REAL ESTATE STRATEGIES

# The case for a securitised real estate exchange platform for single commercial property assets

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Data. Analysis. Strategy.

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# 1. Introduction

The investment industry fulfils two basic functions. Firstly, it brings together investors holding capital with managers able to profitably deploy that capital. Secondly, it provides a market where investors can transact with one another.

The means by which the real estate industry fulfils these two functions has been fashioned by events over a long period of time: the decline of endowment funds and defined benefit (DB) pension schemes, the rise of defined contribution (DC) pension schemes, the passing of legislation to create REITs, changes to tax laws to create ISAs, the use of limited partnerships and other structures to create new vehicles, the rising importance of cross-border investment etc.

Throughout this process the industry has responded to changes in the wider financial market to deliver practical fund solutions to investors based on the technology, legislation and regulation existing at that time.

Whilst the industry focus on portfolios has delivered diversification, it has also diluted a key attraction of real estate to investors: the sense of ownership. The focus on funds has inevitably also created conflicts between the manager and the investor when the incentive to build funds under management has impacted the portfolio characteristics.

An individual property exchange removes these conflicts, allowing investors to construct their own portfolios, based on their own views for individual locations, buildings and occupiers, to meet their specific investment goals. These returns may not just be financial but also environmental, to create a more sustainable urban environment.

This would also free asset managers from other considerations to use the exchange to raise capital directly from a growing pool of wealthy sophisticated investors to fund their skills in delivering strong returns.

This report invites the reader to think of this industry as it could be, not as it is now, to remove frictions, costs and conflicts in connecting investors with managers.

## 2. *What types of property are commercial real estate (CRE)?*

CRE includes office buildings, shops, restaurants, pubs, offices, hotels and industrial warehouses.

With a value of £935 billion (Tony Key, Alex Moss; Russel Chaplain; Vickie Law, 2018), CRE represents 11% of the UK built environment, which has a total value of almost £8.8 trillion. Privately rented and owner occupied residential property dominate the built environment with a value of £7.6 trillion, over eight times greater than the value of CRE.

Figure 1: Total stock of UK property[1]

| | Value, £bn |
|---|---|
| Commercial real estate | 935 |
| Other Non-residential buildings | 165 |
| Private rented residential | 1,190 |
| Other residential | 6,498 |
| **Total built environment** | **8,788** |

Out of the total value of £935bn, £509bn of UK CRE was held by investors as opposed to owner occupied. Student accommodation and the nascent purpose-built residential sector are a small, but relatively fast growing, element of residential stock held by investors.

Figure 2: Investible stock[1]

| | Value, £bn |
|---|---|
| Invested market | 509 |
| Owner occupied | 426 |
| **Commercial real estate** | **935** |
| Invested private rented residential | 32 |
| Invested student accommodation | 17 |

The predominant UK investors are insurance companies, investment funds, property companies and pension funds. Overseas investors now account for an estimated £152bn of the £509bn.

Figure 3: Commercial invested market by owner type[1]

| | Value, £bn |
|---|---|
| **UK Investors** | |
| Insurance Direct & Funds | 42 |
| Pension Funds | 42 |
| Unlisted & Collective Schemes | 83 |
| Listed Companies & REITs | 73 |
| Private Companies | 58 |
| Estates & Charities | 23 |
| Private Investors | 14 |
| Other Owners | 22 |
| **Sub-total** | **357** |
| **Overseas investors** | |
| Unlisted & Collective Schemes | 52 |
| SWF & Government | 29 |
| Private Companies & Individuals | 26 |
| Listed Companies & REITs | 14 |
| Insurance & Pension Funds | 12 |
| Other Owners | 18 |
| **Sub-total** | **152** |
| **Total** | **509** |

[1] Source: The Size & Structure of the UK Property Market, end 2017, IPF

Traditionally, retail, office and industrial property formed nearly the entirety of investor portfolios. In recent years investors have increased their holdings of 'other' property with 20% of investment volumes since 2000[2] targeting hotels, student accommodation, leisure, healthcare, pubs and motor showrooms.

