



HARDMAN & CO.



International Property Securities Exchange

The first regulated property exchange in the world –
reimagining real estate investing

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IPSX Group



IPSX provides a public market option for real estate owners that delivers access to the widest possible investor base with transparency, liquidity and real-time public market pricing. IPSX is the first regulated exchange dedicated to companies owning and managing single commercial real estate assets.

IPSX Group

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IPSX GROUP

A regulated exchange like no other

This is the first and only regulated securities exchange – anywhere in the world – dedicated entirely to real estate. It will be the venue for investors to trade shares in single-asset-owning real estate companies, or multi-asset real estate companies where there is commonality in the assets. For simplicity, we refer in this document to single-asset real estate companies as SARCs. The unique benefits of SARCs are increased transparency and cost efficiency, in contrast to wider-ranging REITs (Real Estate Investment Trusts). IPSX has explicit and robust requirements of issuers as regards initial and ongoing disclosure, as well as transparency and board governance. Investors and issuers will be excited by the new opportunity that IPSX will provide. In short, IPSX reimagines real estate investing.

- ▶ **The reassurance of a Recognised Investment Exchange:** The Financial Conduct Authority (FCA) approved IPSX in January 2019 after a long process that included examination of IPSX's infrastructure, trading and settlement processes, and outsourced partners.
- ▶ **Wide appeal:** The fractional ownership of 'quasi-direct property' through IPSX will attract the widest range of investors, e.g. retail investors will be able to access what is effectively a new asset class. Family offices have a clear preference for direct property ownership. Institutional investors will value the chance not just to consider a wider pool of assets, but also to use SARCS as part of a strategy to improve liquidity in Open Ended Investment Companies (OEICs).
- ▶ **Secure assets:** IPSX quoted companies will own completed, fully-let, long-lease real estate developments, providing a secure income, as well as an opportunity, for capital growth. A minimum of 25% of the shares will be available to new investors, and gearing will be capped at 40% on listing.
- ▶ **Low operating costs:** By focusing on single assets or multiple assets with commonality, SARCS should have very low running costs.
- ▶ **Low transaction costs and faster completions:** Deals in the direct property market can take six months to complete and incur substantial costs (Stamp Duty Land Tax alone can be 5%). IPSX offers investors exposure to proxies for direct property at a fraction of the cost and with completion in a matter of days.
- ▶ **Investors appreciate focused real estate:** While even well-regarded generalist REITs can trade at wide discounts to Net Asset Value (NAV), market appetite for specialist REITs means that their share prices currently trade at a small premium, on average. SARCS will enable investors to take this focus even further.
- ▶ **Liquidity and low correlation:** By bringing to the table investors with differing strategies and time horizons, IPSX should see strong levels of liquidity. We argue that, given the nature of some likely investors on IPSX, SARCS may have even lower correlations to other assets than existing property – another attraction for some investors.
- ▶ **An attractive venue for issuers:** IPSX will generate wide interest among issuers. Just one example illustrates this: we might see generalist REITs 'spin off' part ownership of an asset to demonstrate to the market that they deserve a smaller discount to NAV.

Executive summary

A global first...

...the first real estate-dedicated exchange
in the world

Who IPSX is for: institutions across the
board, OEICs are only one small (but
interesting) part of the potential market?

IPsx transforms the real estate
investment proposition for retail investors

50% of UK commercial real estate is
owner-occupied. Many asset-backed
operators may benefit.

Reimagining real estate

The International Property Stock Exchange (IPsx) is a regulated market for trading shares in the issuer/company owning and managing single buildings or homogeneous discrete collections of real estate. On 9 January 2019, IPSX became one of only seven markets with recognised status in the United Kingdom with the FCA (the others are the London Stock Exchange, NEX Exchange, Euronext London, the London Metal Exchange, ICE Futures Europe and CBOE Europe Equities Regulated Market).

Although there are more than 250 stock exchanges in the world, IPSX is the first real estate-dedicated stock exchange. IPSX single-asset real estate companies (SARCs) will hold a single asset or multiple assets with commonality. Of course, other exchanges provide share trading venues for real estate shares, but the new IPSX trading platform will give capital markets real time prices for SARCs. This is one of many revolutionary benefits – reimagining real estate.

Who will benefit from IPSX?

- ▶ **Institutional investors** will benefit, for a number of reasons. For example, OEICs (Open Ended Investment Companies) can hold some assets in IPSX companies and thus improve their liquidity. Instead of having to market a building through agents or suffer the price uncertainty of an auction sale, the IPSX route enables them progressively to sell part shareholdings in SARCs at a publicly quoted share price into a liquid market. For daily traded retail funds, this should be invaluable.
- ▶ **Retail investors** will get exposure to a proxy for direct investment in property by selecting an exact asset/building held in a SARC. Transaction costs are low, and fractional stakes in several shares spread risk, if required. At the moment, this is well beyond the reach of all but the wealthiest of retail investors, who currently must buy funds with the risk of NAV discounts. Even if they could buy the underlying building directly, high costs of purchase would require a long period of ownership (to amortise those costs over a number of years). Among the costs is Stamp Duty. Share purchases on IPSX will be subject to a 0.5% tax charge, while acquisitions of direct property attract Stamp Duty Land Tax (STLD) of up to 5%.
- ▶ **Family Offices** investors, when surveyed, state a preference for investing in physical property. SARCs are the closest public market proxy for direct ownership of a single asset.
- ▶ **REITs trading at a discount to NAV** can, through IPSX, choose to float single assets on IPSX. This option has the benefit of strengthening the REIT's balance sheet and potentially helping to close a large discount to NAV, as well as adding flexibility to the REIT on its balance sheet.
- ▶ **Owner occupiers**, for example hotel chains or other long-term operators using buildings, can use IPSX to sell down the asset more efficiently, with the opportunity to retain an economic interest and adjust the size of that interest over time. This may be attractive compared with full disposal the "traditional" way.
- ▶ **Developers** and, indeed, any vendors are likely to anticipate that having the ability to float an asset, while retaining an economic interest through holding

Cash drag is a major problem in the industry – IPSX solves this

The major benefits of focus on 1) a SARC-only exchange and 2) all SARCs being single assets

Optimal cost efficiency and optimal transparency are only available via IPSX

No “mission creep” ...

...no IPO cash deployment risk

The share price issue: clear existing evidence that investors seek an IPSX-type focus

shares in the SARC, will both reduce risk and achieve a price that may assist eventual disposal of the asset.

- ▶ **Investment companies** specialising in real estate can reduce cash drag when raising new equity by temporarily investing in IPSX SARCs, while they wait for appropriate direct investments to complete. The low transaction costs of IPSX-traded assets will be particularly attractive.
- ▶ **New indices:** IPSX plans, in time, to create indices as it expands. These will drive creation of funds, channelling investment, and increasing share liquidity and IPSX revenue.

The revolutionary benefits of single-asset-owning real estate companies

The structure of IPSX issuers will have the following benefits.

- ▶ **Running-cost efficiency:** We anticipate the cost ratios of IPSX SARCs may be materially below those of the best-in-class REITs quoted on other markets. Simply put, this is because these are simple structures.
- ▶ **Detailed information:** Each SARC will have a detailed independent update on valuation and risks, twice a year. The data for each asset will not be “lost” or at least diluted through being part of a wide range of varied assets in a “traditional” REIT. As a regulated exchange, all investors have the comfort of duly mandated processes of publication of information – democratisation, if you will.
- ▶ **Transparency:** The two categories above make the SARC transparent (what it says is what it exactly is), so investors cut out a host of risks apparent when investing in broader REITs. It is easier to value the IPSX traded company’s building than a private market building – a live price says what the asset is worth to the market.
- ▶ **No mission creep:** A SARC side-steps the risk in a generalist issuer altering its asset exposures away from any given investor’s initial share purchase decision.
- ▶ **No cash-deployment risk at IPO:** IPOs will involve the flotation of a SARC that already holds the asset rather than cash. At IPO, many REITs hold some cash that is yet to be deployed.

The multiple benefits of tight asset focus

Hardman & Co has calculated that the average (market capitalisation-weighted) share price premium to NAV for focused REITs is currently 3%¹. This provides a clear message that the rating to NAV for focused REITs in a single asset class is much lower. With IPSX SARCs being even more focused, the evidence points to IPSX shares trading at small discounts to NAV, if any.

¹ Hardman & Co insight “Secure income” REITs’ 22 March 2019

IPsx SARCs should have low correlation to non-property equities

Investors often buy property because they perceive there is a low correlation with equity and bond markets. IPSX SARCs should prove to have even lower correlations and lower volatility because many investors on IPSX will be dedicated property investors, not constantly weighing up property against other sectors or even bonds. In efficient markets, the lower the volatility, the smaller should be the discount rate applied to future income streams.

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There are not just one or two reasons for private investors to participate...

...but many

IPSX efficiencies drive multiple attractions

Other benefits of IPSX

Attribute	Comment
Transparency of data	IPSX will require six-monthly valuations, in addition to financial and other periodic company data.
Information asymmetry may benefit	There is a "fighting chance" an investor will have deep expertise in the locality where investment is made.
Quantified "pick and mix"	The retail investor may find funds begin trading that have a transparent and quantified stock-picking screening process.
A sense of ownership	These are not "high-frequency trade" shareholdings.
Liquidity	Market-making, plus two auctions per trading day.
Diverse risk spread	Exposure can be through a diversity of SARCs.
Income flow	SARCs (at IPO) must be stabilised assets.
Cost efficiency 1)	We anticipate management fee structures will be efficient.
Cost efficiency 2)	Cost of debt will be at efficient "corporate" margins over LIBOR.
Tax efficiency	The REITs regime is designed to encourage tax-efficient investment, and this is unlikely to change under evolving/different political regimes.
Governance	Each SARC will have a Board of Directors.

Source: Hardman & Co Research

The REIT market is not broken, but it is fraying

IPSX releases the true potential of these new structures

Addressing a £900bn conundrum

The estimated valuation of UK commercial real estate assets is £900bn³, yet investors and owners still struggle to answer the question "what are these assets really worth?" *Property Week* recently described this as a "Cinderella moment" for industry⁴.

The aim of this document is to demonstrate how IPSX cuts through this conundrum. IPSX, uniquely, will provide greater price clarity on individual SARC values (which act as a proxy for underlying asset values) by displaying live prices at which investors can deal. This obviates the difficulty of valuing baskets of assets from which most quoted property businesses suffer.

³ Investment Property Forum 2017

⁴ *Property Week*, 5 April 2019: <https://www.propertyweek.com/insight/cinderella-moment-for-industry/5102452.article>

REIMAGINING INVESTMENT IN REAL ESTATE

This segment of the document explores IPSX's appeal to investors and a variety of stakeholders. The range is extensive.

- ▶ The IPSX (single-asset-owning real estate company) SARC's focus on managing single assets or multiple assets with commonality and the cost efficiencies stem from its unique characteristic. IPSX should lead to better asset allocation and asset price discovery.
- ▶ IPSX opens new opportunities for investing in SARC's, which are the closest public market proxy for direct ownership of commercial real estate. Currently, several hurdles are in place for most potential commercial real estate investors.
- ▶ There are specific benefits applicable to a wide range of investor classes – from institutional to retail, including family offices, OEICs and others.
- ▶ The role of IPSX real estate in portfolios includes a range of tightly defined strategies.
- ▶ IPSX is a Recognised Investment Exchange. The fact that it is regulated leads to a series of benefits, including governance and security.
- ▶ Liquidity is an important factor, and we analyse the potential scenarios in this report. Shares can be sold at any time during trading hours. Transactions are never dependent on finding a matching investor, because of the duty placed on market makers to make trading prices at all times, during trading hours.
- ▶ IPSX has many benefits for different types of issuers. These include speed of issuance, dual-track options for disposals, the requirements of owner-occupiers, and a series of attributes that stem from cost efficiencies, transparency and other factors.
- ▶ Real estate owned through IPSX places the asset in a management company structured around long-term ownership. This brings benefits such as stewardship, placemaking and a series of environmental and governance benefits. Placemaking is a combination of planning and design. It also comprises the management and ownership structures in which co-ordinated decisions can be actioned, in order to create strong communities. Placemaking thus capitalises on a local community's potential, which aligns the concept with stewardship of an asset to maximise community benefits. A more direct connection between owners and assets is promoted by the nature of IPSX's SARC structure.

Why IPSX will appeal to investors

Existing market share prices show the need to reimagine the real estate investment market

In recent years, it has become common for larger REITs with portfolios of mixed assets to trade at large discounts to NAV, while smaller REITs, focused on one class of asset, typically trade on far smaller discounts, or even premia. IPSX, with single-asset SARC, takes this theme a stage further.

Commonly-held larger REITs, such as British Land, Capital & Counties, Capital & Regional, Derwent London, Great Portland and Landsec, trade at discounts ranging from 17% (Great Portland) to 42% (British Land). Clearly, some investors struggle to understand the valuation of these REITs, or distrust the NAV.

Recent UK investor appetite has been focused on REITs that invest in single asset-classes. Share price ratings and fund raises confirm this. The number of asset-class specialist REITs on the London Stock Exchange has grown considerably in recent years⁵. Hardman & Co estimates that more than £1.2bn has been raised by such specialist REITs in the past 24 months alone. IPSX precisely fits this trend, taking the desire for tightly defined asset-class investing to its logical conclusion of, potentially, a single building.

A wide discount for the general REITs – single-asset focus, trading at a premium, is the winner

On average, the share prices of these highly asset-sector-defined REITs trade at a small premium to NAV, namely 3% (weighted mean) and 2% (median). The table below points, in evidence, to two types of such tightly asset-class-focused REITs trading on the London Stock Exchange. Primary Health Properties' sole asset class is primary medical assets, and it trades at a 29% premium to historical NAV (Assura, in the same sector, trades at a 20% premium). Other specialists predominantly trade at share prices clustered around historical NAV.

Asset-focused REITs trade at much firmer share prices than general SARC

Recent share price % premium to NAV SARC and type of asset held

29.0	Primary Health Properties (PHP): tightly focused on UK primary medical assets
4.0	Supermarket REIT (SUPR): tightly focused on UK supermarket assets
-38.0	Landsec (LAND): a general, large UK REIT

Prices as of 3 June 2019. Source: Hardman & Co Research

Transparency drives down unforeseen risks and costs

Transparency (tempered only by commercial sensitivity) is essential for efficient investment in real estate. A dedicated exchange facilitates improved transparency:

Simple...

- ▶ by being a venue focused on issuers managing single-asset, or multiple-asset with commonality;

...simple...

- ▶ by prescribing periodic asset valuations with a basic "template" for comparable data reporting;

...modest...

- ▶ by focusing on issuers with reduced running costs, by virtue of the simple operating model (the difference between rent and net cashflow should prove to be clear and modest); and

...and clear

⁵ See Hardman & Co research: *Secure income REITs*, published on 22 March 2019.

Portfolio Managers' benefits

Low correlation with other assets...

Portfolio managers seek out assets that are uncorrelated to others, or have a low correlation.

Low correlation over a sustained period of time...

Property, in general, as an asset class is attractive to portfolio managers because, historically, it has a low correlation with other assets. Holding property assets in portfolios moves the boundary of risk and reward in a positive way.

It has been estimated that, since 1950, real estate correlation with equities was only 28% and with gilts 12%⁶. Of the YoY returns from real estate between 1950 and 2017, 5.9% came from income, with 3.7% from capital return. These returns were not only relatively uncorrelated with, but at the same time more consistent than, those from equities and gilts.

