

DEVELOPMENT CONSULTANCY



LONDON DEVELOPMENT DESIGN STUDY

SPRING 2017



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SUMMARY

Design and specification can be more important than extensive amenity in prime development

Buyers are increasingly more focused on space, layout, architecture and views

The right balance: Cost vs benefit of improving specifications in prime developments

The importance of good design: Case-studies of how layout changes can improve livability and desirability

Security and concierge services are judged to be the most important amenities

Ceiling heights are an important factor for 90% of buyers

55% of respondents would prefer to reduce costs by having underfloor heating only in bathrooms

INTRODUCTION

World-class residential development in London is no longer driven primarily by location. It requires thoughtful design, efficient layouts and the right mix of amenities, service and specification to maximise value.

Data from the DCLG suggests that there were 17,070 new residential starts in London 2016, down from 25,200 the previous year, suggesting a slowdown in housing delivery.

The most recent data also shows a fall in planning approvals – a good indicator of future supply – with 478 schemes with 10 or more units approved in the year to September 2016, down from 499 at the same point of 2015 and 524 in 2013.

The reduction in development activity is due to a range of factors, including rising construction costs – partly as a result of currency fluctuations, as discussed in more detail on page 11 – labour issues, planning processes and tax changes.

In this environment, the need to balance appropriate planning and design with the right provision of services and amenities within schemes, is paramount.

This requires a detailed understanding of pricing potential, cost planning and control over occupational charges.

Working together with cost consultants Core Five and MSMR Architects, Knight Frank has analysed how design and specification can influence development cost, as well as the desirability of schemes.

In our experience design and specification is more important than extensive amenity in prime development.

Optimising internal layouts, providing private amenity space and carefully managing both build and living costs need to be carefully considered when planning a project.

Feeding into our analysis are the results of an exclusive survey of buyers in prime and super prime new-build developments in London.

LONDON MARKET UPDATE

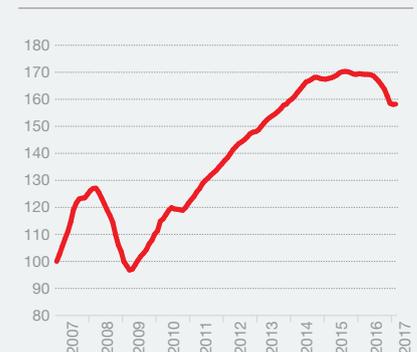
Property prices in prime central London are 24% higher than their previous market peak in 2008, according to Knight Frank's index. The longer trend in price growth over this time has been underpinned by the improving UK economy, as well as London's perceived status as a safe haven.

The current price trend for the top-end of the housing market in London reflects the fact that it is still absorbing the changes to stamp duty introduced in December 2014 and, more recently, in April 2016.

The new rules have increased the cost of buying properties worth more than £1.1 million in the UK, and added a 3% levy for those buying additional properties. This is being reflected in some price adjustments, which in turn has been mirrored by more moderate

rates of price growth. Previous tax changes have been assimilated in recent years and it is expected that the market will, in time, adjust to the most recent changes.

FIGURE 1
Prime Central London prices
Index 100 = Jan 2007



Source: Knight Frank

SECTION 1: SPECIFICATION

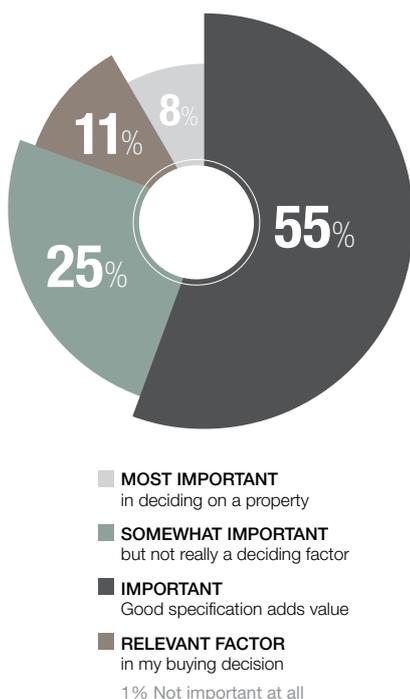
Having the latest gadgets and technology may help to differentiate schemes, but as our survey suggests, buyers are more focused on quality.

One of the most significant changes we have witnessed over the past decade is buyers becoming less wedded to specific locations. As a result, the prime development market has increasingly spread outside the traditional 'golden postcodes'.

As the market has become more product-led and less location-led, developers have focused increasingly on the quality of their building and the services and facilities on offer.

The message we convey to developers, and one which is reinforced by the results of our survey, is to focus on the qualitative rather than the quantitative.

FIGURE 2
How important is specification to your buying decision?



Source: Knight Frank

Do the simple things well before falling into the trap of needing to be different.

In our experience of selling prime and super-prime developments, buyers are more focussed on space, layout, architecture and views. These are the tangibles.

As a development consultancy team, we often debate where specification adds value, and where it amounts to an unnecessary cost.

Developments need to strike a careful balance between short-term trends, technology and pragmatism.

This means that schemes need to find a position within the market and be capable of delivering a flexible package which allows them to compete against peers.

One example is technology. The current thinking relating to technology is towards the simplification of systems which allow for the capacity to "layer up", or to upgrade to more bespoke packages should the purchaser require.

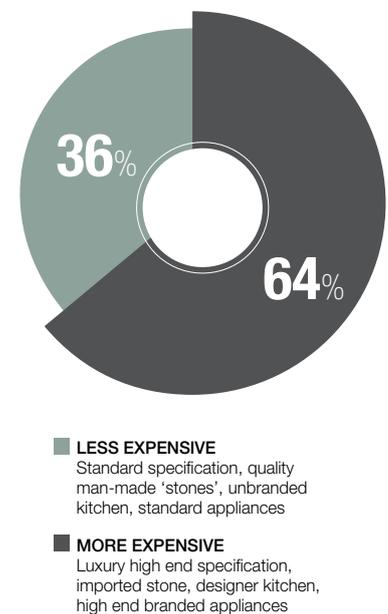
Our message and advice to clients is to ensure that design delivers an evolution of proven standards and practices. Keep materials simple, be confident, focus on high standards and avoid gimmicks.