Figure 4: Commercial invested market by market segment[1]

| | Value, £bn | *% of total* |
|---|---|---|
| **Retail** | **175** | ***34*** |
| Standard Retail – South East | 51 | *10* |
| Standard Retail – Rest of UK | 21 | *4* |
| Shopping Centre | 57 | *11* |
| Retail Warehouse | 46 | *9* |
| | | |
| **Office** | **215** | ***45*** |
| City | 63 | *12* |
| West End, Mid Town | 79 | *15* |
| Rest of South East | 53 | *10* |
| Rest UK | 20 | *4* |
| | | |
| **Industrial** | **69** | ***14*** |
| South East | 44 | *9* |
| Rest UK | 25 | *5* |
| | | |
| **Other Commercial** | **50** | ***10*** |
| | | |
| **Total** | **509** | ***100*** |

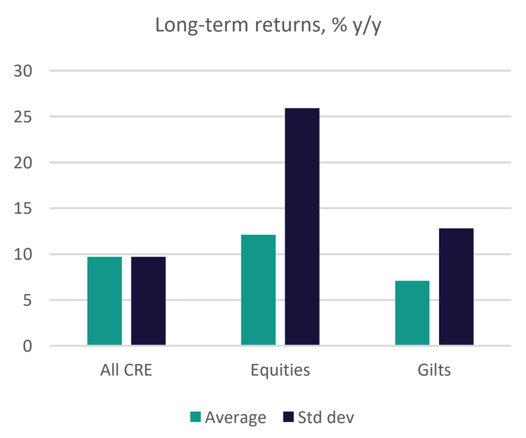
## 3. *What have been the return characteristics from CRE?*

CRE investments have delivered strong long-term returns which have averaged 9.7% y/y since 1950 with a volatility also of 9.7%[3].

Most of the return has been comprised of income, 5.9% y/y, versus capital growth of 3.7% y/y.

Over the same period equity returns have averaged 12.1% y/y with a volatility of 25.9% and bond returns have average 7.1% y/y with a volatility of 12.8%.

Figure 5 Asset class returns, 1950-2017, % y/y[3]




[2] Source: Property Archive
[3] Barclays Equity Gilt Study, MSCI, WM, FTSE

The suspiciously low volatility of CRE returns when compared to equities and bonds is due to the smoothing[4] of property value movements by the use of appraisal valuations rather than traded prices as for listed assets.

Adjusting the volatility estimate, or 'de-smoothing' the CRE return series, increases volatility by a factor of around 1.5x (Tony Key and Gianluca Marcato, 2007).

The de-smoothed volatility estimate fits the risk return characteristics of CRE neatly between that of bonds and equities, as befitting an investment that is predominantly like a bond but with some equity upside.

## *4. What are the benefits of CRE in a multi-asset portfolio?*

Investors hold real estate not just for return but also for the diversification benefit it brings in a multi-asset portfolio.

The benefit of adding CRE to a multi-asset portfolio is either to reduce risk while delivering the same return or to increase return at the same level of risk.

The lower the correlation between CRE and other asset classes the greater the diversification benefits, with +100% correlation offering no diversification benefit in a portfolio and -100% removing return volatility altogether.

The track record of CRE since 1950 shows that it is a true third asset class with a correlation to equities of 28% and 12% to bonds[5].

Estimates of the optimal allocation of real estate to add to a portfolio of equities and bonds can reach as high as 20% (Lee & Stevenson, 2004). The lower the investor's risk tolerance and longer investment horizons, the higher the optimal allocation to CRE.

[4] Valuation-based performance measurement of property tends to underestimate market peaks and troughs
[5] Barclays Equity Gilt Study, MSCI, WM, FTSE

### 5. *CRE gives private investors a sense of ownership*

Many private investors allocate a more significant proportion of their wealth to real estate than institutional investors or that suggested by an optimal portfolio.

According to the Wealth Report from Knight Frank, the global average asset allocation by 'Ultra High Net Worth' investors to real estate was 24% and a Tiger 21 survey of high-net-worth investors representing $51bn in assets showed that they had an average of 33% of their portfolios in private real estate investments.

The attraction of CRE to private investors is partly driven by the sense of ownership provided by a tangible asset.

This sense of ownership is generated by the physical nature of real estate, allowing investors to literally see the success of their investment: the vibrancy of the location, the success of the occupiers and the condition of the building.

Increasing investors are also focussed on the social impact of their investments. In real estate the connection is very direct, impacting climate change, affordability of housing, congestion, accessibility and the health and wellbeing of occupiers.

