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REPORT

The Size and Structure of the UK Property Market 2013: A Decade of Change

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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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The Size and Structure of the UK Property Market 2013: A Decade of Change

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CONTENTS

The Size and Structure of the UK Property Market 2013: A Decade of Change

1. EXECUTIVE SUMMARY

- The total value of UK commercial property – covering the three main sectors (retail, offices, and industrials) along with hotels, pubs and restaurants, leisure and miscellaneous types like car parks and petrol stations – is estimated at £647bn in mid-2013, an increase of 11% on 2003. These sectors cover 679m square metres (sq m) of floorspace with an average rental value of £74 per sq m, and generate £50bn of rental income on an average yield of 7.8%.
- By value, 45% of this property is retail (including pubs and restaurants), 28% is offices, whilst 18% and almost 9% respectively are industrial and 'other commercial'. Having generated all the growth since 2003, London now accounts for a little over a third of total value, which is well above its 23% share of GDP.
- The research also quantifies the polarisation in the retail sector: helped by new development, the total values of predominantly out-of-town retail warehouses and supermarkets have increased substantially since 2003, while the value of unit shops outside central London has declined.
- £364bn of commercial property is held by UK and overseas investors, an increase of 27% since 2003. Retail and offices are the largest sectors, each accounting for 40% of the total. Given the capital's 46% share of investment, there is still a London bias in investors' portfolios, extremely so in the case of overseas investors. Almost three-quarters of overseas investors' holdings are in London.
- As a result of overseas investors' disproportionately large holdings in London and their exclusion from its UK Index, IPD's benchmark structure is under-represented in London offices and, conversely, is over-represented in retail, particularly retail warehouses, and industrials.
- Investors' holdings over the last 10 years have increased across almost all segments. The magnitude of change largely matches relative price movements. For example, the much greater presence in portfolios of West End and Midtown offices mainly reflects their strong price growth since 2003; by contrast, modest changes in shops, offices and industrials outside London and the South East correspond with declining prices. The extraordinary doubling in the presence in portfolios of 'other' commercial property, however, largely reflects the expansion into hotels and the opening up of new markets such as healthcare.
- Overseas investors' holdings have more than doubled with no sign of their appetite waning. They now own a quarter of UK investment property, still some way off their 53% stake in the UK equity market. Fund managers are the largest overseas investor by type, followed by the Sovereign Wealth Funds whose holdings have increased relatively quickly since the last report. Overseas investors have become even more dominant in City of London offices, now owning 56% of the invested and owner-occupied stock. They also own a third of the total office stock in the West End and Midtown.
- With the exception of the City, overseas buyers have not squeezed UK investors out of the market. Overall, UK investors' holdings of commercial property have increased by 12% since 2003, well in excess of stagnant property prices. The holdings of UK unlisted funds in particular have more than doubled, marginally outpacing overseas investors. REITs' and listed property companies' investments have also increased relatively quickly; in doing so, they have become the country's largest owner of shopping centres.
- Traditional UK institutional investors have fared less well. The combined property ownership of insurance companies and pension funds has declined 19% since 2003. Insurance companies have surrendered their title of 'biggest owner' as their life funds' holdings have declined although the impact has been dampened because insurance companies' unitised funds have expanded at a similar rate to unlisted funds. Pension funds' direct ownership of property has declined marginally despite a doubling in their total assets since 2003.

1. EXECUTIVE SUMMARY

- Paradoxically, insurance companies' and pension funds' underlying exposure to UK property has grown. A shift in strategy by investors, particularly by smaller pension funds, who have greatly increased their investment, and those with predominantly direct property portfolios, has altered the way institutional investors gain their exposure to UK property. Their interest in the UK property owned and managed by collective investment schemes is estimated to have increased by over 200% since 2003. This, of course, is the counterpart to the doubling since 2003 in the amount of UK property legally owned by unlisted funds. Combined also with their direct holdings and equity stakes in REITs and listed property companies, institutions' beneficial interest represents almost a third of UK investment property.
- Since the 2005 report, investors' portfolios have grown by more than the increase in the underlying stock of commercial property. Growth has been led by overseas investors; however, UK investors have managed to maintain their presence. Maintaining this balance may prove more challenging in the future. A large part of the retail, office and industrial universe is uninvestable for all but the smallest investors due to small lot sizes. At the same time, those markets with the largest lot sizes – London offices, shopping centres and retail warehouses – are now almost entirely owned by investors. Hence, mainstream commercial is now virtually fully invested. Development has helped add to the investable universe and should start contributing significantly again once confidence returns.
- Alternative sectors have been tapped also. Predominantly publicly owned education and healthcare, however, dominate the non-commercial universe. Public policy will determine if these are to be opened up on a more substantial scale to commercial property investors.
- Residential property is potentially an area for new investment. The value of the UK's residential stock in mid-2013 is estimated to be £4,615bn, seven times the size of the commercial stock. Almost all of this is privately owned, mainly by owner-occupiers but including about £837bn in the private rented sector. Most of this rented stock is owned by private individuals, with a sizeable minority accounted for by small companies and organisations unaffiliated with mainstream commercial investors.
- Conventional commercial property investors at present own a tiny fraction (around 2%) of this £837bn stock of private rented residential property –£12bn in flats and houses plus another £6bn in student accommodation – such that, on average, it represents only 5% of their overall property portfolios.

2. INTRODUCTION

2.1 Objectives

This report returns to a set questions which the IPF addressed in 2005 because there were no clear and easily accessible answers at the time – what is the value of commercial property in the UK, how is it distributed across sectors and UK regions, who owns this property, and what is the size of the investment market? This new research adds two further questions – how does residential property compare with commercial; and, in a world where the ways of getting an exposure to property have become fragmented, what is the beneficial interest in UK property of institutional investors, such as insurance companies and pension funds?

Such answers are naturally of interest to those directly and indirect involved in our industry. As the 2005 report noted, they also provide a universal benchmark against which investors can not only compare their own portfolios but also identify where there might be untapped opportunities both now and in the future. Such themes, however, now seem trivial compared to getting an understanding of how the substantial economic, social and financial changes of the last 10 years have impacted on the size and nature of the UK's stock of property and investment property.

2.2 Structure of the report

Section 3 considers the size and structure of the stock of commercial property, whether investment property or owner-occupied. The value and ownership of investment property is outlined in Section 4. Greater detail on property sectors and how this is distributed across the country is given in Section 5. These three sections consider and interpret the changes since 2003. New analysis in Section 6 identifies the size of the residential market and the extent to which this is investment property. A further new addition is Section 7's analysis of the growth in the indirect property holdings of insurance companies and pension funds and of their underlying economic exposure to UK property. Section 8 presents some concluding observations.

Full details of the methodology and sources, together with supplementary tables on the estimates and also an analysis of the amount of debt relative to the size of commercial property, are presented in the Appendices.

The analysis draws heavily on the data collated by the Investment Property Databank (IPD) and the Valuation Office Agency (VOA). However, it also benefits from privileged access to detailed propriety information, generously provided by organisations such as Real Capital Analytics (RCA) on individual property transactions, Property Funds Research on individual funds and Trevor Wood Associates on shopping centres. Responsibility for the interpretation and analysis of this data rests solely with the author.

3. TOTAL SIZE OF UK COMMERCIAL PROPERTY MARKET

3.1 Introduction

This section provides a high-level perspective on the size and structure of the commercial property universe whether invested or owner-occupied. Greater detail on sectors and regions is presented in Section 5.

Commercial property is defined according to three criteria: the building type is predominantly enclosed, is typically occupied by businesses or run on a commercial basis, and is mainly privately owned. Defined in this way, any commercial property that is either owned or occupied by the public sector is included. Incomplete developments and undeveloped land are excluded.

As detailed in Table 3.1, the definition incorporates the three main sectors, namely retail (including restaurants and pubs), offices and industrials (both warehouses and factories), plus miscellaneous 'other commercial' property. It excludes health and education, museums and libraries, sports grounds, courts and prisons, heavy industrial plants, infrastructure and open structures, such as theme parks.

Table 3.1: Commercial property types and definitions

Sector	Uses
Retail	Shops, shopping centres, supermarkets, retail warehouses, post offices, bank branches, hairdressers and beauty salons, cafes, takeaways, restaurants and pubs, car showrooms, garden centres.
Offices	Offices, business units, data and computer centres.
Industrial	Warehouses and stores, factories and workshops, newspaper printing works, etc.
Other commercial	Bingo halls, bowling alleys, casinos, cinemas and theatres, arenas, concert halls and exhibition centres, night clubs, hotels, health farms, gyms, sports centres and swimming pools, caravan parks and holiday sites, purpose-built car parks, petrol stations, film, TV and recording studios.
Excluded – other non-residential buildings	Health and education, museums, galleries and libraries, community centres, public and village halls, guest houses, holiday homes and hostels, emergency service buildings, courts and prisons, heavy industry, steel plants, chemical processing and oil refining, etc.
Excluded – infrastructure and other structures	Predominantly infrastructure – ports, airports, railway and bus stations, power generation, water and sewage stations, recycling plants, etc. – plus ship yards, Ministry of Defence facilities, sports grounds and stadia, amusement and theme parks, surface car parks, zoos, mineral processing.

3. TOTAL SIZE OF UK COMMERCIAL PROPERTY MARKET

3.2 Total size and changes since 2003

The UK's commercial property stock ('universe') is estimated to have had a value of £647bn in mid-2013. The estimate reflects an average rental value of £74 per sq m (net internal area) in mid-2013, floorspace of 679m sq m (giving a total rental value of £50.3bn), and a reversionary yield of 7.8%. Retail is by far the largest sector with a capital value of £293bn.

Further information and full details of the methodology, including the restatement of the estimates from the 2005 report, are presented in Appendix A.

London accounts for 34% of the property universe value, compared with its respective population and GDP shares of 13% and 23%. Relative to the size of its economy, London has a small amount of floorspace but this space is both used much more productively than elsewhere in the UK – average rental values per sq m are three times the national average – and priced much more keenly by investors (yields are 80% of the national level).

Table 3.2: Capital and rental values, and the stock of floorspace of the commercial property universe, mid-2013

	Retail	Offices	Industrial	Other	Total
Capital value (£bn)	£293	£183	£117	£54	£647
Change since 2003	13%	26%	–11%	23%	11%
Rental value (£bn)	£20.6	£13.9	£12.1	£3.8	£50.3
Rental value per sq m	£133	£128	£32	£100	£74
Floorspace (million sq m)	154	108	379	38	679
Yield	7.0%	7.6%	10.4%	7.0%	7.8%
Capital value London (£bn)	£78	£114	£16	£15	£223
Change since 2003	50%	59%	–7%	36%	47%
London as % of UK	27%	62%	13%	28%	34%
Capital value Rest of UK (bn)	£215	£69	£101	£39	£424
Change since 2003	4%	–6%	–12%	18%	–1%

Source: PMRECON using data from IPD and VOA

The current total property universe of £647bn has risen by 11% from the restated 2003 estimate of £580bn. The value of the commercial stock peaked at £867bn in 2006 and bottomed out at £587bn in 2009, as Figure 3.1 illustrates.

The growth since 2003 reflects:

i. rental value per sq m growth of 10.0%,[1]
ii. sluggish growth in the stock of floorspace – an increase of only 0.6% in total since 2003 (compared to the previous trend of 1.25–1.5% per annum[2]), and
iii. broadly unchanged yields.

[1] Rateable values between revaluation dates have consistently increased by more than IPD rental growth over the corresponding period, hence the relatively strong uplift in the estimate of rents since 2003. See Appendix A for further discussion.

[2] As indicated by data for England for 1974–2003 published by the ODPM in March 2006.

3. TOTAL SIZE OF UK COMMERCIAL PROPERTY MARKET

Figure 3.1: Capital value of the commercial property universe, 2003 to mid-2013

Source: PMRECON using data from IPD and VOA

This aggregate picture, however, conceals some interesting geographic and sectoral themes. First, there has been a polarisation between London and the rest of the UK, with the former seeing a near 50% uplift in capital values since 2003 and the rest of the country witnessing a 1% decline; this has led to London's share rising from 26% in 2003 to 34% now. In the office sector, London has accounted for all of the national uplift in capital value since 2003, while in the retail sector it has accounted for almost all the growth.

This increase in value in London has been fuelled by healthy rental growth (reflecting both the resilience of its economy and limited new supply) and a significant decline in yields, whereas the rest of the country has witnessed a very modest 4% uplift in rents per sq m since 2003 and, more significantly, a detrimental 50bps increase in yields. The value of the property stock in the rest of the UK (less so the South East) has, however, been inflated significantly by new supply; this has offset the effect of sluggish rents and weaker yields.

The second theme is that, other than in the mid-2000s, when sharper yields inflated values, the industrial sector has struggled to gain any traction, being the only sector to have seen a decline in value since 2003. The decline reflects a 4% loss in floorspace since 2003 and higher yields; rents have also struggled to grow, other than during the economically buoyant mid-2000s.

Offices have been the fastest growing sector since 2003 (closely followed by the 'other' commercial property sector). It is also the sector where the polarisation between the dominant London market – whose stock value has increased by 59% since 2003 – and the rest of the country has been greatest. Outside London, the value of the office stock is 6% lower than in 2003, reflecting significantly higher yields and, to a lesser extent, lower rents. The latter have outweighed the positive effect on values of an 11% increase in the amount of floorspace.

Finally, while the value of retail property in the UK is higher than in 2003, the uplift is comparatively modest given historically muted growth in both floorspace and per sq m rental values – possibly, in part, reflecting the structural shift away from physical to internet retailing.

3. TOTAL SIZE OF UK COMMERCIAL PROPERTY MARKET

3.3 Quality of commercial property stock

Around 45% of the rental value in the retail and industrial sectors is in properties with rents below £100,000, while in the office sector properties below this threshold account for about a third of the sector's rental value.[3] The corresponding capital values for such properties would be up to £1m with many, of course, well below this. In addition, properties with a rental value between £100,000 and £250,000 – corresponding to capital values in the £1–3m range – account for another 15% or so of the universe's rental value. Overall, therefore, about half the universe comprises assets with values below £3m.

Retail and industrial assets with lot sizes below £1.5m and offices valued at less than £2.5m rarely feature in most institutional investors' portfolios, and the tendency is to re-balance these portfolios by selling the small assets. This implies that almost half the value of the UK's property stock does not meet the contemporary needs of all but the smallest investors.

3.4 Office for National Statistics estimates of non-residential building stock

Details of other approaches to estimating the stock of commercial property and the corresponding estimates are outlined in Appendix A.

Notably, the Office for National Statistics (ONS) annually publishes estimates of 'non-residential' buildings in its Blue Book publication; these estimates form part of the national balance sheet. At the aggregate level, they draw on a similar approach to that used in this report, i.e. estimates of rateable value are updated to current prices and then capitalised by a yield to derive capital value. These building stock estimates include the value of the land the buildings sit on. ONS's end-2012 estimate of the UK's non-residential property stock is £774bn.

ONS also provides estimates of the ownership of this non-residential stock, according to the four 'institutional' sectors widely used in national accounts – financial corporations, non-financial corporations, government and 'households and non-profit institutions serving households'. Unfortunately, as explained in Appendix A (Section A.6.1), the definitions and approach are of little relevance for this report.

The most useful element is the estimate that government (central and local) ownership of non-residential property amounted to £271bn in 2012 (thereby leaving £503bn in private hands). Most of this government-owned property, however, is non-commercial (for example, about £100bn is accounted for just by the NHS and local authority schools and colleges).

3.5 Non-commercial property

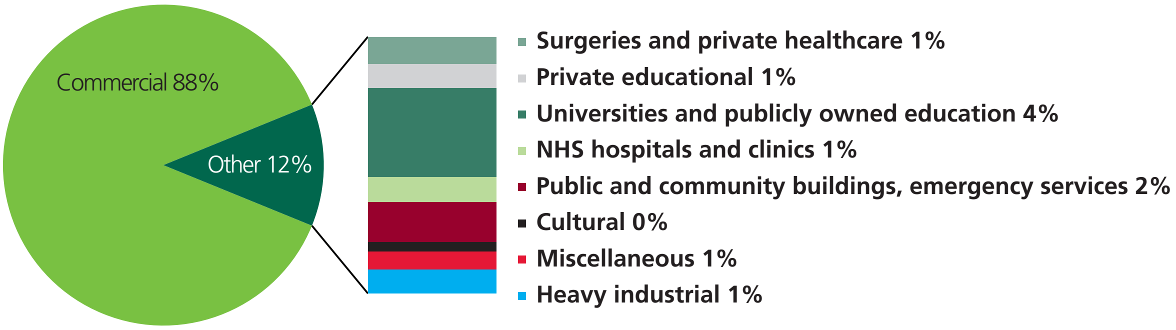
The difference of about £125bn between ONS' estimate of the total non-residential stock and this report's estimate of commercial property is indicative of the value of those non-residential buildings outside the commercial sector. Figure 3.2, drawing on rateable values, provides an insight on how this is distributed.

Health and education make up the largest part of the non-commercial segment, representing almost two-thirds of the total;[4] universities and local authority schools and colleges account for over half of all health and education. Courts, prisons, emergency service buildings, and museums, art galleries and libraries account for most of the remainder.

[3] This analysis is based on VOA/HMRC records on the distribution of rateable value in England and Wales

3. TOTAL SIZE OF UK COMMERCIAL PROPERTY MARKET

Figure 3.2: Distribution of rateable value by type of non-residential property, England and Wales, April 2013



Source: PMRECON, VOA

[4] The publicly-owned healthcare and educational buildings' balance sheet valuations indicate that their share of capital value will be higher and hence also that commercial's share of the non-residential universe is lower (see Section 5.6.1). These valuations of publicly-owned health and education imply a relatively low rental yield for such properties.

4. SIZE OF COMMERCIAL INVESTMENT MARKET

4.1 Introduction

The section presents estimates of the amount currently invested in UK commercial property (the 'investment universe') and the trend since 2003. The first part presents a broad overview, with the second part considering each of the investor types in greater detail. There is a particular emphasis on the amount accounted for by overseas investors.

Greater detail on the sectors and on regional variations is presented in Section 5.

4.2 Overall estimate of investment property in the UK

The overall estimate of the amount of money invested in the UK commercial market is summarised in Table 4.1. The estimates include the small amount invested in healthcare but exclude investment in residential, which is considered separately in Section 6.

