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Defining Investment Quality

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Defining Investment Quality

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This Programme supports the IPF's wider goals of enhancing the understanding and efficiency of property as an investment. The initiative provides the UK property investment market with the ability to deliver substantial, objective and high-quality analysis on a structured basis. It encourages the whole industry to engage with other financial markets, the wider business community and government on a range of complementary issues.

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Defining Investment Quality

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Defining Investment Quality

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Defining Investment Quality

1. EXECUTIVE SUMMARY

Purpose of Research

- There are well-established and well understood variations in performance across property groupings by type and region. Rental values for offices, for example, have been more volatile than for shopping centres. However, analysis at the asset level has revealed that there is a wide spread of returns within each grouping. This limits the effectiveness of asset allocation and risk management based solely on these two attributes.
- The suspicion is that there are missing factors driving property return variations, particularly characteristics such as location and building condition, tenant strength and lease structures. If there are missing factors in the performance measurement framework then quantitative risk estimates will be mis-specified and the full opportunities for asset allocation concealed from investors.
- These factors can collectively be described as 'quality' factors. One of the barriers of using such property quality attributes are useable measures for each factor and a clear articulation of how an asset's financial and physical characteristics impact upon return generation.
- The purpose of this research is to define measures of property and income quality that can be used to stratify real estate returns and describe how these impact asset level and market performance. The application of the research will provide investors with a more complete picture of market trends and deeper insights into the risks within their portfolios.

Defining Quality

- 'Prime', 'secondary' and 'tertiary' are widely used terms within real estate investment circles to describe building and location quality. There are no universally agreed definitions, however, and no consistency in the distinctions applied to prime, secondary or tertiary property.
- To classify a property's investment quality, objective criteria are required that are also sufficiently flexible to be capable of application consistently over time.
- This research seeks a practical, robust and quantitative definition for quality that is acceptable to practitioners for use within a performance measurement and risk management framework.
- Two components are identified, the first being property quality and the second income security. The research also specifies a composite measure for overall investment quality.
- Property quality is a hybrid measure, combining both the quality of the building and of the location. Rental value is proposed as a proxy for quality, being a practical means of distinguishing between high and low quality properties. However, no discrimination is made between building and location.
- The income security of an asset is determined by the financial strength of its tenants and the remaining duration of the leases.
- Combining tenant financial strength and unexpired lease term into a separate metric of income security is possible but requires a robust quantitative estimate of tenant default risk.
- Through merging income security and property quality into a single measure, assets of the highest investment calibre can be defined as combining both superior property quality and income security.

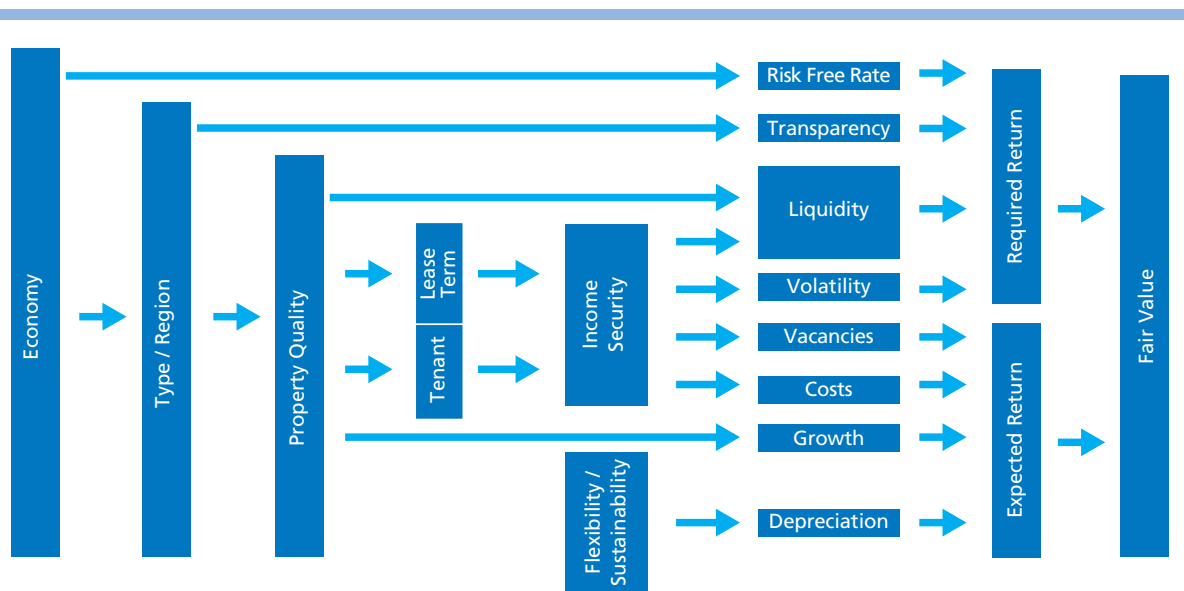
Findings

- The framework put forward in this paper articulates how investment quality is central to systemic growth drivers and pricing, explaining why the performance of high quality real estate investments can often be closer to that of other high quality investments of different property types than to poorer quality investments of the same type.
- For example, analysis using equivalent yields as a proxy for investment quality found that low yield assets (representing high investment quality) have led the recent market upswing, whilst high yield assets (low investment quality) generated the greatest returns between 2000 and 2007.
- This performance generation framework, depicted in Figure 1.1, builds on previous IPF reports into risk, such as *What is Fair Value?* and *Risk Web 2.0*, and also the more recent work of Jackson & Orr.

1. EXECUTIVE SUMMARY

- Analysis of property quality has also confirmed that the rental growth of higher quality property exceeded that of lower quality property rents in the market upturn, evidenced by a breakdown of office vacancy rates based on building quality indicators.
- The framework illustrates how the performance of individual assets is determined by the inter-related influences of income security and property quality, which introduces a variation in returns between otherwise similar assets.
- This explains why segments defined by property type and region account for only a small portion of the variation of *asset* returns, whilst simultaneously also reinforcing the importance of a type-region typology as the underlying driver of *market* returns.

Figure 1.1: Performance Generation Framework



Implications

- These findings have implications for portfolio construction and risk management: an allocation strategy that creates a portfolio comprising a range of assets of differing types, in different regions, of varying quality and with a range of lease terms, should generate a return close to that of the market average.
- Where assets with similar characteristics are concentrated, such as in specialist portfolios containing poor quality assets with short leases or high quality assets with long unexpired lease terms, say, these will generate a return that tracks the average performance of other assets with those particular characteristics.
- Stock selection maintains its prominent role in the model of return generation outlined in the research but its contribution to portfolio performance, or 'alpha', is more tightly defined as the ability to identify assets whose growth prospects are under-priced.

What Happens Next?

- The measurement of quality, as defined, permits a rigorous examination of the relationship between asset quality characteristics and returns.
- The quality definitions may also be used to link formerly disparate and fragmented data sources to provide the inputs required to facilitate forward-looking management of asset and portfolio risk.
- The key objective of this research is to establish an accepted industry-wide definition of quality and a performance generation framework that recognises the influence on asset returns of changes to these quality factors.

2. INTRODUCTION

A unique challenge for fund managers is the integration of real estate's mix of financial and physical characteristics into a formal framework of asset appraisal, portfolio construction and risk management.

Type and region factors explain some of the variation in asset returns, but not the majority. The power of constructing a portfolio based solely around these two factors is limited, therefore, and places the greater emphasis on short-term stock selection rather than asset allocation. Devaney and Lizieri conclude that "in a sense, the 'South East retail' performance is simply a statistical artefact"¹.

Other attributes are suspected of driving property returns, in particular, an asset's specification, location, current lease terms and tenant strength.

But how can these factors be included in an investment process when there is a lack of consistent data measuring their impact on the drivers of asset returns? As Devaney and Lizieri conclude: "In large measure, sector and geography are the only variables available for analysis".

Market Risk and Return Characteristics

The risk and return characteristics of the commercial property market can be estimated using indices of the past performance of real estate assets.

The headline return for the whole market can be broken down into groupings of assets, or segments.

A commonly used risk management technique is to diversify a portfolio with a spread of holdings across the segments. Constructing a portfolio of assets with an optimal mix of different uses and in different regions has been long held to diversify away specific risk and lead to a portfolio with the most attractive risk adjusted return prospects for a given level of capital employed.

However, analysis of asset returns reveals that individual assets generate widely different returns to their segment average. If this range is purely random, then such variance in asset returns should be efficiently diversified in a portfolio; the greater the number of assets acquired in each segment the higher the proportion of specific risk that will be removed. **If, however, there are missing factors that systematically account for some of the pattern in asset returns, then the effectiveness of asset allocation is weakened and portfolio risk underestimated.**

Market Segments

Previous research into the most effective means of dividing the real estate market into groupings for portfolio construction has focussed on splitting regions either economically or hierarchically (the South East/North West versus national/international) and also on separating property type by function or planning use (A1/A3 use class versus supermarkets/unit shops, for example).

Extensive variations in asset returns have been found to remain in such segmentations when based solely on type and region. Variables, such as asset location, condition, unexpired lease term and tenant, have been identified as missing factors. In other words, it is suspected that there is a contrast in the performance of assets at either end of the building/location quality and income security spectrum: "an alternative explanation would be the traditional property distinction between prime and secondary" (Devaney and Lizieri).

¹ Individual Assets: Market Structure and the Drivers of Returns, 2005.

2. INTRODUCTION

If building/location quality or tenant quality/unexpired lease term are found to be major determinants of asset returns, subdividing segments into different quality categories will enhance the power of asset allocation and increase the efficacy of risk measurement. The creation of sub-indices to record the performance differentials across the quality spectrum would confirm or dispel these suspicions.

Expected versus Required Return

There are major concerns regarding the applicability of mean-variance portfolio optimisation. Recent studies have focussed on the components of risk, unravelling the drivers of returns and enabling a more forward looking approach to risk. For a discussion see *The Future for Risk Management*².

The basis of all such models is that the property market exposes an investor to risk for which compensation is required. Investors compare the return required from a segment to the future return each segment is expected to generate:

Investment Rule

$$\text{Expected Return} \geq \text{Required Return}$$

Baum and Crosby (2008)³ break down the components of expected return into growth minus depreciation. To fully capture the impact of quality, this model should be expanded to explicitly deduct transaction and management costs and an allowance for vacancies. In other words, investors expect a higher return from markets due to either a lower entry price, stronger rental growth, lower costs or higher occupancy.

$$\text{Expected Return} = \text{Equivalent Yield} + \text{Growth} - \text{Depreciation} - \text{Costs} - \text{Vacancies}$$

The required return equals the risk-free rate plus an adjustment to compensate for volatility, liquidity and transparency. Investors, therefore, should require a lower return in markets where returns are more stable, investors are confident of being able to transact and there is greater pricing visibility.

$$\text{Required Return} = \text{Risk Free Rate} + \text{Premium (Volatility + Liquidity + Transparency)}$$

The return, volatility and correlation measures between segments are also key inputs into portfolio construction.