Buyer preferences

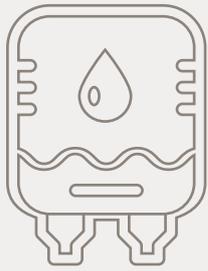
Some 88% of respondents to our survey said that specification was an important factor in their decision making when buying (figure 2), while 64% said they would be willing to pay more for higher quality finishes and better specification (figure 3).

As such, an important task for developers is to weigh up the additional costs associated with higher specification against the premium for purchasers.

FIGURE 3
Given the choice between two identically-sized – but differently priced – apartments, which would you choose?



Source: Knight Frank



63%

respondents indicating they would like to have some form of cooling in their properties

Indeed, looking in more detail at heating and cooling apartments, the need to strike a balance between cost and specification is clear. Some 63% of respondents said they would like to have some form of cooling in their properties.

Having cooling in an apartment will lead to a higher purchase cost of the property.

Moreover, accommodating the cooling units in the design without compromising layouts or ceiling heights is frequently challenging.

Similarly, a total of 55% of respondents would prefer to reduce costs by having underfloor heating only in the bathrooms, with radiators or forced air heating in the remainder of the property (figure 4).

This is particularly relevant given the current focus on avoiding overheating in modern apartments.

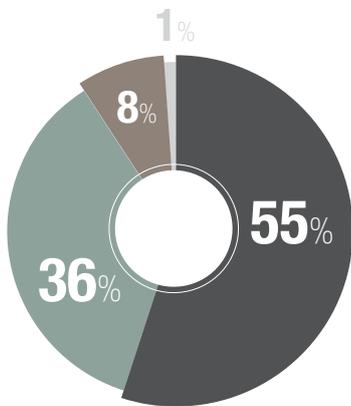
A useful exercise is to consider how important each amenity is.

Respondents placed their internet usage, television, heating, cooling and security as more important than built-in speakers and tablet integration (figure 5).

More than 43% said super-fast broadband is the most important technology for them. Broadband is the most used technology for 63% of respondents, and the least used is built-in surround sound speakers and full home automation systems.

FIGURE 4

Is the higher cost for full underfloor heating worth it?



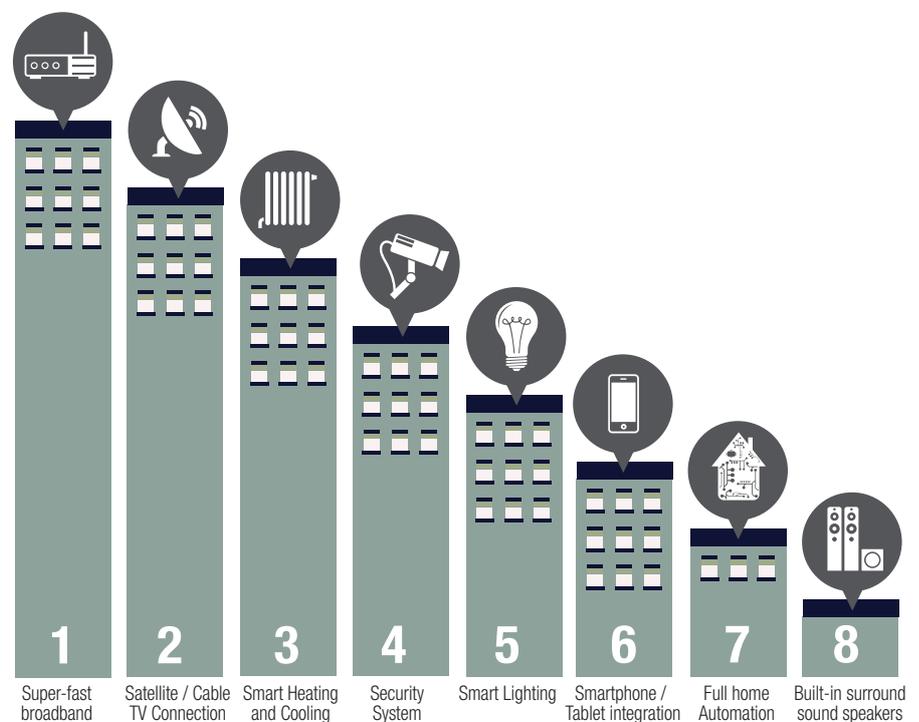
- MIXED**
 I would be happy with underfloor heating just in the bathrooms, and have radiators or forced air heating in other rooms
- YES**
 Underfloor heating throughout is a must
- NO**
 I would like the most economical option possible
- OTHER**

Source: Knight Frank

FIGURE 5

How important are the following gadgets and technology?

Rank the following: 1 being most important and 8 being the least important.



Source: Knight Frank

Fit-out costs

As specification becomes more complex and bespoke, fit-out costs understandably increase as higher quality materials and finishes are applied.

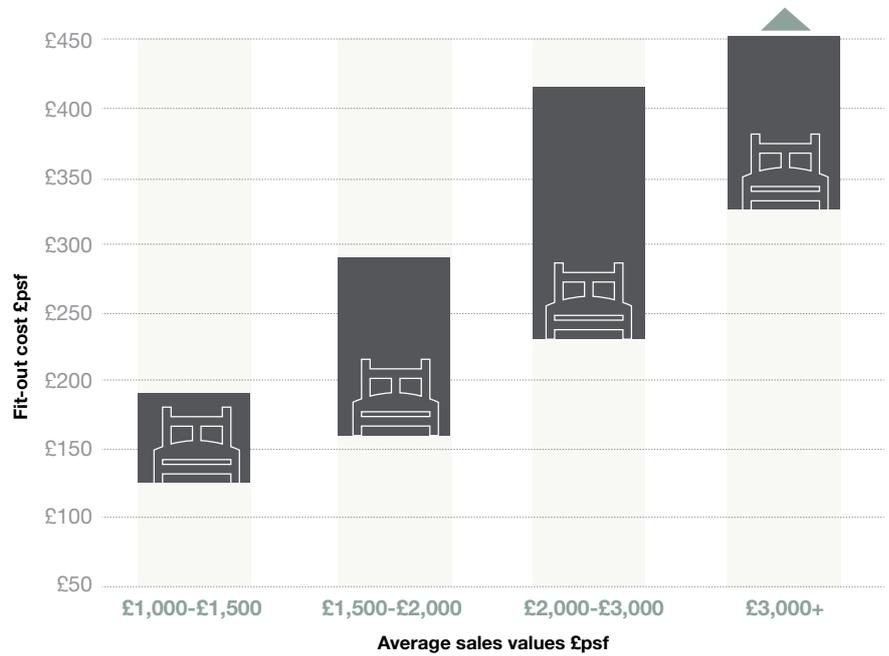
In recent years, overall fit-out costs have averaged between 10% and 15% of blended sales values. However, with the increase in the volume of high-quality residential projects in London, we are seeing this model change dependent on price point.