Table 4.1: UK commercial property investment universe by investor type, mid-2013

Investor type	Description of type	Mid-2013 £bn	Mid-2013 share	% change since 2003
UK insurance company funds	Insurance company long term funds, unit-linked life and pension, managed property funds.	£41	11%	–29%
UK segregated pension funds	Own-account property portfolios of funded pension schemes managed either internally or by third parties.	£30	8%	–1%
UK and Channel Island domiciled collective investment schemes	Authorised and unauthorised property unit trusts and similar, limited partnerships, etc. Includes the Channel Islands property investment companies but excludes the insurance company managed property funds.	£59	16%	118%
UK REITs and listed property companies	Companies listed on the main market of the London Stock Exchange and incorporated in the UK under the REIT and 'Real Estate Holding and Development' categories.	£52	14%	30%
UK private property companies	Other companies undertaking activities classified under the 2007 SIC either as 'the development of building projects', 'the buying and selling of own real estate' or 'the renting and operating of own real estate'.	£50	14%	0%
UK traditional estates and charities	Charities and traditional landed estates.	£16	4%	18%
UK private investors	Individuals, family trusts, HNW syndicates.	£10	3%	27%
UK other	Mainly local authorities and pub owners.	£18	5%	23%
UK SUB-TOTAL		*£277*	*76%*	*12%*
Overseas	All those domiciled outside the UK, excluding those foreign-owned fund managers, insurance companies and pension funds investing UK sourced capital.	£88	24%	113%
TOTAL		£364	100%	27%

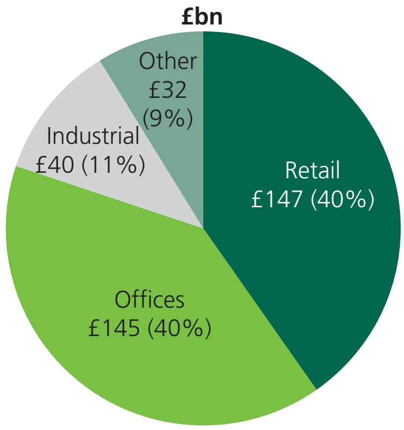
Source: PMRECON using data from company annual accounts, IPD, ONS, PFR and RCA/Property Data

4. SIZE OF COMMERCIAL INVESTMENT MARKET

Table 4.1 also highlights shifts in the balance of ownership amongst UK investors since 2003. UK collective investment scheme ownership has increased substantially (as quickly as foreign investors) while UK REIT and listed property company holdings and those of private investors have also increased significantly. By contrast, UK insurance companies and, to a lesser extent, the public house owners (included in 'other investors') have been retrenching.

The UK commercial property investment universe in mid-2013 is estimated to be valued at £364bn, compared to the £135bn in IPD's 2012 UK Annual Index. This represents a 27% increase on the restated 2003 estimate and compares with the 11% increase in the total value of the UK commercial property universe. Investment holdings increased across all sectors and most segments of the market (other than offices outside London), with the rate of increase in each segment mainly influenced by property price inflation. Holdings in the 'other' sector, however, more than doubled. Retail remains the largest sector with £147bn (40% of the total, compared to 43% in 2003).

Figure 4.1: UK commercial investment property universe by sector, mid-2013



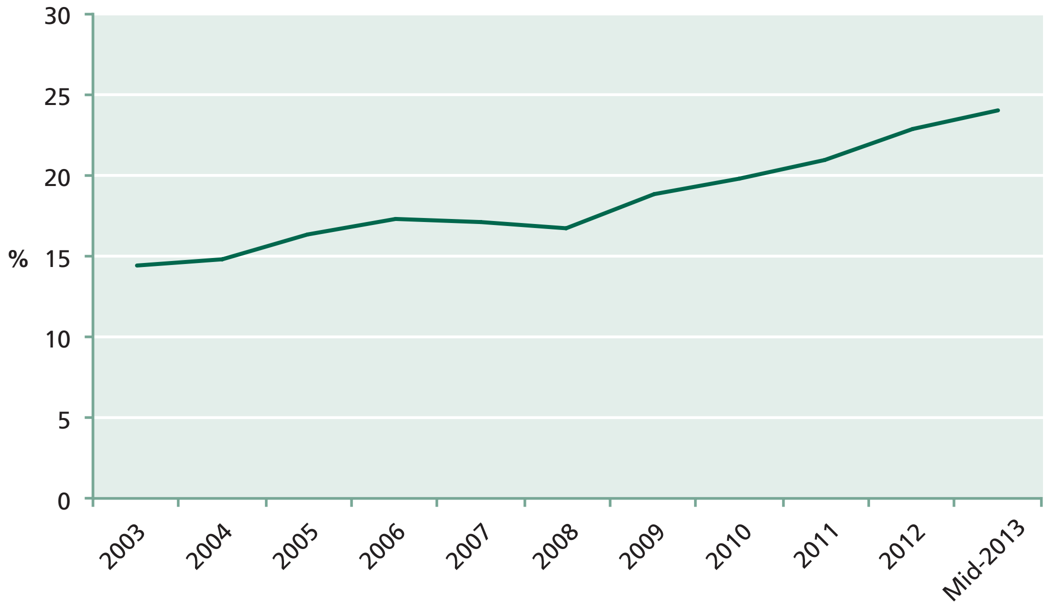
Source: PMRECON using data from company annual accounts, IPD, ONS, PFR and RCA/Property Data

4. SIZE OF COMMERCIAL INVESTMENT MARKET

UK collective investment schemes, REITs and listed property companies and UK insurance companies are substantial investors, as are overseas investors; more detail on the types of overseas investor is presented in Section 4.3.8.

Overseas investors now account for 24% of investment property ownership in the UK, up from 14% in 2003; their holdings since 2003 have been increasing at a trend rate of 8% per annum in real terms (i.e. after accounting for property price inflation).

Figure 4.2: Overseas share of the UK commercial property investment universe



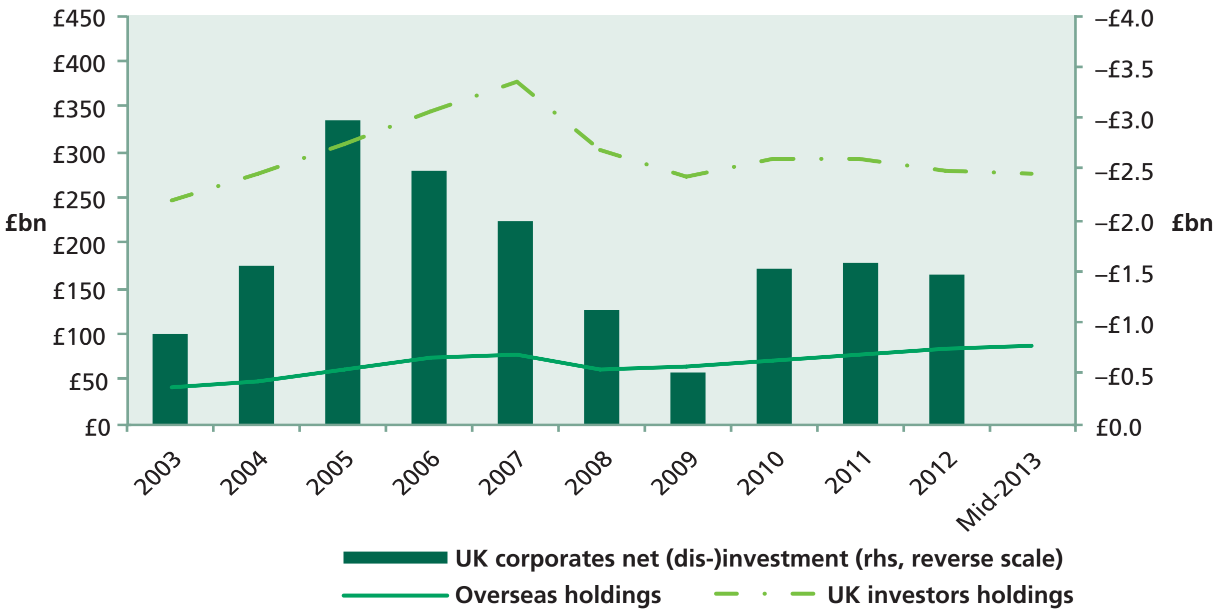
Source: PMRECON using data from company annual accounts, IPD, ONS, PFR and RCA/Property Data

This growth in overseas' investors holdings, however, has not been at the expense of UK investors. As a whole, UK investors' holdings have grown since 2003, even after property price inflation – their 12% uplift compares with IPD price growth of 0% and with the 11% increase in the value of the UK's total stock of property.

The clear implication is a shift in the ownership of UK property away from UK owner-occupiers, who now account for 44% of UK property compared to 50% in 2003. The shift towards overseas investors, fundamentally, has been fed by disinvestment by UK corporates (estimated using RCA transactions data), as is illustrated in Figure 4.3. A notable exception to this pattern is the City office market, where domestic investors have being increasingly selling their holdings to foreign investors, something that is explored further in Section 4.3.8.

4. SIZE OF COMMERCIAL INVESTMENT MARKET

Figure 4.3: UK commercial property investment universe, UK versus overseas holdings and net investment, mid-2013



Source: PMRECON using data from company annual accounts, IPD, ONS, PFR and RCA/Property Data

The fortunes, drivers and strategies of each of the investor types are explored in greater detail in section 4.3.

4.3 Investor types

4.3.1 UK insurance companies and pension funds

The insurance company investment holdings relate to their non-linked life, general insurance and annuity funds, unit-linked life and pension funds and their managed property funds; they exclude any funds, such as unit trusts and limited partnerships, run independently by their fund management subsidiaries (these are included with collective investment schemes). The primary source for the estimate is ONS's *MQ5: Investment by Insurance Companies, Pension Funds and Trusts*; this source has been supplemented with data supplied by the Association of British Insurers. Full details are given in Appendix B.

The value of insurance company direct UK commercial property holdings in mid-2013 is estimated at £41bn, a decline of 22% since 2003, and represents a fall in their share of the investment market from a leading 20% in 2003 to 11% now. These headline figures, however, hide important divergences. Their non-linked life and annuity fund exposures have more than halved since 2003 as a result of asset allocators substantially reducing property weightings and of a switch in strategy away from direct investment in favour of indirects (see Section 7).

By contrast, a shift in pensions and savings habits and increased investment by pension funds in indirect forms of property have led to a near doubling since 2003 in the property holdings of insurance companies' unit-linked life and pension and managed property funds. This increase is comparable to that enjoyed by collective investment schemes (see below) and is generally part of the same phenomenon.

4. SIZE OF COMMERCIAL INVESTMENT MARKET

At the multi-asset level, defined-benefit pension funds have fared better than the insurance companies with their portfolios doubling in size since 2003. The amount of UK property owned directly by pension funds, however, has fallen marginally since 2003 to £30bn in mid-2013. This reflects three factors: like insurance companies, a change in strategy away from direct investing in favour of indirects; a shift towards international property; and a reduced asset allocation to property. As explained in Section 7, once their exposure to indirectly owned property is taken into account, pension funds' beneficial interest in UK property has almost doubled since 2003.

Compared to the overall investment universe, both insurance companies and pension funds tend to be overweight in retail and industrial assets at the expense of London offices.

4.3.2 UK collective investment schemes

Collective investment schemes cover the UK and Channel Island domiciled unit trusts and similar, limited partnerships and the closed-ended property investment companies represented by the Association of Investment Companies. The definition has been revised since the 2005 report to exclude managed property funds and unit-linked life and pension funds, which are now incorporated in the insurance company estimate. The estimate also excludes development funds and those not investing in physical buildings, residential, any indirect holdings and the investments of overseas fund managers. The primary source is Property Funds Research (PFR).

The direct commercial property holdings in the UK of collective investment schemes totalled £59bn in mid-2013, making them the largest UK owner type. Their holdings have increased by 118% since 2003, inflated by a shift in UK institutional investors' strategies towards indirect forms of property investment and as a result of greater investment by both overseas and UK 'retail' investors. Growth was particularly rapid until the peak of the market in 2007; however, since the trough of the cycle, there has been little sustained traction, with holdings having grown less than property price growth. In particular, the relatively highly geared closed-ended funds have, in aggregate, reduced their holdings over the last few years, partly in an attempt to reduce their debt.

Collective investment schemes, overall, have a relatively high weighting to industrials at the expense of offices across London.

4.3.3 UK REITs and listed property companies

These comprise companies listed on the main market of the London Stock Exchange and incorporated in the UK under the REIT and 'Real Estate Holding and Development' sectors. Those companies exclusively investing either overseas, in development and regeneration or in residential (including student accommodation) are excluded. The data are extracted from published company accounts and exclude residential exposures (covered separately in Section 6), overseas holdings and developments. To avoid double-counting, the calculation also excludes most interests in funds and some joint ventures (specifically, those incorporated in the estimate of collective investment schemes).

4. SIZE OF COMMERCIAL INVESTMENT MARKET

The estimate of this category of investor's UK commercial property investment holdings in mid-2013 is £52bn, representing a comparatively strong uplift of 30% on the restated 2003 estimate. REITs represent 87% of the listed total. Five companies (British Land, Hammerson, Intu, Land Securities and SEGRO) now account for only two-thirds of this total, compared to their approximate 75% share[5] in 2003. The listed sector, therefore, has become moderately less concentrated since 2003.

Structures have become more orientated towards retail and industrials (at the expense of offices) over the last 10 years. Compared to the overall investment universe, REITs and listed property companies are now highly weighted towards retail and shopping centres in particular (they have become by far the country's biggest owner) and under-weight to offices outside central London.

4.3.4 UK private property companies

Private property companies include those listed on AIM and other private property companies whose main activity is described under the 2007 Standard Industrial Classification either as 'the development of building projects', 'the buying and selling of own real estate', or 'the renting and operating of own real estate' (excluding housing associations). They include any such companies set up to manage the property portfolios of wealthy individuals, other than the 'traditional estates'. The category also picks up those private investment companies not included in the collective investment scheme investor type.

Their estimated commercial investment property holdings of £50bn in mid-2013, as explained in detail in Appendix B, is a judgement based on a range of information. Canary Wharf Group/Songbird Estates is the largest single owner, with holdings of approximately £5bn, but around half the total is held in comparatively small companies, each with less than £100m of property.

The previous report's estimate for 2003 has been revised upwards, given evidence (see Appendix B) that some significant investors were not covered in this earlier estimate and also because of the inclusion of the other commercial property sector. The conclusion is that there has been little significant change in their holdings over the last 10 years. This view is based on the following:

- That the six biggest companies in 2003, as a whole, have seen a decline in their holdings. For example, while Canary Wharf Group/Songbird Estates has seen its portfolio expand, Peel Group sold its biggest asset (the Trafford Centre) for around £1.6bn in exchange for shares in a REIT;
- The number of companies (investing in UK property) listed on AIM has increased since 2003. Excluding Songbird/Canary Wharf Group, their aggregated portfolios have increased by over £1bn;
- Both AIM companies and other private companies have seen wildly varying fortunes, with some having to deleverage or liquidate and sell assets, while others with stronger balance sheets and access to equity have taken advantage of weak prices to expand their portfolios.

With so many divergent themes, this component of the investment universe estimate is subject to the greatest uncertainty.

Private property company portfolios are heavily weighted towards offices in the rest of London (including Docklands and central London fringes) and outside the South East, away from retail.

[5] Any subsequent acquisitions of other companies are not counted in the 2003 share.

4. SIZE OF COMMERCIAL INVESTMENT MARKET

4.3.5 Private investors

This definition relates to those individuals, family trusts, etc., who directly own property and hold these assets outside the categories covered elsewhere in this report such as 'traditional estates' (see below), private property companies and so on. This category also excludes capital invested in investment vehicles like unit trusts, limited partnerships. The 2005 report estimated their holdings on the basis of their historic net transactions.

This report's estimate updates the 2003 estimate by growing each year's stock estimate to account for net transactions (using RCA's records) and property price growth.

This analysis identifies net purchasing by such individuals in most years, especially in the three years prior to the market downturn in late 2007. This has led to a rise in their holdings to an estimated £10bn from £8bn in 2003. Their portfolios have a heavy bias towards offices across the country.

4.3.6 UK traditional estates and charities

This grouping includes the commercial property holdings of the Crown Estate and other landed estates (such as Grosvenor, the Cadogan Estate, etc.) and large charities, such as the Wellcome Trust and the Church Commissioners, whose current holdings have been mainly compiled from both published and private information; exposures held within funds are excluded, as are their substantial residential holdings (considered separately in Section 6). The remaining exposures of smaller investors – including university endowment funds and small charities' direct investments – have been updated using transactions records supplied by RCA.

These traditional estates and charities directly owned £16bn of UK commercial property in mid-2013, up 18% since 2003. According to RCA transactions data, traditional estates and charities have not been net investors since 2003 but their portfolios, in aggregate, are heavily weighted towards retail and offices in London's West End and, hence, have benefitted from the relatively strong price growth in these markets since 2003.

The counterpart to their relatively high West End retail and office weightings is a low exposure to industrials and to offices outside the West End.

4.3.7 Other UK

Other UK investors relate mainly to the leased pubs owned by companies such as Enterprise Inns (not included in the 2005 report) and local authority properties held as investments. The latter exclude those held for operational purposes and to support economic development. Local authority balance sheets indicate that their property investments are around £10bn and have changed little since 2003. The investment value of leased pubs has fallen by around 15%, as the owners have sold assets to cut debt or consolidated their portfolios.

4.3.8 Overseas owners

Overseas holdings relate to those of organisations domiciled outside the UK and Channel Islands. They exclude those of foreign-owned fund managers' UK subsidiaries, primarily servicing UK-sourced capital (e.g. AXA REIM and Insurance, LaSalle Investment Management, etc.) who are defined as UK investors. The estimates will include a small proportion of buildings bought by foreign companies for operational reasons rather than as investments.

4. SIZE OF COMMERCIAL INVESTMENT MARKET

The estimate of the worth of this category's property holdings builds on the 2005 report's estimate for 2003. This estimate is updated annually to account for net transactions (using RCA's records) and property price growth. The 2003 estimate has been restated to include the 'other' commercial property sector (mainly hotels) not covered in the 2005 report.

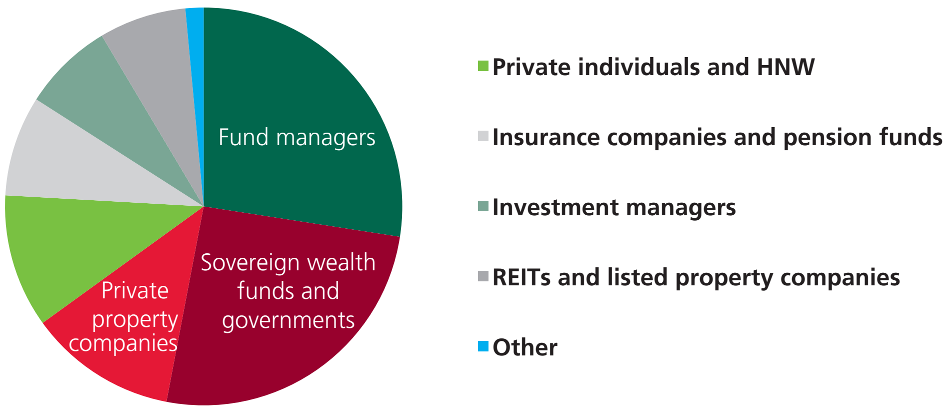
These holdings are estimated to have increased substantially, to £88bn, a rise of 113% from 2003's restated level. This growth has been primarily driven by overseas fund managers and Sovereign Wealth Funds (SWFs).