To apply this pricing model to individual assets, a stock specific premium must be added. Baum and Crosby (2008) identify this premium as being made up of tenant, lease, location and building risks, which this research seeks to define.

The remainder of the paper is structured into four sections. Section 3 sets out the rationale for adopting rental value as a method of defining overall property quality. A scale is devised, and initial indications recorded of the level of influence of overall property quality on each component of expected and required returns.

Section 4 extends the definition of quality to include the security of income by reference to the length of the current lease and the strength of the current tenant. The research analyses the influence of income security, which is related to that of property quality, on asset performance.

Section 5 draws together property quality and income security into a single measure of asset investment quality and Section 6 summarises the research findings and offers a number of recommendations for the industry to pursue.

² Blundell, *The Future for Risk Management: A Necessary Evil*, 2013.

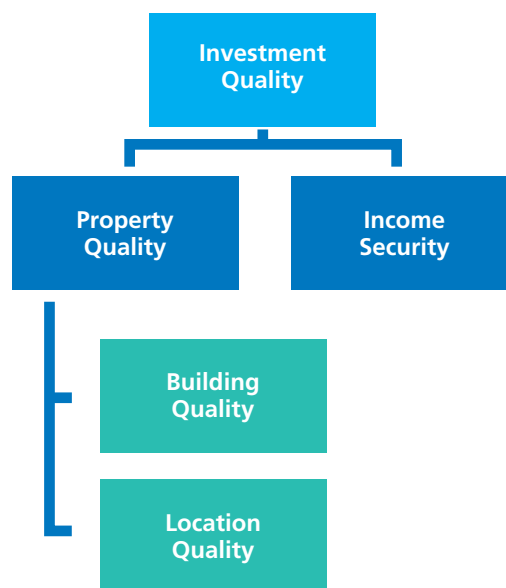
³ Baum and Crosby, *Property Investment Appraisals*, 2008.

3. PROPERTY QUALITY

This section sets out a basis for the measurement of the quality of a property and describes the impact of property quality on asset returns. Section 4 considers measures of income security and how this impacts on asset returns. Section 5 brings the two measures together to form one overall metric for investment quality.

The research proposes a measure of property quality that is determined by both the quality of its location and the building itself.

Figure 3.1: Components of Investment Quality



To isolate the impact of property quality on asset performance, additional indices are required that record the past performance of better and poorer quality properties and its drivers. These might include, for example, indices of high quality distribution warehouse returns, or poor quality West End retail new lease terms. Creating such indices requires a definition for property quality and a scale for quantifying what constitutes a high, medium or low quality property.

To be of practical use as an industry-wide definition of property quality, the factors would need to be quantitatively and theoretically robust, but also intuitively acceptable to practitioners' experience.

3.1 Defining Property Quality

Labels such as 'prime', 'secondary' or 'tertiary' are colloquial terms used to indicate the quality of a property: prime indicating the highest quality and tertiary the lowest. These labels can be applied to both the physical specification of a building and the property's location, e.g. a prime office building or a secondary retail location.

Such terms are often derived from a marketing context, being used as descriptive terms in promotional material prepared for properties that are listed for rent or for sale. There are no universally agreed definitions for such terms – one property described as prime by one investor may be identified as secondary by another. Over time, the same properties that were once described as prime may now be described as secondary.

3. PROPERTY QUALITY

To codify property quality, criteria are required that are analogous to these terms but sufficiently objective and flexible to be capable of consistent application over time.

3.2 CoStar, PCA and BREEAM Building Quality Scorecards

Several guides already seek to specify what building and location characteristics determine property quality.

One example is the CoStar building rating system, which rates every retail, office and industrial asset on a scale of one to five stars. The office and industrial scorecards focus on building attributes, whilst the retail definition is more oriented to location.

Table 3.1: CoStar Building Rating System

	Office	Retail	Industrial
★★★★★ & ★★★★	<ul style="list-style-type: none"> ● New or refurbished construction exhibiting the latest trends in office design. ● Prominent in its context. ● Sustainable and energy efficient. ● High quality materials and systems. ● Efficient floor plates and generous ceiling heights. ● High glazing ratios for daylight and views. ● Rents above market averages. 	<ul style="list-style-type: none"> ● Located in prime retail corridor or submarket. ● Leading, high volume shopping centres. ● Positively differentiated design to attract customers. ● Industry leading retailers, paying rents above market average. 	<ul style="list-style-type: none"> ● Efficient loading ratios. ● High eaves heights. ● Land available for manoeuvrability, access and expansion. ● Likely new, large, modern distribution and warehouse facilities. ● Adequate roof lights. ● Flexible to accommodate various tenants and uses. ● Rents above market averages within its secondary type.
★★★	<ul style="list-style-type: none"> ● An older structure, but not refurbished. ● Standard ceiling heights with less efficient floor plates. ● Average or near average market rents. 	<ul style="list-style-type: none"> ● In a good location, but average building quality. ● Smaller shopping centres. ● Retailers paying average or near average market rents. 	<ul style="list-style-type: none"> ● Smaller structures with lower eaves heights. ● Limited land for expansion and access. ● Average or near average market rents.
★★ & ★	<ul style="list-style-type: none"> ● In need of significant refurbishment or only suitable for smaller tenants. ● Lowest rents in market. 	<ul style="list-style-type: none"> ● Functional design. ● Likely in a less desirable location. ● Lowest rents in market. 	<ul style="list-style-type: none"> ● Suitable for smaller, unique industrial uses. ● Limited functionality. ● Lowest rents in market.

The Building Research Establishment Environmental Assessment Methodology (BREEAM) building rating tool is also a scorecard, focusing predominantly on building sustainability:

“A BREEAM assessment uses recognised measures of performance, which are set against established benchmarks, to evaluate a building’s specification, design, construction and use.” Building Research Establishment website: What is BREEAM?

These measures include management, health and wellbeing, energy, transport, water, materials, waste, land use and ecology and pollution.

3. PROPERTY QUALITY

Scorecard approaches, such as those of CoStar and BREEAM, require each factor to be weighted, which, inevitably, are determined on a subjective basis.

The Property Council of Australia (PCA) rates every Australian asset over a certain size threshold and reports comprehensive market and performance indicators split by property grades. How the PCA treats scorecard weightings is explained in its guide:

“The assessment tools provide a guide to the typical features of different categories of office space – it is not necessary to achieve every performance criteria nominated in the guidelines. However, to qualify for a particular quality category, it is anticipated a building will overwhelmingly meet the stated criteria.”

“Users need to exercise their judgment rather than rely on hard rules or ‘tick the box’ rating systems.”

There are also practical problems to rating property quality against a list of building characteristics; firstly, it is laborious to rate all buildings and, secondly, it is a constant task to keep ratings up to date. Any framework has to keep pace with specifications that evolve over time and to infrastructure changes, which can affect the relative attractiveness of different locations.

The PCA assessment was reviewed in 2006 and 2010 whilst the BREEAM assessment criteria are updated periodically (although historic BREEAM building ratings are not revised automatically according to the new criteria).

Some specialist firms publish quality guides that are updated on a regular basis. For example, Trevor Wood Associates publishes an annual ranking of all shopping centres:

“Shopping centres currently trading were again ranked by overall attractiveness to shoppers, retailers and investors. This was achieved by confirming detailed information for each scheme thought to be larger than 50,000 sq. ft. in the United Kingdom. The information was converted into points for selected features shown to be important to those groups, including tenants, lettable area, type of scheme, weekly footfall and facilities available.”

Table 3.2: UK Shopping Centres ranked by overall attractiveness

Rank	Scheme	Points
1	Westfield Stratford City	7,744
2	Bluewater	7,267
3	Westfield London	7,107
4	Intu Metrocentre	7,076
5	Meadowhall	6,940

Source: Going Shopping 2015 – The Definitive Guide to Shopping Centres, Trevor Wood Associates.

3. PROPERTY QUALITY

Firms with such specialist market knowledge, dealing with a relatively manageable number of assets, may rank property quality and/or location. The relationship between these rankings, using proprietary scales, and growth, new lease terms, vacancy periods, pricing and liquidity would be of value to investors seeking to measure expected and required returns.

3.3 Occupiers, Property Quality and Rent

The PCA guide explicitly states that occupiers are the ultimate arbiters of what constitutes a prime building or a prime location:

“The ultimate guide to an occupant’s assessment of space is the rent they are willing to pay as tenants (or the financial value they attribute as owner occupiers) for the amenity and services the space delivers.”

The term ‘prime’ is used, therefore, to infer that the property has attributes that are attractive to occupiers (this term can also be used to indicate that an asset has attractive financial characteristics – see Section 4); secondary accommodation would be second choice to prime space available at the same price.

The stronger the competition from potential tenants for each asset, the higher the level of rent, the longer the lease term and the stronger the tenant strength that the landlord can hope to achieve.

Some tenants may choose to take poorer quality space at cheaper rents; these tenants demonstrate a willingness to trade property quality for rent and would lease accommodation with a higher specification if offered at the same rent.

Whatever the determinants of asset and location quality, the key link is between the quality of a property and the quantum of the cash flow; **an occupier will trade-off desirable property characteristics with the rent that they are willing to pay for such accommodation in the location** (as seen in Table 3.1, the CoStar rating system uses rent as a factor to differentiate between different grades of building quality).

3.4 Rent as a Measure of Property Quality

Rent at letting is therefore the key measure of property quality at that time. However, rents achieved on letting or rent review at different points in time are not always comparable, as the general level of rents in the market will fluctuate. For example, Trevor Wood Associates, in its publication of the highest retail park rents, demonstrates the top 10 retail park rents were set at dates ranging between 2005 and 2013, determined not just by the quality of each park but also by the market cycle and the timing of new lettings.

What is required is an estimation of the rent that all assets would currently command if leased at the same point in time on the same lease terms: a definition equivalent to the property’s current market rent or rental value. This approach was adopted by Gerald Eve in their study of multi-let industrials⁴:

“One of the difficulties of assessing by quality is choosing a consistent and reliable measure to use. We have chosen to use rental values as this indicator because it is a universal piece of data for each unit, it is measurable and we can make inflections based on location and size.”

⁴ Multi-let, Gerald Eve, Summer 2013

3. PROPERTY QUALITY

3.5 Rental Value

Asset valuations are conducted frequently by institutional real estate owners for fund pricing, client reporting and portfolio analysis purposes. Rental value, as an input into the asset valuation process, is estimated in order to project the expected future cash flow from the property beyond the current contracted period and is estimated from comparable rents recently agreed for space of similar characteristics⁵.

3.6 Differentiating between Location and Building Quality

Rental value is normally determined by reference to the prevailing rental tone for space of similar quality in the same location. If data were available on the specification of every unit, rental values could be deconstructed to identify the building and location features that make the greatest contribution to the level of rent. Further, market rental growth trends could be attributed to changes in tenant demand for either a location or building. A single measure for property quality will not isolate the impact on market rents of changing building and location factors.