IPSX-traded securities may prove to have an even lower correlation to equities and gilts than other exchange-traded property assets by virtue of the fact that many investors on the exchange will be running real estate-only-dedicated asset pools. This contrasts with real estate assets quoted on traditional exchanges where many or most investors are constantly comparing property assets with other sectors, and switching between them.

...combined with lower volatility...

Trading via a stock exchange dedicated to real estate stands a strong chance of reducing equity "noise" – i.e. share price volatility. Volatility can be caused in markets by investors switching between different types of assets – for example, equities to corporate bonds, retailers to tobacco stocks, or property stocks to housebuilders. If IPSX appeals to investors who tend to focus on one asset class – real estate – this may mean that shares quoted on IPSX have lower volatility.

If it transpires that IPSX-traded shares have a lower volatility, then investors will accept a lower discount rate, making future returns more valuable.

...and lower transaction costs

IPSX enables investors to invest in specific assets at a much lower transaction cost than they would incur if they bought the asset directly. The SARC itself buys and holds the asset. The shareholders in the SARC can buy or sell their shares in a liquid market, enabling the investor to change or refine tack not only for less, but far more quickly than would be involved in dealing in the underlying asset.

...allowing investors to build an efficient portfolio

What you see is what you get

Investors in IPSX securities get what they see – exposure to a particular asset or assets.

Data, reports, structure

They can back their own judgement and don't have to rely upon the investment decisions of a board of directors, which might move the shares' investment drivers from those exhibited at the time the shareholder bought in. Data disclosure on investment and ESG attributes of IPSX SARCs will be designed to be useful in easily comparing SARCs in the portfolio on a standardised set of criteria, as well as monitoring the evolution of the asset within that SARC.

⁶ Source: Real Estate Strategies study – quoted by IPSX

IPSX has a clear template for IPOs

IPO onwards

At IPO, a number of fixed criteria will be required of the issuer, including:

1. a management company to hold and manage the asset(s), with effective governance and management arrangements in place which demonstrate the strategic decision-making capability of the company;
2. a free float of at least 25%;
3. a stabilised asset structure (i.e. rental streams will be in place and of reasonable forward durability);
4. each SARC will comprise homogeneous and discrete assets, which may include:
 - a. a single asset; or
 - b. multiple assets with commonality, examples of which would be:
 - i. one estate with relatively homogenous planning permission use category; or
 - ii. a single type of asset class across a broad geography.
5. a valuation report at IPO and twice-yearly thereafter, in addition to financial statements;
6. the most appropriate level of data disclosure on tenants and leases will be posted regularly to maximise transparency, subject to commercial sensitivity;
7. other ad hoc and periodic regulatory disclosures will be the same as any REIT admitted to trading on a UK exchange or Multilateral Trading Facility;

The asset is held in the company long term

This variety in the “eco-system”, i.e. different classes of investor, combines to provide market liquidity, while also ensuring the asset is owned by the SARC for the long term and is subject to investment decisions applied to that long-term horizon. Typically, a SARC is not anticipated to sell – during the life of the SARC – the asset that it is created to own.

Investors benefit via pricing

IPSX shares should track NAVs more closely

IPSX should track underlying asset values of property much more closely

We have already observed and illustrated that SARCs should have a strong role within larger portfolios, that role being the optimisation of un-correlated assets’ volatility and return. If the prices of IPSX traded shares prove to be more closely tied to NAV than property assets quoted on other markets, this will be a benefit to both investors and the traded companies. The detailed inputs required of IPSX companies should help achieve this. All the factors above should result in SARCs that are less volatile, less correlated to other major asset classes, efficient to run and hold, and valued on income streams based on discounted future cashflow (DCF), rather than NAV.

Step-change in cost efficiency

Our EPRA cost estimate on IPSX (a Hardman & Co estimate) is sub 10%, which is below existing best-in-class

We believe that IPSX SARCs might be able to achieve EPRA cost ratios (broadly the ratio of net overheads to gross rental income – see Glossary in this report for more detail) as low as 10%, or even less – the larger the asset, the lower the cost ratio

should be. This would be substantially below the cost ratios of REITs quoted on other exchanges.

To compare the likely IPSX cost ratios with what is currently available, we look at two of the more efficient existing REITs. One is efficient primarily because it is large – British Land has significant economies of scale – and the other because it is straightforward – PHP’s sphere of investment is restricted to primary medical assets, i.e. GP surgeries.

British Land has low costs: 16.9% EPRA ratio in 2018....

British Land is a high-quality benchmark of “general-purpose” REITs. It recorded a 2018 EPRA cost ratio of 16.9%, or 14.9% excluding vacancy costs. This is among the most efficient in the quoted REIT sector, benefiting from good governance, sheer scale of the total asset base and large-sized assets.

..... PHP low too: 14.3% in 2018

Among specialist SARC is PHP, with a £1.5bn market capitalisation. Its EPRA cost ratio last reported was 14.3% in 2018, having reached as low as 11.5% in 2016. Hardman & Co anticipates that many IPSX-traded SARC might be able to achieve EPRA cost ratios in the range of 6% to the lower end of the PHP figure, namely 11.5%. How? Well, a SARC or REIT with a rental yield of a relatively modest 4.0% and a fee structure based on 0.2% of net assets p.a. would have an EPRA cost ratio of 5% if (unrealistically) there were no direct property expenses. Other fees (audit, valuation, directors) might add a small number of percentage points. (Please note, this is a Hardman & Co estimate and has not been endorsed by IPSX.)

Direct property expenses would be the same in whatever company the asset was held. Such expenses might realistically boost the EPRA cost ratio to, say, 10% at the medium-sized segment of anticipated assets quoted on IPSX. We emphasise that Hardman & Co is in no way suggesting a benchmark, either of the fee structure or the types of cost ratios, but we would be disappointed if this were not a low-cost way to invest in property assets.

One drawback, though

One last point needs to be made on portfolio efficiency. A SARC, being a single asset, has obvious concentration risk. CFA Society-provided data regarding correlation and tracking error (2014) indicates that it takes 86 properties to reduce tracking error in London offices to 2%. Owning 86 single-asset SARCs is more possible for an institutional investor than the retail investor. Even so, for an institution, IPSX represents a low-cost and manageable way to create an efficient portfolio.

In summary

IPSX-traded companies will offer investors:

Reduction in costs is an essential catalyst to other benefits

- ▶ low operation costs – it is noteworthy that EPRA cost ratios might well fall to below half those for many generalist REITs;
- ▶ elimination of management strategy “mission creep” compared to a generalist REIT or REIT subject to more active management possibly a reduction or elimination, or even a reversal of share price discounts to NAV; and
- ▶ low correlation with other assets.

IPSX might lead to better capital allocation

Better data

A huge £900bn-plus market, better understood...

- ▶ Individual IPSX SARC real-time share prices will help anchor the pricing of assets and complement a valuer's professional best efforts. Indeed, market price formation may be systemically changed by the presence of IPSX – this may inform how the whole commercial real estate market is valued.
- ▶ Publicly quoted real estate in the UK has traditionally been valued by stock market investors against a reported NAV of the shares. IPSX, by raising focus on the share price and hence diluting the focus on the NAV, may play its part in pointing investors away from NAV and towards discounting future income returns to guide investment decisions.

...via the share price...

- ▶ Data on share prices, on buildings' characteristics and performance attributes bring opportunities to better understand the whole property market.

...and on building performance improvements

- ▶ Data to help on ESG issues and social impact investing.

- ▶ Data sets help hone performance expectations (trading returns over time), and thus might be used increasingly for LDI (liability-driven investment).

In conclusion, each of these sets of data help allocate capital more efficiently.

The structure promotes asset stewardship

Buildings for the people

A structure of single-asset companies, or companies holding multiple assets with commonality, is likely promote local interest, benefiting social companies (Registered Providers – RPs – in the housing market, for example), local authorities, local people and local organisations. Through IPSX-traded companies, stakeholders can take a stake in their locality.

Stewardship is fostered by "buy and hold"

By definition, the structure of each IPSX SARC is to buy and hold a single asset, or multiple assets with commonality. This is not an investment company that buys and sells a variety of assets. The SARC already holds an identified asset or assets when it comes to market. The way to create "alpha" is to make the building better and its tenants happier.

A dedicated real estate stock exchange opens new opportunities for investors

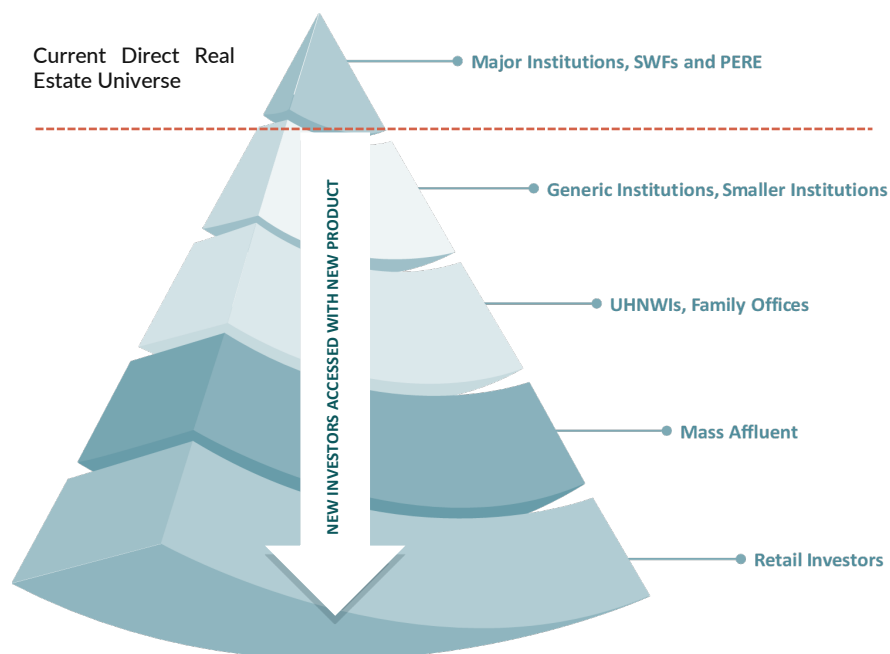
The current investment options (pre-IPSX) are limited and exclusive

Only a small number of major institutions, sovereign wealth funds and private equity real estate funds can access commercial real estate directly through the purchase of direct physical assets. Other investors must rely on quoted property companies, quoted and private funds, and OEICs, where, as well as making a judgement on an asset or asset class, they need to take a view on the manager of their assets and their ability to switch between assets successfully.

Investor categories

Direct exposure to real estate is only an option for those with a very large “lot” size

By number, IPSX is for the many, not the few



*For acronym definitions, please refer to Glossary. Not to scale.
Source: IPSX*

The illustration above demonstrates the way in which a vastly wider range of investors will be able to gain, effectively, direct access to assets via IPSX. IPSX's focus on commercial real estate, the operation of a MIFID regulated market, which enables retail investment, and the built-in low cost of acquiring shares relative to direct investment in commercial real estate are the foundations to the proposition – this opens the door to a variety of investor types.

Different types of investors

Different types of investors are a good thing

Having a variety of investors attracted to IPSX is good for liquidity and the flow of funds. Different investors bring a variety of quantum and timing of cashflows, and multiple time horizons. This will provide resilience in times of stress.

Investing in commercial real estate comes with a varied list of opportunities and costs. Those costs revolve around illiquidity, excessive concentration by location or type (with several options only realistically available for residential letting) and cost

inefficiencies in running the assets. Part of the contribution to illiquidity and cost is the SDLT, payable on purchase. SDLT paid by commercial real estate totals ca.£3bn (albeit this is much below VAT payable on rent, at £5bn, and occupiers paying business rates of ca.£20bn).

Retail investors

The current investment options for retail investors

The current investment options open to investors seeking to invest in real estate are wide-ranging, yet exhibit a number of intrinsic drawbacks. Below, we outline the main types and their difficulties.

Retail investor base: current investment options

Options	Comment
Open-ended funds	Illiquid when liquidity is needed; most asset type/quality "creep"; not optimising tax efficiency.
Buy to let direct	Tax inefficient; time-intensive/significant running costs; only residential; permanently illiquid; significant entry costs.
Unquoted "micro-REITs"	Lack of transparency; residential; no long-term track record.
Direct commercial investment	Large lot size; significant risk of long void periods; for "professionals"; debt financing very difficult; illiquid.
Quoted real estate shares	Liquid; information asymmetry; mismatch to asset performance.
Crowd funding	Illiquid; no long-term track record.

Source: Hardman & Co Research

Current options have drawbacks

The REIT environment provides a framework for quoted real estate stocks, but a single-asset REIT or SARC is structurally different. An IPSX SARC should be a closer share price match to the asset performance than a general REIT (whose assets may change significantly over time). While this seems intuitively correct and has been empirically demonstrably correct over the past year, different academic studies have reached varied conclusions for the long term.

Academic studies

This is not to say that current options are all bad. IPSX optimises the choices open to investors; it does not replace an irretrievable model. We note, for example, that Ling and Naranjo in 2012 calculated that a typical unleveraged SARC outperformed the direct property market by 46 bps from 2Q 1994 to 4Q 2010⁷.

The advantages of IPSX to retail investors

We anticipate IPSX will be welcoming to retail investors. The single-asset component is the key to it all.

Not only will IPSX offer retail investors an alternative way to participate in the returns from property assets, but they are likely to be encouraged to be involved. IPSX is keen to see the involvement of retail investors in book building for its IPOs and, it is believed, is keen to encourage retail participation via several platforms. It is also thought that widely distributed research will form part of the package to ensure a level playing field for retail involvement.

There are, we consider, numerous and significant further benefits from securing exposure to real estate for retail investors through fractional shareholding in SARCs dealt on IPSX (see table overleaf).

⁷ Quoted in an article by Alex Moss in the CFA Journal in 2013/14

A significant diversity of benefits

Retail investor base: IPSX investment options

Characteristic/attribute	Comment
Transparency of data	IPSEX will require six-monthly valuations, in addition to financial and other periodic company reporting.
Information asymmetry	There is a "fighting chance" an investor will have deep expertise in the locality where investment is made.
Quantified "pick and mix"	The retail investor may find funds begin trading that have a transparent and quantified stock-picking screening process.
A sense of ownership	These are not "high-frequency trade" shareholdings.
Liquidity	Market-making, plus two auctions per trading day.
Diverse risk spread	Exposure can be through a diversity of SARCs.
Income flow	SARCs (at IPO) must be stabilised assets.
Cost efficiency 1)	We anticipate management fee structures will be efficient.
Cost efficiency 2)	Cost of debt will be at efficient "corporate" margins over LIBOR.
Tax efficiency	The REITs regime is designed to encourage tax-efficient investment, and this is unlikely to change under evolving/different political regimes.
Governance	Each SARC will have a board of directors.

Source: Hardman & Co Research

Retail and IPOs

The retail investors may decide on their own stock selection strategy, or they may find funds begin trading that have a transparent and quantified stock-picking screening process.

Institutional investors

In addition to the benefits outlined above, many of which apply equally to retail and other investors, institutional investors will have additional reasons to consider investing in IPSX-traded stocks. For institutions, there are a number of benefits not available elsewhere. The table below lists only some.