An indication of how this overseas capital is distributed across investor types is illustrated in Figure 4.4; this is based on net purchases since the end of 2000 (adjusted to mid-2013 prices), accounting for just over half of current holdings. The chart suggests that fund managers are the largest type of overseas investor, accounting for 27% of the holdings accumulated by overseas investors since the end of 2000. This matches the pattern amongst UK investors, where fund managers are also the largest type.

SWFs and other government bodies account for a quarter of the holdings accumulated by overseas investors since the end of 2000.[6] SWFs' global investments (across all asset classes) have grown more than fivefold, from $1trn in the early 2000s to around $5.5trn currently.

Private property companies and private individuals also account for a sizeable share of overseas investor holdings, with the latter likely to be inflated further when holdings in the name of 'Investment Managers' (such as private wealth managers, syndicates, etc.) are included.

Figure 4.4: Overseas investors by type of investor, based on holdings accumulated since end 2000, mid-2013 property prices



Source: PMRECON analysis of RCA data

In contrast the exposures of overseas insurance companies and pension funds and of overseas-based REITs and listed property companies are comparatively small, reflecting the tendency of most of the former to invest through indirect vehicles (such as collective investment schemes)[7] and the latter, typically, to maintain a domestic focus to their strategies.

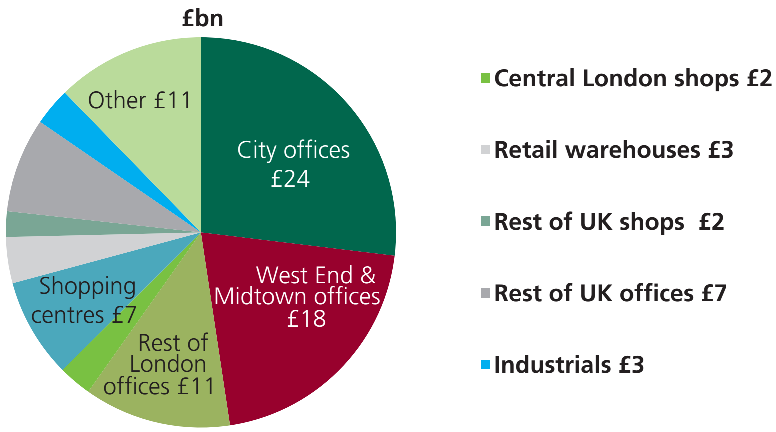
[6] SWF's share of all overseas investors' holdings (i.e. including those accumulated prior to end-2000) is likely to be lower, given that most of their purchases will have been made in the 2000s, in contrast to other investors, such as fund managers, who will have started purchasing earlier.

[7] See the various Investor Universe studies undertaken by INREV.

4. SIZE OF COMMERCIAL INVESTMENT MARKET

Overseas investor portfolios are heavily concentrated in the City and West End office markets (which account for 48% of their holdings) and, conversely, are very under-represented in all parts of the retail and industrial sectors. Despite some prominent ownerships, shopping centres in particular are under-represented in their portfolios.

Figure 4.5: Distribution of overseas investors' holdings, by segment, mid-2013



Source: PMRECON using data from RCA/Property Data

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

5.1 Introduction

This section presents a more detailed perspective on the size of the various property sectors and segments, both for the property universe and the investment universe. A broad regional view is also presented.

The section begins with a comparison between the amounts invested in each segment and the total amount of property in each segment. This comparison, it should be noted, is made difficult by the different calculation bases of the two universes. The investment universe is quantified primarily on the basis of a building's predominant use, while the property universe estimates relate to each specific use within a building, such that ground floor retail in an office block will be classified as retail in the property universe but probably counted as office in the investment estimate. While likely to average out at the all-property level, incompatibilities will emerge at the sector and regional levels.

5.2 Commercial property segments – size and ownership

The values of the property universe by IPD segment[8] and the amounts that are held in investment portfolios are presented in Table 5.1. As the table shows, there are important differences between relative magnitudes of the segments in the property universe and in the investment universe.

Standard retail (mainly shops and food stores) is the largest part of the property universe but accounts for a relatively small share of investment portfolios. As noted in Section 3, a large proportion of shops are too small to meet investors' criteria and, furthermore, there has been significant disinvestment in recent years. Counter-balancing this bias against shops, investors' portfolios are weighted more heavily in favour of shopping centres and retail warehouses; these types of retail property are characterised by the large lot sizes increasingly favoured by investors and are also considered by many to be better placed to meet the evolving needs of retailers and shoppers.

Investors' portfolios are more heavily weighted towards London offices than the overall property universe. Most central London offices are owned by investors, with negligible levels of owner-occupation. Together with shopping centres, West End and Midtown offices represent the largest segments in investors' portfolios. Finally, industrials outside London and the South East feature comparatively thinly in investors' portfolios, this partly reflecting the inclusion of factories (some of which will not be suitable for investors) in the definition.

[8] Note that, in line with IPD definitions: (1) South East, unless otherwise specified, includes the Eastern region and London excluding central London; (2) supermarkets and food stores are included in 'standard retail'. It is possible that, in the measures of the property and investment universes, some food stores may have been included with retail warehouses

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

Table 5.1: Property and investment universes by segment, mid-2013

	£bn				
IPD segment	**All property (specific use basis)**	**Investment universe (predominant use basis)**	**All property**	**Investment universe**	**IPD***
Central London shops (included in Standard Retail South East)		*£15*		*4%*	*4%*
Standard Retail South East	£96	£29	15%	8%	10%
Standard Retail Rest of UK	£91	£24	14%	7%	7%
Shopping Centre	£59	£51	9%	14%	17%
Retail Warehouse	£47	£43	7%	12%	17%
Office City		£38		10%	4%
Office West End and Midtown	£114	£53	18%	14%	13%
Office Rest of London		£23		6%	2%
Office Rest of South East (excluding Rest of London)	£22	£15	3%	4%	5%
Office Rest of UK	£47	£16	7%	4%	4%
Industrial South Eastern	£45	£22	7%	6%	10%
Industrial Rest of UK	£71	£18	11%	5%	6%
Other commercial	£54	£32**	8%	9%	6%
TOTAL	£647	£364	100%	100%	100%

* IPD end-2012.
** Includes £4-5bn of healthcare and education
Source: PMRECON using data from company annual accounts, IPD, ONS, PFR, RCA/Property Data and Trevor Wood Associates
Note: The measure of All property and Investment Universe are derived by separate methods and are not directly comparable. This is most apparent for the London office market (see Section 5.1, Box 5.1 and Appendix A.2.2 for further details).

IPD's UK index covers around two-fifths of the investment universe. Compared to IPD, the investment universe is more heavily weighted towards London offices (especially the City) – a part of the market which, as shown in Table 5.2, is overly characterised by overseas investors who are not counted in IPD's UK index. Retail warehouses, which are particularly favoured by domestic investors, are over-represented in IPD.

As a group, UK investors' portfolios, in most respects, are close to the structure of the investment universe (see Table 5.2). Overseas investors' portfolios, on the whole, are heavily concentrated in the central London office market and, hence, are very over-weight relative to the overall investment universe; elsewhere, other than offices in the rest of London (including Docklands, the South Bank, etc.) and the 'other' commercial property sector, overseas' investors are under-weight.

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

Table 5.2: Investment universe by sector and by UK and overseas investors, mid-2013

	£bn				
IPD segment	**UK investors**	**Overseas investors**	**UK investors**	**Overseas investors**	**Investment universe**
Central London shops (included in Standard Retail South East)	*£12*	*£2*	*4%*	*3%*	*4%*
Standard Retail South East	£26	£3	9%	4%	8%
Standard Retail Rest of UK	£23	£1	8%	1%	7%
Shopping Centre	£44	£7	16%	8%	14%
Retail Warehouse	£39	£3	14%	4%	12%
Office City	£14	£24	5%	27%	10%
Office West End and Midtown	£35	£18	13%	21%	14%
Office Rest of London (included in Rest of South East)	*£12*	*£11*	*4%*	*12%*	*6%*
Office Rest of South East (including Rest of London)	£25	£14	9%	16%	11%
Office Rest of UK	£12	£4	4%	4%	4%
Industrial South Eastern	£21	£2	7%	2%	6%
Industrial Rest of UK	£17	£1	6%	1%	5%
Other commercial	£21	£11	8%	12%	9%
TOTAL	£277	£88	100%	100%	100%

Source: PMRECON using data from company annual accounts, IPD, ONS, PFR and RCA/Property Data

As Table 5.3 highlights, overseas investors are the largest type of investor in both the City and the West End and Midtown office markets; as a consequence, UK investors are significantly under-weight in these segments.

Table 5.3 also shows that overseas investors are also amongst the largest owners in the office markets outside central London and in the 'other' commercial property sector. This not only reflects their scale but also a disproportionate focus on these segments. Similarly, the leading roles of traditional estates in central London retail, REITs and listed property companies in shopping centres and, to a lesser extent, collective investment schemes in the retail warehouse sector each reflect a specialist focus. Notably, these leading roles and specialisations have both become greater since 2003.

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

Table 5.3: Biggest investor type in each segment

Central London shops	Traditional estates and charities (£4bn)
Rest of UK standard retail (incl. food stores, pubs, restaurants, etc.)	Pub owners (£8bn), collective investment schemes (£7bn)
Shopping centres	REITs and listed property companies (£15bn)
Retail warehouses	Collective investment schemes (£11bn)
City offices	Overseas investors (£24bn)
West End and Midtown offices	Overseas investors (£18bn)
Rest of London and South East offices	Overseas investors (£14bn)
Rest of UK offices	Private property companies (£4bn), overseas investors (£4bn)
Industrials	Collective investment schemes (£9bn)
Other commercial	Overseas investors (£11bn)

Across all segments (other than Rest of UK offices), investment holdings between 2003 and mid-2013 increased by more than the corresponding rise in the value of the property stock. However, property price growth (as measured by IPD) was a major influence on the relative pace of the rise in holdings, for example holdings in the buoyant West End and Midtown market rose by 73% but by only 7% in the sluggish Rest of UK Standard Retail segment. Growth in supply also contributed to a relatively large increase in the presence of retail warehouses. However, the 'other' commercial property sector witnessed an extra-ordinary doubling in size in portfolios.

5.3 Retail sector

In total, the UK's retail sector – as outlined in Section 3 - had an estimated value of £293bn in mid-2013. Shopping centres account for about £59bn of this and retail warehouses and parks £47bn, according to calculations undertaken for this research by Trevor Wood Associates.[9]

Table 5.4 also shows estimates for other retail types. These – like the total retail universe – are derived from rateable values that relate to the specific uses within a building and, hence, are not strictly comparable to the Trevor Wood Associates shopping centre and retail warehouse calculations. The latter's basis is closer to the 'predominant use' basis of the investment universe. Supermarkets represent a significant retail sub-sector. The 'all other retail' estimate – which mainly relates to shop units – should be treated with caution as it is calculated as the residual of two not wholly compatible sets of data.

Table 5.4 illustrates how the values of those types of retail property mainly located out-of-town - supermarkets[10] and retail warehouses – have increased relatively quickly since 2003. These two types have seen relatively strong increases in floorspace since 2003; supermarkets have also benefitted from superior rental growth and yield compression.

[9] The estimates were made by applying IPD average capital values per sq m for town centre shopping centres, out-of-town shopping centres and retail warehouses to the corresponding floorspace in the Trevor Wood Associates' database. More details are presented in Appendices A and B. These estimates are not strictly comparable to the estimates derived from rateable values which relate to specific 'uses'.

[10] Supermarkets have been valued on the basis of comparatively low average reversionary yields of 6.25% and 6.75% in mid-2013 and end-2003 respectively.

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

Restaurant and cafes (including coffee shops, takeaways, etc.) have also seen relatively large increases in their total value, reflecting changing use of retail space. By contrast, the residual 'all other retail' (mainly shops) has been flat; strong growth in central London implies that the remainder of the country has, as a whole, seen a decline in the value of its stock (in excess of 10%).

The value of the shopping centre stock has increased relatively slowly – while new developments have added significantly to the stock of value, the sub-sector has been particularly undermined by a rise in yields since 2003, which led a significant decline in values per sq m.

Table 5.4: Retail property capital value by sub-sector, mid-2013

	Mid-2013 £bn	2003 £bn	Change %
Calculated from rateable values			
ALL RETAIL (incl. restaurants, cafes and pubs)	£293	£260	13%
Supermarkets	£56	£40	40%
Restaurants, cafes, etc.	£17	£15	17%
Pubs	£22	£20	6%
SUB-TOTAL	£95	£75	26%
Calculated from floorspace and average capital value per sq m			
Shopping centres	£59	£55	8%
Retail warehouses	£47	£38	24%
Calculated as residual of above – all retail less 'sub-total' less shopping centres and retail warehouses			
All other retail	£92	£92	0%

Source: PMRECON, Trevor Wood Associates

According to the Trevor Wood Associates analysis, owner-occupiers account for only 3% of the UK's value of shopping centres and 14% of retail warehouses; the remainder are owned as investments. Having been equally placed with the insurance companies in 2003, UK REITs and listed property companies have emerged to become by far the biggest owners of the UK's shopping centres. The average lot size of the centres they have an interest in is substantially bigger than the market average, according to the Trevor Wood Associates calculations.

Overseas investors account for only 10% of the UK retail investment universe and, in particular, only 14% of the investment universe of shopping centres. Their share of shopping centres, however, has been consistently growing since 2003. Like the UK REITs and listed property companies, overseas investors' holdings are biased towards the larger centres.

Across all investor types, the value of shopping centres in investment portfolios is estimated to have risen by only 5% since 2003, while retail warehouses, helped by a smaller decline in prices and more new supply, rose by 34%. Holdings of standard retail (mainly shops) rose 22%, primarily on account of the buoyant central London market and supermarkets and food stores (which are included in the definition of standard retail).

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

5.4 Office sector

Offices in the UK are estimated to have a total value of around £183bn; almost half of this is situated in central London (the City, and West End and Midtown markets). Another quarter is located in the remainder of London (including Docklands, the South Bank and other fringe central London areas, as well as the suburbs).

Estimating the value of offices in the City and West End and Midtown has proven particularly challenging, given different methodologies for the property universe and investment property. Box 5.1 outlines the issues and presents an alternative approach, which estimates the property universe in a way that is consistent with measures of investment property.

This alternative approach puts the mid-2013 value of the City office market at £42bn and the West End and Midtown market at £53bn. Over 90% of this stock is held in investment portfolios.

Box 5.1: Estimating the value of the central London office market

In this report, estimation of the property universe (invested and owner-occupied) and the investment universe is based on two separate approaches.

The property universe is derived by capitalising the VOA's rateable values (updated to take into account rental growth since the valuation date). These rateable values relate to each specific use within a building, meaning that space within an office block used for ancillary purposes, e.g. for retailing, car parking, etc., will be counted as such and excluded from the office measure.

Conversely, the investment universe of offices is built up from measures (IPD, RCA, company annual accounts, etc.) that typically classify buildings on the basis of their predominant use. This means the office investment universe measure also incorporates those secondary uses such as ground floor retailing, car parking, etc., that form part of the office building. A consequence of these two different approaches is that, for central London, the value of the office property universe is well below that of the investment universe.

To gain further insight of the value of the central London office market, additional analysis of the RCA transactions database has been undertaken. For each City and West End and Midtown office property in the database at any point since RCA's records commenced at the start of 2001, the price and owner of the last transaction for that property (together with its floorspace) have been logged. Using IPD capital growth rates, that price has been updated to mid-2013 values.

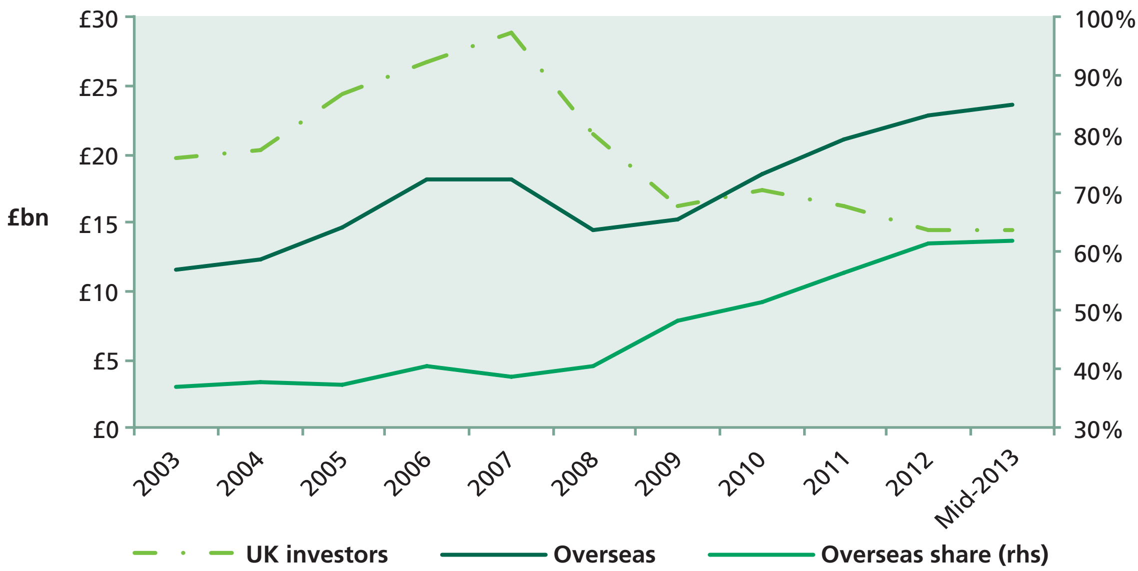
This analysis identifies 633 offices in the City, covering 5.5 million sq m (gross internal area), with a mid-2013 value of £34bn, and 1,079 in the West End and Midtown, also covering 5.5 million sq m, with a value of £45bn. The RCA details show that UK owner-occupiers feature very little in the City nor in the West End and Midtown. This floorspace represents, on the basis of Property Market Analysis estimates (converted from net to gross by the author), about three-quarters of the total floorspace in each market. (Note that the much higher stock estimates of the Corporation of the City London are calculated on a different basis.)