Quantitative datasets are available to rank locations, with retail consultancies, in particular, having developed comprehensive measures of 'pitch'. CACI (the professional services and information technology company), for example, use an algorithm of proximity to vacant units and key retailers (the location of a shopping centre can therefore predominantly be a function of the tenants in the shopping centre). Further rule-based assessments for the quality of locations for every use type are likely to expand rapidly in the future by utilising 'big data' sets.

3.7 Obsolescence

An investor can use separate data on the location and building quality to identify the different opportunities for active management; the use of such data to distinguish between building and location quality is to be welcomed as there is a significant investment distinction between the return generation factors affecting high/low quality buildings and high/low quality locations that may identify the different opportunities. The deterioration in a building (obsolescence) may be reversed by redevelopment, whereas diminution in location quality may be very difficult for an owner to remedy, even if they control the environment around the asset.

The risk to a high quality building is the erosion of its quality through the ravages of obsolescence. The risk to a property in a high quality location is that the location may become marginalised as a result of improved communications, competing stock or infrastructure elsewhere.

⁵ To be truly comparable rental values must be 'effective' i.e. adjusted for any incentives granted to an occupier, rather than 'headline' rents). See Constructing an Effective Rental Value Index, IPF, 2013.

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Obsolescence

Obsolescence is caused by the physical deterioration in the fabric of a building or by functional, legal (e.g. sustainability legislation) and aesthetic changes to the attractiveness of the building's specification to an occupier.

It is feasible that changes in tenant requirements may impact positively on older buildings; such as the move towards more historic office buildings with small floor plates after the introduction of wireless technology, which removed the need for raised floors and large server rooms⁶.

Locational obsolescence

The contribution of the location to the attractiveness of a property to occupiers is particularly important in the retail sector although this is a factor in all property types. The most attractive retail locations generate the highest footfall; the best distribution locations are determined by proximity to road or rail networks; and the best office locations mix agglomerations of other offices with accessibility for commuters, supported by ancillary services to support office workers.

The attractiveness of a location may change, therefore, with new infrastructure, such as roads, rail, airports and ports. Locations can also be overshadowed by new development, creating rival locations and reducing the value of the location.

Improving a location is often not in the power of the landlord unless they have great control over the whole proximity, for example Kings Cross, Bluewater and Canary Wharf.

3.8 Quantifying Measures of Quality

Unlike property type or region, quality is a continuous rather than a discrete variable. A scale is required for what constitutes high versus poor quality.

Rental values vary widely between property types, residential versus retail for example. Without a change of use, properties of differing type do not compete against each other; the relative quality of a property should be determined, therefore, amongst its peers.

Similar barriers operate between locations distinguished by their importance (catchment size, transport links, existing agglomerations of businesses, etc.). This is often described as the location hierarchy, e.g. the 'Big 6' (Birmingham, Bristol, Edinburgh, Glasgow, Leeds and Manchester), local markets or gateway cities.

To distinguish property quality, rather than simple region, the scale for the property quality factor should nest within a property type and functional location hierarchy rather than be defined through administrative boundaries.

For example, the IPD PAS segmentation has two standard retail categories: 'South East' & 'Rest of UK'. Differentiating the quality of assets, using a ranking of their unit rental value, allocates most central London shops to the highest quality band in the South East standard retail category. The London factor, rather than a property quality factor, is therefore likely to explain performance measures differentiating by property quality in South East standard retails.

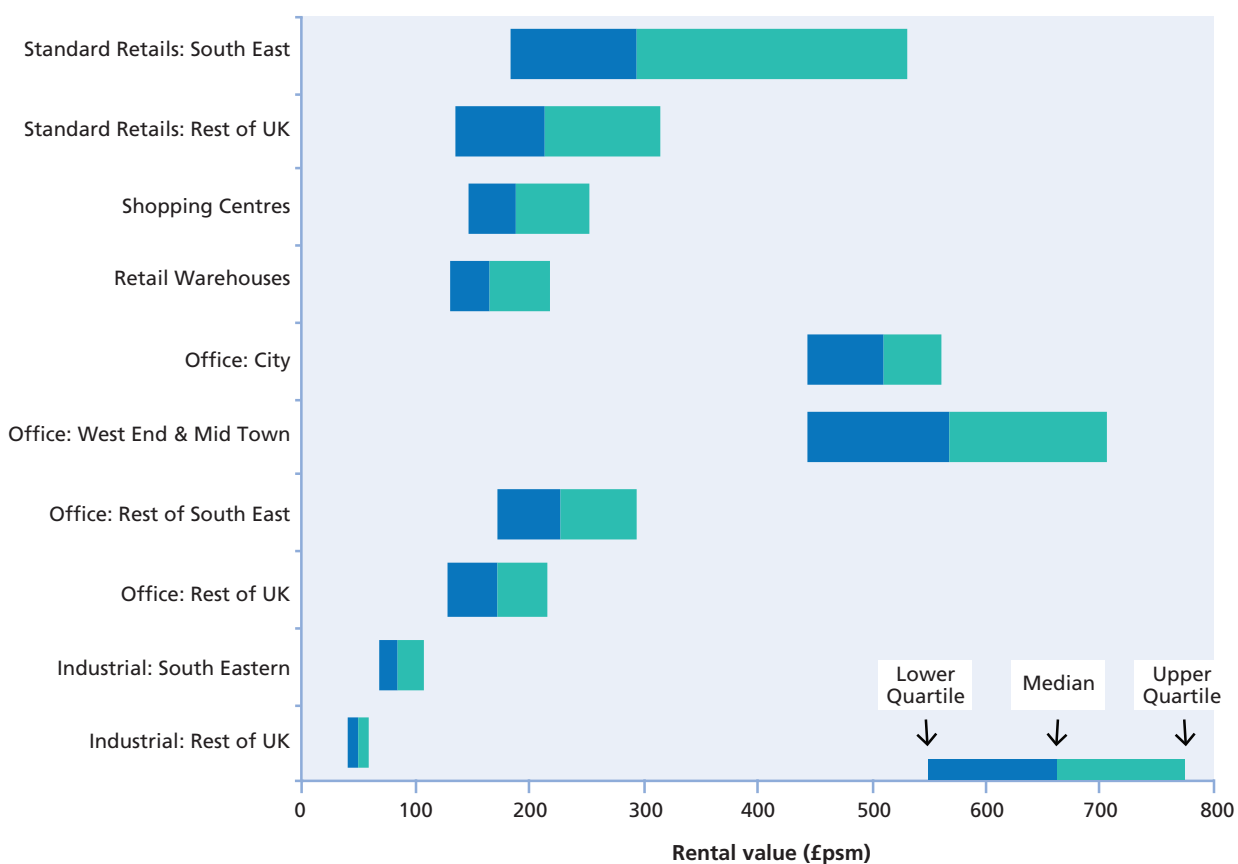
⁶ For a full discussion see Depreciation of Commercial Investment Property in the UK, IPF 2011.

3. PROPERTY QUALITY

A scale for property quality could be based upon the MSCI/IPD Databank. However, this databank is based on the data collected for the MSCI/IPD fund benchmarking service and so, by its very nature, comprises assets held by institutional investors. There is a risk is that the MSCI/IPD Databank is a biased sample of the total universe of assets, inclined perhaps towards better quality assets.

The MSCI/IPD data in Figure 3.2 illustrates the range in total rental value divided by total property floor space.

Figure 3.2: Inter-quartile Range of Rental Values



Source: MSCI/IPD Quarterly Index, Q1 2015

The weakness of these data is that the floor space used in calculating the rental value includes ancillary space. A more comparable figure would be the predominant rental value per square metre or, for unit shops, Zone A.

Care also has to be taken in ranking property quality by rental value as some assets are valued on a different basis. For example department stores/variety stores are valued on an overall rate basis whereas unit shops are valued on a Zone A basis. Using overall rental value would allocate most department/variety stores to the lowest quality category if rated alongside unit shops.

3. PROPERTY QUALITY

A less discriminatory sample on which to base a rating of property quality would be the Valuation Office Agency (VOA) ratings list⁷, which specifies a rateable value for each relevant non-domestic property in England and Wales. These rateable values provide the basis for national non-domestic rates bills, which are issued by Local Authorities. The data set, therefore, is a comprehensive record of every non-domestic property in England and Wales. The total list comprises some 1.94 million properties, as of March 2015, with a rateable value of £2.9bn, although only 5% of these properties account for some 60% of the total rateable value.

The full list of VOA property use is made up of 369 categories, aggregated into four sectors (retail, office, industrial and other) and 18 sub-sectors. The VOA provides a full breakdown of the number and average rateable value of properties in England and Wales for all these categories, but no analysis of predominant rental values or Zones As⁸. Using the comprehensive VOA data, assets could be calibrated to allocate them to high, medium or low rankings of quality.

To illustrate the range in building quality, Datscha has analysed the range in retail Zone As in the VOA ratings list for major South East towns.

Table 3.3: Distribution of Retail Zone As (£psm), Weighted by Floor Area

Town	Upper	Median	Lower
Southampton	210.13	36.20	16.13
Oxford	181.84	43.26	16.35
Reading	179.46	42.72	19.04
Canterbury	151.66	47.14	15.68
Guildford	146.26	55.92	18.05
Portsmouth	143.49	41.59	16.80
Brighton	134.31	48.86	17.77
Chichester	134.13	49.62	14.32
Winchester	132.10	48.00	16.43
Maidstone	125.88	41.40	15.66
Tunbridge Wells	120.65	46.21	19.25
Newbury	108.83	47.16	17.40
Worthing	103.23	43.74	15.74
Eastbourne	102.36	51.32	16.59
Crawley	102.19	44.47	16.23
Average	138.43	45.84	16.76

Source: Datscha, July 2015.

Note: Upper = average of all Zone As over £100, Median = average of all Zone As lower than £100 but over £25.55, Lower = average of all Zone As lower than £25.55.

⁷ Non-domestic rateable properties fall into either a local rating list or a central rating list. There is a single Local Rating List for each billing authority in England and Wales, and there are two Central Rating Lists, one for England and one for Wales.

⁸ This data is available in the full VOA database (available on subscription).

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In another example, The Mall Research Consultancy has utilised the VOA rating list to analyse retail pitch in central London, illustrating the distribution of Zone A rental values along Oxford Street East, as described in Figure 3.3. Values, at the property level, have been grouped by quartile. In some pitches, values are too varied to fall within a specific quartile: in these circumstances colours are banded (striped). Stores, which are not valued on a Zone A basis, are shown in grey. The value distribution reveals not only the relative strength of pitch (in current demand terms) but also the relative quality of properties in the same pitch. A reiteration of this analysis at intervals following the completion of Crossrail may show a radical repositioning of pitch and spur further development to provide suitable stock for the quality of pitch.