Institutional investor base: IPSX investment benefits

Attribute	Comment
Transparency of data	IPSEX will require six-monthly valuations, in addition to financial and other periodic company reporting.
Low costs	We anticipate EPRA cost ratios will be below those of larger, generalist, REITs.
A sense of ownership	The institution can create and benefit from asset "stewardship".
Reputation	Institutions who operate open-ended real estate funds run reputational risks if they need to "gate" those funds. IPSX directly addresses that.
Quantified "pick and mix"	Institutions can add value and fees by creating open-ended funds investing in liquid, transparent real estate positions.
Liquidity, diversity, income, cost and tax efficiencies, governance	All attributes as per table above.

Source: Hardman & Co Research

Institutions will often wish to be seen as long-term investors in the asset – a sense of stewardship

Institutions running OEIC structures have issues to address – see following section

An important additional benefit for investment institutions managing funds is the ability, over time, to launch products where third parties (be they retail, family offices or other investors) can invest in certain, predetermined criteria via SARCs dealt on the IPSX. Clearly, the greater the number of SARCs traded on IPSX, and the wider variety of types of assets, the more attractive this becomes. The data recommended or mandated by IPSX could form the basis of customised filtering for investor characteristics determined by the ultimate investor. Those filters could comprise locations, or asset types, or net initial yields, or various or a whole range of investor criteria.

Open-ended funds, by their nature, are subject to monies coming in or going out on a day-by-day basis

Liquidity for managers of open-ended funds is cash-based liquidity...

...sometimes the cash runs out

Difficulties can be experienced even when the market as a whole is relatively benign

In 2016, significant problems were encountered

OEICs/PAIFs

OEICs are open-ended investment companies, and some invest in commercial real estate on behalf of holders (usually retail investors) of units (or shares) in the fund. The number of units rises and falls as investors put money in, or take money out (as cashed-in units). PAIFs are targeted on property, i.e. real estate. PAIFs, while similar to OEICs, enjoy a more favourable tax treatment – similar to REITs. Clearly, one characteristic of these funds is that the invested money can be added to or withdrawn by investors, leading directly to an expansion or a shrinkage of funds available to be invested in the real estate. A liquidity “buffer” is needed, as a result. There have been three recent episodes where the liquidity buffer proved to be only partially successful against significant sums being withdrawn by investors in these collective funds.

In the period from the start of 2007 to the start of 2010, such funds lost 35% of their valuation⁸ and, during this period, many fund managers restricted unit redemptions.

Perhaps both more surprising and more instructive, there have been occasions when collective investments have had to suspend withdrawals, even without any particular bearish trends in the wider real estate market. On 5 July 2013, Brandeaux, the property fund manager, suspended all eight of its funds after experiencing higher redemption requests and liquidity problems. As stated in the *Financial Times*: “The company, which manages the £1bn Student Accommodation Fund, an open-ended property fund, on Monday said it would no longer accept new subscriptions or redemption requests. The suspension includes Brandeaux’s range of ground rent funds. It blamed the move on the uncertainty in the student accommodation market, stating that there is a considerable “overhang” of UK purpose-built student properties. Brandeaux said it was in discussions on various property transactions to create liquidity for investors. This includes selling about 80% of the ground rent portfolio by value. In a letter, Roger Boyland, chief executive of Brandeaux, told investors not to panic. ‘The Brandeaux funds are all performing positively, and own hard assets represented by high-quality UK property. There is no basis for investors to ‘panic’ or to worry that they have ‘lost all their money’.” Indeed, investors in Brandeaux Funds did, in due course, receive, in cash, sums that could be considered to bear a fair reflection of the underlying fund assets (a Hardman & Co assessment). This episode – while being fairly concentrated in nature, does, we believe, show how these funds have built-in tensions.

In early July 2016, the sector as a whole suffered cashflow strains as a direct result of the unexpected Referendum result regarding the future status of the UK in the EU.

Standard Life Investments announced that it had (temporarily) suspended trading in its Standard Life Investments UK Real Estate fund (and its associated feeder funds) due to “exceptional market circumstances”. The strategy alone had assets under management of £2.9bn. A statement by Standard Life confirmed: “The suspension was requested to protect the interests of all investors in the fund and to avoid compromising investment returns from the range, mix and quality of assets within the portfolio.” Aviva Investors temporarily suspended trading on the £1.9bn Aviva Investors Property unit trust because “the extraordinary market circumstances, which are impacting the wider industry” led to a lack of sufficient liquidity. M&G gated (i.e. severely restricted daily individual redemptions of) its M&G Property Portfolio. This lack of liquidity to cope with exceptional circumstances brings a number of issues. The main one is the suspension of trading. Another is how to find the correct price for the funds. There is an argument that the funds may have

⁸ FE Trustnet

exacerbated the problem by not marking down units in line with REIT prices, giving investors an extra incentive to redeem units.

The FCA has been concerned that these vehicles do not work well in a crisis and may stop investors taking their money out in stressed economic circumstances. If some of the funds were held in IPSX-traded stocks, it should be easier to meet demands for disinvestment.

Using SARCs, the liquidity is no longer cash...it is replaced by real estate liquidity...

...so, no cash drag, no asset mis-match

Open-ended investor base: IPSX investment options

Attribute	Comment
Transparency of data	See page 45.
Liquidity 1)	Market-making, plus two auctions per trading day
Liquidity 2)	Open-ended funds currently suffer from "cash drag". Unless various synthetic investment styles are used, cash has to be held at all times to act as a buffer against unit redemptions.
Reputation	Gating (to reduce or suspend redemptions) or moving between bid and offer basis (to reduce redemptions) harms reputations.
Diverse risk spread	Exposure can be through a diversity of SARCs.
Income flow	SARCs (at IPO) must be stabilised assets.
Cost efficiency	A fund holding a "conventional" SARC would have been subject to two sets of fees, but an IPSX's single-asset company fees are likely not to be accretive.
No cash drag	Cash liquidity is replaced by liquidity via real estate IPSX assets.
Liquidity – governance	All attributes as per table above, page 16.

Source: Hardman & Co Research

For all these reasons, OEICs currently are drawn down the route of cash-based liquidity buffers. This is, at best, a cash drag, and, at worst, an asset mismatch, as investors invest in OEICs to have money in real estate. Cash drag equates to the impact that an investment company will suffer, by holding some of its assets as cash – thus not fully matching the performance of the real estate asset class in which it is designed to invest. There is an inefficiency: a "drag". To mitigate this, OEICs could buy "mainstream" REITs, as those investments would be a closer match than cash would be, but there are major hurdles. Existing REITs' ERPA costs open OEICs to accusations of charging fees on top of fees.

No fee-related conflict of interest

An OEIC might choose to securitise one of its assets. By securitising it, the OEIC could sell down its holding rapidly, were it to need to raise liquidity quickly. The liquidity issue is positively addressed, and there is no fee issue. Where it continues to be the asset manager of the underlying asset, it is not "paying" fees away; rather, the wider OEIC is just continuing to earn the same fees on the underlying asset that it would if it were unlisted. This is a large issue – PAIFs/real estate OEICs in the UK total ca.£20bn funds invested.

A large (£20bn) issue that needs addressing

Family offices

Family offices have a stated affinity for investing in physical property. In a recent survey of European family offices, 79% stated this preference – for physical assets – and a significant number also wanted the ability to check a secure legal title (30%)⁹. In short, family offices welcome the tangible nature of the asset.

⁹ Survey by UBS and Campden Wealth

A sense of ownership, but with a market price

These preferences are reflected in European family office asset allocation. On average, 50% of their assets are invested in alternatives (private equity, hedge funds and real estate), with commercial real estate amounting to 23% of the total (17% of which is held directly)¹⁰. This reflects the European culture of seeking wealth protection, rather than the growth strategies more prevalent in the US and Asia. When these family offices enter into direct, co-investing deals with professional managers, the allocation to real estate rises to 60%.

Family office investor base: IPSX investment options

Attribute	Comment
Transparency of data	The market price gives a transparent valuation.
Liquidity 1)	Market-making, plus two auctions per trading day.
Liquidity 2)	The ability to drive investment through desired investment "style" characteristics and not the "drifting" characteristics of the asset.
Reputation	Stewardship, a sense of ownership and the SARC's ability to benefit from long-term asset management opportunities.
Touching the underlying asset	Prefer tangible assets.
Diverse risk spread	Exposure can be through a diversity of SARCs.
Liquidity – governance	All attributes as per table page 16.

Source: Hardman & Co Research

Attractive though investment in direct property is to family offices, even large family offices are subject to illiquidity and high transaction costs, along with the issues surrounding the securing of the finest of terms on debt finance. IPSX solves this.

Companies/investment trusts

Cash drag remains a significant problem here too...

Traditional REITs themselves often suffer cash drag post an equity raise during the fund deployment process. This can negatively affect NAV, in that a significant portion of the assets may initially be held in cash. This will certainly affect income, and hence dividend cover. IPSX-traded SARCs might solve this problem. Non-IPSX-traded REITs could become temporary investors in IPSX-traded stocks, while they secure opportunities to deploy their funds, so long as IPSX offers a trading platform with characteristics that suit them. Clearly, transaction costs on IPSX would need to be low, and liquidity high.

...which IPSX addresses directly

Of course, a fund in rundown can use IPSX stocks in the same way. As the end of its term approaches, it can sell direct assets and temporarily redeploy the cash in an IPSX stock, without suffering the crunching of income that would result if it held the money in the bank. When it is ready to return money to investors, it just sells its IPSX holdings.

SARCs and corporate investor base: IPSX investment options

Attribute	Comment
Transparency of data	See page 45.
Diverse risk spread	Exposure can be through a diversity of SARCs targeted to the investment mandate of the investing SARC.
Low transaction cost	SDLT is not paid when shares are traded – just at set-up on the SARC.
Income flow	SARCs (at IPO) must be stabilised assets.
Cost efficiency 1)	We anticipate management fee structures will be efficient.
Cost efficiency 2)	Cost of debt will be at efficient "corporate" margins over LIBOR.
Liquidity – governance	All attributes as per table page 16.

¹⁰ Source: Global Family Office Report (UBS and Campden Wealth) 2018/ IPSX

Holding benefits

IPSX SARCs can be a good interim destination for funds awaiting deployment: liquid and with low transaction costs.

Source: Hardman & Co Research

Private equity

These funds can reach very large sizes. In January 2019, Blackstone closed a \$20bn real estate fund raise for just one fund. In total, it had \$119.9bn in real estate assets under management at the end of the third quarter of 2018.

Again – cash drag problem solved

These fund managers can use IPSX-traded stocks in the same way as other investor categories to reduce cash drag.

The role of IPSX issuers in portfolios

More tightly-defined strategies possible on IPSX

In a nutshell, we consider the overarching benefit of IPSX to be that investors can select a SARC that owns an asset or assets that closely matches/match their desired criteria. For example, one criterion might be low volatility (without sacrificing performance on valuation outputs).

A real estate investor seeks the following.

Pick and choose what you want

Efficient portfolio creation and management

Or more detail – back your judgement

- ▶ To match asset performance with evolving liabilities (personal, i.e. an individual or an institution).
- ▶ To match personal, as opposed to institutional, needs. The rise of defined contribution vs. defined benefit raises the need for liquidity, as the former tends to be individual-based, versus the latter being collective. If the asset has to be matched to the individual, it may need to be liquidated to match an individual and actual timely need, as opposed to an actuarially determined profile-matching exercise.
- ▶ To advance the risk-reward “boundary” by holding a variety of asset classes. Real estate is not a totally uncorrelated asset, i.e. its valuation, to at least some extent, moves in line with the economic cycle, equity and bond markets. Some types of real estate are much less correlated than others, and investors may well benefit from tailoring their portfolios more so, or less so, to uncorrelated assets.
- ▶ To be able to add to or reduce perceived volatility or quantum of returns through constant re-calibration of exposure within a larger portfolio.
- ▶ To back their detailed judgement. Most investors do not have the experience or confidence to make individual investment decisions, and are best advised to use collective companies. However, some investors may have an aptitude in investment or a desire to make their own choices. To date, they simply have not had the opportunity to back that judgement in commercial real estate – IPSX will provide that opportunity.

A worked example to illustrate different strategies

Looking at the 10 years post the cyclical peak of 2007, relatively secure UK real estate assets have generated annual total returns of 7.9%. Yet, within this broad category, there are very different outcomes for particular asset classes.

The chart below shows how one specific type of property asset, primary medical, has performed. Primary medical assets are community hubs; for example, larger GP surgery buildings that are modern and purpose-built, and are typically leased to GPs, with the NHS underpinning rental income. Leases are typically for an initial 20 years, with rental income upwards only on three yearly reviews. Thus, most investors think of primary health assets as a relatively secure income source, with low capital risk.

The investor is empowered to build self-specified attributes

7.9% p.a. vs 4.9% p.a. compound returns
– a significant difference

UK asset % returns through the cycle: 2007-17

	Average annual total returns
Primary medical assets	7.9
Gilts	6.0
Equities	5.9
All-property	4.9

Source: PHP, MSCI/IPD

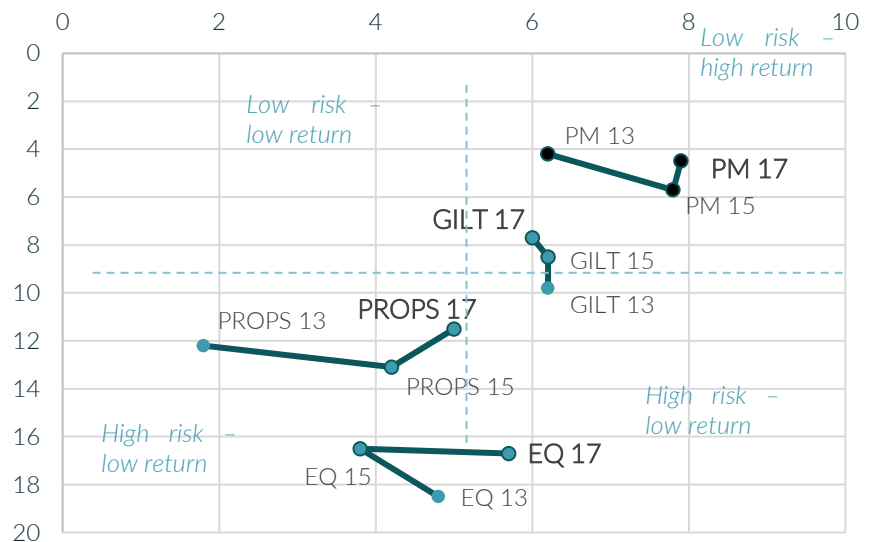
Comparative returns, 2007-17 on various UK asset classes

Look how well secure assets performed
throughout the last cycle

Quantum and volatility of returns on asset classes since 2007

Total Returns %: 2007 to 2013, 2015 and 2017
(y-axis: standard deviations = risk)

The nearer the data point to top-right, the
lower the volatility risk and the higher the
return



PM = primary medical real estate
GILT = UK government bonds
PROPS = All-property index, MSCI
EQ = UK quoted equities

Source: PHP, IPD, Bloomberg raw data and Hardman & Co calculations

The chart above shows the total returns on selected asset classes in the period since 2007. The assets are:

1. All-property
2. primary medical real estate;
3. gilts;
4. quoted equities.

We look in detail at our “worked example”

...