Core Five has looked at the fit-out cost range at different price points for a 'typical' 2-bedroom property (figure 6).

The analysis reveals just how much fit-out costs can vary dependant on specification, ranging from around £125 per square foot to more than £450 per square foot. Generally, the cost of upgrading specification is concentrated on just a few items including heating, kitchens and technology.

FIGURE 6

Fit-out cost range at different sales values: 2-bedroom property



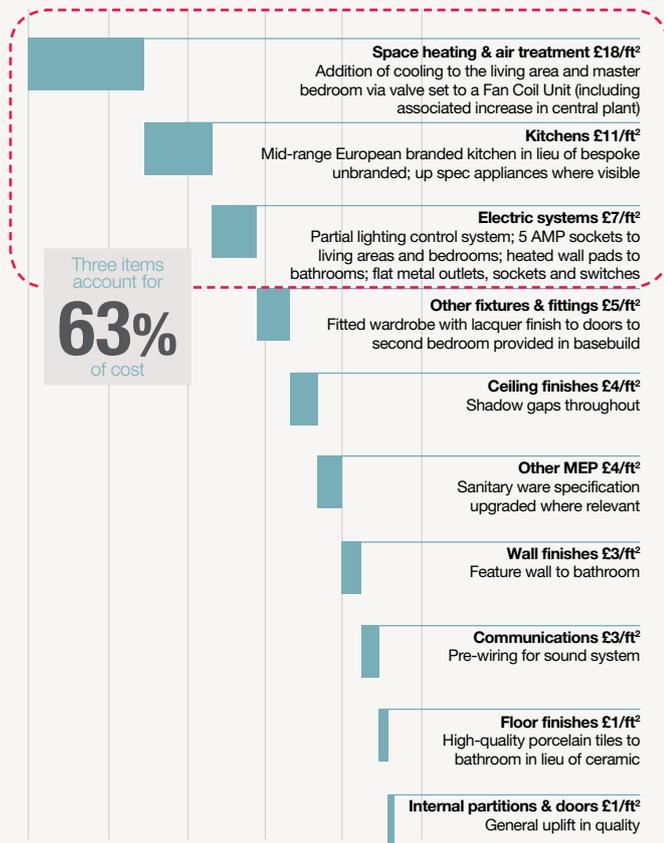
Source: Core Five



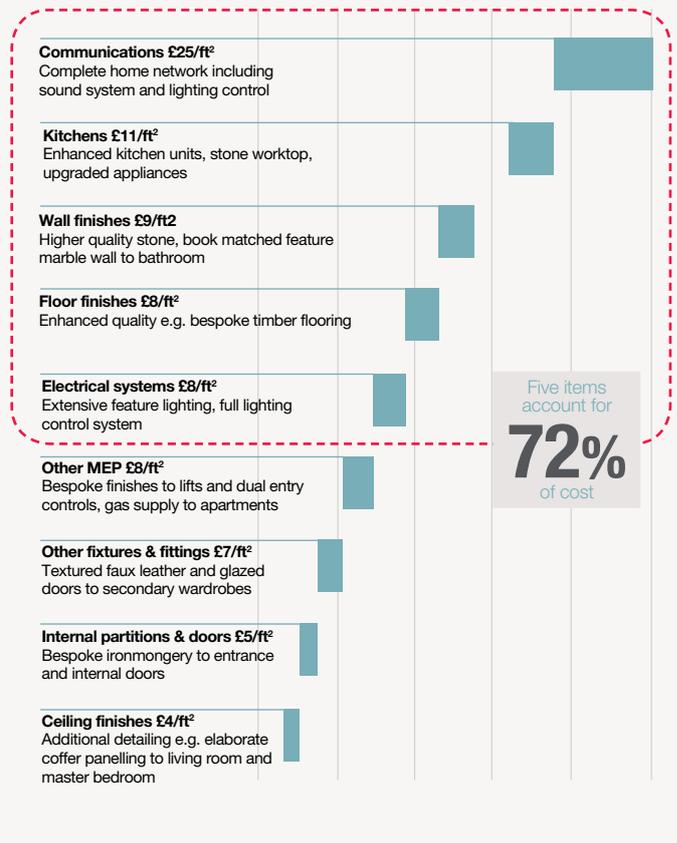
Specification uplift by price:

The cost of upgrading the specification in a development tends to be concentrated on a few items, so careful analysis of cost against benefit is advisable.

2-bed property: Specification price differences for £1,500 per sq ft (compared to £1,000 per sq ft)



2-bed property: Specification price differences for £3,000 per sq ft (compared to £2,000 per sq ft)



Specification cost matrix

Drawing on our extensive experience, we have summarised below what is typically seen at different price points.

It is important to note that this is by no means an absolute guide. There is no standard approach to achieving higher sales values. Careful consideration of individual project characteristics and value drivers, by an expert professional team, can ensure the cost/value equation is optimised on an individual project basis.