Figure 3.3: Distribution of Zone A Rental Values, Oxford Street East



Source: Mall Research Consultancy/VOA, 2015.

Adjustments may also be required by unit size to more finely calibrate a scale. A study of multi-let industrial property by Gerald Eve⁹ found that size of unit is a relevant factor in the rental value of industrial units with a discount applicable for unit size.

⁹ Multi-let, Gerald Eve, Summer 2013

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Stability of quality ranking

Individual building rental values are still only estimates but, periodically, these estimates will be 'market tested' when the building, or part of the building, is re-let. Re-lettings are infrequent but the rental value will also be subject to scrutiny at any open market rent review.

The designation of an asset to a particular quality band inferred from one individual observation may lead to its misallocation. Multiple observations are preferable, whilst a stabilising mechanism would need to be employed to avoid assets fluctuating back and forth between quality rankings, as this is more likely to result from uncertainty in the valuation process rather than a rapid change in property quality. For example, an asset quality ranking might change only after a number of subsequent valuations consistently place the asset in the new quality grade.

3.9 Absolute versus Relative Quality

Quality may be regarded as both an absolute and a relative concept: a set proportion of the properties in a market may be regarded as being of high, medium and low quality or an absolute hurdle level for a property to qualify within one of these categories could be set so that changing proportions of the market would be rated as being of a particular quality over time.

BREEAM, for example, allocates less than 1% of new properties an Outstanding rating (innovator) and Excellent (best practice) comprises the top 10%.

3.9.1 Absolute Quality

An absolute measure of quality may take as its reference point the highest rent paid in the market, with a set absolute or relative degree of difference to this rent determining the barrier between prime and non-prime assets.

Potentially, the highest rent might still be commanded by a relatively old property if there has been no new supply in recent years, in which case many assets might meet the definition of 'high' quality, even when they are well below the standard of a hypothetical new property.

As an alternative, the best or highest rent could be a theoretical measure of the rent that a new building of the same type would command in the same location. Property quality would then be a measure of how close a property's rental value is to that of a new property, constructed to the most modern specification. There is an obvious subjectivity in estimating this hypothetical prime rent however.

A further problem is how the hurdle level between high and low quality is set, as the range between rents of individual assets varies through the cycle. The range in rents across properties is also very different within different markets. The benchmark rent level for determining whether a property is high or low quality might thus produce a seemingly arbitrary proportion of qualifying assets by segment and the qualifying assets may shift over time purely due to changes in the spread of rents in the market.

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3.9.2 Relative Quality

Adopting a relative scale for property quality would allocate a fixed proportion of properties to high, medium or low quality 'buckets'.

Such allocation could be based upon the distribution of rental values; one standard deviation above the mean could determine the prime cohort, one standard deviation below the mean for the tertiary cohort and assets in the middle part of the distribution deemed secondary, for example.

A simpler alternative would be an equal allocation of properties per quality category.

Ultimately, whether the impact of property quality on performance is more marked by either how close a property's rent is to the top rent or how high the property ranks amongst all assets in the market should be a matter for further research.

3.10 Accommodation of Varying Quality

The rental value of space in a property will not always be uniform. Shopping centres invariably comprise a mixture of prime, secondary and tertiary space. The prime space may represent a greater proportion of the total by value but tertiary units or areas may be the greater by volume.

To enable the analysis of property performance metrics, it would be necessary to adopt the predominant rental value of a property and allocate each building or asset to a single quality grade.

Where possible, analysis should be undertaken at the unit level, for example on rents, lease terms and valuation assumptions.

3.11 Mixed Use Assets

Similarly, assets that accommodate multiple uses would need to be allocated to their predominant use, requiring the lesser use value to be ignored for the purposes of analysis at the property level. Again, finer analysis should be undertaken at the unit level where possible.

3.12 Constructing Indices

Data, including past returns, current lease terms, vacancy rates, etc., should be constructed to track the differences in trends between high and low quality properties, based upon the rental value of each asset.

The use of rental value for measuring property quality would ensure that the criterion for property quality would remain stable over time (either relative or absolute), although asset rankings would need to be reassessed in each time period as the determinants of property quality may change over time.

The performance of assets in each quality band for each period would be indexed together to track the influence of property quality on market performance.

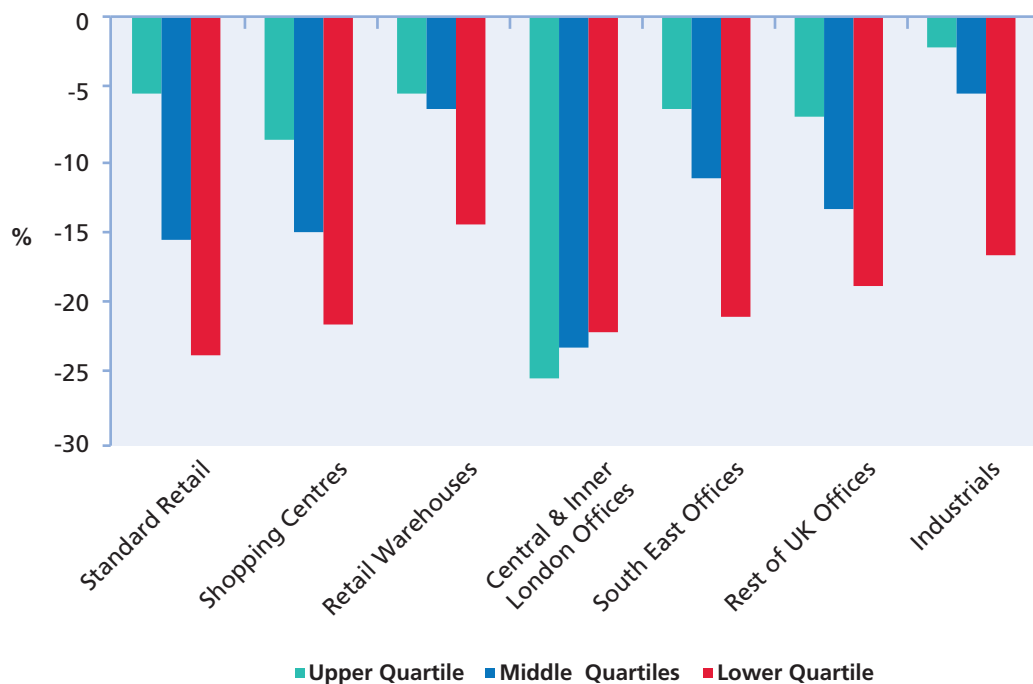
3. PROPERTY QUALITY

3.13 Rental Growth

An MSCI/IPD series exists for seven segments, dating from the final quarter of 2007. Every asset in each segment is ranked by average rental value within the MSCI/IPD Databank. Series are reported for the assets comprising the top and bottom 25% (quartiles) of assets, which are recalculated at the end of each quarter. The middle quartiles are amalgamated into one category.

Figures 3.3 and 3.4 illustrate the peak-to-trough changes in rental values by sector through the post-2007 downturn and subsequent recovery to date. The results, with one significant exception, indicate larger rental value falls for poorer quality space and faster recoveries in rental value for better quality space. The exception is the larger fall in top quartile central London office rents in the downturn between December 2007 and December 2009.

Figure 3.3: Peak-to-trough Changes in Rental Values (%)

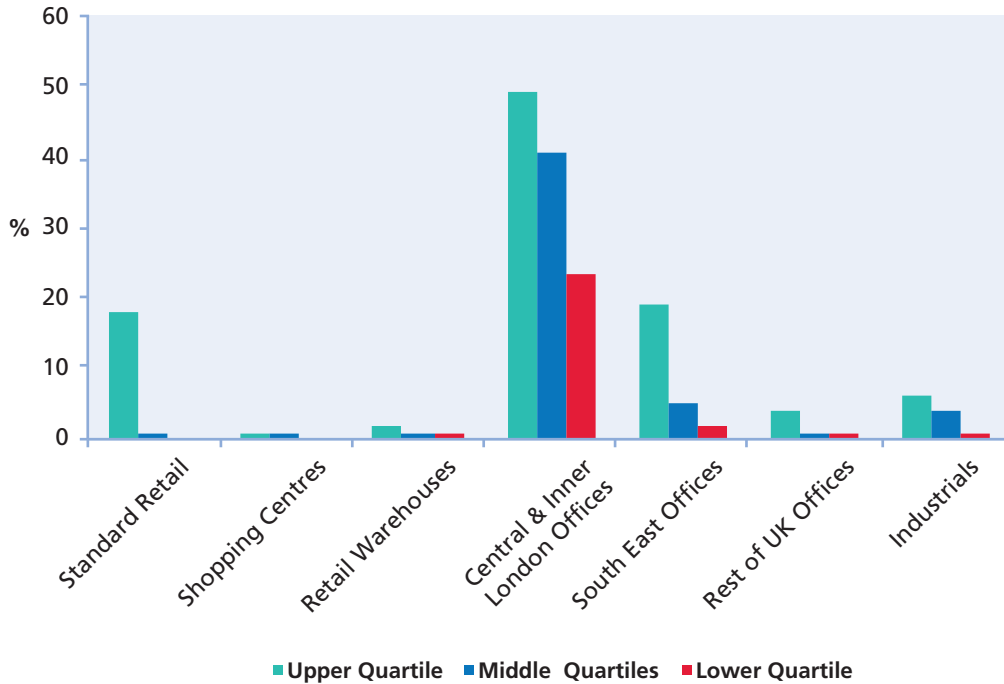


Source: MSCI, Q1, 2015.

Note: Assets split by property quality.

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Figure 3.4: Recovery-to-date in Rental Values (%)

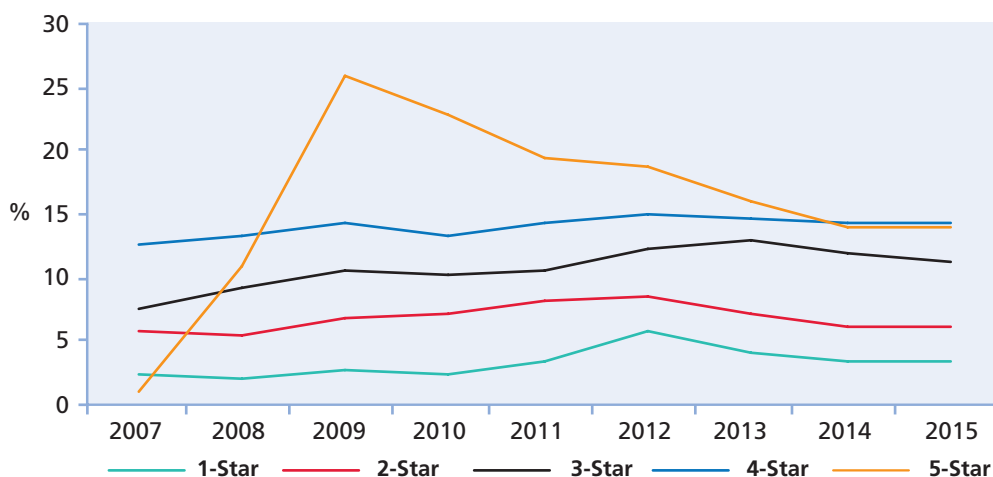


Source: MSCI/IPD, Q1 2015.