Most of the space not covered by RCA will have either been small lot sizes or built prior to 2001, so is less likely to be of investment grade. It is probable, therefore, that this space has a lower value and is assumed to be valued at 25% per sq m less. Adding this space to that covered by RCA implies a total stock of around £42bn in the City and £56bn in the West End and Midtown. Almost all of this is held in investment portfolios.

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

Sixty-two per cent of investment property (and 56% of the total stock) in the City is owned by overseas investors, up from their 38% share of investment property in 2003.[11] As Figure 5.1 illustrates, the value of City offices in the hands of overseas investors has been on an upward trend since 2009, squeezing UK investors out of the market.

Figure 5.1: City offices investment universe, UK investors versus overseas



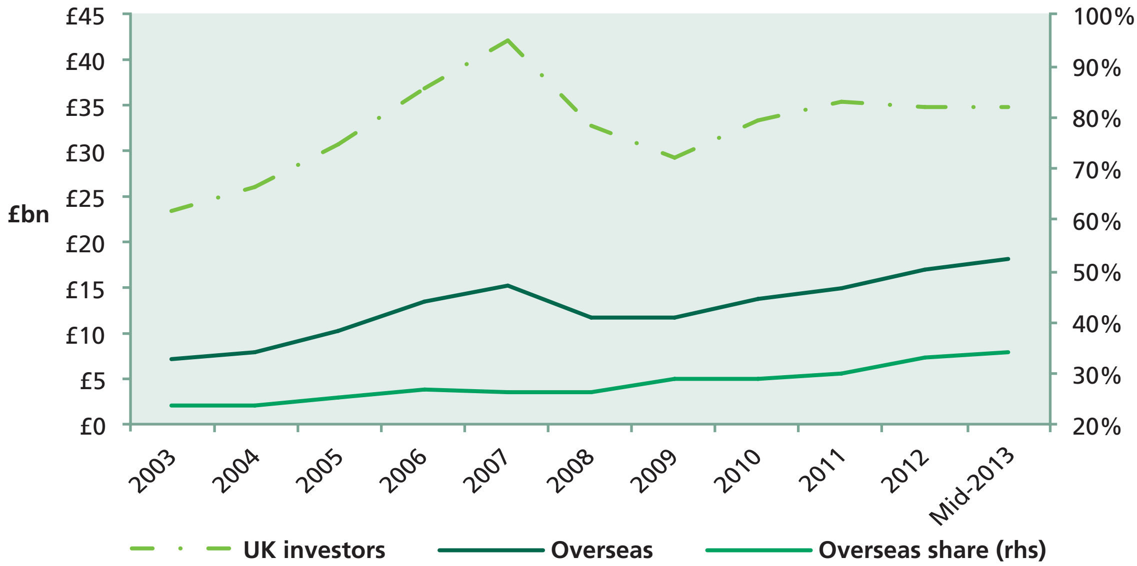
Source: PMRECON using data from company annual accounts, IPD, ONS, PFR and RCA/Property Data

British investors, however, remain the majority owners in the West End and Midtown, although their share has been slowly declining (as Figure 5.2 implies). While disinvesting, the value of UK investors' exposure has been inflated by significant price growth. Overseas owners now account for 34% of investment property (and 32% of the total stock) in the West End and Midtown. Central London offices account for almost half of overseas investors' UK commercial property portfolios; their average lot size (including assets jointly owned with other investors) tends to be 2 to 3 times that of domestic investors, according to the analysis of the RCA transactions data.

[11] The estimates are broadly consistent with those reported in Who Owns the City 2011. The high share estimated by this report for mid-2013 represents a continuation of the upward trend reported in Who Owns the City 2011.

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

Figure 5.2: West End and Midtown offices investment universe, UK investors versus overseas



Source: PMRECON using data from company annual accounts, IPD, ONS, PFR and RCA/Property Data

The remainder of the office market (owner-occupied and invested) is split 50:50 between the South East (including outer London, Docklands and central London fringes) and the rest of the UK. The majority of the stock in the South East is owned by investors, compared to only a third in the rest of the UK. With most office properties outside London and the South East valued below £2.5m, a large part of the stock does not meet most investors' buying criteria. Ownership outside London and the South East is mainly spread across the UK insurance companies, pension funds, collective investment schemes, private property companies and overseas investors.

Investors' holdings in both South Eastern and Rest of UK offices – undermined by substantial price falls – declined marginally between 2003 and mid-2013.

5.5 Industrial sector

The definition of industrials includes both factories and warehouses, although heavy uses, like chemical, oil and steel processing as well as vehicle factories, are excluded.[12] On this basis, the property universe of industrials is estimated to be £117bn in mid-2013, down from £131bn in 2003.

'Large distribution' and 'high tech' warehouses are identifiable in the detailed VOA data, although the latter are insignificant. Their value – on the assumption that yields, consistent with market evidence, are 200bps lower than the industrial property universe average – is estimated to be £15bn, implying that they represent only 13% of the overall sector. However, if fully invested, they would represent a substantial part of the industrial property investment market, which currently totals £40bn.

Investors' holdings in industrials increased by 11% between 2003 and mid-2013, in spite of declining prices.

[12] Factories are difficult to separate from warehousing in the VOA data.

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

Collective investment schemes are the largest single investor type. Overseas investors, however, only account for 7% of investment holdings.

5.6 'Other' commercial property sector

The 'other' commercial property sector comprises hotels, leisure (excluding sports grounds and stadia, and open structures like theme parks), and a number of miscellaneous categories, like conference and exhibition centres, multi-storey car parks, petrol stations, holiday villages and caravan parks.

The sector's mid-2013 property universe value is estimated to be £54bn, a relatively large increase of 23% on 2003. Hotels – dominated by four stars and above, and chains such as Travelodge and Premier Inn – account for just under half the sector's value. Hotels have been also the fastest growing part of the buoyant 'other' sector. Leisure, the second largest part, showed unexceptional growth between 2003 and mid-2013. Petrol stations and car parks make up half of the miscellaneous group.

Hotels also account for just over half (55%) of the 'other' sector's investment universe (including healthcare and education). Leisure is relatively small but the estimate is likely to be an understatement given the inclusion of leisure space in some shopping centres and retail parks.

Overall, 52% of the 'other' sector (excluding healthcare and education) is owned by investors, although in the leisure sector owner-occupiers and operators and local authorities predominate. Investment in hotels is dominated by overseas investors.

'Other' commercial property was the fastest growing property type in investors' portfolios between 2003 and mid-2013, more than doubling in size over the period. This growth was primarily associated with education, healthcare and hotels. Investors have turned to these 'alternative' sectors as a new, untapped source of stock and also partly in the belief that, because they are less transparent and require more specialist skills than mainstream property, they offer superior returns (see IPF 2008). Including residential property (see Section 6), the 'other' sector now accounts for 13% of mainstream investors' portfolios, compared to about 7% in 2003.

Table 5.5: Other commercial property sub-sectors property and investment universes, mid-2013

	Property universe £bn	Investment universe £bn
Hotels	£24	£17
Leisure	£14	£5
Miscellaneous commercial	£16	£5
Sub-total	£54	£28
Healthcare and education	Excluded	£4–5bn
TOTAL		£32

Source: PMRECON using data from company annual accounts, IPD, ONS, PFR, RCA/Property Data and VOA

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

5.6.1 Health and education

The predominantly publicly-owned healthcare and education sectors are excluded from the commercial property universe; 85–90% of hospitals by rateable value are government-owned. Balance sheet book values indicate that local authority schools and colleges and non-residential NHS owned buildings total around £100bn, with the former accounting for three-quarters of this total.

Drawing on rateable values, it is estimated that surgeries and privately-owned hospitals account for another £10–20bn of capital value, whilst other education (e.g. universities) and training premises add roughly another £25–35bn.

Care homes in this report are defined as part of the healthcare sector on the grounds that their residents do not have tenancy rights and that substantial services, in addition to accommodation, are provided. Industry research[13] suggests there are approximately 20,000 registered care homes (including nursing and special needs homes) in the UK, with almost 500,000 places. About half the homes are run 'for-profit' with the rest operated by non-profit organisations, local authorities, etc. Around half are run by small operators with three or fewer homes. Four operators (BUPA, Four Seasons, HC-One and Barchester Health Care Homes) run almost 1,000 homes (i.e. only 5% of the total).

It is difficult to quantify the value of these care homes. The modern complexes owned by investors trade at the equivalent of around £100,000 per place but those owned by the mass of small operators might be worth less. A very rough approximation would be that these 20,000 homes are worth in the region of £40bn, with the majority owned either by private individuals, local authorities, or non-profit organisations.[14]

In summary, the UK's stock of healthcare (including care homes) and educational property is around £195bn, roughly a third of the commercial property sector's size.

Table 5.6: Indicative value of the healthcare and educational property universe

	£bn
Hospitals, surgeries, clinics, etc.	£40–60
Care homes	£35–45
Sub-total healthcare	£75–105
Educational	£95–115
TOTAL	£170–220
of which investment property (approx)	*£4–5*

Source: PMRECON

[13] See the various reports by Laing and Buisson, the Office for Health Economics, Care Homes UK, etc. The Care Quality Commission lists around 175,000 homes in England.

[14] Analysis of the properties operated by Southern Cross suggest that the biggest landlords were by far private individuals and high net worth, overseas investors and UK private property companies.

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

The investment universes for healthcare and education[15] – excluding PFI, the 'LIFT' scheme, and buildings owned by operators or their parent or sister companies – are small, albeit fast growing. Drawing primarily on data from REITs and listed property company balance sheets, Property Funds Research and from IPD, the healthcare investment universe currently totals around £4bn, while education, including nurseries, is well below £1bn. Ownership is dominated by REITs and listed property companies, private property companies and collective investment schemes. In total, the amount invested represents only 2% of the total value of (privately- and publicly-owned) healthcare and educational property in the UK.

5.7 Regions

England accounts for 88% of the value of commercial property in the UK, marginally higher than its relative contribution to GDP. The shares of Scotland, Wales and Northern Ireland, respectively at 7%, 3% and 2%, are slightly below their contribution to GDP. Within England, the proportion of value attributable to London is relatively high, mainly due to its 62% exposure the office sector. Otherwise, except for London's disproportionately low amount of industrial property and the low value of office stock outside London, the amount of property in each region is broadly in line with its economic activity.

The investment universe, however, is substantially biased towards London, which accounts for just under half (46%) of the total investment universe but only one-third of the property universe. However, this London bias only applies to the office and industrial sectors, where most property is held by investors; there is also a South East tilt to investors' industrial portfolios. Investors' retail portfolios, by contrast, are regionally balanced. In the office and industrial sectors, the rest of England, Scotland and Wales all lose out to London but it is Northern Ireland which suffers most – whilst it accounts for just under 2% of office and industrial property in the UK[16], it has less than 0.5% of the UK's investment property in these two sectors. Scotland's 6% share of investment property represents the amount by which the UK's investment stock would decline in the event of Scottish independence.

[16] The property universe estimates for Northern Ireland need to be treated with some caution as no rental value information was available and, hence, values were determined on the basis of its GDP share. However, its relatively high yields were utilised in estimating the capital value of the property universe.

[15] Note that investors' holdings of healthcare and educational property are included in the estimate of the commercial property investment universe.

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

Table 5.7: Property and investment universes by region and sector, mid-2013

	Total £bn		Retail £bn		Offices £bn		Industrial £bn		Other £bn	
	Total	Investment	Total	Investment	Total	Investment	Total	Investment	Total	Investment
London	£223	£168	£78	£32	£114	£114	£16	£10	£15	£13
Rest of South Eastern	£124	£61	£62	£28	£22	£16	£29	£12	£11	£5
Rest of England	£223	£102	£116	£66	£31	£11	£56	£15	£20	£10
Total England	£570	£332	£257	£126	£166	£140	£101	£38	£46	£28
Wales	£19	£7	£10	£5	£3	£1	£3	£1	£2	£1
Scotland	£46	£22	£20	£13	£11	£4	£10	£2	£5	£3
Northern Ireland	£12	£3	£6	£2	£3	£0	£2	£0	£1	£1
TOTAL UK	£647	£364	£293	£147	£183	£145	£117	£40	£54	£32

Investment property as % of property universe

	Total	Retail	Offices	Industrial	Other
London	75%	40%	100%	63%	83%
Rest of South Eastern	49%	45%	72%	42%	48%
Rest of England	46%	57%	36%	27%	51%
Total England	58%	49%	84%	37%	61%
Wales	40%	53%	24%	17%	39%
Scotland	47%	63%	39%	21%	61%
Northern Ireland	25%	38%	4%	2%	50%
TOTAL UK	56%	50%	80%	35%	60%

Source: PMRECON using data from company annual accounts, IPD, ONS, PFR, RCA/Property Data and VOA

5. COMMERCIAL PROPERTY SEGMENTS AND UK REGIONS

Overseas investors' portfolios are very London-centric, with the capital accounting for 73% of their holdings, compared to 37% for UK investors.

The 2005 Size and Structure report cited two factors in particular that might contribute to such a London bias in investors' portfolios. Firstly, property is more expensive in London (and has become even more so over the last 10 years). However, according to the 2005 IPF report, there was still a bias, even when investors' portfolios were measured on the basis of floorspace, which remains the case today.

The second factor related to differences across regions in the lot sizes of individual buildings. Mainly for operational reasons, investors prefer not to hold a multitude of 'low value' buildings in their portfolios; because buildings outside London are cheaper, they are more likely to fall below investors' threshold. The influence of this latter factor has become stronger over the last 10 years as:

- UK investors have been re-balancing their portfolios towards larger lot sizes. The average property size in IPD has increased by 16% since 2003 (a time during which commercial property prices have barely changed);
- The increasingly influential overseas investors have a strong preference for large properties. Overseas investors' bias towards capital cities (see Lizieri 2009) naturally leads them to paying relatively high prices. However, the RCA transactions data for the last 10 years show that, for most parts of the market both within and outside London, the prices of overseas investors' purchases on average have been 1½–2½ times that paid by UK investors.

Furthermore, despite being squeezed out of the City office market by overseas investors, relatively strong price growth in other parts of the capital has resulted in UK investors' portfolios remaining as London-centric as in 2003.

In conclusion, there appears to be an underlying bias on the part of property investors towards London (this is manifested most strongly in the strategies of overseas investors) but operational reasons and, in particular, a growing preference for large lot sizes also leading to the imbalance in portfolios between London and the rest of the country.

6. RESIDENTIAL PROPERTY

6.1 Introduction

This section extends the analysis, for the first time, to the UK's residential property sector. The estimate of and the trend in the total stock of residential property are presented, followed by an overview of the ownership of the residential stock. The final part of this section focuses on the size and ownership of the private rented sector (PRS).

Residential property is defined to include purpose-built student accommodation but care homes are excluded on the grounds that such properties also provide a range of non-residential services and that their residents, in the same way as hotel occupants, do not have any tenancy rights.

6.2 Value of residential property in the UK

The total value of the UK's residential stock in mid-2013 is estimated to be £4,615bn, seven times the size of the commercial stock. The estimate is based ONS figures for end-2012, updated by the author to mid-2013 on the basis of subsequent price growth and estimated net additions to the stock. To make its estimates, ONS uses the number and value of dwellings in each Council Tax band and inflates these somewhat dated values by the corresponding rate of house price inflation for each band. ONS is unable to say whether or not purpose-built student accommodation is included in its estimates but this represents a very small part of the residential sector.

The value of the UK's residential stock has grown by 51% since 2003, compared to an 11% uplift in the value of the commercial stock. Figure 6.1 compares the trajectory of the values of the two classes of property over the last 10 years. The value of the residential stock lagged commercial in the first half of the 2000s but fell less sharply in the downturn and has since recovered to show growth at a time when commercial property value growth has been sluggish. Between 2003 and mid-2013, the value of residential stock increased by 3.3% per annum more than commercial. The bigger increase in the value of the residential stock is associated with (relatively) greater expansion in supply[17] and greater price growth (in investment terms, the latter reflects both stronger 'rental' growth and greater yield compression).

Figure 6.1: Value of residential stock versus commercial property universe, 2003 to mid-2013

Source: PMRECON, ONS

[17] DCLG data show the number of dwellings in England and Wales increased by 7.4% between April 2003 and 2012, compared to this report's estimate of a 1.1% increase in the commercial property floorspace stock over the same period.

6. RESIDENTIAL PROPERTY

6.3 Ownership of residential property

ONS presents information on the value of residential property held by various 'sectors' but the definitions used, in the same way as for commercial, have some drawbacks; the data is outlined in Table 6.1.

The value held by 'financial corporations' relates solely to the repossessions of banks and building societies and does not extend to the properties held as investments by other financial institutions, such as insurance companies and pension funds (however, the amount held directly by the latter is relatively small). 'Private non-financial corporations' includes housing associations, which dominate the relatively small amount of property held by those types of business not covered under 'financial corporations'.

The value attributed to 'public non-financial corporations' mainly relates to the social housing owned by local government. This amounts to a modest £88bn. Central government's holdings mainly relate to NHS and Ministry of Defence housing. In total, on the basis of the ONS figures, housing associations, local and central government and their agencies own about £200bn of residential (i.e. about 5% of the stock).

Almost all of the stock, however, is owned by households (including that held for private renting) and not-for-profit organisations (excluding housing associations).

Table 6.1: Ownership of residential stock, 2012

National Statistics owner sector	£bn 2012
Financial corporations	£4
Private non-financial corporations	£119
Central government	£14
Public non-financial corporations	£88
Households and non-profit organisations	£4,223
TOTAL	£4,447
of which private housing (estimated)	*£4,257*

Source: ONS Blue Book 2013

Retirement housing amounts to about 500,000 dwellings, accounting for only 2% of the total residential stock. Three-quarters of this is socially rented, with the remainder mostly owner-occupied and with only around 2,500 privately-rented (see Joseph Rowntree Foundation 2012; Ball et al 2011).

6.4 Size and ownership of private rented residential sector

Owners of privately-rented residential housing relate to all those owning housing other than for owner-occupation and that stock owned by central and local government and by housing associations.

Various organisations make estimates of the private rented stock; unsurprisingly, these differ. This report's estimate for mid-2013 is £837bn (as shown in Table 6.2). This is 2.3 times the value of the rented (i.e. invested) stock of commercial property. The methodology for this report's estimate is outlined in Table 6.2 and, in essence, as follows.