- Primary medical assets outperformed all mainstream asset classes measured from a 2007 baseline, as regards both quantum of return and low volatility.
- In the chart above, the x-axis charts those returns from the 2007 starting point. It illustrates the returns for three periods, 2007-13, 2007-15 and 2007-17.

With the exception of gilts, annualised returns have grown as the current cycle has progressed.

- The y-axis does exactly the same, for volatility for the same time periods. Volatility (which we equate here with risk) is charted, with the highest ratios on the y-axis representing the lowest risk.

It's not so much the outcome of that asset; it's to show how strategies can be put together

Primary medical assets (PM coded on the chart) demonstrate steadily rising returns, combined with stable, lowest-risk, as measured by volatility of annual returns. Indeed, the volatility of PM is even lower than that of gilts.

The primary medical assets are in the attractive, top-right, part of the "risk quadrant" in the chart above.

The chart is derived from a series of tables and charts produced by PHP, with annual data collated into one chart by Hardman & Co, with input also from Bloomberg data. The further to the right the data point, the greater the return since 2007. The higher up, the lower the annual volatility.

The attractive, top- right, part of the "risk quadrant"

Our conclusion is that different classes of real estate have markedly divergent investment characteristics. Some London Stock Exchange REITs offer a fairly tightly defined asset class portfolio: for example, PHP or Assura for primary medical assets, and Impact Healthcare or Target for care homes. Their number is growing as investors seek specialisation. IPSX goes the whole way and backs this clear trend of tightly defined asset-class investing.

IPSX should reduce this aspect of risk significantly further still

If investors can go building-by-building, they can assemble their own attribute-matching portfolio. In the worked example above, one could invest in primary medical via PHP or Assura – both REITs traded on the London Stock Exchange. But what if you wanted to acquire primary medical assets excluding London? Or specifically those where the asset was yielding over, say, 5%, or had a lease length of a particular range? This just cannot be done at the moment. Such investments may become available via IPSX.

REIT risks and the mitigation IPSX offers

The IPSX is the venue to trade specialist SARC. REITs and SARC are equally exposed to both property-specific risks and risks resulting from strategic and day-to-day management of the properties. Of course, they are also exposed to general investor market risks. We address these risks in turn and explain where and how we think IPSX has mitigated these issues.

REIT risks in general

Macro factors and broad range of operational risks

The risks to which investors expose themselves in property, and in REITs and SARC, are numerous.

Property tends to have an element of its valuation that is linked to economic cycles and also cycles within the asset class (be it retail or data centres or build to rent, etc). Commercial property is exposed to void periods in the normal course of events, with ca.10% being usual. As lease lengths shorten, the voids may become a more onerous percentage of the whole and may become increasingly frequent, thus impacting the headline rent indicated.

Voids not only lead to absence of income, but owners must still continue to meet outgoings, such as maintenance and business rates. There needs to be sufficient payment from tenants via service charges and dilapidations to cover the full repair that a lease usually entails. Legislative changes may bring risk (and also opportunity, particularly as regards change of use). Persistent voids may well, of course, affect valuations.

Connected to voids, occupancy and rents, investors should beware of "headline" rents. Leases may include (often 5% or more by time) rent-free incentive periods. Assets being sold may include temporary rent guarantees from the vendor at rents that might not reflect the true market, causing over-valuation risk.

Usually, SARC and REITs take on some level of financial gearing. There may be risks on interest rates, but worse still, the terms of the loans may have covenants that the SARC may breach, and also the loans may be accompanied by derivative instruments that are not clearly reported or explained, and could, at worst, be (or become) mismatched as to end dates.

Debt problems could include refinancing. If refinancing happens when the lending environment is difficult, the flexibility for the borrower may be significantly compromised. In real estate, the term "covenant" may refer to the tenant or to the pledge given by the borrower to the lender. The borrower will often give guarantees that the value of the asset will exceed the debt by a minimum amount, when the value of the asset may fluctuate. In the context of current difficult markets in retail real estate assets, we note a growing number of such investors having to "repair" covenant breaches (for example, Redefine REIT).

The main risk to REITs, we believe, surrounds poor decision-making ("poor" may be defined with hindsight) by the managers. Although SARC boards have fewer decisions to make, SARC are still at risk of voids, changing lease lengths, changes in gearing, refurbishment costs and poor decision-making by the board.

Certain inevitable (but able to be mitigated) risks come with investing in real estate

Voids are problematic

Debt problems could include refinancing or covenants given

The market seems to be under control

Brexit

CBRE's 2019 outlook for the dominant office sector states "soft economic growth and Brexit uncertainty are likely to result in a slight fall in office investment and occupier activity in 2019. The effect will be moderate rather than dramatic as business confidence remains healthy in London and core regional cities."

Data – but information does not eradicate risk

IPSX mitigates these risks

IPSX mitigates these numerous risks by requiring its traded companies to be far more transparent and simpler. This enables shareholders to more easily hold managers to account. The strategic decisions (or mistakes!) a manager can take are restricted by virtue of these being single-asset companies – albeit this puts more onus on the buyers of the IPSX SARC to either assume the mantle of strategic decision-maker themselves or to diversify exposure.

The core of this transparency is the IPSX-mandated, twice-yearly property valuations. Each company on IPSX is required to explicitly publish the following:

- ▶ the bases of valuations;
- ▶ a Strengths, Weaknesses, Opportunities and Threats ("SWOT") analysis;
- ▶ a responsibility statement; and
- ▶ a statement of covenant strength.

The original owner of the asset may often be involved in the composition of the SARC board

The board configuration risk

All SARCs run the risk of a board that is not aligned with shareholders. IPSX follows the common path of exchanges to ensure alignment. The board will typically be nominated by the original owner of the real estate asset, and the appointment will often be influenced by the issuer's Lead Adviser, but will ultimately need to be approved by shareholders. Board configuration is driven by the size and nature of the asset/tenant base (i.e. appropriate for the actual governance workload and market capitalisation of the issuer). Board remuneration should reflect the duties of the board. The board is responsible, in particular, for observing ongoing obligations, monitoring the asset manager where this role is outsourced, leading shareholder communications, and safeguarding the interests of stakeholders and shareholders. (The source of this paragraph is an IPSX presentation.)

IPSX-specific risks

Each asset is highly concentrated

Concentration risk

By being focused on a single asset or multiple assets with commonality, investors on IPSX should be aware of the concentration risk. Investors can reduce this risk by buying a spread of shares in several SARCs.

The whole point of IPSX is to bring the flexibility to investors of investing in an efficient, "transparent", data-rich SARC. This has many advantages.

The "concentration risk" may show up if, for example, there are problems with tenants, the physical building (i.e. its preparedness for changing tenant requirements), or the location (e.g. specific location or a change in investor focus, such as a particular region falling out of investor favour). Concentration risk is the flipside of investors avoiding the grey areas and inefficiencies of being in a broader REIT, and is a key attribute of IPSX. The fact that IPSX is dedicated solely to real estate might prove a conduit for stress, were there to be a real estate-specific panic. We doubt this would be the case, and we are confident that two-way prices would be continually maintained under all circumstances in reasonable liquidity for the type

of assets we anticipate to be quoted on IPSX, namely greater than £50m, with most assets being greater than £300m in NAV.

Minority owner risk

A regulated exchange sets firm rules

Some IPSX SARC (we anticipate not the majority of those traded) may have a free float under 50%. The risk is that there may be a single shareholder with over 50%, who may have formal or informal connections with either the manager or the board of the SARC. Corporate governance guidelines should address such a conflict of interest, but it is an issue of which potential shareholders should be aware. Of course, this risk is not limited to IPSX-traded companies, but the occurrence may be greater, given the manner in which some companies will be floated on IPSX, i.e. spun out of other structures

Value optimisation

Safer but potentially missing out

There may be occasions where a change of use requires either a significant rise in voids ("decanting" a building) or a marketing programme that destabilises rental income. This may be designed to enhance capital value. It may not be achieved effectively, and even if it is, this would detract from income and dividends. Value optimisation, if successful, will lead to re-investment risk, assuming the asset is disposed of.

Costs

Costs should be very low, but will they be?

IPSX is designed to facilitate the minimisation of running costs, and this will be both a comfort to investors and a key reason for investing. However, nothing is stipulated in the IPSX rules – so it is possible that either at IPO or subsequently, the cost structure may prove higher than Hardman & Co anticipates.

The impact of cashflow

Might the "cupboard be bare"?

The REIT regime encourages a large proportion of free cash to be distributed as dividends. Indeed, 90% of relevant income needs to be. "Relevant" may, for example, exclude capital allowances. It is within the regime that cash is set aside to re-invest in the asset. So, there should be plenty of cashflow to service costs, including debt, and also pay dividends. If an asset has a low yield (it may have high capital value and growing rent, and hence be rated on a net initial yield below all-property averages), it is all the more exposed to cashflow turning down or even turning negative. Naturally, with SARCs, IPSX investors are all the more exposed to "bumps in the road" of cashflow, but will have much clearer visibility on these matters.

Secured lenders' security

A potential unintended quirk

Not all real estate lending is secured on individual assets, but, for a general REIT, the mix is complex and, in a looming downturn, may get ever more complex. LTV (loan to value) rises if the "V" (value of assets) side reduces, and if that happens on secured assets, the lender may seek to pocket some of the cashflow from them directly – again placing the dividend under scrutiny. It is much easier to scrutinise a SARC's borrowing than a wide-ranging REIT with many assets and many secured debt facilities.

However, the risk posed by an IPSX SARC is that, if it starts to go wrong, there is nowhere to hide. The message is that, as ever, it is *caveat emptor*, but IPSX mitigates that by shining a clear light on the risks (and opportunities). For example, investors should be able to see whether the borrower pledge (covenant) given to the lender is based on an ever-visible fluctuating share price.

Falling dividends

A normal risk – this is just about investor education

Net income of SARCs rises and falls. Investors should be well aware of this from the IPO prospectus, but this may be overlooked by inexperienced investors. Such

investors may confuse the broader REITs invested in a range of assets that have scope to even out non-cyclical variations in cash, with IPSX SARCs that depend on one stream of income from one asset or multiple assets with commonality. By design, by the nature of the REIT regime, there is nothing that can or should be done about this single-asset heightened issue.

Familiarity risk

There may be a perverse outcome stemming from the opportunity of investors to exploit their own local knowledge. It is quite legitimate to say that “local” investors do often have a certain “edge” in real estate investment. Some of that “edge” is only present where the investor is also the property manager and interacts with tenants or the supply-chain. Given the transparency on data for IPSX-traded SARCs, the ‘insider’ knowledge risk is reduced.

Local investors should be aware that, while they have more time, and expertise and “flair” for the local, they need to put that in the context of the global, and should always be aware of the risk of over-concentration. There is a danger for investors of becoming ‘emotionally attached’ to local issues and turning a blind eye to non-local factors.

The exchange

There is always the possibility that IPSX gets a bad reputation, or rather, that the companies traded on it do. These risks are substantially mitigated by the fact that it is a Recognised Investment Exchange. This should comfort investors on issues such as minority shareholder rights, continuous market (during trading days), and a level playing field for information.

IPSX has been in development for five years, and we note the strength of the IPSX community and investors.

The careful and robust development has been supported by IPSX’s choice of strong delivery partners. The FCA requires robust outsourcing arrangements to be in place with key outsourced suppliers. Regulatory requirements also include the putting in place of regulatory capital well in advance of commencement of business as an exchange.

A regulated exchange with regulatory capital and strong backers

Contracts in place...

...regulatory capital in place

The benefits of a Recognised Investment Exchange

Being a Recognised Investment Exchange is an important attribute

IPSX is a Recognised Investment Exchange (RIE) under the Financial Services and Markets Act 2000. It has also been designated by HMRC as a Recognised Stock Exchange under section 1005 of the Income Tax Act 2007.

In securing recognition, IPSX has been through a lengthy application process, during which the FCA sought and secured comfort about a number of factors. These included the quality and strength of its board and senior management, its systems and controls, its trading arrangements and financial viability.

It entails significant ongoing requirements

Once recognised, RIEs maintain a close relationship with the FCA and must continue to meet their recognition requirements on an ongoing basis. These involve the provision of regulatory protections including greater transparency about issuers and their issued SARC's shares (initial and ongoing). It also includes maintenance of effective governance arrangements and the provision of access to a public market to adjust investment levels. It also includes the mandating of shareholder protections in the face of corporate actions, including takeovers.

The key benefit of a trading venue's RIE status for issuers is access to deeper liquidity pools. The regulated market gives issuers direct access to the full investor universe: issuers on a regulated market may freely market and sell their shares to retail investors.

It locks issuers into complying with a number of regulatory regimes

In addition, and unlike the private market, issuers on regulated markets (multilateral trading facilities or MTFs) are:

- subject to the Disclosure and Transparency regime (DGTR),
- captured by the market abuse regime (MAR), and
- subject to the Takeover Code.

All trading is subject to market surveillance to prevent and detect insider trading and other forms of market abuse. Trading is also subject to settlement disciplines, and all settlement of trading on IPSX is via CREST.

In addition, as an HMRC Recognised Stock Exchange, investors in SARC's can therefore enjoy the REIT tax benefits where they qualify for REIT status and benefit from the regulatory protections in place for financial markets.

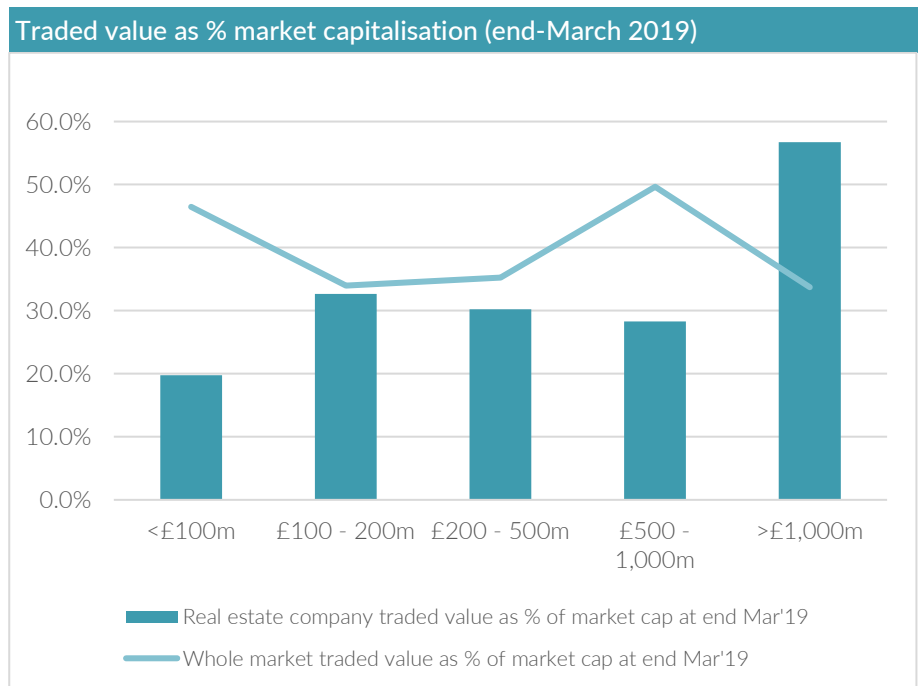
Liquidity

How real estate compares with whole of market liquidity

In the UK, there is typically less turnover in the shares of quoted real estate companies than non-real estate companies of a similar size, other than in the very largest property companies.