3.14 Influence of Property Quality in a Rental Cycle

One explanation of this pattern of rental values is the influence of the cyclicity of occupier demand and building cycles. In an upswing, the high rents achievable on new space make certain assets financially viable for redevelopment. Due to the time taken in the construction phase, some of this new supply will come on stream only after occupier demand has peaked – and often when demand has collapsed, as in a recession. Whilst the supply is of the highest quality, even high quality space lies empty and rents collapse across the property quality spectrum, with little take up of any space, regardless of quality. All assets suffer during this time, while waiting for occupier demand to recover.

Figure 3.5: Average Vacancy Rates in Manchester by Office Quality (%)



Source: CoStar, July 2015.

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As demand strengthens, assuming no new supply, there is 'take-up' of the better quality space, pushing up their rents and eventually forcing other occupiers seeking new space to take second-tier accommodation. If demand strengthens further, rents rise strongly on the best space, vacancy rates of second-tier accommodation fall and occupiers are forced into ever poorer quality space.

So whatever features contribute to an asset's quality, whether it is the proximity to transport links or the sustainability rating of the property, it is the level of each asset's quality that is impacting the level of rent, tenant quality and lease terms that they can command: the better quality the building and the location, the higher the rent, the longer the lease and the better the tenant. In an upswing there is a pattern to rental growth, whereby the highest quality assets lead, followed by poorer quality assets.

Evidence from CoStar supports this description, with higher vacancy rates being recorded for the highest rated offices by 2009. The subsequent vacancy rate for 5-Star office properties fell sharply as the recovery took effect.

3.15 Vacancy Periods

The long-term expected incidence of vacant periods is a function of the probability that tenants vacate property (either by exercising a break, not renewing the lease or through insolvency), the lease length and the length of letting periods.

Evidence from the Gerald Eve study of multi-let industrials found that:

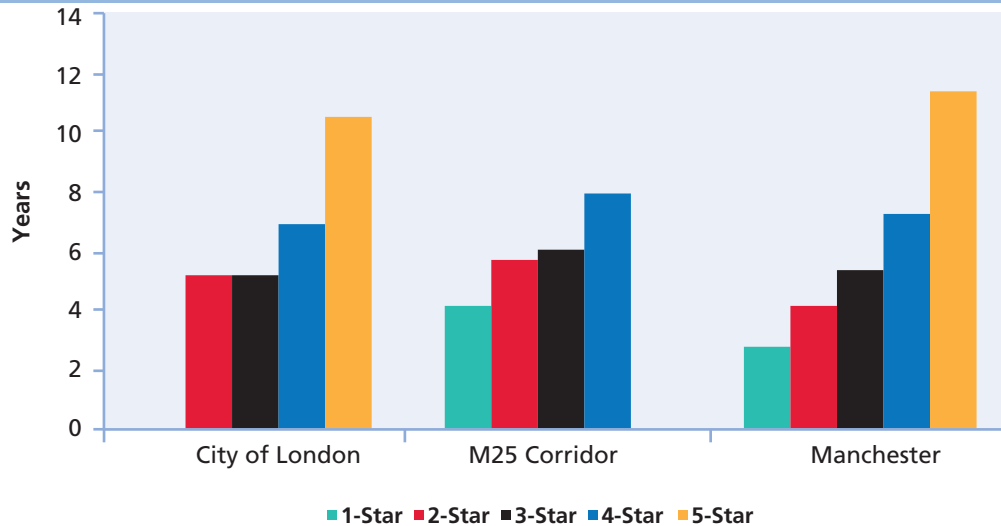
"As a general rule, as the quality of the unit increases, the rate of churn decreases. Also, the rate of tenant retention improves as the quality of the unit improves."

In 2012, lease lengths for industrial units of lower quality were on average 6.6 years, versus 11.8 for higher quality units, with vacancy rates lower for higher quality units.

Data from CoStar shows a similar pattern for office buildings with 10-year leases typical for buildings rated 5-Star, an average of around seven years for 4-Star buildings and only five years for buildings rated 2- and 3-Stars.

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Figure 3.6: Average New Lease Term by Office Quality, 2007-2014



Source: CoStar, July 2015.

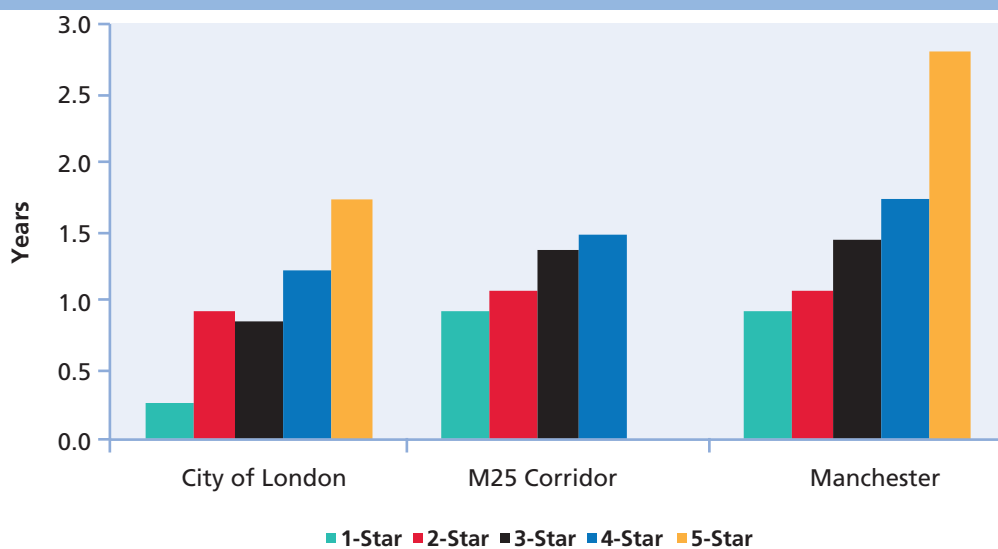
3.16 Costs

Irrecoverable costs are a significant and often overlooked contributor to expected returns. MSCI/IPD analysis, based on a division of shopping centres, split firstly into regional, large and small centres then sub-divided by quality at the end of 2014, shows irrecoverable revenue costs rising from circa 14% for regional, large and small prime centres, to 17% on mid-quality centres and 25% on small secondary centres.

3.17 Liquidity

There are many measures of liquidity, including time on the market¹⁰. Initial evidence from CoStar for time on the market over the period from 2007 to 2015 showed this to be consistently longer for offices with higher building ratings in every region; not every driver of expected and required returns is more positive for higher quality assets.

Figure 3.7: Average Time on Market by Office Quality, 2007-2014



Source: CoStar, July 2015.

¹⁰ Liquidity in Commercial Property Markets, IPF, 2015.

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Active management

Physical deterioration, functional depreciation and changes in the tone of a building's pitch are not the only influences on a property's quality: property is a real asset class so the achievable letting rent can be increased through refurbishment or re-development.

The impact of active management is not normally captured in performance indices, with any asset that is subject to physical intervention by the asset manager stripped out of the sample. The rule for the MSCI/IPD indices is that if capital expenditure breaches 20% of the asset value then the property is screened out of the index in that period.

The potential returns available from refurbishment or redevelopment are a material consideration in portfolio strategy. For example, poorer quality assets may not have strong performance prospects if simply held, but adding the return from active management may create an attractive investment proposition.

To include the impact of active management, assets subject to refurbishment or redevelopment should be included and the index measured on a *fixed* sample of assets ranked by quality at the *start* of the analysis period.

The portfolio context

Similarly, market returns by property quality shed little light on the performance impact of the costs of maintaining a high quality portfolio. These costs could either be incurred through transaction/development to replace now poor quality assets with new higher quality assets.

All market indices explicitly ignore transaction and development costs (and profits). It is benchmark returns that report what has been achieved by actual portfolios.

Only the benchmark returns of actual high and low quality portfolios can answer these questions.

Freehold and leasehold

Another question only benchmark returns can answer is whether leasehold properties generate fewer long-term active management opportunities.

Investors may only regard freehold property as being high quality due to the restriction of active management of leasehold property.

3.18 Summary of Creating Indices by Property Quality

Asset allocation can be used by investors to identify markets that will generate attractive expected compared to required returns or to diversify portfolio risk by spreading assets between markets.

Differentiating portfolio allocation between markets into property quality bands may reveal a wide range of strategic opportunities to investors, as well as opportunities to improve portfolio risk management.

An asset's relative quality can be determined by the ranking of its unit rental value amongst all assets of the same type in the same location. The highest quality assets in the market are those commanding the highest rental value.

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Assets can be allocated into groups according to their rankings; the highest band would be analogous to prime properties, while assets comprising the lowest band would be colloquially referred to as tertiary. As many bands could be used to differentiate quality as required.

Additional analysis more closely examines the contribution of building and location to property quality, identifying combinations of high and low quality buildings in high and low quality locations. This is particularly useful in directing research towards the risk of depreciation to the value of each asset in a portfolio and to the prospects for each location.

Real estate indices may be constructed for assets of differing quality within each market segment. These can be computed in a manner to capture depreciation and impacts of changes in location quality, whilst including or excluding active management and trading impacts.

4. INCOME SECURITY

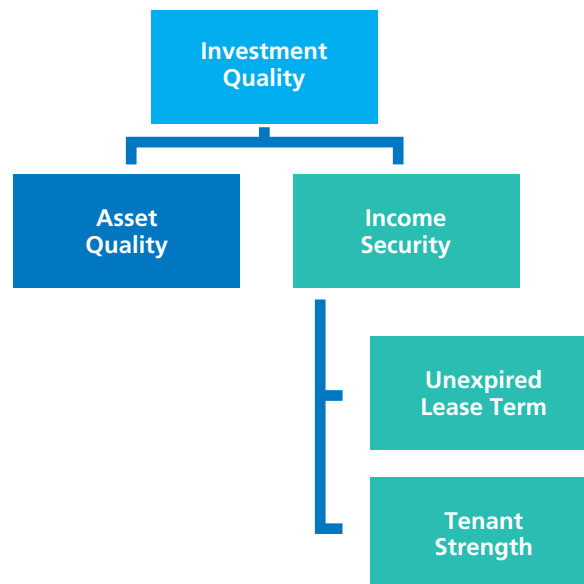
Commentators sometimes refer to income security, rather than physical or locational qualities, when describing an asset as prime, secondary or tertiary. This section puts forward a framework for combining the importance of tenant financial strength and unexpired lease term into a single measure for overall income security.

Section 5 brings this measure together with the property quality measure described in Section 3 to form one overall metric for investment quality.

