years, may limit the increase in value arising from the refurbished offices

In the case of more complicated properties (development appraisals, for example), or high value investments, or investments with a high loan to value ratio, a more detailed written explanation may be required. This is best done by breaking down uncertainties into the seven categories referred

to earlier. In some areas, it may also be helpful to include upper and lower limits to particularly uncertain variables, which the lender's underwriting teams can then compare with their own assumptions. Using Scenario C once again, this explanation might be presented as follows:

Scenario C – Review of uncertainty

1. Economic, financial and political uncertainties

- Planned reductions in central government spending may impact future occupational demand from the public sector. This is particularly important in Town A, where up to 35% of the total office stock is estimated to be occupied by government organisations
- Commodity prices are increasing rapidly and refurbishment costs will be difficult to predict over the next 2 years. Although we have assumed refurbishment costs of almost CU307 000, this could conceivably rise by as much as 10%

2. Legal and regulatory uncertainty

- We are not aware of any imminent legal or regulatory changes that would have an impact upon the value of the investment. However, we would draw your attention to the continued focus of the government on sustainability in construction and the possibility that changes to building regulations may have an impact upon the future refurbishment cost for the offices

3. Physical uncertainty

- The building is over 20 years old and the offices and common parts will require refurbishment in the short term
- Whilst there are no plans to refurbish the external parts or the building plant and machinery, you should be aware that the maintenance requirements of these areas will increase steadily in the coming years and this may have a significant impact on the net cash flow if future leases do not allow for the recovery of such costs

4. Occupational uncertainty

- National Corporate is known to be consolidating its operations at a new office location and is likely to vacate the property at lease expiry, in 2 years time
- Planned government spending cutbacks might result in the closure of, or reduction in the use of, the offices occupied by Government Department. Whilst, technically, this would not have an impact on the cash flow, it might present problems with the security and appearance of the building. Nevertheless, this could also provide an opportunity to refurbish and relet these offices, with the cooperation and financial backing of the tenant
- The loss of income and the probable need to refurbish the vacant offices may cause a breach of the interest cover ratio in year 3

5. Leasing uncertainty

- We have adopted a refurbishment and marketing period of 12 months and a rent-free period of 9 months in order to secure a good quality tenant covenant on a 10-year lease, on FRI terms. Any reduction in occupational demand, or an increase in office supply, could result in a marketing period of up to 18 months and a rent-free period of 12 months
- Given the location of the property, and after refurbishment of the offices, we anticipate that good quality tenants could be secured, but probably not of the same quality as the existing tenants
- A trend toward shorter occupational leases, of up to 5 years, may limit the increase in value attributable to the refurbished offices. The difference between a 10-year lease and a 5-year lease could be the difference between a 6.25% exit yield (as we have used) and a 6.75% exit yield (a fall of almost 7.5% in value terms)
- A shorter lease term may also be accompanied by more restrictive repairing obligations, although these could be offset by a higher overall rent
- The value of the investment may fall in the short term, as the expiry of the National Corporate lease approaches. This may result in a short-term breach of the loan to value covenant

6. Market uncertainty

- We have adopted a market rent of CU215 per sq m after refurbishment but a fall in the demand for offices from the public sector could result in a lower rent of CU195 per sq m
- Whilst the investment market remains active, and there is increasing demand for office buildings in regional locations, the possible impact of reduced occupational demand from the government sector, could result in rising vacancy rates, and may limit rental growth in the local area
- Lower levels of rental growth will also have an impact on investor demand, possibly resulting in an outward movement in investment yields, and we would urge some caution in this regard

7. Valuation uncertainty

- The quality and volume of market data has been good
- (Named firm) has been directly involved with office leasing and investment transactions (where a dual role is permissible) in the location of the subject property over the last 12 months
- The borrower has supplied us with all of the relevant information for the valuation. However, where indicated in our report, we have relied on information provided by third party advisers and we have not sought to verify the accuracy of this advice

The example used on the previous page has been simplified for the purposes of this guide. Valuers can be expected to ensure that sufficient detail is provided in respect of those uncertainties that may have the greatest impact upon delivery of an anticipated cash flow, or target return.

However, the presence of uncertainties should not be used to qualify the valuation in any way and instead should be used to clarify the valuation. The importance of transparency in the valuation report cannot be overstated – the greater the transparency and relevance of the valuation advice, the greater the value of that advice to the client.

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