Direct exposure to real estate is only an option for those with a very large 'lot' size

By number, IPSX is for the many, not the few



Source: London Stock Exchange, Hardman & Co Research

Liquidity is lower for UK quoted property companies than other companies, with the exception of the very largest

The chart above shows that only property companies beyond £1bn market capitalisation have deeper liquidity than companies of equivalent size in the whole market (56.7% vs. 33.7%). (Whole market refers to all quoted companies on the LSE, both fully listed and AIM, and includes all real estate.) However, the data are not so kind to smaller real estate companies. Considering companies with market capitalisations below £100m, we find that, on average, less than 20% of property companies' market capitalisation is turned over in a year, compared with 46.5% for the whole market.

To construct the chart above, we defined real estate companies as every company classified as a 'Real Estate Investment Trust' or 'Real Estate Investment & Services' by the London Stock Exchange. We excluded the estate agents, which are in the Real Estate Investment & Services category, since we want to focus on holders of assets. We have included three companies whose principal activity is the assembly of land parcels for housebuilders (Urban & Civic, Inland Homes and Harworth Group) – some might argue that they should be excluded, as they may be seen in a different light to British Land, for example. We are left with 95 companies, of which 21 are traded on AIM.

The percentages above are calculated by dividing the total traded value in the 12 months ending March 2019 into the closing market capitalisation.

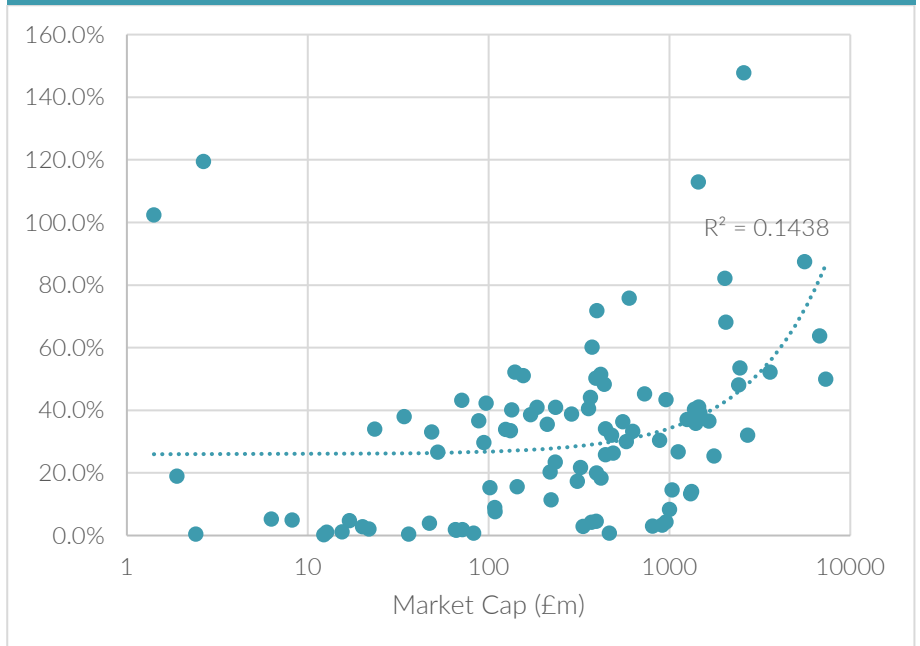
The impact of market capitalisation on value traded

We now look at our real estate basket in greater detail. In the chart below, we have plotted each individual company's value traded percentage against its period-end market capitalisation. To simplify the presentation, we have used a logarithmic scale for market capitalisation on the X axis.

We calculate the R^2 to be only 0.144

There is some correlation between percentage traded and market capitalisation, but it is weak

Traded value as % market capitalisation vs. market capitalisation (end-March 2019)



Source: London Stock Exchange, Hardman & Co Research

The chart shows that there is some correlation between percentage traded and market capitalisation, but it is weak. We calculate the R-squared to be 0.1438. This is a statistical measure that represents the proportion of the variance for a dependent variable that is explained by an independent variable or variables in a regression model. In simple terms, just over 14% of growth in percentage traded is explained by larger market capitalisation. Note how many plots are below 10% of traded value, even for very large property companies.

It is worth noting that larger stocks with low liquidity tend to be invested in non-UK assets. Some of these have a dual listing, so just considering data for trading on a London exchange may be misleading.

Does liquidity matter?

There is a school of thought that says the level of liquidity in shares is irrelevant since every share is always owned by someone. However, the ease of building a position, or exiting it, which is dictated by liquidity, will be a critical factor for many investors. There is also evidence that the greater the liquidity in a company, the higher its rating (or in the case of property, the lower the discount to NAV). Finally, what is the point of having a market in shares if you can rarely trade them?

Liquidity is the lifeblood of exchanges; without which, you don't really have a market

Why IPSX might improve liquidity for real estate companies

Since IPSX will focus on SARCs, it is a way for investors to, effectively, invest in fully-let, direct property. They do not have to evaluate directly whether the management team is good at buying and selling or what its strategy for swapping assets might be. However, they will still need to assess whether the management team is good at managing the asset as this will affect the asset's rental income. This brings in a host of investors who have not previously had such an opportunity, such as:

Many and varied new types of investors

- ▶ Retail investors;
- ▶ smaller institutions; and
- ▶ smaller family offices.

IPSX will be attractive to other investors and issuers, for example:

- ▶ REITs that have just raised money and want to avoid cash drag;
- ▶ OEICs that need to have a redemption buffer; and
- ▶ quoted property companies, which feel that partially quoting an underlying asset might demonstrate that they are trading at too wide a discount to NAV.

This mix of investors will all have different strategies and time horizons, which will help drive liquidity. Importantly, investing in today's quoted property companies does not bring the same benefits.

IPSX is keen to encourage new investors into the market by promoting initiatives such as educating issuers and their advisors about the benefits of intermediary offers, RSPs and through widely distributed investment research.

ETFs may well be created

If, utilising the novel datasets provided by IPSX, ETFs are created, they will provide additional depth to liquidity.

Of course, there is a risk that some of these investors might find that IPSX stocks fulfil their investment criteria so perfectly that they will adopt, bluntly, a "buy and hold to death" approach, which would reduce liquidity.

IPSX: the better alternative to direct property investment

IPSX is likely to be far more liquid, cheaper and faster than the direct market

If it is accepted that the IPSX SARC is an effective public market proxy for direct investment, then not only will it appeal to investors who have no access to the direct market, but even those that can trade direct will find IPSX attractive, thus further benefitting liquidity.

Investing in direct property is expensive and tricky. Investors in direct property suffer 5% SDLT, need to employ agents and surveyors and still may suffer from asymmetrical information. When an investor buys shares in an IPSX SARC, Stamp Duty falls to 0.5% and other transaction costs are much lower too. These would include the spread between buying and selling prices made by the market makers. Furthermore, regulations ensure transparency of information. In fact, although it is very hard to quantify, Hardman & Co estimates that the cost of trading on IPSX will be 75% less than transacting in direct property.

Then there is the issue of timescale. Deal in IPSX shares and the trade is agreed within seconds or minutes, and settlement follows in accordance with market rules. Buying a direct property can take months to complete.

Data suggests that the annual transaction value of UK commercial real estate amounts to £50bn¹¹. The same data values investor-owned commercial real estate at £509bn. In other words, 10% changes hands each year or, one could say, the average holding period is 10 years.

If we were conservative and suggested that IPSX saw 20% turnover p.a. (i.e. less than the real estate stocks on the London Stock Exchange, other than the very smallest), then a typical £300m market capitalisation stock would have daily turnover of £230,000.

Conclusion

There is good reason to believe that the unique characteristics of an IPSX SARC will attract new investors into commercial real estate, investors for whom the current market inadequately caters. Their multiple strategies and timescales will help create real liquidity, itself another benefit to investors and issuers.

We would trust that the issuer's prospectus will highlight the risks of holding and of trading IPSX shares, including the time horizon for holding. Nonetheless, this element may add some short-term transactions. The prospectus will include the industry-standard KID (Key Information Document).

Hardman & Co papers on liquidity

Hardman & Co has produced a series of research pieces on the impact of MiFID II, the relationship between research coverage and liquidity, and the importance of retail investors for liquidity. Publications include:

- ▶ [After the Love Has Gone – Post-IPO liquidity: how bad is it, does it matter and what can companies do about it? \(Keith Hiscock and Yingheng Chen, July 2018\)](#)
- ▶ [The importance of the retail investor \(Keith Hiscock, January 2018\)](#)

In addition (copies available on request):

MiFID II - Impact on research & stock market liquidity (Keith Hiscock)

Why broker research coverage of non-clients is collapsing (Jason Streets)

¹¹ IPF: The size and structure of the UK property market, 2017

The need for a real estate stock exchange – the issuer’s angle

The benefits to issuers of IPSX SARC

Pent-up demand in a long-established type of ownership - IPSX unlocks through the cost efficiencies

Fractional ownership of commercial real estate has existed for hundreds of years and longer than stock exchanges. IPSX’s focus on SARCs with an efficient cost structure will bring a variety of investors to the table. As already noted, private investors currently own a small percentage of direct UK commercial real estate (less than 3%), a proportion kept low by the difficulties, minimum investment size, diversification problems and costs of direct commercial real estate ownership. These investors will see IPSX-traded companies as a way to raise their direct exposure to property and issuers will benefit from this widened pool of interest.

New types of investors...

- ▶ Traditional IPOs on existing generalist stock exchanges are mainly targeted at professional institutional investors such as pension funds, insurance companies and hedge funds. IPSX’s intention is to facilitate all investors, including retail, buying shares in IPSX issuers through brokers, retail platforms and wealth managers, thus increasing the potential investor pool.

...rapidity...

- ▶ The process is faster than a private sale. The sale of shares to investors by way of an initial public offering can be completed in as little as eight weeks. Average time to complete a private market asset sale in the UK is often six months or more.

...flexibility...

- ▶ Public and private market options can be dual-tracked to optimise pricing and minimise execution risk.
- ▶ Freehold owners and owner occupiers can choose to retain management of the asset over the long term.

...and flexibility again

- ▶ Owners can use IPSX to sell-down the asset more efficiently, with the opportunity to retain an economic interest and adjust the size of that interest over time, subject to the Takeover Code and other rules.

Float cost efficiencies

- ▶ There is potential for lower IPO costs. REITs traded via other exchanges are likely to start at a valuation of 98% of NAV or less as the costs of raising money and then investing it (SDLT, for example) quickly add up. If an existing owner puts their asset into an IPSX company, as long as it is already held in a single special-purpose- vehicle, SDLT would be eliminated. In general, initial costs also should be lower, as a result of being the flotation of an asset rather than raising cash that needs to be spent.

Ongoing cost efficiencies

- ▶ Cost efficiencies are ongoing. A consistent IPSX theme together with liquidity and transparency is cost efficiency. We anticipate modest running costs (EPRA cost ratios).
- ▶ Increasing price/value transparency for that particular asset could benefit a number of property owners from pension funds to open-ended managers to REITs. This may be of particular help in the “alternatives” space. For example, the data in Build to Rent is thin at the moment: What is the market price in net initial yield or ERV for a Build to Rent asset? Single assets priced on IPSX will assist. While there may be some virtue in lack of transparency for individual managers who believe they can take advantage of illiquid and mispriced assets, mispricing does not optimise investment outcomes, nor the provision of new-build assets.

- ▶ Vendors might secure slightly better terms selling to a specialist manager seeking to gain exposure to just that specific sector. We might see the advent of “investment style” managers issuing serial IPSX-traded SARCs such as “value turnaround”, “neighbourhood-regeneration upside”, or “income stability and visibility” and so forth. We believe this is highly likely over time.
- ▶ Vendors might wish to distribute “in specie” to their own investors rather than dispose of the asset to third parties. This gives shareholders in the “vendors” control over the timing of disposals in underlying assets. Clearly, “non-related” parties would need to own at least 25% after this event – the figure would have to exclude holdings by the manager of the asset, for example.
- ▶ Share trading on IPSX may help developers with price discovery, especially with ultra-large assets.

Who would IPO as a SARC on IPSX?

Several types of issuers may be attracted to selling their asset(s) via a public market transaction within an SARC.

- ▶ Owner occupiers: The ability to sell down an asset and retain an economic interest in it releases capital by bringing in new investors. The investors may well not be passive, but the (former 100%) owner occupier may retain up to 75% holding of the SARC, so would be assured of commercially equitable security of tenure for the length of the existing lease. The benefit of a managed exit by selling down a shareholding is something we consider to be clear.

IPSX provides a new way to sell down assets. It is a much better route than is the sale and leaseback (S&L). S&L poses several difficulties to the seller:

- Accounting rules now require occupiers to place these long-term liabilities on their balance sheets.
- It creates the operational liability of illiquidity; the seller is locked in. An occupier wishing to re-locate or rationalise will potentially find themselves on the wrong end of a (now) unwanted long lease. Note that a flotation on IPSX requires a “stabilised” asset, meaning one with the dominant portion of the asset occupied under the terms of long leases.
- It may be the bar to a takeover/sale (of course, it could be designed as a defence against an unwanted bid). A new owner occupier would find its options for rationalisation restricted.

Some particularly timely benefits to owner-occupiers

Let's name a few types of issuer; there are many

- ▶ Existing REITs trading at a discount to NAV (and others) can, through IPSX, demonstrate the underlying value of selected assets held in the REIT, which they would float on IPSX. This process would help educate the market on the REIT's share price because it would evidence investors' pricing of some of the underlying assets. In addition, it would add flexibility to the REIT on its balance sheet.
- ▶ Existing REITs seeking to recycle capital may believe their skill is in development, extension or refurbishment and IPSX will provide a means to partially exit a completed asset. This would achieve two things. It would free up the capital flexibly as tranches are progressively sold down. It is likely to be more difficult for REITs to sell tranches, progressively. It would also create a visible price for that asset, expressed in the share price of the IPSX-traded SARC.

- ▶ REITs wishing to re-position themselves, changing sectoral or geographical emphasis, or downsizing exposure to the particular characteristic the IPSX-traded asset represents.
- ▶ Open-ended funds seeking to increase the proportion of liquid assets, either in anticipation of an imminent liquidity squeeze (for example, at the time of calling the EU membership exit referendum) or in other circumstances. We anticipate open-ended funds will indeed seek to float assets via IPSX IPOs for these strategic reasons.
- ▶ Joint venture owners seeking to simplify structures, add liquidity, transparency or progressively divest.

It is worth noting that these assets may well be UK assets held in overseas structures. HMRC is increasingly expressing the intention to explore the ownership of such offshore-owned UK assets and, as such, from April 2019, more non-UK residents are being brought into the UK's capital gains tax (CGT) regime. In order to address these types of issues and provide some liquidity as well as transparency, these assets may well be put into an IPSX single-asset company SARC. If the underlying owners wish to begin to unwind exposure, the IPSX route offers the flexibility to progressively reduce (via share sales) at a time of the vendors' choosing.

The benefits of long-term ownership

IPSX structures are 100% aligned with managers who add alpha purely by stewardship of the asset

IPSX, by its very structure, will enhance stewardship of assets. This is because the IPSX SARC is a “buy and hold” investor. The SARC adds alpha through long-term asset-based investment plans, preserving and enhancing the asset’s value.

IPSX could create several benefits:

1. **Stewardship:** Data created by trading on IPSX will improve stewardship. The more data that quantifies and tracks building performance, the more likely there will be incentives to improve such performance. Better performance may be reflected in the rating ascribed to the shares. As companies with boards of directors responsible to investors, there may even be AGM (annual general meeting) resolutions regarding a range of stewardship issues.

