CONSILIA CAPITAL



Real Estate Securities Funds Monitor

Period End: April 2013

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real estate in asset management	11

Author: Alex Moss alex.moss@consiliacapital.com

Summary

This month we have divided the report into the following sections:

1) A summary of April performance by fund mandate and size (p3)

We promised last month to separate out the dedicated Japanese funds as they were dominating the performance statistics and distorting the Asian regional figures. We have done this, and the result highlights in particular the impact of the J REIT funds, which gave back some of their YTD gains in April. In contrast the European funds finally participated in the positive global real estate momentum after the sector had lagged the other regions so far in 2013.

2) Detailed performance statistics by region (p4)

We focus on overall distribution of returns, benchmark performance, average, maximum and minimum returns for each size banding, and the best performing funds in absolute terms. We use scatter diagrams to illustrate the range of returns, relative to each Fund's Assets under Management. As always, for consistency all returns are rebased in US\$. The Japanese funds are shown separately on p.9.

3) Use and applications of listed real estate (p.11)

With investors placing increasing importance on liquidity, income, and inflation hedging qualities, the popularity of listed real estate securities as an asset class has clearly increased. To illustrate this, over the last five years assets under management of dedicated real estate securities funds grew 68% to US\$ 250 billion from 2007 to 2012, and the number of real estate securities funds increased 39% to 677 in the same period (source: Consilia Capital). Reflecting the market growth in lower cost, passive funds, the most recent figures show that growth in real estate ETFs has been explosive, with total assets under management for ETFs pegged to FTSE EPRA/NAREIT real estate indices jumping 85% to US\$ 8.7 billion in the 12 months through to February this year.

In addition to this growth and popularity, the variety uses of listed real estate in asset management are also increasing. This month we summarise a paper we wrote with Professor Andy Baum of Property Funds Research, that was sponsored by EPRA, on the most important current and potential applications of listed real estate. We believe that this is the most wide ranging survey yet undertaken. The report is divided into four sections:

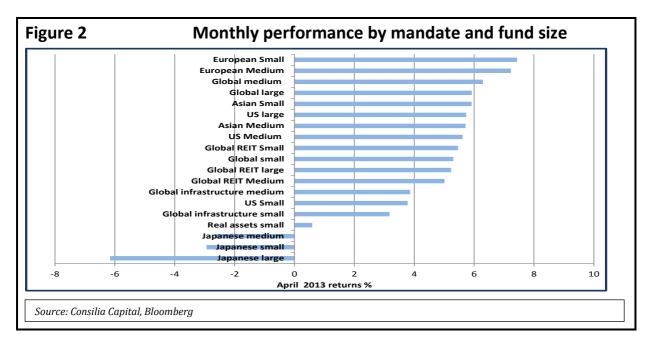
- i) current mandates for dedicated real estate securities funds,(p11)
- ii) the range of listed real estate strategies available (p 12)
- iii) their different uses and applications in asset management (p 14)
- iv) how listed real estate can be combined with other real estate asset classes (p 16).

Finally, it is important to note that there will be no recommendations in these publications and that this report is not intended for retail investors. It is also important to note that this report represents only a very small summary of the outputs of our database, and the bespoke research and advisory service work we undertake for clients. For further details of the work we undertake please contact us.

April 2013 performance summary

Firstly we show how each region has performed relative to the benchmarks and other listed real estate markets (Figure 1). Secondly, the differences in performance of each region classified by size of Fund (Figure 2) and thirdly we are interested in the performance of global listed real estate as an asset class relative to competing asset classes such as Global Infrastructure and Real Assets (Figure 3).

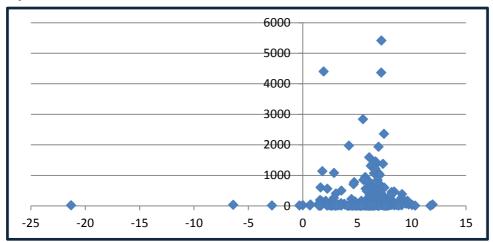
	Asia	Average	Max	Minimum
Funds	Asian Funds	5.63	9.14	-1.25
	Japanese Funds	-3.55	20.76	-7.99
Benchmark	EPRA NAREIT Asia Total Rtrn Index USD	7.65		
	Europe	Average	Max	Minimum
Funds	European Funds	7.22	9.69	0.99
Benchmark	FTSE EPRA/NAREIT Dev'd Europe Index	8.35		
	US	Average	Max	Minimum
Funds	US Funds	4.79	20.85	-19.01
Benchmark	Dow Jones US Select REIT Index	6.88		



	Global	Average	Max	Minimum
Funds	Global Funds	5.73	11.93	-21.30
Benchmark	FTSE EPRA/NAREIT Developed Index	7.30		
	Global REITs	Average	Max	Minimum
Funds	Global REIT Funds	5.28	8.59	-1.67
Benchmark	S&P Global REIT Index	6.25		
	Infrastructure	Average	Max	Minimum
Funds	Global Infrastructure Funds	3.12	7.52	-3.88
Benchmark	D Jones Brookfield Global Infra Tot Rtn	4.93		
Funds	Real Assets Funds	0.60	6.48	-6.83

Global Funds

April 2013 Performance



Vertical axis Aum US \$m

Horizontal axis monthly total return rebased in US\$

Source: Consilia Capital, Bloomberg

Popular Benchmarks

Benchmark Index	Apr return %	Volatility %
FTSE EPRA/NAREIT Developed Index	7.30	11.38
S&P Dev Property	7.32	11.24