	FINISHES	FITTINGS	TECH
£1,000/ft ²	<ul style="list-style-type: none"> • Metal studwork with plasterboard and paint finish • Timber veneered hardwood entrance door, medium quality ironmongery, painted internal doors • 100% ceramic tile coverage to bathrooms (standard range) • Good quality carpet to bedrooms, off-the-shelf engineered timber flooring to other areas • Plasterboard ceiling with paint finish 	<ul style="list-style-type: none"> • Medium-quality kitchen units, silestone worktop, splashback with undermounted stainless steel sink and mixer taps • Fitted wardrobe to master bedroom with mirror or veneer finish doors, high level shelf and hanging rail (to master only, secondary by purchaser) • Porcelain vanity unit with integrated ceramic basin • Frameless glass panel to shower 	<ul style="list-style-type: none"> • Wet underfloor heating with electric underfloor in bathrooms • Cooling – None, other than penthouses • White plastic switches and sockets • Pendant lighting, LED downlighters to bathrooms, strip lighting to kitchen. Local dimmer switches • Data cabling to all rooms for video, TV, telephone and superfast broadband
£1,500/ft ²	<ul style="list-style-type: none"> • As above with high-quality, large format porcelain tile to bathrooms • Feature wall to bathrooms • Shadow gap throughout, or good quality skirting 	<ul style="list-style-type: none"> • Mid range European branded kitchen • Higher quality appliances (excluding wine cooler) • Fitted wardrobe to master and secondary bedroom with mirror or veneer finish doors, high level shelf and hanging rail • Upgraded sanitaryware • High-quality branded white vitrified enamel wall mounted WC with push button flush 	<ul style="list-style-type: none"> • Heating via Fan Coil Unit coupled with electric underfloor in bathrooms • Cooling via Fan Coil Units to all habitable rooms with 2/3 bedrooms shared • Flat metal plate (MK style) switches and sockets. LED downlight and strip lighting coupled with 5amp sockets • Scene setting lighting control to living spaces and master bedroom • Data cabling to all rooms for video, TV, telephone and superfast broadband with Hub
£2,000/ft ²	<ul style="list-style-type: none"> • Plywood backing to plasterboard walls throughout • Full height timber veneered entrance door, high quality ironmongery, timber veneered internal doors • Natural stone and feature marble walls to bathroom, 100% coverage • Engineered timber flooring generally with marble to entrance lobby, high-quality porcelain to bathrooms with silver limestone to showers • Recessed lighting and shadow gaps throughout 	<ul style="list-style-type: none"> • Veneer units, marble worktops, undermounted sink, upgraded appliances (including wine cooler) • Fitted joinery to living area and textured faux leather and glazed doors to master wardrobe with timber veneer interior, textured faux leather and lacquer doors to secondary • High-quality sanitaryware, frameless glass panel to shower • Bespoke wall mounted mirrored cabinet, with under sink drawer and concealed storage unit 	<ul style="list-style-type: none"> • Wet underfloor heating with electric underfloor in bathrooms and cooling via Fan Coil Units to rooms • Flat metal plate (Wandsworth style) switches and sockets. LED downlight and strip lighting, 5amp sockets • Data cabling to all rooms for video, TV, telephone and superfast broadband with Hub. Pre-wiring for blinds and speakers
£3,000/ft ²	<ul style="list-style-type: none"> • Metal studwork with plasterboard and paint finish with plywood backing throughout • Bespoke ironmongery to entrance and internal doors • Natural stone and feature marble walls to bathroom, book matched feature wall • Bespoke timber flooring • Elaborate coffer panelling in the living room and master bedroom • Recess lighting and shadow gaps throughout 	<ul style="list-style-type: none"> • Bespoke kitchen, stone worktop, undermounted bowl and half sink, compartmentalised waste storage under sink • Highest quality appliances (including wine cooler) • Fitted joinery to living area and textured faux leather and glazed doors to wardrobes, with timber veneer interior, to both bedrooms • Bespoke sanitaryware with bespoke wall mounted mirrored cabinet, with under sink drawer and concealed storage unit 	<ul style="list-style-type: none"> • Wet underfloor heating with electric underfloor in bathrooms and cooling via Fan Coil Units to rooms • Flat metal plate (Forbes & Lomas Style) switches and sockets. LED downlight and strip lighting, 5amp sockets and extensive feature lighting. Scene setting to all rooms • Data cabling to all rooms for video, TV, telephone and superfast broadband with AV racks. Home network system with lighting, blind and speaker control and music streaming (incl HVAC control)

SECTION 2: CEILING HEIGHT, AMENITY AND SERVICE CHARGE

There are instances where specification can add to the desirability of a development, but this needs to be balanced against the additional cost.

One example is ceiling height. This plays an important role in the perception of a property, creating a sense of space, and the responses to our survey back this up.

Some 90% of respondents said that ceiling height was an important factor when it came to their purchase, with 40% of the total considering it “very important”.

When asked how “high was high enough” over 77% of respondents confirmed they would like ceilings at 2.6m or higher, slightly above the historic 2.4m standard found in many London developments. Higher ceiling heights are most often provided by coffered ceilings in living rooms and master bedrooms. The need to balance the provision of additional space with cost is important here.

Our experience is that buyers in the sub-£1,500psf market are unlikely to pay a significant premium for higher ceilings. However, in the prime market, especially above £3,000psf, a clear point of difference is discernible when ceilings exceed 2.8m.

Amenities

Tellingly, some 69% of respondents to our survey said that given the choice between a larger apartment in a building with a concierge only, or a smaller apartment in a building with extensive facilities and amenities, they would opt for the former. This suggests that buyers do not view communal areas and facilities as a substitute for internal living space.

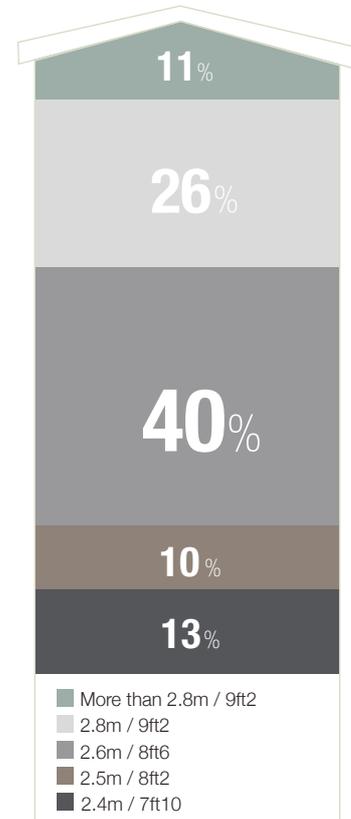
As we examine in more detail on page 9, adding amenities does have cost implications, both for developers and purchasers in the form of a higher service charge.

Such facilities can help to differentiate schemes and add to the desirability of a development. Indeed, a total of 46% of respondents who purchased in a building with amenities confirmed that they appreciated having access to them (figure 10).

FIGURE 7

What is a reasonable new build ceiling height?