4.1 Defining Income Security

There are two aspects to income security: tenant credit quality and remaining lease duration.

Figure 4.1: Components of Investment Quality



These financial characteristics affect both the expected and required return from an asset. The expected cash flow from an asset with weaker income security will be lower than for an asset with stronger income security due to the greater likelihood of an imminent vacancy period (with all the associated costs incurred).

An investor holding an asset with weaker income security will also have a higher required return as, according to investor preference theory, a more secure income stream is preferred to a less secure one. Hence, an asset with a long period of rent secured under a lease to a financially strong tenant has a lower required return than an asset with only a short period of contracted rent, or one let to a tenant in weak financial health.

4.2 Defining a Measure of Income Security

As with property quality, income security is a continuous rather than a discrete variable.

(i) Unexpired lease term

The term to lease expiry or first break (the term certain) is documented in the lease, although determining income security is not this straightforward. There is always a period of renegotiation towards the end of a lease, which, if not completed before the specified lease expiry date, can lead to tenants 'holding over'.

4. INCOME SECURITY

It may be difficult to discern whether the tenant is holding over whilst negotiating a new lease to remain in the building or continuing in occupation temporarily before vacating the premises. For any unit in which the tenant is holding over the unexpired lease term can only be set to zero (as though vacant).

(ii) Tenant financial strength

The estimation of the likelihood that a tenant will be capable of honouring its lease commitments is considerably more complex to calculate than the unexpired lease term.

The lower the chance of a tenant becoming insolvent, the stronger the income security. Although many organisations provide company credit ratings, these often indicate the probability of insolvency in the next 12 months rather than in any year of the lease.

Pre-packaged administration agreements (prepacks) for the sale of the business and assets or company voluntary arrangements (CVAs)¹¹, are mechanisms that are highly cost effective at allowing companies with large real estate portfolios to reduce costs by vacating premises. These have added another layer of complexity through separating the performance of the individual property/location from the prospect of the lessee becoming insolvent. Travelodge is a recent (2012) example of a viable business that was over-extended with unsustainable amounts of debt and ultimately entered into a company voluntary arrangement (CVA) to permit its restructuring.

The impact of tenant financial strength on income security is therefore less than straightforward to measure. **Such is the difference between a landlord and other company creditors that it may be appropriate for specialist measures of credit quality to be developed for use in the industry.**

4.3 Measuring Income Security

A single measure for income security needs to measure the impact of tenant financial strength on the unexpired lease term. A fully secure tenant, such as HM Government, would not reduce the term certain at all, whilst a tenant already in default would reduce the term certain (and, hence, entitlement to receive rental income) to zero.

For example, if the chance of tenant default is 1% every year (for simplicity it is assumed the tenant can only default on the 31st December each year), on a 10-year lease the risk of default over the full term of the lease is 9.6% ($1 - 0.99^{10}$). If the chance of tenant default is 2% every year, the risk of default over the full lease term is 18% ($1 - 0.98^{10}$). Multiplying through the chance of default each year for a 1% chance of tenant default and the adjusted unexpired lease term falls from 120 to 115 months, and for a 2% chance of default the adjusted unexpired lease term falls to 110 months.

¹¹ Prepack Administrations and Company Voluntary Arrangements, IPF, 2010.

4. INCOME SECURITY

Table 4.1: Adjusted Unexpired Lease Term

	Probability of default	Actual Lease Term (months)	Probability x Actual Lease Term
Default year 1	2.00%	12	0.24
Default year 2, No default year 1	1.96%	24	0.47
Default year 3, No default years 1-2	1.92%	36	0.69
Default year 4, No default years 1-3	1.88%	48	0.90
Default year 5, No default years 1-4	1.84%	60	1.11
Default year 6, No default years 1-5	1.81%	72	1.30
Default year 7, No default years 1-6	1.77%	84	1.49
Default year 8, No default years 1-7	1.74%	96	1.67
Default year 9, No default years 1-8	1.70%	108	1.84
Default year 10, No default years 1-9	1.67%	120	2.00
No default	81.71%	120	98.05
	100%		109.76

Such a measure for income security would permit further analysis of combinations of assets with high/low creditworthy tenants secured by a long/short term to expiry.

This measure ignores the various credit-enhancing techniques to improve income security. If the landlord holds a rent deposit or has a bank guarantee for a portion of the rent, for example, financial security is improved. Furthermore, if another tenant is occupying the property on a lease assignment, the financial impact of a lessee's insolvency is unlikely to be as severe.

These factors can be incorporated into a more complex calculation of income security by investors on their own properties, but such data are rarely available to external parties (valuations or purchase particulars rarely document such factors) and therefore unlikely to be incorporated in any industry-wide measure.

4.4 Scale

The average level of income security in the property market will vary over time and, also, between segments. A choice needs to be made, therefore, between maintaining a fixed hurdle for differentiating high or low income security through time (for example, 10 years) or allocating assets on the basis of their relative income security to other assets (the average unexpired lease term at that time). This scale would be of most relevance when comparing property with other asset classes, particularly bonds.

If a relative measure is used, the benchmark is set against all assets or the average for assets in the same segment and trends within the segment are highlighted. As lease terms vary widely by segment this would reveal more granular, segment-specific trends.

4. INCOME SECURITY

Table 4.2: Adjusted Unexpired Lease Term

	Unexpired Lease Term (Years)*
Standard Retail – South East	15.8
Standard Retail – Rest of UK	14.2
Shopping Centres	12.4
Retail Warehouses	10.5
Offices – City	7.7
Offices – West End	8.6
Offices – Rest of South East	6.6
Offices – Rest of UK	7.3
Industrials – South East	7.5
Industrials – Rest of UK	9.1
Other	21.9
Retail	12.5
Office	7.6
Industrial	8.2
All sectors	10.9

* Lease breaks are assumed to be exercised if the lease is over-rented and the break is mutual or at the option of the tenant.

Source: MSCI/IPD Quarterly Index, Q1 2014

MSCI/IPD holds a large sample of data and could, therefore, provide representative scales for the average unexpired lease term in each segment and in each period. A fixed level of security would be more practical for other data providers to adopt. Provided that such a scale is published, alongside measures like capitalisation rate, users could utilise the data.

4.5 Multi-let Properties

There is an obvious barrier to isolating the performance of properties by income security, due to the likelihood of multiple occupants. An average unexpired lease term for a property would measure a basket of lease terms, some of which may be short and others longer. The impacts of income security will be diluted in such indices. Where possible, therefore, analysis should be conducted at the unit level, such as the analysis of capitalisation rate variations by income security.

4.6 Constructing Indices

Just as return series can be constructed to track the performance trends of high and low quality properties, so indices can be constructed to track the performance of assets with high and low income security.

As with property quality, a different basket of assets is required for each period to represent each level of income security. The performance of each income security band in each period can be indexed together to track the influence of income security on market performance.

4. INCOME SECURITY

4.7 Performance Data

Individual properties will move between income security bands over time. The performance impact of such changes in income security will be captured in the indices for the original level of income security. For the indices of low income security, the measured returns therefore include the aggregate impacts of those assets where the lease is renewed or the break not exercised and those assets becoming vacant.

The indices of assets with high income security will include the impact of assets where the tenant defaults plus the impact of the constant erosion in income security from the passage of time.

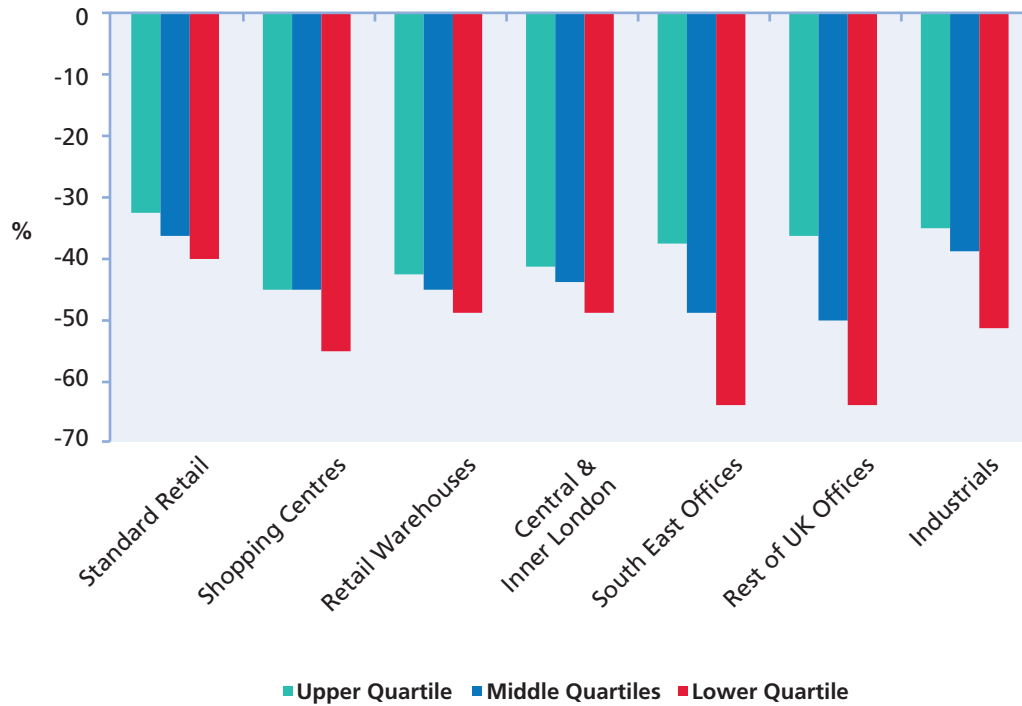
There is a natural overlap between property quality and income security, with low quality property more likely to be of low income security. The rental trends of low property quality may therefore be expected to be replicated in low income security assets.

The influence of income security on rental growth cannot be ruled out, however. Marketing property for lease in a downswing is challenging, with the prospective tenant having the upper hand in negotiations. This is likely to result in downward pressure on rents as landlords seek to minimise void periods. In a lease renewal negotiation, the landlord has greater pricing power as the tenant will incur costs if choosing to relocate. This characteristic might also contribute to the rental trends on high versus low quality assets during a downswing.

With these caveats, income security will be expected to impact asset capital trends due to changes in leases (lettings, tenant defaults, etc.) and the pricing of income security. In a downturn, investors will favour current income security, whilst, in an upswing, pricing will favour growth over income security. Data from MSCI/IPD shows a greater fall in capital values in the recent downturn for assets with the lowest income security and the strongest recovery in asset values for assets with the highest income security.