If OEICs use partial flotation of assets on IPSX as part of their liquidity strategy, they can adopt a longer-term investment approach to stewardship. Among other organisations, the Financial Reporting Council has sought to promote stewardship¹².

Ownership by “the community”

2. **Placemaking:** Trading on IPSX may encourage “placemaking”, a term to describe the way in which real estate interacts with the social and physical surroundings. For example, a creative approach to regeneration can affect the local community and environment positively. IPSX may drive this in several ways, one of which could be accommodating specific ownership structures of SARCs that give the local community a stake to control or benefit from community-based outcomes. IPSX can be used as an alternative exit route for capital invested in regeneration projects that could have attractive societal benefits. For example, s106 (see Glossary) payments could include allocating shares in a social housing project to residents (when floating on an exchange as an exit for the development capital).

The data are public and become a part of valuation criteria

3. **ESG:** The two points above on stewardship and placemaking are some of the ways in which IPSX may encourage the real estate world to pay more attention to environmental, social and governance performance issues. However, there are others and Hardman & Co expects IPSX will be an important agency for improving building performance, simply through public possession of published data. What is new is that the data is tagged to assets that are being directly owned as well as continually evaluated by buyers and sellers. Hardman & Co hopes that, in due course, information would include:
 - a. EPC (energy performance certificate – a UK government mandated rating);
 - b. WiredScore certification for connectivity;
 - c. BREEAM rating for sustainability (the Building Research Establishment Environmental Assessment Method); and
 - d. WELL certification for wellbeing (awarded by the International WELL Building Institute).

¹² <https://www.frc.org.uk/investors/uk-stewardship-code/uk-stewardship-code-statements/asset-managers>

Generalist REITs buildings' ratings cannot be publicly determined with regard to the individual assets

The best practice adopted by many larger REITs is to have assessments of ESG and on sustainability – British Land is rated AAA on MSCI ESG ratings and 5* and Green Star on GRESB. These ratings, however, are for groups of assets and it is impossible to “drill down” to the individual assets. What are their EPC ratings? To maintain AAA rating, would MSCI require higher energy, sustainability and performance or inclusivity (e.g. access) achievements? MSCI (and others’) ratings are most useful, welcome and of benefit to the real estate industry’s improvement in standards. How much better it would be, however, to have asset-specific data.

A thumbnail sketch of UK commercial real estate

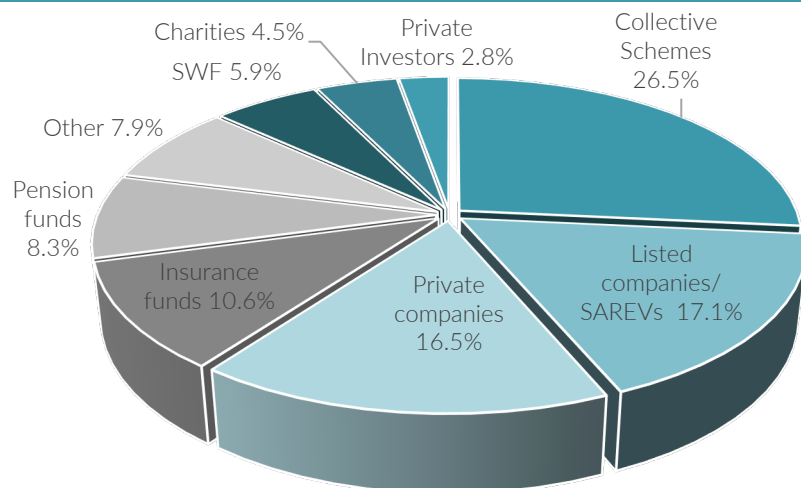
Only 17% commercial real estate is held in the public markets and less than 3% is owned directly by private investors

The size by value of the UK commercial real estate market is £870bn¹³. Of this amount, about £500bn is owned by investors, with the rest being in the hands of owner occupiers¹⁴. This figure is ca.38% the capitalisation of the London Stock Exchange equity market and 49% of the valuation of UK government bonds. Approximately 38% of the value of UK commercial property is in London¹⁵ with 20% of the total being London offices. Retail, offices and industrial/logistics in total comprise 92% of UK commercial real estate.

What is remarkable about commercial real estate is that only 17% is held in the public markets, and less than 3% is owned directly by private investors. This is in marked contrast to residential, a market several times larger. In fact, the largest owner of the commercial real estate category is "collective schemes", which includes, among other components, OEICs.

The real estate market, including quoted and unquoted property, is a little under half the value of the total London Stock Exchange

Ownership of UK commercial real estate



Source: IPF/IPSX

Turning to the much broader top-level assessment of REITs and real estate assets, several studies show listed real estate returns have more in common with real estate than with broader financial indices. This is hardly a surprise, but is worth pointing out, notwithstanding the impact of non-real estate equity valuations on REIT share price movements¹⁶.

Commercial property's aggregate valuation is slightly less than the value of infrastructure and compares with a residential market size of a fraction over £6tr. According to the British Property Foundation, the UK's commercial real estate economy directly employs more than a million people and contributes over £94bn

¹³ Investment Property Forum and PIA Property Data Report for 2016

¹⁴ The size and structure of the UK Property Market, end 2017, IPF

¹⁵ PIA Property Data Report for 2016

¹⁶ Studies quoted in just one (Alex Moss) article in the CFA Journal in 2013/14 include Kennedy and Baum (2012); University of Ulster (Maran et al 2012); University of Aberdeen (Devaney et al 2012); Gilberto (1990); Oikarinen et al (2011);

to the UK's economy, which is ca.5.4% (other sources e.g. PIA Property Data Report for 2016 range from 4% upwards).

50m sq. ft. of new UK commercial space constructed p.a.

More than 50m sq. ft. of new commercial space has been constructed p.a. in recent years, itself contributing almost 1% to the UK's GDP. Yet, physical growth in commercial real estate remains modest. As per PIA Property Data Report, "It is notable that the supply of commercial property, measured in terms of floorspace, has grown by only 1.3% in aggregate over the last 10 years. By contrast, the number of houses and flats in the UK has increased by over 7% during this period."

Increasing proportion of rented (fewer are owner occupied) and leases are shortening

The proportion of commercial real estate that is rented is rising. A figure of 55% was recorded in 2015 versus 49% in 2005¹⁷. This has been accompanied by shortening lease lengths. At inception, the average lease length stood at just over eight years in 2000, falling to six at the 2011 low point and more recently rising modestly to around seven years. Around 40% of leases have break clauses, shortening the length to break significantly. In the 1980s, the UK was a relatively unusual market in the developed world with a typical new lease being of 20 years' duration, many with no breaks. From the tenants' point of view, flexibility has its benefits; although, if fit-out costs are high, so too does security of tenure. This change in the way occupiers view property has inevitably led to the rise in flexible working, short serviced leases and serviced office space.

In terms of debt, survey data indicates loans outstanding equate to ca.35% of asset value, down from a temporary 70% in 2009 and a typical figure around 40% in the early 2000s¹⁸. These figures, however, relate to commercial investment property, not owner occupied, where ratios are thought to be lower.

When a diverse set of lending risks blows investors off course

REIT EBITDAs seem reasonably stable. However, there is some pressure from banks to shrink, which, in an environment of low interest rates, may well put pressure on EBITDAs. This is a recipe for earnings and dividend declines in the affected sectors. This may be why investors seem to view balance sheet ratios (LTVs) as crucial in determining whether REITs that appear oversold on NAV discount grounds might be heading for dividend cuts. Operating cashflow analysis is crucial, but so too is assessment of the shape of the future balance sheet. It is best to look at a REIT balance sheet the way a lender would, i.e. asset by asset. Some lending is not secured on individual assets, but the mix is complex and in a looming downturn may get ever more complex. LTV rises if the "V" (value of assets) side reduces. And, if that happens on secured assets, the lender may seek to pocket some of the cash flow from them directly – again placing the dividend under scrutiny. Companies quoted on IPSX with a single asset will be much easier to scrutinise.

¹⁷ PIA Property Data Report 2016

¹⁸ De Montfort annual UK property lending report

THE MECHANICS OF IPSX

This section of the document explores the mechanics of transacting on IPSX. It also assesses the structure, the regulatory environment and the technology supporting IPSX. We explore a number of topics.

- ▶ How to transact
- ▶ The technology platforms
- ▶ The regulatory platform and environment, and how IPSX is structured within this
- ▶ The role of data created for and generated by IPSX – this includes data on buildings and data on prices, for example.
- ▶ The structure of the IPO process

How to transact

IPSX is designed to be easy-to-use and familiar to anyone who has transacted on other stock exchanges.

We illustrate the process in summary here.

A well-established structure, procedurally:
nothing new



IPSX anticipates that retail trading will be facilitated through the Retail Service Provider (RSP) network. Retail Service Providers are market makers that undertake to make two-way prices in securities to retail brokers on a firm basis and transact within seconds. This makes dealing in such securities simple and attractive to retail investors.

Straightforward market-maker-driven
constant pricing

Market data providers include Morningstar, ICE, SIX, Digital Look, FactSet and others. Initially, real time market data will be published on the IPSX website, including the latest five trades and sizes.

The mechanics of buying and selling shares via IPSX

Details of the IPSX trading day

Trading will start at 8.50am with an electronic auction process, followed at 9.00am by registered market makers opening firm two-way quotes in a pre-defined minimum market size. These bid/offer quotes are visible to all IPSX Trading Members and will also be published on the IPSX website and will be available to Market Data Vendors for publication on their networks. IPSX Trading Members are able to agree a trade with the IPSX market maker in question outside of IPSX systems (e.g. by telephone). Once the trade has been agreed, it will be trade reported to IPSX and will be subject to the IPSX trading rules. A further electronic auction will take place at market close at 4.00pm.

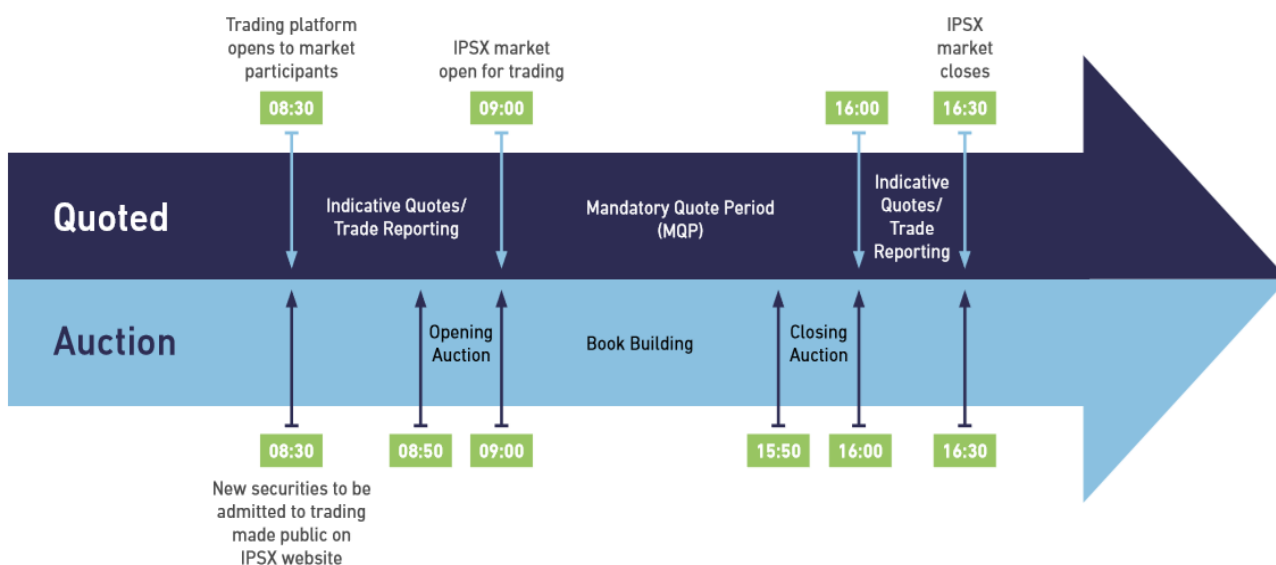
IPSX is currently also engaging with the Retail Service Provider (RSP) platforms to ensure that IPSX securities are available for trading by IPSX market makers and brokers.

Every security will have at least one market maker, although it is anticipated that the great majority of stocks traded on IPSX will have more than one.

Market makers are required to restrict their bid/offer spreads to a maximum of 25% and give at least one month's notice of intended termination of live pricing.

The trading day at IPSX

This relates to public transactions



Source IPSX

London Stock Exchange hours

By comparison, many stock exchanges also hold opening and closing auctions, as well as continuous trading between the two. The structure of IPSX is thus entirely recognisable to investors accustomed to trading on other exchanges.

IPSX trade data for recent transactions will be made public, showing price and size.

Clearing through CREST

Settlement is “T plus 2” days post trade. This is standard for most major stock exchanges. Settlement for shares traded on IPSX is through the CREST system, using existing technical and operational systems and processes.

The technology behind IPSX

Contracts in place – a strong platform

In order to secure approval as a Recognised Investment Exchange, IPSX had to demonstrate it had robust technology arrangements in place to support the operation of the market. IPSX is partnered with a number of reputable technology companies, including, among others:



Cinnober supplies the trading platform. This is a well-recognised provider, now owned by NASDAQ and employed by many exchanges around the world.



GoldenSource is an enterprise data management provider: it captures data from the issuers on IPSX.



QuantHouse will make available IPSX's trade and order data to data vendors, such as Bloomberg, Google, etc.



Scila provides IPSX with tools to quickly and effectively identify market abuse or operational errors.

(Source: <https://www.ipsx.com/our-technology/>)

The regulator, ESG

The responsibilities of the regulator and of IPSX in respect of an issuer are distinct and clear. At IPO, the UKLA (a function undertaken within the FCA) approves the prospectus and, where relevant, admission to the Official List. Once the prospectus is approved by the FCA, IPSX approves the admission to trading on its exchange.

Societal benefits of IPSX

Environmental, social and governance goals

Overall, we believe the regulators and those agencies seeking to drive up both environmental, social and governance ESG goals, and the performance of real estate assets for social goals will welcome IPSX.

We note the role IPSX can play in enhancing transparency in respect of the management and performance of SARCs and, by extension, commercial real estate (CRE) as a securitised asset class. By creating a public market for SARCs within a financial markets regulatory framework, the exchange introduces greater regulatory oversight, market disciplines and investor protections.

Public transparency and governance

In particular, IPSX is seeking to significantly increase transparency around CRE, which is one of the UK's largest asset classes by value and which is currently subject to significantly lower levels of market transparency than other asset classes. Bringing individual CRE assets onto an investment exchange, in securitised form within a well-defined management company, will bring much greater public transparency around CRE (proxy) ownership and management. This in turn enables end-investors to better hold to account institutional investors investing in CRE on their behalf – or indeed the company itself where they are direct investors – and helps the government to deliver against its agenda for improved ESG and effective stewardship.

The role of data

The three types of data – each crucial

There are three sets of important data that IPSX will provide:

- ▶ Data on various physical and operational metrics of each building
- ▶ Regular valuations
- ▶ Share prices

IPSX requires its issuers to produce six monthly valuations, which include a SWOT analysis and statements on covenant strength. The valuation frequency and content goes beyond that produced by REITs admitted to trading on other markets.