Note: Base ceiling heights for many London developments is 2.4m or 7ft10



Source: Knight Frank

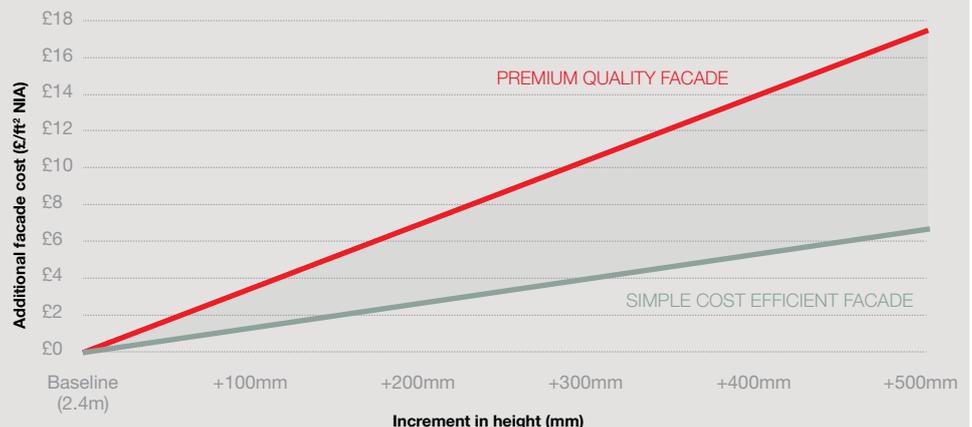
How much does it cost to add ceiling height?

For a ‘typical’ building, increasing storey height by 200mm adds a construction cost of around £3psf on the net internal area (NIA) if simple cladding, such as standard brick, is used. If, however, a higher quality bespoke facade is utilised, the cost uplift can be closer to £7psf on NIA.

The biggest consideration when adding height to apartments is the height restriction imposed on the building by planning and maintaining an optimal number of units or NIA.

FIGURE 8

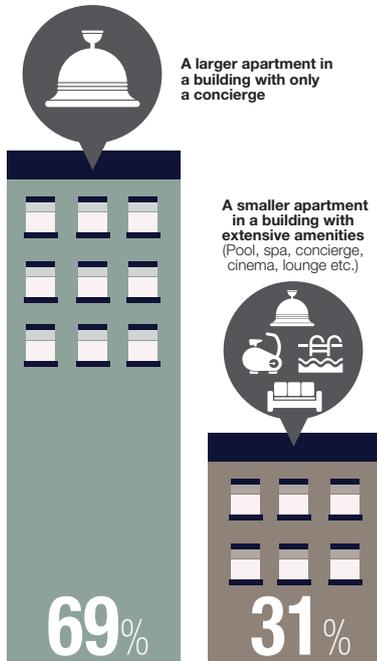
Indicative build cost to increase ceiling height at every floor (due to increased facade quality)



Source: Core Five

FIGURE 9

At the same price point, which would you choose?



Source: Knight Frank

However, it's interesting to note that 49% said that they had either deliberately avoided buying an apartment with amenities, or would prefer not to have access to them in return for a lower service charge.

Only 5% said that they wanted additional amenities but the building in which they purchased did not offer them.

Service charge

Service charges are fees that most leaseholders pay to cover their share of the cost of maintaining the building they live in. This includes any costs associated with upholding the services and facilities on offer.

To get a better understanding of what purchasers consider to be the amenities most valuable to them, we asked what services they would be happy to forego in order to reduce their service charge. The majority of respondents were unwilling to go without a concierge, 24-hour security and underground car parking, which suggests a minimum standard needed across developments.

However, a notable proportion were willing to sacrifice additional facilities such as a steam room (62%), spa (80%)

or wine cellar (84%) in order to reduce costs (figure 11).

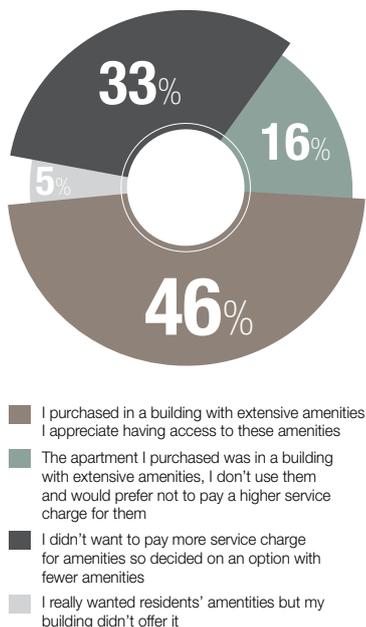
Keeping service charges at a 'manageable level' is predicated by the price point of the development and the level of service on offer. Buyers are well-informed and aware of service charges relative to service.

Indeed, residents in a small development in prime central London offering only a concierge and security might question a service charge that exceeds £7.50 per square foot, whereas a large super-prime development offering concierge, security, underground parking, private cinema, gym, swimming pool, spa, library and business facilities may have a service charge which exceeds £10 per square foot.

On page 10, we have examined sample costs for hypothetical residential blocks to show the variance in prices relative to the level of service. For the example, we looked at the cost implication for both the minimum and maximum level of service. The range of prices on some provisions is significant. For example, the difference between a part-time day concierge and a 24 hour concierge is more than 600% per square foot (figure 12).

FIGURE 10

Did amenities influence your decision to buy your last property?