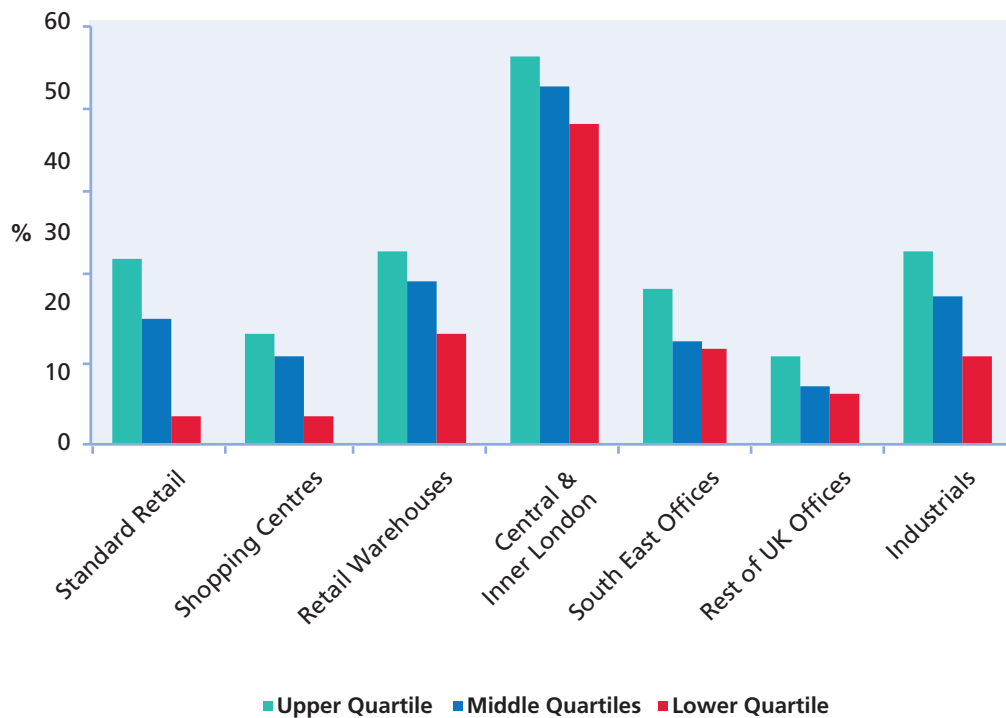
4. INCOME SECURITY

Figure 4.2: Peak-to-trough Change in Capital Values (Assets Split by Unexpired Lease Term, %)



Source: MSCI/IPD, Q1 2015.

Figure 4.3: Recovery-to-date in Capital Values (Assets Split by Unexpired Lease Term, %)



Source: MSCI/IPD, Q1 2015.

4. INCOME SECURITY

4.8 Future Income Security

As described in Section 3, the higher the property quality the longer a lease the landlord can negotiate. An asset's income security that can be expected from its *subsequent* lease can be predicted, therefore, by its property quality.

This relationship was documented by Gerald Eve: "As the quality of assets increases, the proportion of space let to lower valued-added occupiers, notably manufacturers, falls and the proportion let to higher value-added businesses increases."

Poorer quality assets, with weak occupier demand, will not be expected to attract a strong tenant and a long lease term and may require refurbishment or redevelopment to bring the asset to an acceptable standard – activities that carry additional risk.

Section 5 combines current income security and property quality (future income security) into one measure of investment quality. This measure will indicate the cash flow security for both the current lease and following lease expiry (and, therefore, bear a resemblance to bond duration).

5. INVESTMENT QUALITY

Section 3 examined the influence of property quality on asset returns and Section 4 explored the influence of income security.

This section combines property quality and income security into one overall measure of asset investment quality and explores their interconnected influences on expected returns and the range in individual asset returns.

5.1 Defining Investment Quality

Assets of the highest investment quality combine the highest levels of both property quality and income security.

A second-tier investment quality asset can either have a combination of high income security and low property quality or low income security and high property quality. The assets of the lowest investment quality have both low security of income and are of poor property quality.

5.2 Pricing

Lambert Smith Hampton (LSH) publishes a valuation schedule that illustrates the relationship between market pricing and the two components of investment quality. Market pricing differentials are made by tenant strength (split between prime, national/strong and small/private individuals), unexpired lease term and property quality. The headline rent depicts the associated rental value with the property quality (split between prime, secondary and tertiary).

Table 5.1: Regional and Suburban Office Capitalisation Rates by Property Quality, Tenant and Lease Term (%)

	Headline rent	Small companies and private individuals			National and strong regional tenant			Prime tenant		
		Lease term			Lease term			Lease term		
		1	10	25	1	10	25	1	10	25
Prime	£30.00	9.25	8.25	7.50	9.00	6.50	6.00	8.75	5.75	5.00
Secondary	£22.00	11.50	9.75	9.00	11.25	8.75	7.25	9.75	7.50	6.25
Tertiary	£14.00	14.00	12.00	11.00	13.50	10.00	9.00	13.00	9.00	7.75

Source: Lambert Smith Hampton, April 2015

The pattern of capitalisation rates ('cap rates') can be explained by the differentials in income risk between properties of differing quality and income security. The combination of a prime tenant, 25-year lease term and prime property, as appears in the final column of the first row in Table 5.1, commands the lowest yield (highest multiple), of 5%. For a weaker, national company as lessee, the yield is a full 100 basis points higher, at 6%, for the same lease term, whilst, for a small company covenant, the yield rises a further 150 basis points, to 7.5%. The yield differential for a secondary versus a prime property, with a prime tenant and 25-year unexpired lease term, is an extra 125 basis points, at 6.25%, and a further 150 basis points for a tertiary property, at 7.75%.

The yield differentials are, therefore, the 'price' of differentials in property quality, income security and tenant strength. The combination at the bottom left in Table 5.1, of a small company covenant, with only one year unexpired on the lease of a tertiary property, commands the highest yield, at 14%.

5. INVESTMENT QUALITY

5.3 Performance Cycle

It is inevitable that income security will be eroded by the passing of time and so it is also inevitable that asset cap rates will rise throughout the duration of a lease to reflect the increased required return. Therefore, both the capital value and the expected return fall as the uncertain outcome at lease expiry gets closer.

A cycle of asset performance is created, therefore:

- (i) Assets recently let will command the lowest cap rates and therefore generate the highest capital value and lowest income returns;
- (ii) As the income security unwinds, the cap rate rises, the capital value falls and the income return rises;
- (iii) When the asset is re-let, the asset value rises as the cap rate is rebased.

The long-term asset return depends upon the *actual* income (rent minus costs) achieved through the re-letting process.

So, the change in cap rate/value is determined by the *interaction* of the relative income security of the current lease versus the anticipated future security of the income beyond this lease.

For low levels of income security, the cap rate/value is strongly determined by the expected future income security. This future income security would be expected to be higher for better quality than poor quality assets, as higher quality properties will be able to command a longer new lease to a better covenant than would be expected to be achieved by a poorer quality asset. For assets with a short period left to lease expiry, there will be a wider gap, therefore, between the cap rates/values of good versus poor quality assets.

For high levels of income security the gap between the cap rates/values of poor and better quality assets is narrower.

Over time, the current level of income security inevitably shortens and, so, the ratio of the value of the current lease to the value of the subsequent lease falls. It is therefore inevitable that there is a steeper rise in yields for poorer quality assets than higher quality assets. Whether the gaps are sufficient to generate the necessary expected return to cover required returns should be analysed by investors.

This *interaction* of income security and property quality results in assets performing in a contrasting manner due solely to the change in cap rates/values as their leases move towards expiry. Within any market, there will be properties with contrasting combinations of income security and property quality that will generate a spread in asset returns solely due to the passage of time eroding income security.

The greatest performance differential will occur between those that become vacant following lease expiry, lease break or tenant default versus those that maintain their income stream.

In other words, asset performance differentials are generated by movements in income security over time. These differentials vary according to property quality. The range in asset performance is further amplified by the outcome at expiry and subsequent actual letting periods.

5. INVESTMENT QUALITY

5.4 Impact of Changing Market Expectations

The performance differentials attributable to changes in income security are further influenced by changes in conditions in the occupier markets through the cycle. When the outlook for the occupier market weakens, the income security that can be expected from subsequent leases is reduced. This leads to a sharper fall in the value (as cap rates are marked higher) of assets with low current income security than assets with high current income security.

When the outlook for the occupier market strengthens the reverse is true and the value of assets with low current income security rise most sharply (as lower cap rates are applied).

5.5 Impact of Changing Market Risk Perceptions

This natural ebb and flow in asset values through the leasing cycle, due to changing occupier market expectations, is further 'interrupted' by influences on the shape of the yield curve from the investment market. In some market conditions, investors value income security less highly as they become less risk averse. This may result in lower yields and higher values for less secure income. At other times, investment markets become more risk averse, thus pushing up the value of secure income streams.

These return drivers will systematically impact the performance trends of assets characterised by different degrees of current income security and property quality.

Tracking the spread between cap rates across the quality of income and property quality categories reveals the change in the pricing of risk versus growth. For example, the data from Lambert Smith Hampton shows that the range of cap rates was compressed in Q2 2008, then widened in the downturn (Q3 2010). The outward yield movement was more severe for the shortest leases, whilst the yield spread between prime and secondary properties also widened.

Part of this movement will have been driven by changing expectations for growth and the remainder by a change in risk appetite.

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Table 5.2: London/M25 Industrial Capitalisation Rates by Property Quality, Tenant and Lease Term (%)

Property Quality	Tenant Strength	Unexpired Lease Term	Q2 2008	Q3 2010	Change
Prime	Undoubted Tenant	1	5.75	9.75	+4.00
		10	5.50	7.00	+1.50
		25	5.25	6.25	+1.00
	National Tenant	1	6.75	10.00	+3.25
		10	6.25	7.50	+1.25
		25	5.75	7.00	+1.25
	SME	1	7.75	10.00	+2.25
		10	7.50	9.25	+1.75
		25	6.50	9.50	+3.00
Secondary	Undoubted Tenant	1	6.75	12.5	+5.75
		10	6.00	8.00	+2.00
		25	6.25	6.75	+0.50
	National Tenant	1	7.25	13.00	+5.75
		10	7.00	9.00	+2.00
		25	6.75	7.75	+1.00
	SME	1	8.00	13.00	+5.00
		10	7.75	9.00	+2.75
		25	7.25	7.75	+2.75

Source: Lambert Smith Hampton

5.6 Performance by Yield Bands

MSCI/IPD constructs indices of assets calibrated solely on asset equivalent yield. As shown in Table 5.2, the lowest equivalent yield band should comprise assets of the highest investment quality and the highest equivalent yield band should be of assets of the lowest investment quality. If investment quality is a factor in market returns, the series of past returns should reveal some performance differentials through the cycle.

This data series dates back to Q1 2001, which allows analysis of the upswing prior to the recent crisis.

The data cannot be used to show the performance differentials of assets of high/low income security and high/low property quality.