Dissemination of data

IPSX data will be made available for distribution to as many vendors as possible. IPSX is in discussion with numerous data vendors.

Valuation – the NAV

All investors will receive the same, structured reports, at least every six months (see table below). Valuer's valuations are based on professional industry standards (e.g. the "Red Book"). At times, valuers receive guidance notes on valuing practices related to sectors and other topics; for example, the RICS (Royal Institution of Chartered Surveyors) recently issued guidance on retail centres. The RICS guidance is designed to provide greater consistency between valuations.

Some of the IPSX-mandated data points

All investors will receive the same, structured reports

Prescribed content on covenant strength

All Red Book Valuations produced by Issuers admitted to trading on the Exchange must include Statement of Tenant Covenant Strength. The report shall include (unless not applicable due to asset type or class, when alternate is appropriate):

	Previous reporting period	Current reporting period
Number of tenants	✓	✓
Number of leases	✓	✓
Market Rent (£/sq. ft)	✓	✓
Headline Estimated Rental Value		✓
Rental income (%) by valuer's Risk Perception of tenants	✓	✓
Total Gross Income	✓	✓
Total Net Income	✓	✓
Unexpired Lease Term (years to break and years to lease expiry)	✓	✓
Tenant Use by Rent		✓
Top 10 Tenants by rent (% & value)*		✓
Initial Yield		✓
Equivalent Yield		✓
Reversionary Yield		✓

*Each tenant to be identified by Valuer's Risk Perception. Where there are less than ten tenants, or the disclosures are commercially sensitive, the Exchange may accept an aggregated figure.

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Source: IPSX

The share price...

The price of the asset equals the share price

The share price for an SARC traded on IPSX will reflect the market's views in real time on the value of the asset of the SARC. This is quite unlike any other REIT trading on other stock exchanges, although single-asset companies do trade on other exchanges. Pricing of more general REITs involves a much wider range of drivers, compared with the single-asset SARC.

NAV versus share price

Thus, there are two types of valuation methodology for an SARC quoted on IPSX, namely the NAV valuation as derived from the valuer's report, and the share price. Of course, this is the same as any other quoted real estate company, trading on any other global stock exchange.

...or the valuer's NAV?

The combination of the issuer having a single asset, or multiple assets with commonality, and a lean management structure and greater transparency of property value and tenant covenant strength (risks to income) means the relationship between NAV and share price should be aligned.

Helpfully, British Land provided an insight to valuation methods in its 2018 Report and Accounts. It identified three approaches:

1. Level 3: Inputs for the asset or liability that are not based on observable market data (unobservable inputs).
2. Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
3. Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.

British Land states that the share price
trumps the valuer-based NAV

These levels are specified in accordance with IFRS 13 'Fair Value Measurement'. Property valuations are inherently subjective as they are made based on the valuer's assumptions that may not prove to be accurate. "For these reasons, and consistent with EPRA's guidance, we (i.e. British Land) have classified the valuations of our property portfolio as Level 3 as defined by IFRS 13".

Put simply, Level 1, is seen as more tangible than the valuer's report (Level 3), without any reflection on the quality of expertise of the valuer.

Top level (Level 1) would equate to the
share price on IPSX

Level 1 equates to the share price on IPSX.

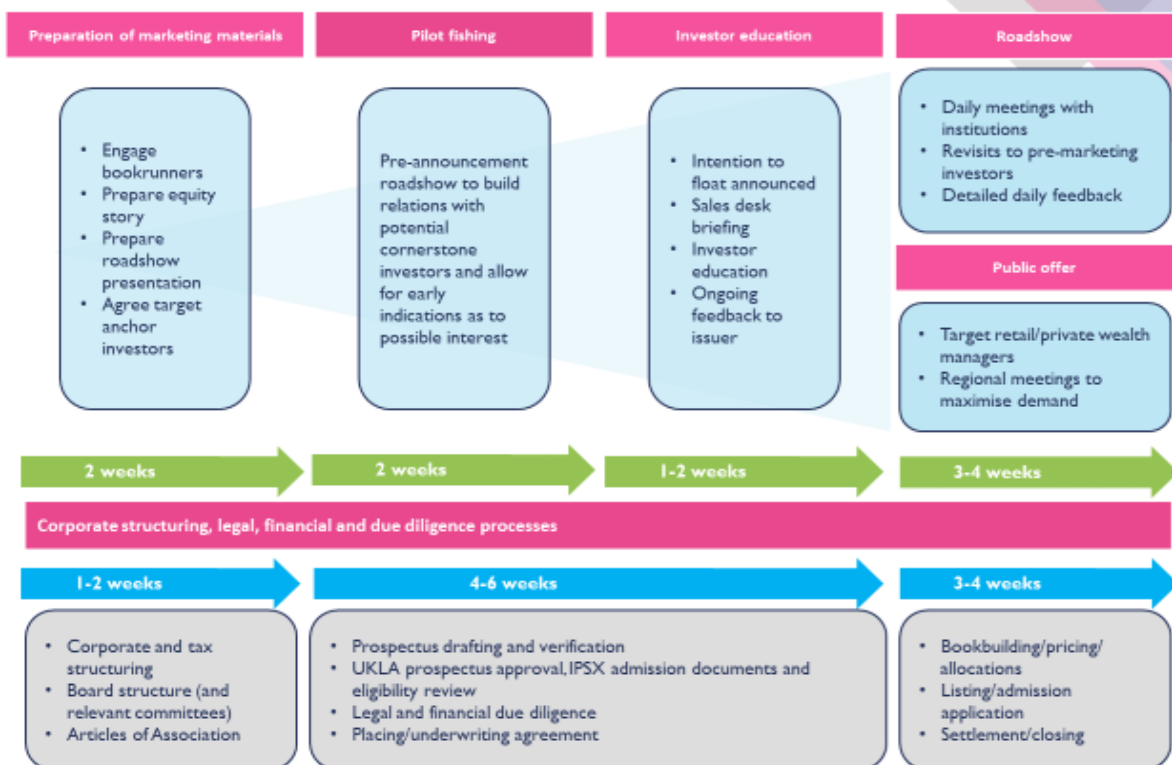
An efficient IPO process

The process

Since IPSX is a Recognised Investment Exchange, the route to flotation is very similar to flotation on any other stock exchange. Each issuer must ensure the normal UKLA requirements are met; for example, the appointment of an independent board of directors. The board is typically nominated by the original owner of the real estate asset and will often be influenced by the issuer's IPSX Lead Adviser (the appointment of which is another requirement). The issuer must appoint an IPSX-approved Lead Adviser.

The IPO journey

IPO process and timeline



Source IPSX

1. **The asset:** At IPO, the asset must represent a stabilised situation. It must have a yield and have "reasonable" leases by reference to length, covenant and rents vs. passing market rents. Additionally, there must be modest or nil voids and refurbishment requirements and nil or simple debt instruments in place.

2. **Balance sheet:** Loan to value (LTV) must not exceed 40%. For comparison, the typical LTV of investment type commercial real estate is ca.25%.
3. **Free float:** At and post IPO, at least 25% free float market share must be maintained.
4. **Valuations:** Six monthly data on valuations, SWOT and covenants are required.
5. **Market makers:** Each Issuer must appoint and maintain at least one market maker. Given the likely liquidity in IPSX shares, (see earlier section on liquidity) more market makers may find a commercial justification for their involvement. Hardman believes that many IPSX stocks' valuations will exceed £250m and most £100m.
6. **Definition of a single asset:** IPSX is the 'gatekeeper' of what constitutes an eligible issuer. IPSX may also admit to trading issuers with multiple assets with commonality. This may include physically distinct but closely similar assets (for example, identical hotels in different locations), or several identical buildings on a single estate or assets with very similar use and risk profiles.
7. **Widening the investor base:** IPSX will encourage retail investor participation at IPO and through secondary trading. IPSX welcomes the production of widely-distributed research to support informed retail investor participation.

IPSX AS AN ORGANISATION: A brief history of IPSX

9 January 2019 marked an important date for IPSX, because that is the day when the Financial Conduct Authority approved its application to be a recognised investment exchange. This was the culmination of nearly five years of hard work assembling a team, appointing outsourced providers of services and creating a proposition that would convince the UK's premier regulatory authority. Now the founders' ambition is close to realisation. Along the way, the support of shareholders, including Henley, British Land, M7 and other corporate investors, has been critical. Today, these investors own ca.50% of IPSX, with the management at the Board responsible for a further ca.20%.

It is instructive to understand why these other parties decided to invest in IPSX. In the section below, Henley Investment Management Ltd ("Henley") outlines why it has supported the concept and development of IPSX.

Henley Investment Management's view on IPSX

The following is kindly provided by Henley Investment Management:

Henley led the "launch" investment round into IPSX in 2018 alongside other institutional investors British Land and M7 Real Estate. Henley's position as a global private equity real estate investment firm gave us unique insights into the inefficiencies that plague investing and transacting in the real estate sector. Globally there is enormous investor demand for quality real estate assets, but significant barriers prevent the market working as efficiently as it does for bonds, equities and other asset classes. Henley believes that the presence of highly regulated exchanges in these other asset classes and not in real estate is an accident of history as most large real estate was held by governments, ultra-high net worth individuals and corporations. In the last 30 years across the world, we've seen the evolution of listed real estate companies and numerous fund offerings. IPSX is a breakthrough in the evolution of real estate into a mainstream asset class.

IPSX democratises access to institutional-grade real estate in a transparent, regulated and liquid format. The success in achieving the Recognised Investment Exchange ("RIE") status from the FCA earlier this year is a testament to the strength of the exchanges' infrastructure, processes and procedures, and gives investors comfort that securities and trades on the exchange are operated with the same quality and protections that the other major exchanges offer. Henley's own investors include the biggest global institutional investors, family offices, and ultra-high net worth investors. While investments higher up the risk curve require more active management in a private context, stabilised, income producing assets are well suited for IPSX.

IPSX offers issuers a way to access a wider pool of investor capital and allows flexibility whilst retaining ownership of the asset. Henley see huge potential for traditional investment funds, private equity, owner occupiers, local and central government and private individuals quoting their assets on IPSX. The tax advantages of REIT status are yet another reason why these issuers will benefit from floating their assets. Henley is primarily a value add investor, and so doesn't currently own assets ready for floating on IPSX; however, we will look to float assets on the exchange when those assets are far enough along in their business plans to make them suitable for an IPSX issuance, as we believe this can offer our investors the best return and flexibility for their underlying investment.

Since Henley's investment into IPSX in 2018, we have received a very strong reception from the market and are very impressed with the company's progress to date. We look forward to continuing to be an integral part of the IPSX journey.

Leadership team: group board and senior advisors

We note all major investors have a seat on the group board – a significantly positive position

IPSX has both a group board and a UK board. The latter is directly responsible for the launch, growth and regulation of the UK business, a role in which it has autonomy from the group. Currently, IPSX is solely a UK exchange but the group, which owns the brand, will, in due course, build an international presence for commercial real estate-dedicated securities exchanges. Clearly, regulatory capital is geographically ring-fenced. Today, there are no property-dedicated exchanges trading anywhere in the world.

The leadership team brings a wealth of experience of relevant disciplines. The strength of the team was clearly a great comfort to the FCA in its consideration of IPSX's application. We also note all major investors have a seat on the group board.

David Delaney (Group CEO), joined from fintech communications company VoxSmart, where he was Chief Commercial Officer for two years focused on customer engagement and driving sales. Prior to that, he was Head of Strategic Clients and Solutions, EMEA at Thomson Reuters for just over three years, managing a \$1 billion book of business. Before Thomson Reuters he spent more than 25 years at Credit Suisse – latterly as Global Head of Fixed Income Sales for interest rate products – and Barclays Bank Plc.

Anthony Gahan (Founder) has some 30 years of investment banking experience including as a director of Robert Fleming & Co. Ltd, as a senior banker at Lehman Brothers and a founding partner of Wyvern, the London investment banking firm. He is currently a non-executive director of Maru Group, a technology enabled international insight services group. Anthony co-founded IPSX in 2014.

Ian Pain (group CFO) has 30 years' experience as a CFO of private and public companies coupled with a background in private equity and corporate finance. A Chartered Accountant, Ian started his career at PwC before joining the UK Investment Bank, Charterhouse, and then PPM Ventures (the private equity investment arm of Prudential PLC). He has subsequently completed two roles as CFO of private equity backed companies with a focus on financial performance, restructuring, M&A and exits by way of a trade sale and a London IPO.

Sly Bailey (Vice chairman) is the former CEO of Trinity Mirror PLC one of the largest media companies in the U.K. Previously she was CEO of IPC media where she led the £1.2 billion sale of the business to AOL TimeWarner. She has held a wide variety of public and private non executive roles including EMI plc, Ladbroke's plc, Littlewoods plc and the Press Association. She is currently the Senior Independent Director at Greencore plc.

Robert Bould (NED) is a former CEO of GVA Bilfinger, one of the leading international property agents and advisory firms, and Executive Vice President of Bilfinger Real Estate gmbh. Rob spent his entire career at GVA and was appointed CEO when under private equity ownership by Lloyds Development Capital. Rob was Head of Investment and Chairman of GVA's Capital Markets Group.

Roland Bellegarde (NED) is a stock exchange expert most recently Group Executive Vice President of NYSE Euronext and a member of its management committee and holding board roles at LIFFE, Euronext, Interbolsa, LCH Clearnet and the Qatar Exchange inter alia. He is currently an adviser to Tadawul, the Saudi Stock Exchange.

Sir Brian Ivory CVO CBE (NED Deputy Chairman and Senior Independent Director) is the former Group CEO and subsequently Chairman of Highland Distillers PLC and currently Chairman of Marathon Asset Management and Arcus European Infrastructure Fund. He has held multiple public and private sector non-executive roles with major UK and Continental European financial services groups and consumer products groups.

Charles Knight (NED) is a founding partner and member of Mansford LLP's executive board. Mansford LLP is a private European multi-strategy real estate investment firm owned and controlled by its management, with circa £3bn invested. Charles has over 30 years real estate experience across most asset sub-classes, having qualified as a Chartered Surveyor at GVA, prior to founding Mansford.

Justin Meissel (NED) is currently the Chief Investment Officer at Henley Investments and has a broad range of international real estate and private equity investing experience. Prior to Henley, Justin was a Principal at The Blackstone Group, focusing on UK and European real estate. Previously, he worked at Warburg Pincus in New York and GI Partners in California, investing in Real Estate, Hospitality, Healthcare and Infrastructure, and served on the board of CenterPoint Properties Trust. He began his career at JP Morgan in New York. Justin holds an MBA from Stanford's Graduate School of Business.

Richard Croft (NED) is the Chief Executive Officer at M7 Real Estate, a leading specialist in the pan-European, regional, multi-let real estate market. Wholly owned by its senior managers, M7 has over 200 employees in 13 countries across Europe. The team manages over 1,200 retail, office and industrial properties with a value of circa €7.4 billion. Richard has been involved in over €8 billion of transactions across the UK and Europe during his 26 years of real estate experience.

Charles Middleton (NED) is the Group Financial Controller at The British Land Company PLC, a FTSE 100 property company with a portfolio under management valued at more than £18bn as at 31 March 2018. Reporting to the CFO, Charles has a host of responsibilities including financial reporting, transaction management and structure, corporate financial control, tax, internal audit and group insurance.