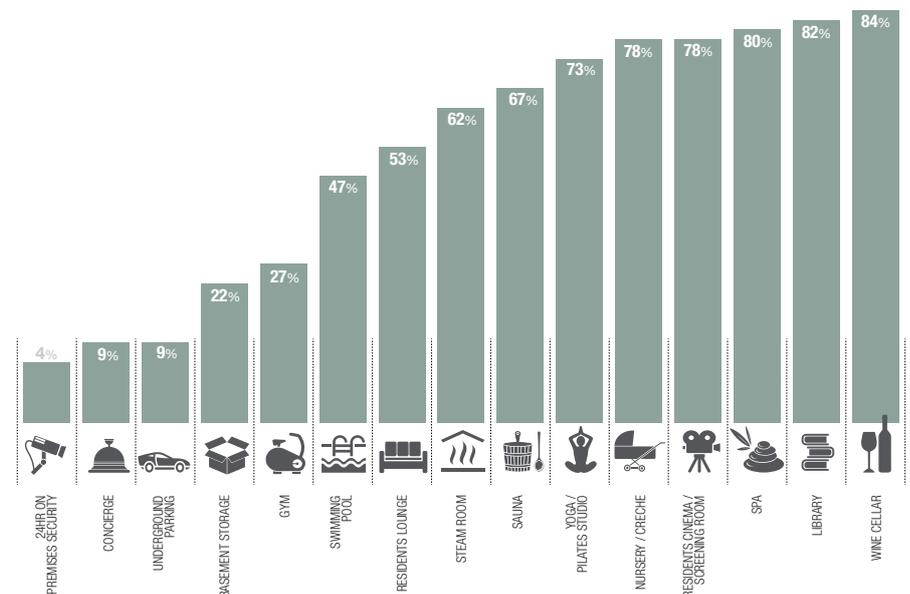


Source: Knight Frank

FIGURE 11

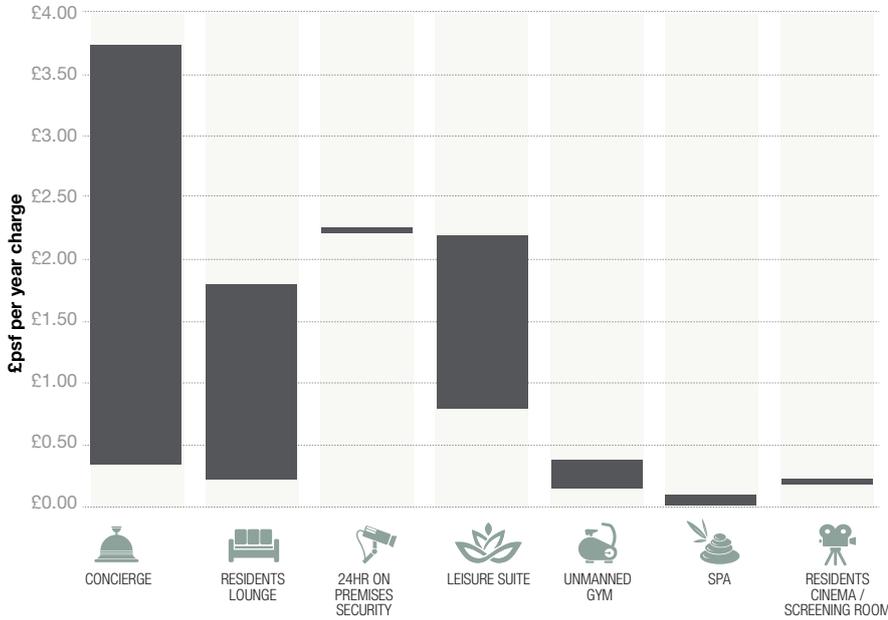
Which of these amenities would you forego to reduce your service charge?

Percentage of respondents willing to forego specific amenities.



Source: Knight Frank

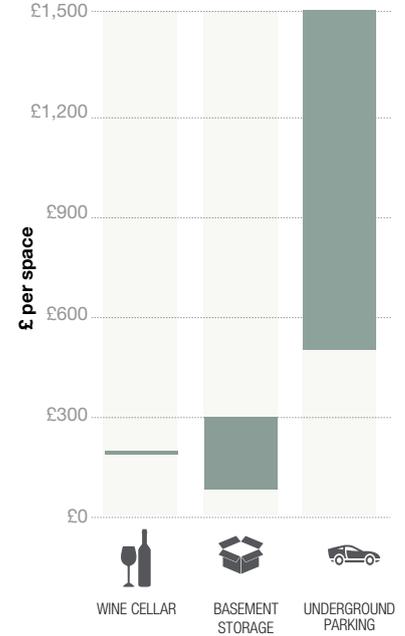
FIGURE 12
Simplified service charge
 Minimum and maximum charge



Source: Knight Frank

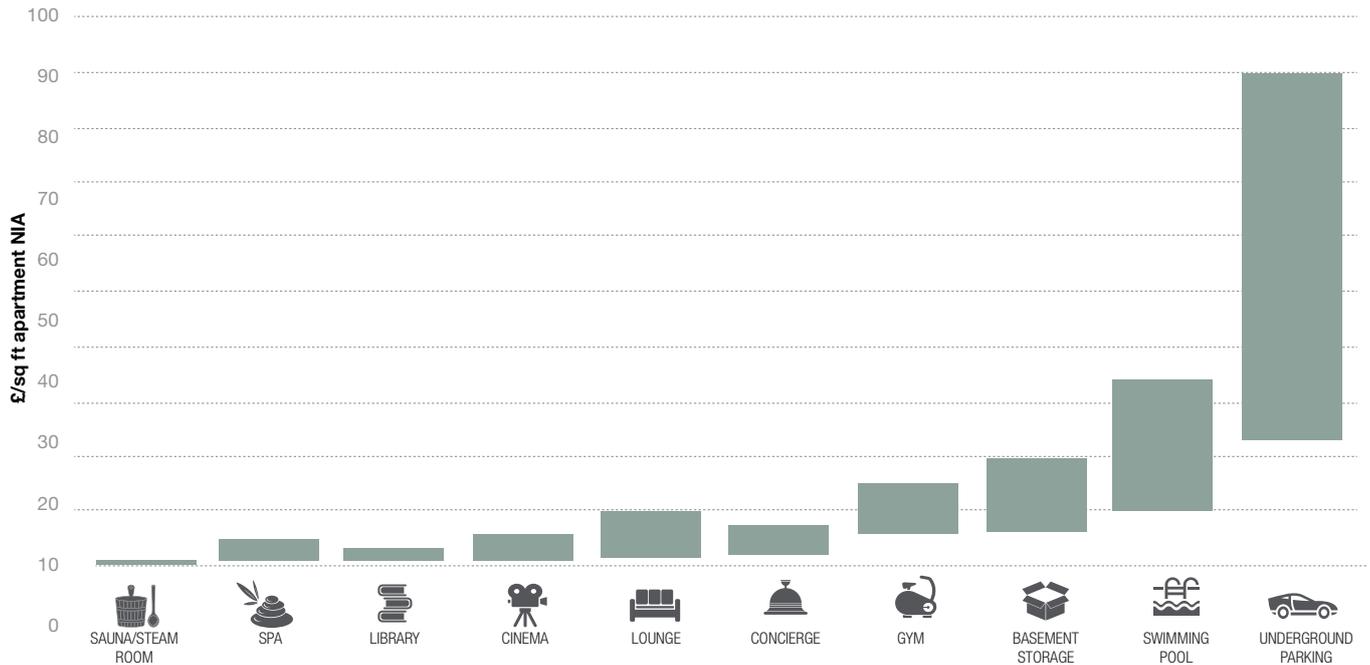
Note: psft costs based on a 100 unit block where each unit is 900 sq ft. Storage rooms and car parking spaces are charged on a per room/space basis. The spread of costs refers to the difference between the minimum and maximum charge, quality of equipment or level of service. Leisure suite includes pool, gym, sauna, steam, jacuzzi and treatment room.