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Figure 5.1: 2000-to-peak Total Returns, Assets Split by IPD Equivalent Yield Band (% pa)

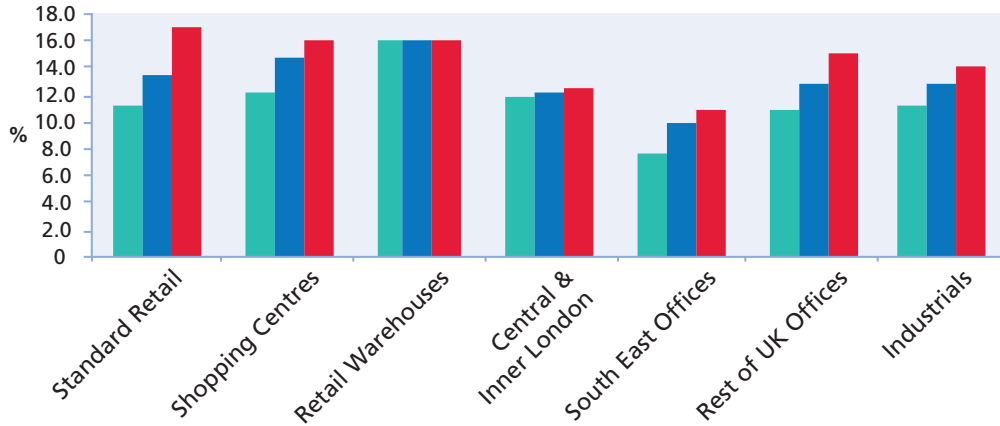


Figure 5.2: Peak-to-trough Total Returns, Assets Split by IPD Equivalent Yield Bands (% pa)

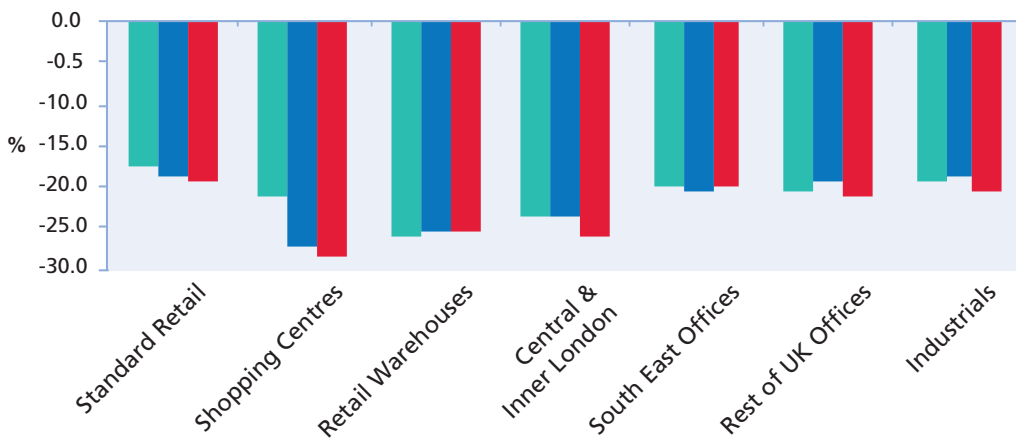
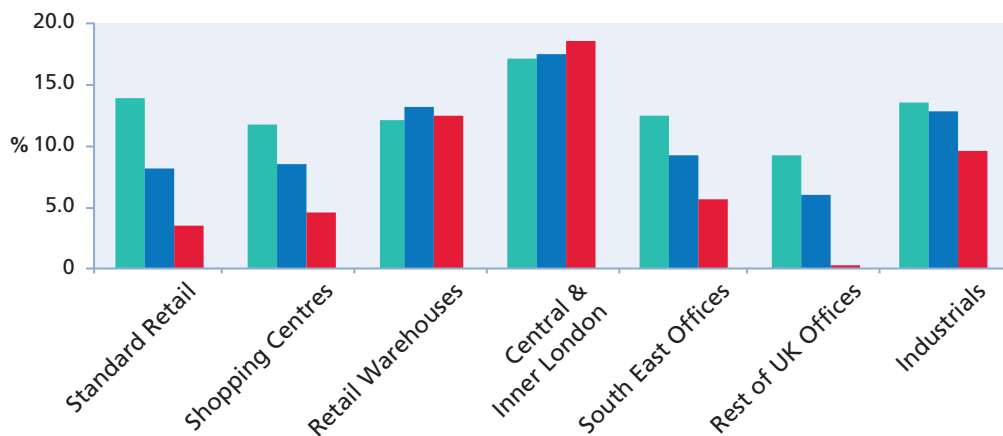


Figure 5.3: Recovery-to-date Total Returns, Assets Split by IPD Equivalent Yield Band (% pa)



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With all the caveats on the methods used to group the assets, the results seem to reveal a contrasting pattern of returns between high and low investment quality assets: firstly, stronger performance in the upswing from the lowest quality assets; secondly, the capital values of the higher quality assets hold up more strongly in the downswing then growing faster in the recovery phase.

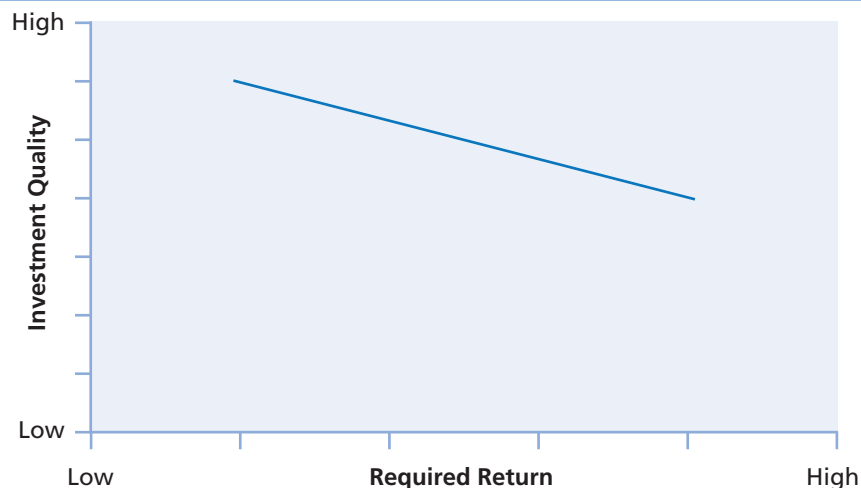
High return/low volatility characterises the returns from standard retail, shopping centres, South East offices, regional offices and industrials. This should not be taken as conclusive evidence, however. As the results for Central London offices suggest, over the longer term, high quality may indeed be indicative of lower volatility but also slightly lower return. In central London, the occupier recovery has been much stronger, boosting the performance of lower quality assets.

Scale

The MSCI/IPD data use a simple breakdown by equivalent yield to determine high versus low investment quality. However, pricing also reflects rental growth expectations. Central London offices are a case in point. The cap rate differentials are currently very narrow as investors seek poor quality assets to refurbish.

The appropriate scale to compare investment quality across assets should be based purely on the required return: an asset with stronger cashflow security being of higher investment quality and an asset with lower cash flow security of lower investment quality.

Figure 5.4: Investment Quality versus Required Return



When sufficient past data are available for each cash flow driver, a quantitative estimate of investment quality can be made, incorporating current income security (tenant strength, lease term) and future income security (vacancy periods, new lease terms, new tenant strength). This estimate can be made by multiplying through future cash flow permutations.

Efficient pricing would adjust cap rates such that lower investment quality assets generate a higher expected return to compensate for the greater uncertainty of return. If the expected return, based on current pricing, exceeds the required return (which also includes liquidity and transparency) then markets or assets are a 'buy', if they are below then they are a 'sell'.

6. CONCLUSIONS & RECOMMENDATIONS

6.1 What has the Research Discovered?

Existing MSCI/IPD analysis, using equivalent yields as a proxy for investment quality, suggests that investment quality is a systematic driver of performance. Low yield assets (representing high investment quality) are found to have been at the forefront of the recent upswing in market returns (from March 2009 to December 2014) whilst high yield assets (low investment quality) generated the highest returns in the bull market between 2000 and 2007.

Changes in cap rates are found to have been the principal driver of this pattern of performance, with investors rushing from one side of the 'risk boat' to the other in search, firstly, of growth and then of safety.

MSCI/IPD analysis of property quality also confirmed that the rental growth of high quality property has led that of low quality property in the upswing. This evidence was supported by analysis of office vacancy rates using the CoStar building quality indicator.

6.2 Implications

These findings have implications for portfolio construction and risk management: a portfolio allocation to a range of assets of differing types, in different regions, of varying quality and with a range of lease terms, will generate a return close to that of the market average. A specialist portfolio, with a concentration of assets with similar characteristics, such as poor quality assets with short leases or high quality assets with long unexpired lease terms, will generate a return that tracks the average performance of other assets with those particular characteristics (results reported by Paul Mitchell in the IPF Report *Individual Property Risk*).

This has repercussions for the measurement of portfolio risk and the information investors require about funds. Total portfolio risk will include both systematic risk and also any undiversified idiosyncratic risk. The residual risk will be lower the greater the number of assets in the portfolio, but any concentration risk in the portfolio, such as clusters of particular lease expiry dates or of assets occupied by one particular tenant, will increase the total risk of the portfolio. Those concentration risks associated with income security will emerge and dissipate over time as leases move towards expiry or new units are let. Constant monitoring and reporting of such concentration risks is required, therefore.

Stock selection maintains its position of prominence in the model of return generation outlined in the research, but the contribution of stock selection to portfolio performance, or alpha, is more defined: stock selection skill is the identification of assets that under-price the prospects for:

- Growth (asset rental value below 'correct' level);
- Locational obsolescence – asset dominant in its catchment, or with the potential to improve;
- Functional obsolescence – better specified than other assets, more sustainable, or more flexible and thus allow refurbishment to prolong their economic life.

Asset management skill will often be required to unlock this higher performance.

6.3 What Happens Next?

If adopted, the measures of quality as defined can be used to give a rigorous examination to the relationship between asset quality characteristics and returns. This will reveal to investors the full spectrum of strategic opportunities.

6. CONCLUSIONS & RECOMMENDATIONS

The quality definitions can also be used to link once disparate and fragmented data sources to provide the inputs required to give greater stimulus to forward-looking approaches to asset and portfolio risk.

The key to this is an accepted industry-wide definition of quality and the overlay of a performance generation framework that recognises the influence on asset returns of changes to these quality factors.

6.4 Summary

This research has outlined how past returns can be analysed by reference to property quality and income security. Portfolio optimisation can adopt the categories and fund information can be tailored to reveal the quality attributes of the portfolio and any emerging concentration risks.

To allow forward-looking risk measurement, past data on returns would need to be augmented with analysis of rental, leasing and vacancy trends by property quality bands within each segment and with pricing intelligence of the cap rate increments within segments for variations in property quality and income security.

Further research can then evaluate differentials in risks, particularly liquidity, using consistent measures of quality. Investors can then compare expected returns from any market or asset with their required return.

The lack of a transferable measure and scale is the major barrier to the production of such analysis. The measures described in this research may have limitations but, if implemented, would enhance portfolio construction, forecasting and risk management.

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