### 6. *CRE also provides the chance to anticipate what properties are going to perform most strongly*

Investors can not only relate to the locations and specification of a physical property and its sustainability but also contemplate the impacts of major trends such as the effect of:

- multi-channel retailing on the high street;
- changing working patterns on offices, or;
- automation, artificial intelligence and driverless cars on shape of cities.

These trends are often topical and debated by a wide range of people in varying occupations, from students to architects and from shoppers to investment bankers.

This understanding creates a vast pool of potential investors in CRE.

Many investors are also likely to have developed skills in a particular area of the economy and wish to exploit their skills in identifying market opportunities in CRE – increasing their chance of out-performing the professional investors in the real estate industry.

## 7. *Private investors can observe the key metrics*

In considering the prospects for any asset class, investors need to understand the key metrics.

In many asset classes these metrics are complex and hard to observe – the report and accounts for Carillion, Patisserie Valerie or a life insurance company for example.

The demand and supply metrics driving CRE returns in each sector are transparent and potentially easily observed, such as:

- occupier activity;
- take up;
- developments under construction, and;
- vacancy rates.

The availability of the key metrics feed-back into the sense of ownership and their simplicity adds to the sense of predictability of the asset class.

## 8. *CRE investments can cater for all tastes*

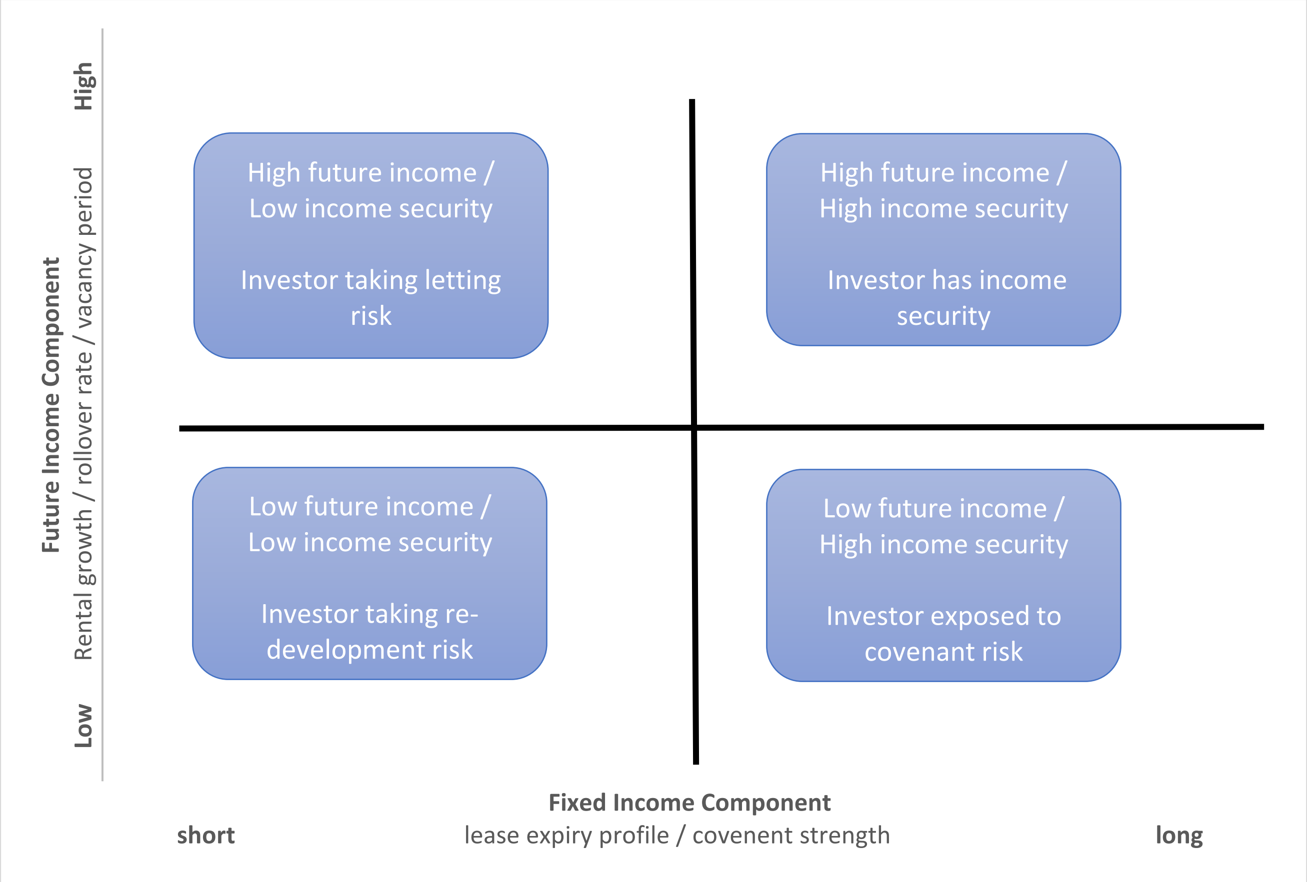
As a tangible asset CRE assets change their investment characteristics over their functional life:

- Initial development incurs the risk of cost or time over-runs with possibly very high or very low returns depending on market conditions upon completion;
- once let, a new building can deliver secure income with the prospect of rental growth;
- as the building ages the investor is exposed to reletting risk and the requirement for periodic refurbishment, thus completing the life cycle;
- development options increase in value as the standing building value depreciates.

CRE investments can therefore be selected to cater for all tastes:

- passive "core" low risk investors who want predictable income and relatively stable returns;
- more active investors taking leasing or refurbishment risk, and;
- private equity style investors who want higher returns through active management and development.

Figure 6 Growth versus fixed income component of return




CRE asset characteristics do not stay in the same category over time. A portfolio manager aiming to maintain a constant style therefore requires regular transactions to rebalance the portfolio and avoid a 'drift' in the balance of risks in the portfolio away from the intended style.

Regardless of portfolio style, the amount of leverage used in financing the asset can dominate all other risk metrics (Baum & Farrelly, 2009).

Leverage adds more risk: amplifying returns when assets perform well, but working in reverse when asset performance is weak.

It is therefore crucial that investors understand the amount of leverage used in any CRE investment and that in a highly leveraged scenario this could lead to substantial loss.

## 9. *Search costs for investors and asset managers*

The tangible nature of CRE property and the importance of expert management to maximise returns from an expensive and complex asset creates the need for investors to seek managers to meet their investment goals and managers to seek capital to monetarise their skills.

To meet their investment goals CRE investors need to:

- seek out buildings which meet their specific investment goals;
- have the ability to monitor changing property characteristics;
- be able to construct and change bundles of assets (fractionalise) in a portfolio in response to the changing characteristics of the properties;
- have the ability to monitor performance;
- be able to identify the best managers for their assets, and;
- incentivise managers to manage the asset most effectively.

To monetarise their skills in CRE, asset managers need to:

- construct a vehicle to hold assets;
- transact in the direct market, and;
- secure finance – both equity and debt.

Each of these activities is time consuming, costly in fees and has a high risk of abortive expenditure

## 10. *Collective investment schemes*

The solution offered by managers to HNW individuals to access CRE is through collective investment schemes. These vehicles provide an exposure to CRE through the purchase of a share in a large pool of properties.

Collective investment schemes also provide a mechanism for investors to exit their investment at a quoted price without the need to sell an asset in the direct market.

Collective investment vehicles come in two principal forms:

1. Unlisted vehicles can be either companies or trusts, open-ended or closed-ended and geared or un-geared.
2. Listed property companies are traded on exchange like other UK FTSE equities and subject to the listing rules of the London Stock Exchange (LSE).

## 11. Collective investment schemes create principal-agent problems

Unlisted vehicles and listed property companies can therefore meet investor requirements for a diversified pool of assets but they also dilute the attractions of direct ownership.

Private investors have no influence over strategy, property selection, asset management or financing in a co-investment vehicle - infringing on one of the key attractions of CRE to private investors.

The lack of investor control over the actions of the fund manager can create conflict when managers are motivated to act in their own best interests versus those of investors.

In particular portfolios can be subject to 'style drift' as a result of:

- the manager accommodating new investments into the fund and acquiring new properties that no longer meet the stated investment profile of the fund, or;
- the fund becoming unbalanced due to redemptions and the need to sell quickly for a price that does not reflect the true value.

Information asymmetry exacerbates the problem with managers releasing less than full information on the risk characteristics of the fund.