6. RESIDENTIAL PROPERTY

About 23% of the UK's privately-owned dwellings are private rented[18]. Simply pro-rating the estimates in Table 6.1 of the value of all privately-owned housing (updated to mid-2013) by this proportion produces an estimate of a little over £1,000bn. However, residential market analysts state that the average privately-rented dwelling has a lower value than owner-occupied, for example the former are smaller, tending to have one to two bedrooms rather than the typical two to three in owner-occupied dwellings; there are also differences in the regional distribution of privately-rented and owner-occupied housing.[19]

There are no direct estimates of the average value of a private rented property relative to all privately-owned. On the basis of the yields and rents outlined in LSL Property Service's Buy-to-Let Index[20] and also kindly supplied by Richard Donnell of Hometrack, together with the VOA's estimates of private rents, an average property value of £159,000 appears reasonable. (This compares with the £194,000 average for all private housing implicit in the ONS' stock estimate.) Multiplying this £159,000 average price by the number of privately-rented dwellings leads to the estimate of £837bn.

Table 6.2: Estimation of UK private rented stock of residential, mid-2013

	2012	Mid-2013	Source or basis
Number of private dwellings (million)	22.7	22.8	From Department of Communities and Local Government's housing tenancy data, updated to mid-2013 on basis of estimated net additions.
% private rented	22.6%	23.1%	DCLG for April 2011 increased by previous growth rate.
Number of private rented dwellings (mill)	5.1	5.3	
Average private rented dwelling value (£'000)	£153	£159	Value = Annual rent / yield. Rent from LSL, Hometrack and Valuation Office, yield from LSL and Hometrack.
Monthly rent (£)	*£700*	*£718*	
Gross yield	*5.5%*	*5.4%*	
Total value of private rented dwellings (£bn)	£784	£837	Number of dwellings times average value.
Memo items:			
Total value of all private dwellings (£bn)	*£4,257*	*£4,410*	Estimated from National Statistics for 2012, updated to mid-2013 by estimated net additions to stock and price growth.
Average private dwelling value (£'000)	*£187*	*£194*	Total value / number of dwellings.

[18] The latest government data for the UK relate to April 2011; the mid-2013 estimate for this report assumes that the growth in private renting during the two years up to April 2011 has continued.

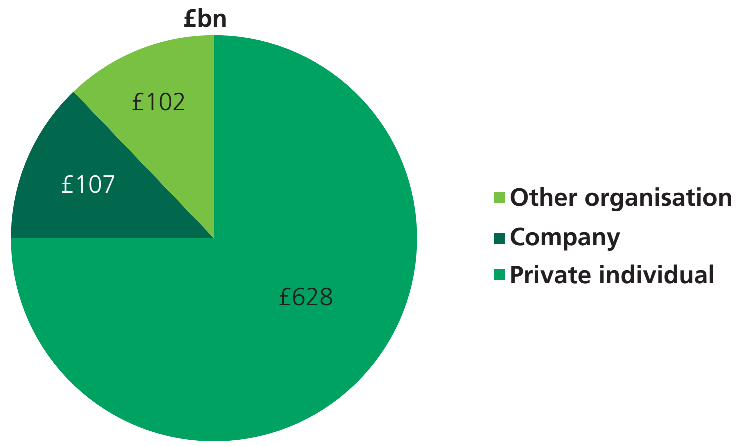
[19] No discount to vacant possession is assumed, given that most private rented is now let on relatively short leases.

[20] See www.lslps.co.uk/news/market-intelligence

6. RESIDENTIAL PROPERTY

Seventy-one per cent of dwellings in the PRS were owned by private individuals, according the DCLG's *Private Landlords Survey 2010*; the remainder was accounted for by 'companies' and 'other organisations'. With the DCLG's survey reporting that most new landlords are private individuals and that their share had risen since the previous survey, the proportion accounted for by private individuals is now likely to be in the region of 75%. Accordingly, on this basis, private individuals currently own about £628bn of the PRS (see Figure 6.2).

Figure 6.2: Estimated ownership of the residential private rented sector, by type of owner, mid-2013



Source: PMRECON, DCLG Private Landlords Survey 2010

The remaining £209bn is held by companies and 'other' organisations. This represents almost two-thirds of the £344bn of commercial property held by companies and other organisations (i.e. the commercial investment universe, excluding UK private individuals and local authorities).

Very little of this residential property, however, seems to be held by the type of organisation that invests in commercial property, as can be seen from Table 6.3, which amounts to approximately £18bn (including student accommodation), being only approximately one fiftieth of the total value of the private rented housing universe.

These estimates, which exclude private individuals and (given the difficulty in estimating them) most private property companies, draw on the same methodology used to assess the commercial investment universe in Section 4. All estimates relate exclusively to directly owned buildings.[21] The methodology is outlined in Appendix B and it is important to note that the estimate for overseas investors relates solely to large multi-tenanted buildings (e.g. wholly owned large apartment blocks), hence, excluding purchases of houses, single apartments and small blocks.

[21] Note that, to a minor degree, the estimates might include the value of ground rents and, to a lesser extent, holdings of land.

6. RESIDENTIAL PROPERTY

Table 6.3: Estimated residential property exposures of mainstream commercial property investors, mid-2013

	Residential £bn	Purpose-built student accommodation £bn	Total £bn
UK insurance companies and pension funds	£1	£1	£2
UK collective investment schemes	£1	£3	£4
UK REITs and listed property companies	£2	£1	£3
UK traditional estates and charities	£6	£0	£6
UK other (not comprehensive)	£1	£0	£1
Overseas investors (mainstream investors, entire large blocks only)	£1	£1	£2
TOTAL MAINSTREAM	£12	£6	£18
Other organisations not counted above	£197		
Private individuals	£628		
TOTAL ALL PRIVATE RENTED SECTOR	£837		

Source: PMRECON using data from company annual accounts, IPD, ONS, PFR and RCA/Property Data

Traditional estates and charities, mainly through their ownerships in London, are the largest type of mainstream investor. The listed property companies also have sizeable portfolios.

It is not clear whether or not student accommodation is included in ONS estimates of residential stock (and the DCLG's report on the PRS); accordingly, this is identified separately. Collective investment schemes are the largest type of investor in this segment of the market.

With the exception of the traditional estates and charities, whose holdings in residential account for a quarter of their combined property portfolio, the implication drawn from Table 6.3 is that residential represents a very small proportion (5.25%) of commercial investors' overall property portfolios.[22]

[22] This is 1.75 percentage points more than represented in IPD's UK index but less than that suggested in the IPF's *UK Residential Property: Institutional Attitudes and Investment Survey 2013* (which qualified its estimate on the grounds that double-counting was likely; at the same time, its estimate extended to land, developments and, possibly, lending, whereas this report is purely concerned with finished buildings).

7. UK INSTITUTIONAL ECONOMIC EXPOSURE TO PROPERTY

7.1 Introduction

This section extends the analysis in Sections 4 to 6 of insurance companies and pensions funds' direct holdings of property to include their beneficial interests associated with indirect investments. Such indirect forms of investment cover collective investment schemes and, also, equity investments in REITs and listed property companies.

Investment in indirects increases institutions' 'economic' exposure to property, which is not accounted for in the earlier analysis. This extra 'economic' exposure to property arises not only through the value of the investors' equity (NAV) interest in such indirects but also through the debt that the indirect vehicles often use to leverage their purchases of properties (though, in some cases, net cash holdings by the fund will have the opposite effect).

This section, therefore, derives estimates of these indirect holdings and appends them to institutions' direct property holdings to give an indication of their economic exposure to UK property and the extent to which this has changed over the last 15 years. In doing this, the economic exposures of those institutions exclusively investing in property through indirect vehicles are also taken into account. The analysis updates that undertaken in 2010 for the IPF's UK Institutional Investors: *Property Allocations, Influences and Strategies* and for INREV's *Investor Universe UK Survey*. Exposures to unlisted funds and to listed property companies and REITs are considered separately. The latter are typically held as part of equity portfolios (see IPF 2010).

7.2 Institutional exposure to UK property through unlisted funds

The institutions included within this analysis relate to UK defined benefit pension funds and UK insurance company funds (excluding their managed property funds, which pension funds themselves use to gain indirect exposure to property).

For insurance companies, there is no evidence that any invest in UK property exclusively through indirects; it is assumed that all have some direct property holdings. IPD data show that, in 1998, less than 2% of insurance companies' total property exposure was accounted for by indirects. However, as Figure 7.1 illustrates, their share rose rapidly in the first half of the 2000s, reaching nearly 17.5% in 2005, but drifted down thereafter, to just less than 14.5% by the end of 2012.

7. UK INSTITUTIONAL ECONOMIC EXPOSURE TO PROPERTY

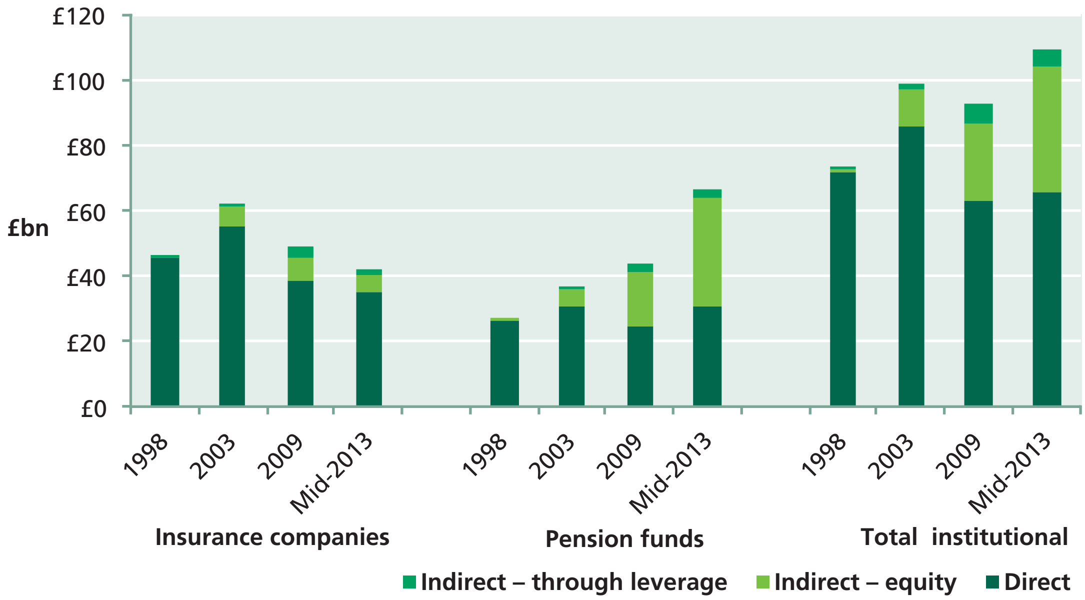
Figure 7.1: Proportion of indirects in the portfolios of those insurance companies and pension funds with direct property

Source: PMRECON, IPD

The indirects held by insurance companies tend to be sector specialist funds (see IPF, 2010), which, on average, are relatively highly geared; this means that, for a given equity investment in the indirect fund, insurance companies will gain exposure to a larger amount of property.

It is estimated, therefore, that insurance companies in mid-2013 gained an additional exposure to UK property of £5.5bn through their investments in non-listed funds. Combined with their directly owned properties, their total economic exposure to UK commercial property amounts to £42bn. This, as Figure 7.2 shows, represents a decline on both 1998 and 2003.

Figure 7.2: Insurance company and pension funds' economic interest in direct and indirect property

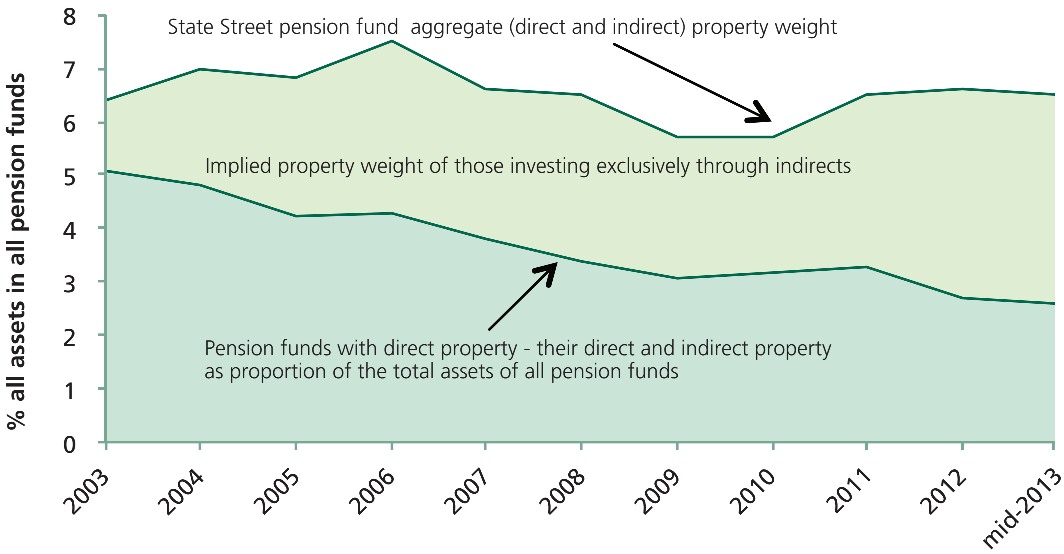


Source: PMRECON

7. UK INSTITUTIONAL ECONOMIC EXPOSURE TO PROPERTY

The biggest pension fund investors in property are the large funds which, in the same way and for similar reasons as insurance companies, supplement their largely directly owned portfolios with investments in mainly sector specialist funds (see IPF, 2010). According to IPD, and as shown in Figure 7.1, their exposures to such funds also increased rapidly in the first half of the 2000s, reaching 20% as a proportion of total property portfolio value in 2007, tailing-off thereafter to 13.5% in 2012. The combined total of these direct and indirect exposures currently represent 2.6% of all pension funds' total investments (i.e. all asset classes), down from 5% in 2003. The lower line in Figure 7.3 illustrates the trend in the direct and indirect holdings of these 'direct owning' pension funds.

Figure 7.3: Pension fund property weights – aggregate property, direct and implied indirect



Source: PMRECON, State Street

The analysis of indirects so far relates solely to the exposures (direct and indirect) of those pension funds that own property directly. A significant minority of pension fund money, however, is invested exclusively through unlisted funds (see INREV 2010; IPF 2010). Most, but not all, of this capital is accounted for by small to medium-sized pension funds.

State Street (previously known as WM), which measures pension fund investment performance, estimates that in mid-2013 their pension fund clients' exposure to property, directly and indirectly, represented 6.5% of their total investments. This is also illustrated as the top line in Figure 7.3.

The difference between these State Street estimates and that of the 'direct investing' pension funds represents the property investment of 'exclusively indirect' investors. The amount is likely to be overstated in the chart as the State Street exposures include overseas property[23] and, also, because many of the very small pension funds not covered by State Street have negligible exposures to property.[24] Adjusting for these suggests that UK property's weight in pension funds is currently around 4.75% (compared to 4.25% in 2009 and 5.25% in 2003).

[23] The IPF/INREV 2010 research indicated that overseas property holdings accounted for about 0.6% of pension funds' total investment holdings (all asset classes); examination of individual pension funds' annual reports indicates this has risen to around 0.75% now.

[24] See the Pension Protection Fund's Purple Book 2013.

7. UK INSTITUTIONAL ECONOMIC EXPOSURE TO PROPERTY

Given pension fund total assets of £1.35bn, this implies a total property exposure in pension funds of £64bn, of which £30bn is direct (as shown earlier in Table 4.1), leaving a total of £34bn NAV in unlisted funds. The property purchased through unlisted fund gearing[25] adds another £3bn of UK property to this. In total, as Figure 7.2 shows, UK pension funds currently have an economic exposure to UK property of around £67bn. This has increased substantially from £36bn in 2003 and £43bn in 2009, with all of the uplift associated with pension funds' indirect exposures.

Detailed data provided by State Street suggest that the growth in pension fund exposure to property since 2009 has been driven by new investors (the proportion of funds holding property has risen to 75% in mid-2013 from 66% in 2009) and through increased allocations by existing investors.

This analysis of pension funds' (and to a lesser extent insurance companies') indirect property exposures goes a long way in explaining the substantial growth since 2003 in collective investment schemes' legal ownership of UK commercial property.

7.3 Institutional exposure to UK property through REITS and listed property companies

Insurance companies and pension funds typically gain exposures to UK REITs and listed property companies through their equity portfolios, although approaches to incorporate these into property allocations have gained a little traction over the last few years.[26] There is, however, very little information on the extent to which REIT and listed property company shares form part of institutional investor (equity) portfolios.

The approach taken has been to assume that holdings in UK REITs and listed property companies are proportionate to these companies' share of the main market of the London Stock Exchange. On this basis, and given that (according to ONS's recent *Ownership of UK Quoted Shares 2012*) they have an 11% interest in UK quoted companies, insurance companies and pension funds own some 11% of the UK's REITs and listed property companies.

Applying this proportion to the £55bn of UK (commercial and residential) property directly owned by REITs and listed property companies, implies that insurance company and pension fund exposure was around £6bn in mid-2013.

This brings the total economic exposure of insurance companies and pension funds to £115bn, representing 32% of the property held by mainstream investors – a much greater interest than the 18% share indicated by insurance companies and pension funds' £65bn of directly owned property.

[25] Compared to the insurance companies, gearing is estimated to be lower in the types of vehicle that pension funds invest in, given that many will be ungeared managed property funds and other lowly-geared balanced funds.

[26] See IPF 2010; State Street count exposures to REITs and listed companies as part of equity portfolios.

8. CONCLUSIONS

This research set out to answer a number of questions and address some consequential themes.

In doing this, the earlier sections of this report have largely focused on describing estimates of the size and characteristics of the UK commercial property stock and investment universe and on explaining how such estimates were made.

One unsurprising outcome of this analysis is the quantification of the polarisation between the size of the predominantly out-of-town stock of retail warehouse and supermarket retail sectors, and shop units outside central London. More noteworthy aspects are identifying the extent to which institutional investors (insurance companies and pension funds) have ceded ownership of their property exposures and leadership of the market to third party funds; the size, growth, focus and nature of investment by overseas investors; and the tiny fraction that the residential holdings of mainstream investors represent relative both to their commercial portfolios and to the size of the residential investment market.

It is worthwhile, however, also to consider the fundamental themes raised by the patterns and trends that have been quantified through this research. A key point is that the investment market has been able to grow faster than the underlying stock of property as a result of owner-occupiers dis-investing and, to a lesser extent, the opening up of alternative markets, such as healthcare, student accommodation and small niches like youth hostels and marinas. New development, particularly out-of-town retail, has also been a source of stock for investors. While overseas investors over the last 10 years have amassed substantial holdings of UK property, other than in the City office market, they have not squeezed out domestic investors, whose portfolios have grown in size over a period when commercial property prices have fluctuated but, generally, been flat.