Roger Clarke (Managing Director and Head Capital Markets), joins from M7 Real Estate where he was Head of Corporate Finance and where he set up M7's alternative lending platform, Tunstall Real Estate. Prior to joining M7 Roger spent 20 years working in the European investment banking industry, including roles at NM Rothschild, Dresdner Kleinwort Wasserstein, JP Morgan Cazenove and Stifel Nicolaus, as well as undertaking a secondment to the UK Takeover Panel.

Ian Womack (Senior Adviser) is an Independent Director of Grosvenor Liverpool Limited, amongst other Non Executive Director roles. He is also a Trustee and Chairman of the fund raising committee of the Story of Christmas. He joined the finance industry in 1978 and Aviva Investors in April 1980. He is an active and engaged participant in the broader Real Estate community and was Chairman of the highly respected Investment Property Forum from 2006 to 2007. Ian has an Honours degree in Urban Land Economics and is a Fellow of the Royal Institution of Chartered Surveyors.

IPSX UK board and senior management

Michael Higgins (Chairman) has a background in equity capital markets and corporate finance, with NED positions at Plant Health Care PLC, Progility plc and, the Quoted Companies Alliance. On behalf of the QCA he is an alternate member of The Panel on Takeovers and Mergers. Previously, Michael was Chairman of Ebiquity plc and the QCA, Partner and Senior Adviser at KPMG, Director at Charterhouse Bank. He qualified as a Chartered Accountant with Price Waterhouse.

Alan Ramsay (CEO IPSX UK) has extensive experience in regulation, compliance and risk management in banking and capital markets. He was previously a Senior Advisor to PwC and latterly Global Head of Compliance for HSBC Bank Plc, having occupied a similar role previously at Bankers Trust International. He was formerly Executive Director of Surveillance at the Securities and Futures Authority. A Chartered Accountant, Alan is Deputy Chairman of the Chartered Institute for Securities and Investment of which he is also an Honorary Fellow and is Visiting Professor in the Practice of Financial Regulation and Compliance at the BPP Law School.

Lisa Walker (Head of Market Regulation) is widely experienced in financial services regulation and joins from the Australia and New Zealand Banking Group where she was Head of Compliance for the UK and Europe. Lisa previously occupied a senior associate role with the UK Financial Conduct Authority where she had supervisory responsibility for Recognised Investment Exchanges, including NYSE Liffe, BATS, ISDX and the London Stock Exchange.

Alison Scott-Bishop (Head of Compliance and Legal) is a seasoned compliance professional with over 30 years' experience. She has held senior compliance positions in a number of organisations, including the Securities & Investments Board, HSBC Bank plc and, most recently, London Stock Exchange where she was Head of Rules and Compliance for six years prior to joining IPSX in July 2018.

David Beevers (Head of Operations) is a BCS qualified Programme / Portfolio Manager with extensive experience of market infrastructure and investment banking. He has held senior operational/program management roles for two leading global exchanges (the London Stock exchange and NYSE Euronext) and previously also worked at HSBC and Barclays Capital.

Kevin Marriott (Head of Marketing and Communications) is responsible for all external communications for IPSX. Kevin joins from Capita Real Estate and Infrastructure and before that from GVA, the UK Real Estate consultancy where he was responsible for marketing and communications for the business. Kevin brings a wide experience in marketing and communications in the real estate market to the business.

Imogen Joss (NED) has a background in fintech, data analytics, indices and energy/commodities markets together with M&A, business integration, performance transformation and international growth. Currently, she is an NED at Euromoney Institutional Investors PLC, Grant Thornton and Senior Independent Director at Gresham Technologies. Previously, she was Executive Committee Member at S&P Global, President of Platts and S&P Capital IQ, Executive Director at London Stock Exchange Group and Global Head of Sales, FTSE Group.

Malcolm Fallen (NED) has a background in public companies and private equity as Chairman, CEO and CFO. Currently, he is Chairman of Kentech, Enders Analysis, and Optilan. Previous roles include CEO of Candover Investments PLC, KCOM Group PLC and CFO of eircom PLC and British Biotech. He also held financial roles at BT and Bowater.

Ian Pain (CFO) – see previous section for bio details.

IPSX approved valuers

▶ Jones Lang LaSalle Limited

Jones Lang LaSalle Incorporated (i.e. the parent company) is a global commercial real estate services company, in the top 200 of Fortune 500. Among its core services is real estate valuation.

▶ Knight Frank

Knight Frank LLP has over 500 offices around the globe, in 60 territories, providing agency services and advice including valuation and other services.

▶ CBRE

CBRE Group, Inc. is the world's largest commercial real estate services and investment firm, with more than 90,000 employees (excluding affiliate offices). CBRE has been included in the Fortune 500 since 2008, ranking at number 146 in 2019. CBRE offers a broad range of integrated services, including appraisal and valuation; facilities, transaction and project management, property management, investment management, leasing, strategic consulting, sales and mortgage services.

▶ Avison Young

Avison Young was founded in 1978 and is represented in 20 countries through 124 offices. Services include advisory, valuation, acquisitions due diligence, sales, leasing, financing and mortgage placement, investment and others.

The economics of IPSX

A variety of income – growing at different rates

Income is derived from:

- ▶ admission fees;
- ▶ annual fees; and
- ▶ transaction fees.

Market and asset data will be a significant, growing element.

- ▶ Data fees will be a significant and growing element and, although these fees will be a less immediate driver of growth, we expect they will rise as IPSX grows.

Several types of proprietary data

- Providing Level 1 market data
- Indices – IPSX will eventually, we believe, provide indices
- ▶ Real estate analytics for investors, companies seeking to float, insurance and a wide range of stakeholders. Data on:
 - insurance, building size (in a standardised format – there is a surprisingly wide variation in definitions);
 - configuration – namely the manner in which the asset physically sits within the environment (e.g. flood risk, the local plan);
 - BIM related data capture – more and more newly completed buildings comprise Building Information Modelling. Building information models are files that can be extracted, exchanged or networked to support decision-making regarding a built asset and will be of use in monitoring and optimising its future performance. There may be opportunities for IPSX to highlight and configure BIM data in a manner useful to investors. This speaks to the transparency for investors seeking exposure to efficiently run, data-rich assets.
 - FM – namely data (not only BIM-related) can be packaged on performance efficiencies, trends and risks; and
 - tenants – for example, anonymised credit rating data on tenant quality/risk.

Indices will eventually, we believe, be introduced and will be regulated, in order that instruments can be priced marked to the indices. This will be a growing source of income for the exchange.

The indices and ETFs

The above make up part of the long potential list. Clearly, there is a balance between commercial confidentiality and full transparency. We anticipate a centralised “depository” may have a strong role in configuring and making available useable data. Such data would be used by investors and SARC’s but also by intermediaries possibly looking to create ETFs of other collective “data-screened” funds. ETFs may use and pay for the IPSX database.

New products introduced over time will enhance future revenue streams.

Glossary

Accounting ratios: Several real estate companies provide a good summary definition of ratios. For example, the British Land list can be found at <https://www.britishland.com/site-services/glossary>

ARM (Authorised Reporting Mechanism): The EU directive refers to a person authorised under the provisions established in the MiFID II Directive to report details of transactions to domestic competent authorities or ESMA on behalf of investment firms.

Book runner: This is the primary underwriter or lead coordinator in the issuance of new equity or securities instruments.

BREEAM: (Building Research Establishment Environmental Assessment Method), first published by the Building Research Establishment (BRE) in 1990, is the world's longest established method of assessing, rating, and certifying the sustainability of buildings.

CREST: This is the central securities depository for markets in the UK. CREST electronic settlement system is used to settle in many regulated exchanges and has a long pedigree.

EPRA (European Public Real Estate Association): EPRA's mission is to promote, develop and represent the European public real estate sector. See page 160 of 2018 EPRA REIT survey. http://prodapp.epra.com/media/Global-REIT-Survey_Web_20180830_1535727364551.pdf

EPRA cost ratio: This is the ratio of net overheads and operating expenses against gross rental income (with both amounts excluding ground rents payable). Net overheads and operating expenses relate to all administrative and operating expenses, net of any service fees, recharges or other income specifically intended to cover overhead and property expenses. Some property companies provide details of EPRA cost adjusted to exclude direct vacancy costs, although voids may well be an ongoing recurring part of the business model.

ESG: Environmental, social and governance refers to the three central factors in measuring the sustainability and ethical impact of an investment in a company or business. These criteria help to better determine the future financial performance of companies.

ESMA: The European Securities and Markets Authority is an EU financial regulatory agency. It works directly with the FCA.

ETF: This is an exchange-traded fund: a basket of securities such as IPSX stocks, that tracks an underlying index. An exchange-traded fund is a marketable security.

FCA: The Financial Conduct Authority is a financial regulatory body in the UK, operating independently of the UK Government. It is financed by fees from the financial services industry. It regulates financial firms providing services to consumers and maintains the integrity of UK financial markets.

FRC: The Financial Reporting Council is an independent regulator in the UK and Ireland, responsible for regulating auditors, accountants and actuaries, and setting the UK's Corporate Governance and Stewardship Codes. The FRC seeks to promote transparency and integrity in business by aiming its work at investors and others who rely on company reports, audits and high-quality risk management. The

Financial Reporting Council promotes stewardship.
<https://www.frc.org.uk/investors/uk-stewardship-code/uk-stewardship-code-statements/asset-managers>

Intermediaries Offer: This is an offer for an IPO by a company and its advisors that is made to retail investors through PCBs and execution platforms (referred to as an 'Intermediary' or 'Intermediaries'). Each Intermediary will offer shares to their retail investor clients and receive orders from those clients. In contrast, a Direct Retail Offer occurs when the company offers its shares directly to investors, usually when the business is very well known by a large number of consumers or subscribers. The offer is coordinated by a Lead Advisor, which will be responsible for institutional investor interest.

International WELL Building Institute – IWBI see WELL

Investment Property Forum: This comprises an influential network of senior property professionals. The membership is over 1,800, including investment agents, fund managers, bankers, lawyers, researchers, academics and actuaries.

IPO or Initial Public Offering: The open sale of shares in a company to a public range of investors, accompanied by the facility to trade on a recognised investment exchange.

Key Information Documents (KIDs): KIDs provide a summary of the key information relating to individual products (notably SARC and other investment companies) and funds, including the costs and risks and a suggested timeframe for holding the shares.

Lead advisor: A broker, investment bank or property agent that is responsible to the SARC for financial advice during the IPO and subsequently, and to the exchange for governance.

MiFID II: The Markets in Financial Instruments Directive is the EU legislation that regulates firms which provide services to clients linked to financial instruments and the venues where those instruments are traded; for example, IPSX.

OEICs: Open Ended Investment Companies are collective investment funds that have variable capital (usually investors can buy or sell units daily). These are formed as a corporation under the Open-Ended Investment Company Regulations 2001. They may also be known as open ended collective investment schemes (see also UCIS).

PAIF: Property Authorised Investment Fund. Similar to OEICs, the principle differentiator is that PAIFs have more favourable tax treatment – similar to REITs.

PCB: Private client broker.

P.E.R.E.: Refers to private equity in real estate.

Red Book: A valuer's opinion of the value of a specified interest or interests in a property using the basis of value as defined in the Red Book, as at the date of valuation, given in writing in accordance with the minimum standards set out in the Red Book. Source, IPSX rules for issuers.

https://www.ipsx.com/media/uploads/documents/IPSX_Rules_for_Issuers.pdf

REIT: A real estate investment trust is a company that owns income-producing real estate. REITs own many types of commercial real estate, but all are restricted with regards the requirement to pay out at least 90% of all regular income (net of various

allowances, principally capital allowances). REITs can undertake development activities, but the proportion is restricted.

RICS: The Royal Institution of Chartered Surveyors is a professional body promoting and enforcing the highest international standards in the valuation, management and development of land, real estate, construction and infrastructure.

RSP: Retail Service Provider. A market maker that undertakes to make continuous prices in shares in normal market sizes to retail intermediaries, such as PCBs, with virtually instantaneous dealing.

s106: Section 106 is a requirement of national planning policy, whereby developers should make appropriate provision of services, facilities and infrastructure to meet the needs of the development. CIL, the Community Infrastructure Levy, is a similar measure.

SARC: Single-Asset Real Estate Company Many SARCs will be constructed as REITs. Some, however, will have such high tenant-income concentration that they breach the permissible REIT regime threshold. Among other matters, this may have tax implications. This is an acronym used solely in this Hardman & Co document.

SDLT: Stamp Duty Land Tax, a cost of up to 5%.

SWF: Sovereign wealth funds.

Takeover Code: The Takeover Code is designed to ensure that shareholders are treated fairly, are not denied an opportunity to decide on the merits of a takeover and are afforded equivalent treatment by an offeror. This is policed by the Takeover Panel.

UCIS or Unregulated collective investment schemes: If a collective investment scheme (see also OEICs) is not authorised or recognised it is considered an Unregulated Collective Investment Scheme (UCIS). Unregulated Collective Investment Schemes are not subject to the same restrictions in terms of their investment powers and how they are run. These schemes cannot be promoted to the general public but may be to certified high net worth or “sophisticated” individuals.

UHNWI: Ultra-high net wealth individuals.

UKLA: The UK Listing Authority is the FCA’s securities regulator, supporting and regulating UK issuance of securities.

WELL Certification: WELL is the leading tool for advancing health and well-being in buildings globally. It is awarded by the International WELL Building Institute.

About Hardman & Co

Hardman & Co was established 25 years ago as a corporate research & consultancy business. It is based in London and serves the needs of both public and private companies.

The firm has an expert team of more than 30 sector analysts and market professionals, with collectively over 400 years of experience. This depth of knowledge and a reputation for integrity have built trust with investors. With effective communication and precision distribution, we help companies to disseminate their investment message to interested investors, as well as advising them on strategy.

Our smaller, boutique structure allows us to provide first-class customer service and to deliver a wide range of ad-hoc services for multiple clients with different needs.

The company has three business lines:

- ▶ Sponsored research produced on quoted companies, paid for by the company, which is very widely distributed. This is complemented by investor engagement. Our clients range in market capitalisation up to £4bn.
- ▶ Tax-enhanced research about specialist managers and individual opportunities in EIS, VCT and BR markets, consumed by Independent Financial Advisors and wealth managers.
- ▶ Bespoke work, including acting as Expert Witness for court cases, due diligence for organisations such as stock exchanges and private equity houses, and corporate advisory work.

www.hardmanandco.com

About the authors

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Mike Foster is an equity analyst at Hardman & Co and covers a wide range of clients in the Support Services, Building and Property sectors.

He spent his early career working in fund management with British Rail Pension Fund and Eagle Star Investment Management. He then spent two decades in sell-side research at several firms, including Peel Hunt and Credit Lyonnais. He has covered sectors including Construction, Support Services and Real Estate. In his fund management career, he was responsible for both bond and equity portfolios. Mike was part of the group of investors that acquired Hardman & Co in late 2012. He holds an MA in Geography from the University of Cambridge.



Keith Hiscock

Keith Hiscock is the CEO of Hardman & Co. Keith has more than 35 years' stockbroking experience and has developed long-standing relationships with many major institutional investors, including Private Client Brokers and Wealth Managers. He started his career at James Capel, at the time the top-ranked research house in London. He was a founding member of Schroder Securities. He holds an MA in Philosophy, Politics & Economics from the University of Oxford.



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