The distribution rules of REITs may also force a higher distribution of income and lower retention of capital for investment into held assets than justified by market conditions and desired by the investor.

Timing of capital into and out of the market can also be counter to investor preferences. For example the investor may prefer the return of capital after a property sale rather than re-investment in a different asset basket.

## 12. The application of technology ('fintech') to CRE investment

Investors at a scale and level of knowledge to construct and adjust their own portfolio of equities or private equity holdings can't do the same in CRE where they face added layers of fees, loss of control and loss of information.

What is needed is to strip CRE investment of search costs, time frictions and fees.

An investor is then able to construct a portfolio from properties with the desired characteristics and manager to monitor this investment and buy or sell to control their exposure when characteristics no longer meet their requirements.

New technology applied to CRE can achieve this through:

a. asset level securitisation;
b. a trading platform, and;
c. timely, comprehensive information flows.

Asset level securitisation will allow investors to both construct portfolios with exposures to multiple properties but also create the preferred portfolio structure in terms of asset allocation and style. The managers of each of the properties will be experts in that particular property type and for undertaking the particular activities and thus capable of delivering the maximum return.

The trading platform will allow the portfolio structure to be rotated to maintain the desired style without the underlying properties having to be sold.

The information flows will provide the ability to view property and asset business plan details before and during hold period, allowing investor to determine if project fits their investment criteria and adds diversification to their portfolio.

Asset level securitisation would not be expected to replace collective investment schemes but be complementary, allowing indirect funds, property companies and individual properties to be combined together to meet private investor requirements.

Choice is key and the opportunity for investors to scale up or scale down their exposure to individual properties, funds or companies when pricing looks more or less attractive.

Investment decisions should therefore be driven by current pricing.

## *13. How is CRE priced?*

CRE shares the physical characteristics with residential property but differs in that the value is dependent on the cash flow and not the value for owner-occupation.

The value of that cash flow depends on the growth prospects for the income stream less the costs of maintaining that income stream.

The price, or cap rate, of real estate can therefore be described relative to that of a bond[6]:

Cap rate =

- bond yield
- *plus* a risk premium
- *plus* the irrecoverable revenue costs[7] and vacancies
- *less* the rental growth prospects
- *plus* the capital costs[8]

Re-arranging: cap rate - irrecoverable revenue costs – vacancies + growth - capital costs =

bond yield + risk premium

Or, for simplicity: expected return = required return

An investor should acquire real estate (up to their maximum long-term allocation weight) if they estimate that the future expected return is greater than their required return. If it is less than their required return then pricing is too high to deliver them a sufficient return to compensate them for the risk taken and they should reduce their holdings (with a floor to their optimal allocation).

Both required and expected returns differ from investor to investor as expectations for future returns are unique and each investor has their own risk tolerance and investment horizon.

[6] *The growth prospects of real estate tend to track inflation over the very long-term. Arguably real estate should therefore be priced against real (inflation linked) bond yields..*
[7] *The cost incurred by the owner for administering a property, including rent reviews and lease renewals, but excluding portfolio management costs.*
[8] *Expenditure on refurbishment of the property*

## 14. Expected return

The return that investors expect to achieve depends on their independent expectations for future growth and costs.

Expected return =

*Current yield*

*– expected irrecoverable costs*

*– expected vacancies*

*+ expected rental growth*

*– expected capital costs*

Rental growth has tended to be a little above or below the general rate of inflation. Since 1980 retail rental values have grown at a rate 0.5% y/y higher than inflation with office and industrial rental values growing at a real rate of -0.6% and -0.8% y/y respectively.

Estimates of future expected growth can be based on the relationship between past levels of growth and demand and supply (econometric forecasting).

Irrecoverable costs in the UK tends to be low, <5%, when tenants are responsible for repairs but can be much higher for poor quality property let on short leases.

Capital costs to maintain the property in lettable condition are significant. The capital costs to maintain the rental values have averaged 1.0% y/y of capital value from 1980-2017[9] and nearly double that rate for capital intensive formats like shopping centres.

Historic levels for costs and previous relationships between growth and economic variables should form only a foundation for future expectations due to continuous structural changes in both the economy and property market.

An example of how new technology can drive a structural shift can be seen in the retail sector which has disrupted the historical link between consumer spending, high street sales and retail rental value growth.