Looking forward, an important observation is that investment grade stock in the two main commercial sectors, retail and offices, is now almost fully invested. With new development currently at low levels, this means that meeting the needs of new investors – mainly those from overseas if the trends of the last 10 years continue – will require the opening-up of new markets. Commercial property already represents about 85% of the value of the non-residential market, with most of the remainder in predominantly publicly owned services, largely education and healthcare, and smaller niches, such as courts, prisons, and emergency service buildings. Public policy will dictate the extent to which this stock will become investable. Residential, as this report has shown, is virtually untapped by mainstream investors.

Globalisation of property investment has made its mark on the UK market but the steps taken in the other direction by UK investors have been slow: overseas investments only represent 10–15% of UK insurance company and pension fund property holdings, compared to more than half in their equity portfolios. Greater investment in this direction might create opportunities in the UK for overseas investors.

APPENDIX A – TOTAL PROPERTY STOCK: SOURCES AND METHODOLOGY

A.1 Introduction

In estimating the rental and capital value of the UK's stock of commercial property, this report follows the methodology used in the 2005 *The Size and Structure of the UK Property Market report*.

In particular, rateable values collated by the VOA in England and Wales (and its Scottish counterpart[27]) for the purposes of business rates are used as a proxy for rental values. These 'rental values' are then capitalised by reversionary yields to derive the corresponding capital value.

Section A.2 describes the rateable value data and sources and, also, the approach for updating these rateable values such that they reflect current rental values. Section A.3 outlines how these rental values are capitalised to derive the corresponding estimates of capital value. Finally, Section A.4 compares this report's estimates of the 2003 commercial property stock with those in the 2005 Size and Structure report and explains why they differ.

A.2 Rental values – methodology and data

A.2.1 Derivation of rental values from rateable value data

Every five years, the VOA (and its counterparts in Scotland and Northern Ireland) makes an assessment of the rateable value of each non-domestic property in the UK. Rateable value, according to the VOA's website, is assessed on the basis of the property's 'open market annual rental value' as at the valuation date.

These valuations (as at January 2014) last came into effect on 1 April 2010 and, prior to that, April 2005. However, the valuation date pre-dates the revaluation coming into effect by two years. This means that the rateable values currently in force are based on open market annual rental values as at 1 April 2008; similarly, those in force between 1 April 2005 and 31 March 2010 were based on 1 April 2003 rental values, and so on. For use in this report, these rateable values have to be updated to current rental values. This updating is done for every year-end from 2003 and up to mid-2013.

For the rateable values available from 1 April 2010 onwards, this is done by applying IPD rental growth since end Quarter 1 2008 (i.e. the last valuation date). All the analysis is undertaken at the sector:region level. (Also, the rateable values used are on a per sq m basis, with floorspace subsequently applied to these to derive total rental value.)

A similar updating is done for the rateable values in force between 1 April 2005 and 31 March 2010 (using IPD rental growth since end Quarter 1 2003) and for the rateable values in force between 1 April 2000 and 31 March 2005 (using growth since end Quarter 1 1998).

[27] Rateable value data for Northern Ireland is less accessible and, hence, the rental value for each sector is estimated on the basis of Northern Ireland's share of UK Gross Value Added.

APPENDIX A – TOTAL PROPERTY STOCK: SOURCES AND METHODOLOGY

However, there are notable differences between the growth rates of (per sq m) rateable values and of IPD over the last two revaluation cycles (i.e. April 1998 to April 2003 and April 2003 to April 2008): in particular, rateable values have consistently grown faster than IPD rents. The reasons for such a discrepancy are not known: it could be that either of the assessments of rateable value or of the rental valuations submitted to IPD have, over the last 15 years, been adjusting to better reflect the true position or even that, more controversially, one or the other was still not representative of underlying conditions on 1 April 2008. The possibility that the relatively prime property in IPD has grown less quickly than 'average' UK property seems less plausible. Understanding the reasons for this divergence might be an area for further research.

For the April 1998 and April 2005 based rateable values, therefore, adjustments have to be made to the IPD growth rates to ensure consistency with the growth between the five-year rateable value revaluations. For example, per sq m rateable values between the April 2003 and April 2008 valuation dates grew by 27% for South West retail compared to IPD rental growth over the same period of 19%, a difference of 1.3% per annum.

A.2.2 Rateable value data

The primary source for rateable values (and floorspace) is the VOA's Business Floorspace (Experimental Statistics)[28]. Less detailed statistics for Scotland (using a different sectoral classification to England and Wales) are available in the annual Scottish Local Government Finance Statistics (as noted earlier, data for Northern Ireland is less accessible and, hence, rental estimates are made on the basis of its share of UK Gross Value Added).

The VOA's Business Floorspace (Experimental Statistics) provide details for the retail, office and industrial sectors. The office sector definition corresponds to that adopted by IPD, which is used as the basis for this research. The retail definition excludes restaurants and public houses, which are included by IPD, so these are incorporated by drawing on the VOA's Local Rating Lists[29], which provide rateable values for 357 detailed use classes by year and region. The industrial sector in the VOA's Business Floorspace (Experimental Statistics) includes the full range of factories, which, in theory, fall within the IPD definition but which, in practice, include manufacturing complexes that rarely feature in institutional portfolios.

The VOA also compiles data for the 'other business sector' but this does not correspond to this research's definition of 'other commercial'. Instead, data from the VOA's Local Rating Lists are used to construct the 'other commercial property' sector and, also, to provide the more detailed sector perspectives in Section 5. The types of property making up the four broad sectors are described in Table 3.1 in the main body of the report.

An important point previously highlighted is that, in measuring property sectors, the rateable value data relates to each specific use within a property, in contrast to the predominant use basis that underpins the measures in this research of the investment universe.

A.3 Capitalising rental value estimates

Having established up-to-date rental values, yields are then used to estimate capital values. The starting point is the corresponding IPD sector:region reversionary yield (incorporating the estimated rental value and capital value of both occupied and void properties). These yields, however, require adjustment because the properties in IPD are more prime in nature and, hence, likely to be lower yielding than average UK property.

[28] www.voa.gov.uk/corporate/statisticalReleases/120517_CRLFloorspace.html

[29] www.voa.gov.uk/corporate/statisticalReleases/131219_Central_Local_Rating_List.html

APPENDIX A – TOTAL PROPERTY STOCK: SOURCES AND METHODOLOGY

Comparison of the two sets of data shows that the average per sq m rental value in the VOA series roughly corresponds to that of the bottom quartile in IPD, with the exception of London offices (where the VOA rent is comparable to the IPD average). For such bottom rental quartile property, specially commissioned data from IPD shows that, in December 2012, yields in the retail sector outside London were 1.15 times the IPD average and 1.10 times higher for offices outside London. For UK industrials, the bottom rental quartile's yield was 1.24 times higher, while for the 'other commercial' sector they were 1.21 the average IPD level. Furthermore, the margins varied over the cycle, tending to be lower in 2008 than in 2012 and, to a lesser extent, than in 2003.

This information on the yields of lower rental quartile properties forms the basis for adjusting the IPD reversionary yields; the adjustment factors are shown in Table A.1. These adjustments compare with the across-the-board factors of 1.1 for retail and offices and 1.2 for industrials used for 2003 in the IPF's 2005 *Size and Structure* report.

Table A.1: Adjustment factors to IPD reversionary yields

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Mid-2013
London retail	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Rest of UK retail	1.13	1.12	1.10	1.10	1.05	1.05	1.12	1.13	1.15	1.15	1.15
London offices	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Rest of UK offices	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
UK industrial	1.18	1.15	1.14	1.18	1.12	1.10	1.20	1.24	1.24	1.24	1.24
UK other	1.14	1.14	1.14	1.14	1.14	1.14	1.17	1.19	1.20	1.21	1.21

Source: PMRECON

A.4 Restatement of 2003 total stock estimates in 2005 report

The stock estimates for 2003 presented in this report differ from those in the IPF's 2005 *The Size and Structure of the UK Property Market*. For example, the current estimate of the total commercial stock in 2003 of £580bn compares with the earlier estimate of £611bn. There are three main reasons behind the restatement:

i. The definitions are different. The biggest change is in the definition of the 'other' property sector. This report focuses on a very specific definition, encompassing hotels, most forms of leisure, caravan parks and holiday sites, multi-storey car parks, petrol stations, etc., whereas the 2005 report definition was more wide-ranging. There are also some (less significant) definitional changes to retail, industrials and, to a lesser extent, offices. The VOA's recently introduced Business Floorspace (Experimental Statistics) also provides a more accurate calibration of the three main sectors than was possible in the 2005 report. In aggregate, these definitional changes reduce the estimate of the stock and more than outweigh the two positive effects described at ii. and iii. below;
ii. The data is more up-to-date. The 2005 report estimated 2003 values on the basis of 1998 rateable values whereas actual 2003 data are now available. The estimates for 2003 made in the 2005 report were too conservative, hence revisions are marginally positive;
iii. Yields (capitalisation rates) differ. These variances partly arise through the different adjustment factors described in Section A.4. Yields used in this research are lower, which increases the capital values reported.

APPENDIX A – TOTAL PROPERTY STOCK: SOURCES AND METHODOLOGY

A.5 Trevor Wood Associates analysis of shopping centres and retail warehouses

In a separate analysis, the 2005 report applied the average IPD capital value per sq m to the floorspaces of individual shopping centres and retail warehouses to derive their aggregated capital values. The listings of shopping centres, retail warehouses and their floorspace were provided by Trevor Wood Associates.

Trevor Wood Associates updated this previous analysis by applying present-day IPD average capital values to the floorspaces in its database. The analysis covers 779 shopping centres with a floorspace of 17.0m sq m, and 2,843 retail warehouses and parks with a floorspace of 16.8m sq m.

The IPD average capital values per sq m used were:

- Town centre shopping centres: £3,138
- Out-of-town shopping centres (also applied to all RSCs): £6,631
- Retail warehouses and parks: £2,792

The capital values of the shopping centre and retail warehouse universes (including owner-occupied properties) derived from this approach are £59bn and £47bn respectively. A detailed breakdown of the investment universe is presented in Appendix B, Section B.5.

A.6 Other estimates of stock of property in the UK

A number of organisations provide estimates, to some extent, of the size of commercial property market either specifically for the UK or, more generally, as part of a global market estimate. These tend to rely on one of four methodological approaches:

i. The perpetual inventory method, which cumulates historic (inflation-adjusted) additions to the stock and makes assumptions on the rate at which each cohort of additions depreciates over time. This approach is commonly used by national statistics authorities to make estimates of variables like the stock of plant and machinery.

   Recent research reported in the IPF's *The Role of Commercial Property in the UK Economy* (2013), made a ground breaking attempt to estimate the UK's commercial stock using this approach. The researchers used the volume of new construction work since 1955 and assumptions on the average life of different types of building to make estimates of the UK's commercial property stock. Their estimate for 2008 was £661bn. However, in solely using the value of construction work as the basis for such estimates, the approach restricts itself to the value of the physical structure and ignores the value of the land on which the building sits.

ii. The income capitalisation approach, whereby a capitalisation rate (yield) is applied to the income of an asset to derive its capital value. This is the method used in this research to estimate the property universe.

   ONS also uses this approach to make its estimates of the UK's non-residential building stock (which includes non-commercial buildings, such as hospitals and schools, museums and libraries, heavy manufacturing, etc.) – the end-2012 estimate is £774bn. Further details of the estimates and methodology are presented in Section A.6.1.

APPENDIX A – TOTAL PROPERTY STOCK: SOURCES AND METHODOLOGY

iii. Econometric methods, relating the stock of property to macro-economic measures such as GDP.

Pramerica (2012) uses this approach to make worldwide estimates of the stock of 'institutional-grade commercial real estate'. In general, it assumes that each country's real estate is worth 45% of its GDP but for the UK (and other densely populated countries) it increases the resulting estimate by 25%. Its latest February 2012 estimate for the UK was $1,370bn (around £875bn).

iv. 'Bottom-up' approaches.

DTZ (2013) builds up the value of commercial real estate held by investors from four 'quadrants': namely, public equity (listed companies, net of debt), public debt (corporate bonds, CMBS, etc.), private equity (net of debt holdings, of institutions, funds, private property companies, high net worth individuals, etc.) and private debt (loans by banks, insurance companies, etc.).

Its December 2012 estimate of the commercial invested stock is £541bn. DTZ separately estimate the total (invested and occupied) commercial stock at £764bn.

A.6.1 ONS estimates of non-residential stock of property in the UK

ONS publishes annual estimates of 'non-residential' buildings in its *Blue Book* publication; these estimates form part of the national balance sheet. At the aggregate level, they draw on a similar approach to that used in this report, i.e. estimates of rateable value are updated to current prices and then capitalised by a yield to derive capital value.

The credibility of these estimates is open to question, however, and ONS has fed such concern, firstly by pointing to structural changes from 2005 in the data linked to changes in IFRS accounting practices on the valuation of fixed assets in corporate balance sheets and, secondly, by introducing big step changes into some of the estimates[30]. However, on the basis of the author's detailed discussions with ONS it is not certain if the headline, total non-residential stock estimate is affected by these changes in accounting practices. A more fundamental issue, however, is that the ONS estimates show a relatively jumpy and less cyclical pattern and, in particular, do not appear to reflect immediately variations in market rents (and yields).

A potentially interesting feature of the ONS estimates is the perspective they provide on the ownership on non-residential buildings, in particular the four 'institutional' sectors widely used in national accounts: – financial corporations, non-financial corporations, government and 'households and non-profit institutions serving households'.

Unfortunately, the definitions and approach are of little relevance to this research, with the estimate for 'financial corporations' relating only to banks and building societies[31], whilst other financial institutions, such as insurance companies and pension funds are included with 'other corporates' (likely to be owner-occupiers) in 'non-financial corporations'. The £59bn estimate for 'households and non-profit institutions serving households' relates mainly to the ownerships of charities, museums and galleries, etc., and excludes the holdings of private individuals. The most useful element is that of central and local government owned non-residential property, which is derived from their respective balance sheets; the end-2012 estimate is £271bn.

[30] For example, in the 2011 Blue Book, the estimate for 2010 leaped by 44% from its 2009 level.

[31] As ONS uses corporate balance sheet information as an input, the estimate for bank and building societies holdings may be distorted by the changes brought about by IFRS. Note that the estimate for 'non-financial corporations' is derived as the residual of the total and the other sectors and, hence, is sensitive to errors, etc., in the other sector estimates.

APPENDIX B – THE INVESTMENT UNIVERSE: SOURCES AND METHODOLOGY

B.1 Introduction

This appendix details the sources and methodologies used to estimate the investment holdings of the various investor types. It also presents more details of the Trevor Wood Associates analysis of the stock of shopping centres and retail warehouses.

B.2 Extensively used sources

B.2.1 Real Capital Analytics (RCA) transactions data

In the same way as a number of other organisations, RCA compiles statistics on commercial property transactions in the UK and globally. RCA have generously provided full access to their data on every individual transaction in the UK since 2001. The data has been used in a number of ways to support various estimates of the investment universe; its main uses have been to estimate the stock held by private property companies, overseas and private investors and the characteristics of such investors.

RCA's data relates to properties and portfolios valued over $7.5m (approximately £5m) although the data provided includes a significant number of transactions below this level. It covers the three main sectors (retail, offices and industrial) plus hotels, whilst some leisure is included within the retail definition. `Multi-family´ residential (entire blocks with 10 or more units) is also covered.

Excluding residential the data has accounted for around 1,000 transactions annually in recent years, with a combined value in the region of £32bn per annum. Assuming about 85% of the 'non-residential' transactions measured by HMRC relate to the commercial sectors covered by RCA, the RCA data represent over half the value of transactions in the UK and 75–90% of those over £5m[32].

An extensive set of information is provided for each property and transaction, including the transaction price, yield, floorspace, address, sub-sector, etc.; the name(s) of the buyer and seller are listed, together with their nationalities and RCA's classification of their type.

RCA's categorisation of buyers and sellers, however, does not correspond to the types adopted by this research. Furthermore, multi-national organisations, such as Aegon, AXA REIM, ING REIM (as was), LaSalle Investment Management, etc., are typically classified according to the nationality of their parent, even though the transactions may relate to their UK-domiciled subsidiaries and funds drawing on UK sourced capital. The methodology of this research, however, is to define them as UK investors.

A number of the organisations in the RCA data were re-coded, therefore, to match the investor types used in this research, with a judgement made (sometimes using information privately supplied by the investor) on whether or not a multi-national organisation classified by RCA as 'overseas' was primarily transacting as a UK-domiciled investor. The number of investors[33], including those investing exclusively in residential, for each type is shown in Table B.1. Private property companies are the most numerous investor type (37% of the total) but account for a much lower share of transaction value; even so, in accounting for 22% of transactions by value (buying or selling), they are only marginally behind fund managers as the largest transactors.

[32] The HMRC data on property transactions (www.hmrc.gov.uk/statistics/transactions.htm) is not broken down beyond the £2m range; it is assumed, in line with investment portfolios, that in the HMRC data properties >£5m account for 70–90% of the value of transactions over £2m.

[33] A number of organisations may be represented multiple times as a consequence of subsidiaries, etc.

APPENDIX B – THE INVESTMENT UNIVERSE: SOURCES AND METHODOLOGY

Table B.1: Number of organisations by investor type in RCA data (author's classification)

	UK	Overseas	Unknown
Insurance companies	61	36	0
Pension funds	127	30	3
Funds, fund managers and private equity	256	104	7
REIT and other listed property and development companies	79	70	0
Private property companies	1,683	265	2
Private individuals and HNW	173	118	7
Traditional estates and charities	94	0	2
Local and central government, SWFs and govt. investment arms	116	33	0
Other investors	169	62	5
Housing associations	21	0	0
Banking and finance (excl. investment management subsidiaries, etc., if known)	36	80	3
Hoteliers and pub operators and owners	131	30	2
Educational and religious	37	2	2
Other corporate	521	139	63
Other, unknown and unclassified	287	42	371
TOTAL	3,791	1,011	467

Source: PMRECON, RCA

The RCA data represents an extremely rich resource for this research's analysis and is used primarily to make estimates of the investment universe for those types of investor poorly documented elsewhere, in particular overseas investors, UK private property companies and UK private individuals. In providing a near-universal list of organisations investing in UK commercial property, the RCA data is also used to check and supplement the other sources used in this research.