FIGURE 13
Annual per space charge
 Minimum and maximum charge



Source: Knight Frank

FIGURE 14
Build cost of providing additional amenity space
 Minimum and maximum cost



Source: Core Five

Note: costs expressed as the additional cost to the development on a £/sqft apartment NIA basis. No adjustment made in this for potential loss of saleable NIA to amenity space.

SECTION 3: PROCUREMENT

Contractors’ appetite for residential development has returned and spare capacity is increasing, yet upwards pressure on the cost of construction materials and labour remains strong. Engaging with appropriate contractors, in an intelligent manner, at the right time, will help to secure the best possible tender price for a scheme.

A two tier market

Some residential developers paused for breath during 2016, helping to ease constraints on contractors’ delivery capacity – at least in the market for relatively straightforward projects with a construction value of up to £50m. Capacity and capability to deliver these projects is broad and the risks associated with delivery tend to be manageable. Competition in this tranche of the market has intensified and contractors’ price position has softened.

The market for large, complex, residential projects remains busy. Delivery capacity is limited to a small proportion of teams within a handful of organisations. Risks associated with delivering these schemes are numerous and wide-ranging.

With capacity returning more slowly, and exchange rate volatility, raw materials price inflation and shortages of skilled labour driving up the cost of building, contractors’ tender prices for major schemes continue to rise. A two tier market has emerged.

Responses to a recent contractor survey carried out by Core Five demonstrate that, generally, changes in input costs feeding into the construction process are only a small consideration in contractors’ pricing decisions. In addition, pricing decisions take account of risk, relationships and broader market conditions.

Procurement routes

Research by Core Five highlighted that two stage design and build tends to be the most common procurement approach on residential projects, particularly for larger and more complex projects. For lower value, more straightforward projects we are seeing a resurgence of single stage tendering, allowing effective risk transfer. For this to be a success it typically requires a robust set of design information, and careful pre-qualification / warm-up process to ensure that appropriate contractors are selected.

Exchange rates

Up to 35% of the total construction cost of a high end residential development

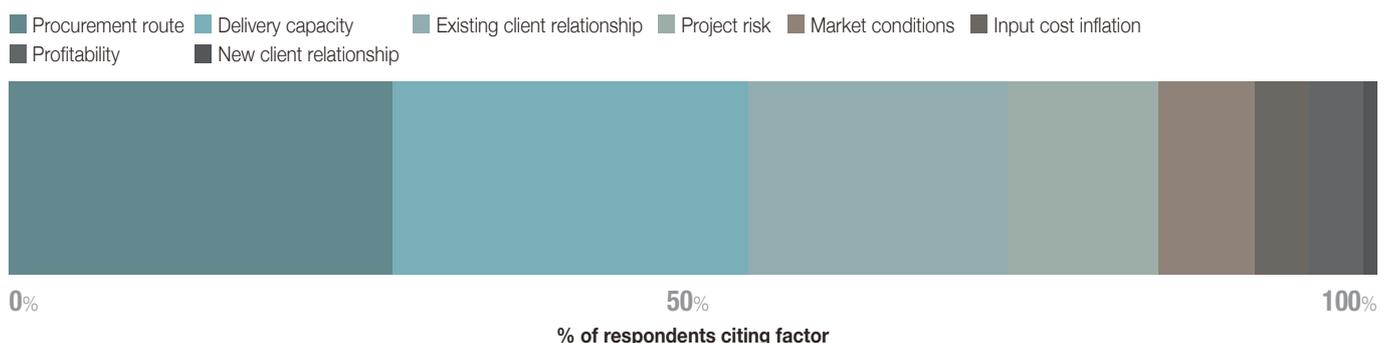
is at risk of being exposed to exchange rate fluctuations. Facades and MEP equipment are typically sourced from Europe, in addition to high end fixtures, fittings and furnishings. Our analysis suggest that a 10% movement in Sterling can often move a scheme’s construction cost by between 2% and 4%. The fit out element of a project will typically be exposed to greater currency risk than the shell of a building.

Exchange rate risk can be managed in many different ways. Domestic sourcing, where viable, is desirable, although it is important to understand the capacity and capability of the domestic supply chain. Building in maximum flexibility, empowering a contractor to select the most appropriate option at the appropriate time, can often prove beneficial but careful drafting of design criteria is vital.

The desire to transfer this risk to the contractor, at the earliest opportunity, can be strong but this can be a false economy. Attempts to unfairly transfer unmanageable risks are often subject to punitive pricing.

FIGURE 15

Factors influencing contractors’ tender pricing decisions



Source: Core Five

SECTION 4: DESIGN

Optimising internal layouts is critical to making spaces as useable as possible. Optimisation adds significant value and saleability without necessarily increasing cost.

“The market has become more product-led... developers have had to focus increasingly hard on the quality of their building.”

Critical to the design process is the relationship between spaces. This includes circulation areas, the shape and dimensions of rooms, window and door positioning, kitchen layouts, storage, and what architects and designers refer to as ‘the flow’ of apartments. Ceiling heights are also likely to play a role here.

A balance is needed to ensure there is no friction between design, structure, services integration, grid and habitability. Finding the right balance between these components is a prerequisite to ensuring product quality, as well as adding to the desirability of an apartment to prospective purchasers.

The designs below and on the page opposite highlight the impact of design on function.

MSMR Architects has taken a series of layouts from actual one and two-bedroom flats and redrawn them to show how a relatively simple redesign can materially improve the quality of the accommodation. Both the ‘before’ and ‘after’ layouts are included, alongside a short commentary. It’s worth noting that all layouts require sprinklers.

In all cases, the re-imagined floorplans open up the entrance lobbies, allow for greater natural light and create a bigger and more open central living area.

The changes are designed to maximise the space on offer whilst ensuring that the apartments are as practical and livable as possible.

Example 1

One bedroom single aspect – standard layout

In this example there is single access via the lobby to the bathroom. The master bedroom does not have an en-suite and has to access the bathroom via the kitchen.