[9] *Source, MSCI*

## 15. Required return

The required rate of return is the minimum return an investor requires to compensate them for the risk taken.

A premium return from CRE over bonds is required to compensate investors for the higher volatility, lower liquidity[10] and lower transparency[11] of real estate.

Required return =

bond yield

+ liquidity premium

+ transparency premium

+ volatility premium

Estimates put the required return premium for CRE over bonds at around 250 basis points (Baum, 2009), although this figure will vary from investor to investor.

Investors with long term horizons, for example sovereign wealth funds, typically have less need for liquidity and therefore have a lower required return when compared to those with shorter horizons.

## 16. The importance of asset management

Real estate is a physical asset requiring expert skills to ensure delivery of the maximum return by:

1. minimising vacancies;
2. minimising irrecoverable costs;
3. maximising rental growth, and;
4. executing effective maintenance to minimise capital costs.

In addition to these four components, return is also driven by value-adding management activities such as change of use or redevelopment.

5. spotting opportunities for adding value.

Superior management translates into extra return either through higher occupancy, lower costs, higher rental growth or added value activities,

Some of these activities incur no extra risk (leaving the required return unaltered) like obtaining planning permission for change of use or implementing a more effective lettings process.

Some active management, like refurbishment or redevelopment, incur the risk of a much wider range in expected outcomes. A large component of this higher risk is linked to the strength of the occupier and investment market, with higher returns if the market is strong (known in Modern Portfolio Theory as high beta[12]).

[10] *the speed and time taken to convert an investment into cash*
[11] *the degree of uncertainty in current pricing*
[12]

Asset and property managers employ a range of organisational and operational skills to deliver higher returns. Specialist managers, with a particular skill set, such as shopping centre development, would select properties to most benefit from that particular skill set.

Alternatively, managers may use superior market knowledge or research to acquire properties that achieve higher returns.

Whatever the driver, the return outcomes for individual properties are highly variable. A portfolio diversifies these individual property variations (specific risk[13]) to reduce the uncertainty of investor return.

A diversified portfolio will still benefit from superior management skills through a higher portfolio return but the volatility of portfolio return will be reduced closer to market risk[14].

## 17. The importance of building a portfolio

Individual CRE properties are pretty sizeable, few investment grade office buildings are available for less than £5m, and high-quality shopping centres are out of the reach of all but the very largest owners.

The return on a portfolio holding of only a small number of properties will be heavily dependent on the specific performance of the individual properties and less so the pattern of returns of the CRE market as a whole.

Portfolio diversification works by reducing the portfolio exposure to:

1. particular lease expiry/break dates and tenants, which is diversified with a spread of leases/tenants, and to;
2. individual segments, defined by broad property type, broad region and quality (driving rental growth, vacancy periods, rollover rates and new lease terms), which is diversified by a spread of portfolio exposure across different segments.

In other words, investors can diversify their specific risks by holding a spread of fixed income exposures and diversify their market risk by holding a spread of properties across market segments.

Asset allocation tilts the portfolio in two directions:

1. towards the risk-return characteristics of overweight segments and away from underweight segments, and;
2. towards higher or lower fixed income exposure.

Even a well-diversified portfolio will inevitably still have a higher exposure to particular towns, building size, lease expiry dates etc.

These ‘concentration’ risks drive the residual specific risk in a portfolio.

Investors must therefore monitor their portfolio in real time for portfolio concentrations to individual tenants, and bunches of lease expiry dates (undiversified specific risk) which will emerge periodically as leases expire and new leases are signed.

[13] *Specific risk is also referred to as “unsystematic risk” or “diversifiable risk.”*
[14] *Market risk or is also referred to as “systematic risk”*

### 18. *Conclusion*

What private investors require is the ability to construct portfolios of properties across a spectrum of expected risks and return objectives generated from different markets, property types, building condition, occupancy and approaches to management.

Real estate professional are then freed to exercise, and be rewarded for, their core skills in choosing and running buildings.

Fintech can deliver this through securitisation at the asset level, accompanied by transparency on key building metrics, cutting out:

- frictions;
- costs, and;
- conflicts.

Such a fintech platform would be complementary to existing forms of CRE investment, such as unlisted funds, listed securities and directly held property, forming part of the holdings of high-net-worth investors.

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