In applying the RCA data to make estimates of the investment universe for the various investor types, the starting point is the corresponding stock estimate for 2003 in the 2005 Size and Structure report. Working at the IPD segment level, this is then increased by each subsequent year's IPD capital growth and net transactions in the following way:

$$\text{Stock}^j_{t+1} = (\text{Stock}^j_t * \text{Capital Growth}_{t+1}) + \text{Purchases}^j_{t+1} - \text{Sales}^j_{t+1}$$

where Stock^j_{t+1} is the investment universe (for the property segment) for investor type *j* at year t+1; $\text{Capital Growth}_{t+1}$ is IPD capital growth for the property segment in year t+1; Purchases^j_{t+1} is the value of purchases (in the property segment) by investor type *j* recorded in the RCA data during year t+1, etc. For each year from 2004 to mid-2013, this approach provides an estimate of the amount of property owned by each investor type for the various IPD segments and in aggregate.

APPENDIX B – THE INVESTMENT UNIVERSE: SOURCES AND METHODOLOGY

An alternative approach to estimating the stock involves identifying those assets purchased since end-2000 that are still held by the purchaser and updating the purchase price to mid-2013 values (on the basis of IPD capital growth); for example, Winchester House in the City was last purchased in the final quarter of 2012 for £236m which, given subsequent IPD capital growth of 1.8%, would be worth £240bn in mid-2013.

This approach was used for the estimates reported in Section 5.4 to assess the value of the City and West End and Midtown office stock and also contributed to the estimate of private property companies' investment holdings. However, a weakness of this approach is that it excludes any properties purchased prior to – and continuously held since – the end of 2000.

B.2.2 IPD

IPD's data, in addition to being used extensively to derive estimates of the property universe (see Appendix A), also contributes to the estimates of the investment universe.

In this respect, its primary use is to provide the property segment structures for those investor types where IPD's coverage of the investment universe is high (in particular for insurance companies, where it is estimated that IPD covers almost 90% by value, pension funds (95%) and collective investment schemes, where it is estimated that IPD covers about two-thirds of the universe). The data on segment structures also contributes to estimates for other investor types.

IPD also provided detailed breakdowns of the 'other' commercial property and residential sectors by fund type, which made substantial contributions to the corresponding investment universe estimates.

Overall, the value of commercial property in IPD's December 2012 UK Index accounts for about two-fifths of the investment universe (49% excluding overseas investors).

B.3 Investor types – sources and methodologies

B.3.1 Insurance companies and pension funds

For insurance companies, the primary source is ONS's *MQ5: Investment by Insurance Companies, Pension Funds and Trusts*[34]; AREF/IPD's *Property Fund Vision Handbook* and the Association of British Insurers' Invested Assets statistical series also contribute to the high level estimates, whilst the insurance companies' annual regulatory returns to the FSA were also reviewed.

ONS has confirmed to the author that its MQ5 data extends to all insurance company funds (e.g. life, annuity, unit-linked life and pension and managed property funds) and exclude unit trusts, limited partnerships, etc., run by their fund management subsidiaries; the data relates only to direct property.

Unfortunately, there is a considerable time lag in the publication of the MQ5 data (the annual statistics on investment holdings for 2012 were only released in December 2013, although information on quarterly net flows becomes available more quickly). The reported estimate of investment holdings in mid-2013 was made, therefore, by adjusting the MQ5 December 2012 data to take account of subsequent IPD capital growth and net investment.

[34] www.ons.gov.uk/ons/rel/fi/mq5--investment-by-insurance-companies--pension-funds-and-trusts/q3-2013/stb-mq5-q3-2013.html

APPENDIX B – THE INVESTMENT UNIVERSE: SOURCES AND METHODOLOGY

The data compiled by the ABI, based on information collected from its member companies, differs from that in the ONS's MQ5: its December 2012 estimate, excluding overseas subsidiaries, of £48.6bn compares with ONS's £42.5bn. The ABI has explained that, whilst like the ONS data, its estimates cover the same type of insurance company funds, it also incorporate these funds' indirect property holdings; in this respect, the difference of £6bn looks consistent with the magnitude of insurance companies' indirect holdings outlined in Section 7.

The ABI data nonetheless is useful in providing a split between insurance companies 'non-linked funds' (such as life and annuity funds) and 'linked funds' (unit-linked life and pension funds and managed property funds). The respective shares in the ABI data are applied to the MQ5 data to provide a corresponding breakdown between non-linked and linked insurance company funds (see Appendix Table D.5).

The holdings relating to 'linked funds' are further disaggregated, by drawing on the estimates of insurance company managed property funds' direct holdings in AREF/IPD's *Property Fund Vision Handbook*, with the residual assumed to be unit-linked life and pension funds.

For the property segment estimates, IPD structures – separately for unit-linked life and pension funds, managed property funds and other insurance companies – are applied. Information on IPD structures is also used to exclude residential and student accommodation exposures (and to incorporate them in the residential universe estimate).

The estimate for pension funds is derived from ONS's MQ5 on the same basis as for insurance companies. ONS has confirmed that its pension fund estimate excludes indirect holdings. IPD segment structures provide the corresponding property type disaggregation.

B.3.2 Collective investment schemes

Collective investment schemes cover the UK and Channel Island-domiciled unit trusts and similar, limited partnerships and the off-shore closed-ended property investment companies represented by the Association of Investment Companies; joint ventures, specifically those deemed to be open to the market, are also incorporated into the estimate. Those funds not directly holding property and specialist residential (including student accommodation) funds are excluded (the latter, however, contribute to the estimate of the residential investment universe), as are any residential and indirect holdings of those funds otherwise included in the definition. Insurance company managed property funds and unit-linked life and pension funds, which were categorised as collective investment schemes in the 2005 report, are excluded, given that they are part of the insurance company investor type in this report.

The main source of this data is Property Funds Research, who have generously supplied their detailed records. Data from AREF/IPD's *Property Fund Vision Handbook* and INREV's vehicles database is used to check and supplement the PFR data; funds and fund managers in RCA's transactions data are also checked to determine if any major investors have been excluded. Data for the off-shore closed-ended property investment companies is derived separately from the Association of Investment Companies statistics[35] category 'Property Direct – UK'.

IPD data, separately for open- and for closed-ended funds, is used to derive property type structures. Information on IPD structures is also used to exclude residential from balanced funds (and to incorporate it in the residential universe estimate).

[35] www.theaic.co.uk/aic/statistics

APPENDIX B – THE INVESTMENT UNIVERSE: SOURCES AND METHODOLOGY

B.3.3 REITs and listed property companies

These relate to companies listed on the main market of the London Stock Exchange and incorporated in the UK under the REIT and 'Real Estate Holding and Development' sectors; property income trusts are excluded because they are treated as collective investment schemes. Those exclusively investing either overseas or in development and regeneration are excluded, while those exclusively investing in residential (including student accommodation) are treated separately as part of the residential universe.

The information is garnered from individual companies' annual or half-yearly report and accounts (updated by IPD capital growth where appropriate), drawing, in particular, on balance sheet information for 'investment properties', 'investments in joint ventures and funds', 'investments in associates', etc. Further information within these report and financial statements is used to deduct developments, overseas holdings, interests in funds (in-house and third party) and any joint ventures incorporated in the collective investment schemes universe. Any included joint ventures are valued according to the company's share of the direct property value.

Detailed information in reports and notes to financial statements is also used to derive each company's property segment structure (thereby also allowing any residential holdings to be accounted for separately as part of the residential universe estimate).

B.3.4 Private property companies

Private property companies relate to those listed on AIM and to other private property companies whose main activity is described under the 2007 Standard Industrial Classification either as 'the development of building projects', 'the buying and selling of own real estate' or 'the renting and operating of own real estate' (excluding housing associations). They include any such companies set up to manage the property portfolios of wealthy individuals, other than the 'traditional estates'. The category also captures those private property investment companies not included in the collective investment scheme investor type.

In the same way as for listed property companies, the principle is that those exclusively investing either overseas, in development and regeneration or in residential (including student accommodation) are excluded.

The 2005 estimate was largely based on the challenging and potentially error-prone approach of sifting through the records of around 4,000 property companies with land and buildings valued in excess of £1m. In this previous research, six groups (including Songbird Estates/Canary Wharf Group and the Peel Group) accounted for almost £10bn of property holdings, representing a quarter of the total. The current research has proven difficult to replicate the wide-ranging analysis undertaken for the 2005 report. Furthermore, examination of the RCA transactions database indicates that the FAME[36] definition is not comprehensive and excludes some private companies; on the other hand, the RCA database does not cover some of the small companies captured by FAME.

The estimate of the investment holdings of private property company is a judgment, therefore, formed through analysis of a range of sources and data, notably published accounts (particularly for the AIM-listed companies and in a more limited way for other large companies), the FAME database and analysis of the assets accumulated since the end of 2000 by those companies in the RCA database. In relating to a very large number of companies for which information is extremely limited, the estimate is the most uncertain element of this research.

[36] Financial Analysis Made Easy: a service providing UK and Irish financial company information and business intelligence.

APPENDIX B – THE INVESTMENT UNIVERSE: SOURCES AND METHODOLOGY

The restated estimate for 2003 (£50bn compared to the previous estimate of £37bn) is based on a similar analysis; the general conclusion is that there has been little overall change in private company holdings over this period (albeit with wildly varying fortunes across individual companies).

The property structures for private property companies are based on a multi-faceted approach: direct information is used where known (e.g. from published accounts, etc.), with the structure of the remainder based on the patterns revealed in the RCA database.

B.3.5 Private individuals

This definition relates to those individuals, family trusts, etc., who directly own property and hold these assets outside the categories covered elsewhere in this research, such as 'traditional estates', private property companies and so forth.

The estimate – both for the total investment universe and property sectors – extends the 2003 estimate from the 2005 research on the basis of IPD capital growth and RCA net transactions, using the methodology described above in Section B.2.1. Again, this is one of the most uncertain estimates of the report; for example, the ownerships of private landlords typically buying small lot sizes may be understated.

B.3.6 Charities and traditional estates

This grouping includes the commercial property holdings of The Crown Estate and other landed estates (such as Grosvenor, the Cadogan Estate) and large charities such as The Wellcome Trust and the Church Commissioners, whose current holdings (of both commercial and residential) have been mainly compiled from both published and private information; exposures held within funds are excluded. The remaining exposures of smaller investors – including university endowment funds and small charities' direct investments – have been updated using transactions records supplied by RCA.

Segment structures have been determined for the large investors from the same public and privately supplied information, while the structure of the remaining holdings is based on a combination of IPD and RCA data.

B.3.7 Other UK investors

These relate to the investment properties of local authorities and those of the public house operators. Information for local authorities is acquired from balance sheet information published in the DCLG's Local Government Financial Statistics and in CIPFA's Local Authority Assets statistics. In the same way as the 2005 report, these assets are assumed to be primarily retail and industrial property.

The estimates for the pub operators, which exclude their 'managed' properties, are mainly from the annual accounts of the operators: the two largest, Enterprise Inns and Punch Taverns, are estimated to account for £6–6.5bn of the £8–8.5bn total. These holdings, which would be defined as retail in IPD, are assumed to be distributed across the country in the same way as the public house (owner-occupied and invested) property universe.

APPENDIX B – THE INVESTMENT UNIVERSE: SOURCES AND METHODOLOGY

B.3.9 Overseas

Overseas holdings relate to those of organisations domiciled outside the UK and Channel Islands. They exclude those of foreign-owned fund managers' UK subsidiaries primarily servicing UK sourced capital (e.g. AXA REIM, LaSalle Investment Management, etc.) which are defined as UK investors. The estimates will include a small amount of property bought by foreign companies for operational reasons rather than as investments.

The estimate – both for the total investment universe and property sectors – extends the 2003 estimate from the 2005 reported research on the basis of IPD capital growth and RCA net transactions, using the methodology described in Section B.2.1.

B.4 Comparison of 2003 investment universe estimates in 2005 report

Most of the estimates for 2003 have been re-estimated in this research, the exceptions being private individuals and overseas investors (where the 2005 research estimates are used as a base for the subsequent figures).

The current investment universe estimate of £288bn in 2003 compares with the 2005 research report's corresponding estimate of £254bn. Almost half of the difference is attributable to the explicit inclusion in this research of the 'other' commercial property sector (this was excluded in the 2005 research). Most of the remaining difference is associated with the general upgrade in the estimate for private property companies.

Otherwise, once the inclusion of the 'Other' sector is taken into account, the two sets of estimates for specific investor types are also very close. Notably, this applies to insurance companies and collective investment schemes once account is taken of the transfer of managed property funds and unit-linked life and pension funds into the insurance company definition.

B.5 Trevor Wood Associates analysis of shopping centres and retail warehouses

Appendix A outlines the methodology combining the Trevor Wood Associates database of shopping centres and retail warehouses with IPD capital values per sq m, so as to derive estimates of the total value of the stock. The analysis also provides a perspective on the ownership[36] of the UK's stock of shopping centres and retail warehouses, which is presented in Table B.2.

The estimates in the table are not necessarily consistent with those of the investment universe. The latter draw on specific information, whereas the methodology using the Trevor Wood Associates data applies the average IPD capital value per sq m across the board. While this 'averages out' at highly aggregated levels, there will be estimation error at finer levels; REITs and listed property companies, for example, own relatively high value per sq m centres. The analysis was further complicated by difficulties in allocating some ownerships to investor types; for example those 'owned' by the fund management subsidiaries of insurance companies, private property companies and private individuals, etc.

[36] Joint ownerships were pro-rated across the corresponding investor types.

APPENDIX B – THE INVESTMENT UNIVERSE: SOURCES AND METHODOLOGY

Table B.2: Trevor Wood Associates analysis of ownership of UK shopping centres and retail warehouses

£bn	London	Rest of South East	Rest of England	Wales	Scotland	N Ireland	Total UK
SHOPPING CENTRES							
UK insurance company	£0.2	£1.2	£1.1	£0.1	£0.2	£0.0	£2.8
UK pension fund	£0.4	£1.4	£2.1	£0.1	£0.3	£0.0	£4.3
UK fund	£0.9	£3.1	£5.4	£0.6	£0.8	£0.1	£10.8
UK REIT / Listed property company	£1.4	£2.2	£6.8	£0.4	£1.4	£0.0	£12.2
UK charity / traditional estate	£0.0	£0.0	£0.3	£0.0	£0.0	£0.0	£0.3
UK private property company	£0.8	£1.4	£4.2	£0.2	£2.0	£1.2	£9.8
UK private individual / HNW incl syndicates	£0.8	£0.5	£1.2	£0.2	£0.0	£0.1	£2.8
UK central and local government (excluding their pension funds)	£0.1	£0.4	£0.4	£0.0	£0.1	£0.0	£1.1
UK other investors	£0.2	£0.7	£3.2	£0.1	£0.4	£0.3	£5.0
Overseas	£2.7	£1.1	£3.5	£0.2	£0.8	£0.2	£8.5
TOTAL INVESTED	£7.6	£12.0	£28.2	£1.9	£6.0	£1.9	£57.6
Owner-occupied	£0.0	£0.2	£1.3	£0.0	£0.1	£0.1	£1.7
RETAIL WAREHOUSES							
UK insurance company	£0.6	£0.9	£2.0	£0.2	£0.4	£0.1	£4.2
UK pension fund	£0.6	£1.4	£3.6	£0.5	£0.5	£0.1	£6.6
UK fund	£1.0	£2.0	£5.6	£0.5	£0.8	£0.1	£10.0
UK REIT / Listed property company	£0.2	£0.8	£2.4	£0.3	£0.7	£0.1	£4.4
UK charity / traditional estate	£0.0	£0.3	£0.5	£0.1	£0.1	£0.0	£0.9
UK private property company	£0.2	£0.6	£4.0	£0.6	£0.5	£0.5	£6.3
UK private individual / HNW incl syndicates	£0.1	£0.3	£1.4	£0.2	£0.3	£0.1	£2.3
UK central and local government (excluding their pension funds)	£0.0	£0.1	£0.1	£0.0	£0.0	£0.0	£0.2
UK other investors	£0.1	£0.6	£2.1	£0.2	£0.4	£0.6	£4.0
Overseas	£0.1	£0.2	£0.8	£0.1	£0.4	£0.1	£1.7
TOTAL INVESTED	£2.9	£7.2	£22.4	£2.5	£4.0	£1.6	£40.5
Owner-occupied	£0.7	£1.1	£3.5	£0.4	£0.5	£0.2	£6.3

Source: Trevor Wood Associates

APPENDIX C – PROPERTY LENDING IN RELATION TO THE STOCK OF PROPERTY

C.1 Introduction

Although not an objective of this research, it is, nonetheless, interesting to examine how the amount of outstanding debt relating to commercial property compares with the stock of property. The amount of debt is estimated in two ways: according to the estimates made by De Montford University's Maxted and Porter (2013), and 'bottom-up' on the basis of loan-to-value (LTV) ratios applied to the holdings of each of the investor types outlined in Section 4. Consistent with Maxted and Porters' estimates, the basis is December 2012.

C.2 De Montford University (Maxted and Porter) lending estimates

The DMU report identifies £198bn of bank and insurance company lending to 'commercial property'; more detailed analysis [38],which extracts the owner-occupied property, developments and private residential included in this estimate, indicates bank and insurance company lending on commercial standing investments at approximately £149bn, i.e. 75% of the headline estimate. Lending by organisations not covered by the DMU survey (such as NAMA) and CMBS, as well as and also corporate bonds adds another £55–75bn to this.

In aggregate, this indicates total outstanding debt financing on commercial standing investments of £205–225bn, representing 56–62% of the commercial property investment universe.

C.3 'Bottom-up' estimates of outstanding lending

Table C.1 estimates the amount of outstanding debt by applying LTV ratios to the holdings of each of this report's investor types. For collective investment schemes and REITs and listed property companies, such LTVs are readily available, whereas assumptions have to be made for other investor types.

This approach suggests a comparatively low level of outstanding debt secured on commercial property standing investments, i.e. £135–170bn. The discrepancy with the DMU-based estimate (of approximately £205–225bn) could be attributed to any of the following:

i. The estimates in the DMU report might include a larger proportion of lending secured on owner-occupied property than the 2% indicated in the report. Anecdotal evidence suggests that a higher proportion of commercial property bank lending is associated with owner-occupiers, especially outside London and the South East;

ii. The current research estimates of the investment universe might be unduly low. Note that a high level of confidence is attached to most of this study's estimates, with the greatest uncertainty around the estimates for private property companies and private individuals;

iii. The LTVs in Table C.1 could be too conservative, particularly for private property companies, private individuals and overseas investors, being based on the least well-founded assumptions.

[38] This calculation draws on Table 69 and Figures 24 and 34 of the Maxted and Porter (2013) report.