The kitchen is too large for a one bed flat and makes the entrance to the living area feel small.

One bedroom single aspect – optimised layout

Following the redesign, the entrance lobby is a more open space with direct sight lines to the window on the back wall of the living room allowing for more natural light.

A walk-in wardrobe in the bedroom makes better use of the space. It also allows for a sliding door into the bathroom so there are two points of entry, allowing it to function as an en-suite.



Example 2

Two bedroom single aspect – standard layout

In this example the entrance lobby is small and has a narrow opening into the living area. The kitchen run is overbearing. The secondary bathroom is too far away from the second bedroom which, in turn, has no storage. The master bathroom is oversized for the apartment and attempts to separate the WC and shower, resulting in an awkward layout for the bath and sink.

Two bedroom single aspect – optimised layout

The improved layout of the entrance will allow for more natural light. The kitchen is partially screened with a space for a breakfast bar.

The central living area feels more open. Bedroom 2 now has storage space, while the master bedroom has space for a walk-in wardrobe. The guest bathroom can be accessed without entering a bedroom, and can also be used as an en-suite to Bedroom 2.



Example 3

Two bedroom double aspect – standard layout

The entrance space feels small with a narrow opening into the living area. The kitchen run is overbearing in a relatively small space and is on direct view as you enter the apartment.

Both bedrooms have dedicated en-suite bathrooms requiring a separate cloakroom to be provided. Bedroom 2 is oversized, as is Bathroom 2.

Two bedroom double aspect – optimised layout

The layout of the entrance provides direct sight lines to the windows. The kitchen has space for a breakfast bar and is partially screened. The central living area feels bigger and more open.

Bedroom 1 has a walk-in wardrobe and an en-suite. Bedroom 2 has an en-suite bathroom that can be accessed without entering the bedroom, removing the need for a separate cloakroom.





60%

of respondents favoured an apartment with a private balcony



20%

of respondents favoured an apartment with a winter garden

Outdoor amenity space

Equally as important as internal layout, is the provision of outdoor amenity space.

The London Housing Design Guide sets out a minimum standard for outdoor space, requiring that at least 5 square metres of private outdoor space is provided for 1-2 person dwellings with an extra square metre for each additional occupant.

There are a number of different methods for meeting these guidelines and assessing the optimum solution for specific projects involves balancing a number of factors.

In high-rise buildings, outdoor amenity space is typically provided through balconies or winter gardens.

Balconies can be independent structures 'bolted-on' to the frame of a building, or recessed areas that are inset within a buildings' perimeter. A winter garden, in contrast, is an enclosed space typically featuring a high amount of floor-to-ceiling glazing which can be used all year round.

Winter gardens can be insulated or un-insulated and, if the former, are typically heated and cooled in the same fashion as the rest of the accommodation.

According to the results of our survey, some 60% of respondents favour an apartment with a private balcony, with a winter garden their second choice.

From a development perspective, balconies tend to be more cost efficient to build than winter gardens, although there is a distinction to be made as to which form of balcony or winter garden is provided. We have examined this in more detail below and opposite.

There are a number of factors to consider and it is rarely a decision made solely on cost. Given the importance of the amenity strategy to the user experience, the planning process, the visual appearance of the building and costs, the approach to outdoor amenity provision must be set early in a project lifecycle.

FIGURE 16

Additional build cost compared with a standard bolt on balcony



Source: Core Five



BOLT-ON BALCONY

Least expensive option, also simplest to construct



INSET BALCONY

Can be either cold roof flush with a thermal break or warm roof flush with insulation



WINTER GARDEN – Insulated

Inside thermal line of facade



WINTER GARDEN – Non Insulated

Outside thermal line of facade

NOTES:

Page 5 - adding ceiling height

Indicative construction cost only for purposes of comparison. Excludes fees, contingencies & VAT. Includes main contractor preliminaries and OH&P. 2017 Q1 prices. Based on typical wall to floor and net to gross ratios. Individual buildings can vary depending on characteristics. Excludes impact on internal walls, MEP etc as this is typically minor in comparison. Again, this depends on individual project characteristics. Assumes additional height can be achieved within any applicable planning restrictions.

Pages 10-11 - additional build costs for balcony types

Costs include main contractor preliminaries and OH&P. Cost for each option based on a fixed balcony area of 5m². Costs quoted at 2017 Q1 prices. Cost inclusive of structural support, floor finish, perimeter balustrade/solid fascia/external façade as appropriate, drainage and heating/cooling where applicable. Balcony door and lighting solution assumed to be constant across all options. Winter garden within thermal line assumes heating and cooled off apartment provisions – not separate FCU.

Page 12 - build cost of providing additional amenity space

Indicative construction costs (shell and core plus fit out) only exclude fees, contingencies, VAT etc. Inclusive of preliminaries and OH&P. 2017 Q1 prices.

Page 13 - fit out cost range by value

Costs are fit out construction costs only, inclusive of main contractor preliminaries and OHP but any excluding shell and core construction costs and all fees, contingencies, VAT etc. Note costs are for a 'typical' 2 bedroom apartment only for comparison, different unit sizes and mixes may also affect overall £/sq.ft costs. Standard apartment sizes have been assumed across different sales values to explore the like-for-like impact of typical specification changes as targeted sales values rise. In reality, it is likely that apartment size will generally increase as higher sales values are targeted. Comparison of construction costs, on a per square foot basis, across different price points can be misleading and tailored, like for like, benchmarking against comparable schemes is strongly advisable. Costs quoted in 2017 Q1 prices. Analysis based on MSMR optimised 2-bed layout.

Page 14 - specification uplift by price bands

Note the above tracks all the cost uplifts of the specification uplift to provide a true comparison, including impacts on central plant (e.g. for comfort cooling), although in reality some of these will normally be covered in the shell and core costs rather than fit out. Including main contractor preliminaries and OH&P. Costs quoted in 2017 Q1 prices. Analysis relates specifically to MSMR's 2 bedroom apartment layout and is purely indicative. In reality, unit mix and apartment sizes will influence the relative magnitude of cost drivers across a scheme and tailored benchmarking is advisable.

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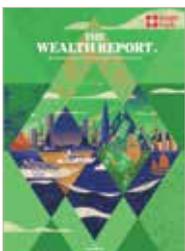
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