APPENDIX C – PROPERTY LENDING IN RELATION TO THE STOCK OF PROPERTY

Table C.1: 'Bottom-up' estimate of amount of lending secured on commercial property investment

Investor type	Assumed LTV	Implied debt £bn	Basis for LTV assumption
Life funds, etc.	0–5%	£0–1	Do not typically gear directly
Unit-linked life and pension	0–5%	£0–1	Do not typically gear directly
Pension funds	0–5%	£0–1	Do not typically gear directly
Managed property funds	0%	£0	From AREF; most not allowed to gear
Open-ended funds	5%	£2	In line with AREF
Closed-ended funds	30–40%	£7–9	In line with AREF
REITs and listed companies	40%	£21	From their accounts
Private companies	65–85%	£33–43	Lower LTV derived from major companies' accounts, upper LTV reflects number in / close to administration
Private individuals, etc.	65–85%	£7–9	Same as private companies
Trad estates and charities	5–15%	£1–2	Based on knowledge that some traditional estates gear
Pub operators	80%	£7	From annual accounts
Overseas	65–85%	£55–75	RCA data that indicates the most likely investor type to gear
TOTAL	37–47%	£135–170	

Source: PMRECON

APPENDIX D – SUPPLEMENTARY TABLES

Table D.1: Property universe and components, by sector, 2003 to mid-2013

	Rental value £ per sq m	Floorspace (million sq m)	Rental value £bn	Yield*	Capital value £bn	Memo: IPD reversionary yield*
All property						
2003	£67.4	677	£45.6	7.9%	£580	6.8%
2004	£69.7	679	£47.3	7.2%	£661	6.3%
2005	£71.9	675	£48.5	6.5%	£752	5.7%
2006	£75.5	678	£51.1	5.9%	£867	5.2%
2007	£79.1	678	£53.6	6.4%	£835	5.9%
2008	£78.8	682	£53.7	8.5%	£632	7.8%
2009	£73.5	681	£50.1	8.5%	£587	7.5%
2010	£73.5	680	£50.0	7.8%	£642	6.7%
2011	£74.1	681	£50.5	7.6%	£663	6.5%
2012	£73.9	684	£50.5	7.8%	£650	6.7%
Mid-2013	£74.0	679	£50.3	7.8%	£647	na
Retail						
2003	£124.9	149	£18.6	7.2%	£260	6.4%
2004	£130.3	151	£19.6	6.5%	£302	5.8%
2005	£135.4	148	£20.0	5.9%	£341	5.3%
2006	£140.7	149	£21.0	5.4%	£390	4.9%
2007	£144.3	150	£21.7	5.9%	£370	5.5%
2008	£144.1	151	£21.8	7.9%	£276	7.5%
2009	£135.3	152	£20.6	7.9%	£261	7.2%
2010	£133.6	153	£20.5	7.0%	£292	6.3%
2011	£134.0	154	£20.6	6.9%	£300	6.1%
2012	£133.5	155	£20.7	7.0%	£295	6.2%
Mid-2013	£133.4	154	£20.6	7.0%	£293	na
Offices						
2003	£115.4	99	£11.4	7.9%	£145	7.0%
2004	£117.2	100	£11.8	7.3%	£161	6.6%
2005	£121.9	100	£12.2	6.6%	£186	6.0%
2006	£130.5	102	£13.4	5.8%	£230	5.3%
2007	£140.9	104	£14.6	6.6%	£220	6.1%
2008	£138.9	104	£14.5	8.7%	£167	7.9%
2009	£122.4	105	£12.9	8.3%	£155	7.5%

APPENDIX D – SUPPLEMENTARY TABLES

Table D.1 cont'd: Property universe and components, by sector, 2003 to mid-2013

	Rental value £ per sq m	Floorspace (million sq m)	Rental value £bn	Yield*	Capital value £bn	Memo: IPD reversionary yield*
Offices cont'd.						
2010	£123.7	106	£13.2	7.6%	£174	6.9%
2011	£126.8	108	£13.7	7.4%	£184	6.6%
2012	£127.2	109	£13.8	7.6%	£182	6.9%
Mid-2013	£128.3	108	£13.9	7.6%	£183	na
Industrial						
2003	£31.6	396	£12.5	9.5%	£131	7.9%
2004	£32.3	395	£12.8	8.6%	£148	7.3%
2005	£33.0	394	£13.0	7.6%	£170	6.6%
2006	£34.1	394	£13.4	7.2%	£187	6.0%
2007	£35.3	392	£13.8	7.6%	£183	6.7%
2008	£35.0	392	£13.7	9.9%	£139	8.9%
2009	£33.3	387	£12.9	10.7%	£121	8.7%
2010	£32.8	382	£12.5	10.3%	£122	8.1%
2011	£32.4	382	£12.4	10.1%	£123	7.9%
2012	£32.0	382	£12.2	10.3%	£118	8.0%
Mid-2013	£31.9	379	£12.1	10.4%	£117	na
Other						
2003	£93.7	32	£3.0	6.8%	£44	na
2004	£97.7	32	£3.2	6.3%	£50	
2005	£101.5	33	£3.3	6.0%	£55	
2006	£105.5	32	£3.4	5.6%	£60	
2007	£108.3	32	£3.5	5.7%	£61	
2008	£108.1	35	£3.8	7.5%	£51	
2009	£101.5	37	£3.7	7.3%	£51	
2010	£100.2	38	£3.8	7.0%	£54	
2011	£100.5	38	£3.8	6.8%	£56	
2012	£100.1	38	£3.8	6.9%	£55	
Mid-2013	£100.1	38	£3.8	7.0%	£54	

* Yields are sector:region weighted. These sector: region weightings differ between the property universe and IPD; also, IPD for the three main sectors only. Hence, the two sets of yields are not strictly comparable.

Source: PMRECON using data from IPD and VOA

APPENDIX D – SUPPLEMENTARY TABLES

Table D.2: Property universe and components, by sector and broad region, mid-2013 (2003 restated in brackets)

	Rental value £bn		Yield		Capital value £bn	
All property						
London	£13.8	(£10.7)	6.2%	(7.0%)	£223	(£152)
Rest of South East*	£10.4	(£10.0)	8.4%	(8.1%)	£124	(£125)
Rest of England	£19.4	(£18.7)	8.7%	(8.2%)	£223	(£228)
Wales	£1.6	(£1.5)	8.9%	(8.5%)	£19	(£18)
Scotland	£4.0	(£3.7)	8.6%	(8.1%)	£46	(£45)
Northern Ireland	£1.1	(£1.0)	9.1%	(7.8%)	£12	(£13)
UK	£50.3	(£45.6)	7.8%	(7.9%)	£647	(£580)
Retail						
London	£4.7	(£3.7)	6.0%	(7.0%)	£78	(£52)
Rest of South East*	£4.5	(£4.1)	7.2%	(7.2%)	£62	(£57)
Rest of England	£8.6	(£8.3)	7.4%	(7.2%)	£116	(£114)
Wales	£0.8	(£0.7)	7.7%	(7.6%)	£10	(£9)
Scotland	£1.5	(£1.5)	7.5%	(7.2%)	£20	(£20)
Northern Ireland	£0.5	(£0.4)	7.9%	(6.8%)	£6	(£6)
UK	£20.6	(£18.6)	7.0%	(7.2%)	£293	(£260)
Offices						
London	£6.7	(£4.8)	5.9%	(6.7%)	£114	(£72)
Rest of South East*	£2.3	(£2.3)	10.5%	(8.9%)	£22	(£26)
Rest of England	£3.3	(£3.0)	10.8%	(9.3%)	£31	(£32)
Wales	£0.3	(£0.2)	9.4%	(9.5%)	£3	(£2)
Scotland	£1.0	(£0.9)	9.3%	(8.4%)	£11	(£11)
Northern Ireland	£0.3	(£0.3)	10.2%	(9.3%)	£3	(£3)
UK	£13.9	(£11.4)	7.6%	(7.9%)	£183	(£145)
Industrial						
London	£1.4	(£1.5)	8.9%	(8.7%)	£16	(£17)
Rest of South East*	£2.9	(£3.0)	9.8%	(9.2%)	£29	(£33)
Rest of England	£6.0	(£6.3)	10.8%	(9.7%)	£56	(£65)
Wales	£0.4	(£0.5)	13.2%	(10.5%)	£3	(£4)
Scotland	£1.1	(£1.0)	10.7%	(10.3%)	£10	(£10)
Northern Ireland	£0.3	(£0.3)	11.9%	(8.7%)	£2	(£3)
UK	£12.1	(£12.5)	10.4%	(9.5%)	£117	(£131)

APPENDIX D – SUPPLEMENTARY TABLES

Table D.2 cont'd: Property universe and components, by sector and broad region, mid-2013 (2003 restated in brackets)

	Rental value £bn		Yield		Capital value £bn	
Other						
London	£1.0	(£0.7)	6.7%	(6.6%)	£15	(£11)
Rest of South East*	£0.8	(£0.6)	7.1%	(6.9%)	£11	(£9)
Rest of England	£1.4	(£1.2)	7.0%	(6.9%)	£20	(£17)
Wales	£0.1	(£0.1)	7.0%	(6.8%)	£2	(£2)
Scotland	£0.3	(£0.3)	7.0%	(6.8%)	£5	(£4)
Northern Ireland	£0.1	(£0.1)	7.0%	(6.8%)	£1	(£1)
UK	£3.8	(£3.0)	7.0%	(6.8%)	£54	(£44)

* IPD definition, comprising the South East and East regions.

Source: PMRECON using data from IPD and VOA

Table D.3: Shopping centre and retail warehouse (owner-occupied and invested) stock, mid-2013

	UK	London	Rest of South East	Rest of England	Wales	Scotland	Northern Ireland
Shopping centres							
Floorspace (million sq m)	17.0						
Capital value £bn	£59.3	£7.6	£12.2	£29.5	£1.9	£6.1	£2.0
Memo: 2004 capital value from 2005 report	*£54.7*						
Retail warehouses							
Floorspace	16.8						
Capital value £bn	£46.9	£3.6	£8.3	£25.9	£2.9	£4.5	£1.8
Memo: 2004 capital value from 2005 report	*£37.7*						
Total							
Floorspace	33.8						
Capital value £bn	£106.2	£11.2	£20.5	£55.4	£4.7	£10.6	£3.7
Memo: 2004 capital value from 2005 report	*£92.4*						

Source: Trevor Wood Associates 2013; The Size and Structure of the UK Property Market, IPF 2005

APPENDIX D – SUPPLEMENTARY TABLES

Table D.4: Commercial investment universe by type of investor, mid-2013 versus 2003 restated

	Mid-2013 £bn	2003 restated £bn
Insurance companies (incl. managed property funds and unit-linked life and pension)	£41	£58
Pension funds	£30	£31
Collective investment schemes (excl. MPFs and unit-linked life and pension)	£59	£27
Listed property companies	£52	£40
Private property companies	£50	£50
Traditional estates and charities	£16	£14
Private investors	£10	£8
Local authorities	£10	£10
Other investors	£8	£10
Overseas investors	£88	£41
TOTAL	£364	£288

Source: PMRECON using data from company annual accounts, IPD, ONS, PFR and RCA/Property Data

Table D.5: Insurance companies holdings by type of fund, mid-2013 versus 2003 restated

£bn	mid-2013	2003 restated	% change
Insurance companies: non-linked funds	£20	£45	-56%
Insurance companies: linked life and pension funds	£15	£10	53%
Insurance companies: managed property funds*	£6	£3	119%
TOTAL INSURANCE COMPANIES	£41	£58	-29%

* Includes the LandG LPI Fund and Standard Life Long Lease Fund.

Source: PMRECON, ONS MQ5, AREF/IPD.

Table D.6: Collective investment schemes by type of fund, mid-2013 versus 2003 restated

£bn	mid-2013	2003 restated	% change
Open-ended funds (excl. MPFs and unit-linked life and pension)	£36	£8	362%
Closed-ended funds (incl. investment companies)	£23	£19	18%
TOTAL COLLECTIVE INVESTMENT SCHEMES	£59	£27	118%
Memo: MPFs and unit-linked excluded from the above as included with insurance companies	*£21*	*£13*	*69%*

Source: PMRECON, Property Funds Research, ONS MQ5, AREF/IPD

APPENDIX D – SUPPLEMENTARY TABLES

Table D.7: Commercial investment universe by type of investor and property segment, mid-2013

£bn	Insurance companies	Pension funds	Collective investment schemes	Listed property companies	Private property companies	Traditional estates and charities	Private investors	Other investors	Overseas investors	TOTAL
Central London shops (included in Standard Retail South East)	*£2*	*£1*	*£1*	*£2*	*£1*	*£4*	*£0*	*£1*	*£2*	*£15*
Standard Retail South East	£4	£3	£4	£3	£3	£4	£1	£4	£3	£29
Standard Retail Rest of UK	£4	£3	£4	£3	£1	£0	£0	£7	£1	£24
Shopping Centre	£4	£3	£10	£15	£6	£1	£1	£4	£7	£51
Retail Warehouse	£8	£6	£11	£7	£4	£2	£1	£1	£3	£43
Office City	£2	£1	£2	£4	£4	£0	£2	£0	£24	£38
Office West End and Midtown	£5	£2	£6	£9	£6	£5	£2	£0	£18	£53
Office Rest of London (included in Rest of South East)	*£1*	*£1*	*£2*	*£1*	*£6*	*£0*	*£1*	*£0*	*£11*	*£23*
Office Rest of South East	£4	£3	£5	£2	£9	£1	£2	£0	£14	£39
Office Rest of UK	£2	£2	£3	£0	£4	£0	£1	£0	£4	£16
Industrial South Eastern	£4	£4	£5	£3	£3	£1	£1	£1	£2	£22
Industrial Rest of UK	£3	£2	£4	£3	£4	£0	£0	£1	£1	£18
Other commercial	£3	£2	£6	£3	£6	£1	£1	£0	£11	£32
TOTAL COMMERCIAL	£41	£30	£59	£52	£50	£16	£10	£18	£88	£364
Retail	*£20*	*£15*	*£29*	*£28*	*£15*	*£8*	*£2*	*£16*	*£15*	*£147*
Offices	*£13*	*£8*	*£15*	*£15*	*£23*	*£6*	*£6*	*£0*	*£59*	*£145*
Industrial	*£6*	*£6*	*£9*	*£5*	*£6*	*£1*	*£1*	*£2*	*£3*	*£40*
Other commercial	*£3*	*£2*	*£6*	*£3*	*£6*	*£1*	*£1*	*£0*	*£11*	*£32*
London	*£14*	*£9*	*£17*	*£21*	*£22*	*£10*	*£6*	*£3*	*£64*	*£167*
RESIDENTIAL (incl. student accommodation) where available	*£1*	*£1*	*£4*	*£3*	*na*	*£6*	*na*	*na*	*na*	*na*

Source: PMRECON using data from company annual accounts, IPD, ONS, PFR and RCA/Property Data

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This report has drawn on a number of publicly available data sources from sources such as the Office for National Statistics and the Valuation Office Agency, from unpublished data from sources including the Association of British Insurers, INREV, the Investment Property Databank, Property Funds Research, Real Capital Analytics, State Street and Trevor Wood Associates. The author and IPF gratefully acknowledge the support of these organisations in providing their proprietary data.

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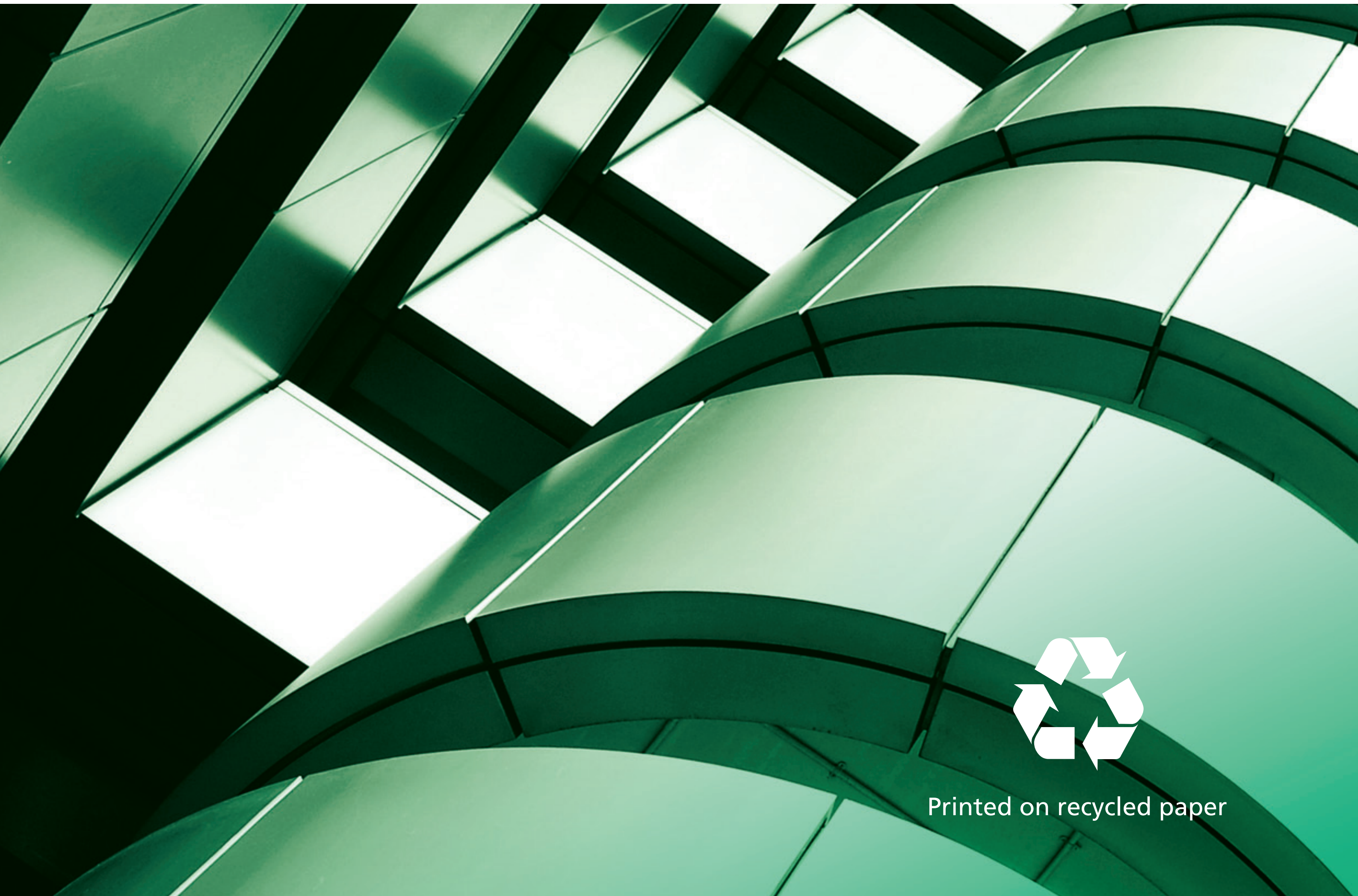

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