By Fund size

Fund	Average	Maximum	Minimum
Global large	5.92	7.47	1.80
Global medium	6.29	9.62	1.51
Global small	5.30	11.93	-21.30

Best Performing Funds

Global Large Funds > US \$ 750m AuM

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Morgan Stanley Global R E Portfolio	7.47	1.86	12.61	2,359	Open-End
Principal Global Real Estate Secs Fund	7.37	2.12	12.11	1,376	Open-End
ING Global Real Estate Fund	7.23	1.79	12.40	5,416	Open-End
SPDR Dow Jones Real Estate ETF	7.21	2.06	14.31	4,365	ETF
Morgan Stanley Global Prop Fund	7.08	1.76	11.92	1,013	SICAV

Global Medium Funds US \$75m to US\$750m AuM

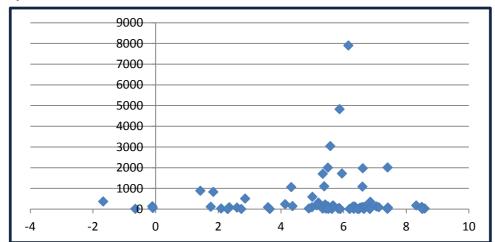
Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
UBS Global Real Estate Securities Fund	9.62	2.49	9.80	167	Open-End
MFL Property Fund	9.13	4.53	5.30	384	Open-End
FORTIS High Income Property Fund	9.04	2.60	8.78	140	Open-End
Barclays Global Property Securities	8.71	1.33	11.90	108	OEIC
Fidelity Advisor International R E Fund	8.40	2.39	12.82	470	Open-End

Global Small < US\$ 75 AuM

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Colonial First State Geared Global Prop	11.93	1.71	19.91	44	Unit Trust
Sanlam I.M. Property Index Fund	10.04	n/a	n/a	33	Open-End
NEF - Immobiliare	9.74	1.77	10.38	46	FCP
AST 2 Global Real Estate Securities	9.49	2.40	9.80	73	Open-End
JPMorgan Global Property Secs Fund	9.12	2.25	9.49	50	OEIC

Global REIT Funds

April 2013 Performance



Vertical axis Aum US \$m

Horizontal axis monthly total return rebased in US\$

Source: Consilia Capital, Bloomberg

Popular Benchmarks

Benchmark Index	Apr return %	Volatility %
S&P Global REIT Index	6.25	11.35

By Fund size

Fund	Average	Maximum	Minimum
Global REIT large	5.23	7.41	1.43
Global REIT Medium	5.01	8.50	-1.67
Global REIT Small	5.46	8.59	-0.64

Best Performing Funds

Global REIT Large Funds > US750m AuM

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Daiwa Global REIT Open Fund	6.61	2.40	13.99	1,970	Fund of Funds
Nikko AMP Global REIT Fund	6.60	2.32	13.97	1,085	Fund of Funds
Nikko LaSalle Global REIT Fund	6.16	2.22	14.38	7,899	Fund of Funds
DLIBJ DIAM World REIT Income Open -	5.95	2.30	14.00	1,718	Fund of Funds
Kokusai World REIT Open	5.87	2.41	13.51	4,826	Fund of Funds

Global REIT Medium Funds US\$75m to US\$750m AuM

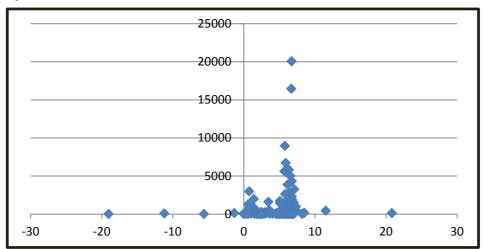
Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Standard Life - Global REIT Focus Fund	8.50	2.16	10.84	103	SICAV
Hana UBS Global REITs Fund of Funds	8.32	3.11	9.93	173	Fund of Funds
JPMorgan Global Real REITs	7.13	2.03	10.89	87	Fund of Funds
First Trust FTSE EPRA/NAREIT Dev R E	7.05	1.92	12.43	128	ETF
LGT Select REITS	6.86	1.63	11.28	352	Open-End

Global REIT Small Funds < US\$75m AuM

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Type
BNY Mellon Global REIT	8.51	1.59	20.60		Open-End
Mitsubishi UFJ	8.50	2.37	17.87	66	Fund of Funds
Sumitomo Mitsui Global REIT Plus	7.42	2.19	17.00	75	Fund of Funds
ING Global REITs Fund	7.41	1.90	10.40	36	Unit Trust
Mitsubishi UFJ World 3 Region REIT Fd	7.40	2.43	15.53	9	Fund of Funds

US Funds

April 2013 Performance



Vertical axis Aum US \$m

Horizontal axis monthly total return rebased in US\$

Source: Consilia Capital, Bloomberg

Most Popular Benchmarks

Benchmark Index	Apr return %	Volatility %
Dow Jones US Select REIT Index	6.88	14.25
MSCI US REIT Index	6.88	14.04

By Fund size

Fund	Average	Maximum	Minimum
US Large	5.74	7.12	0.64
US medium	5.62	20.85	-1.32
US small	3.78	8.22	-19.01

Best Performing Funds

US Large Funds - Over US \$1bn AuM

Fund	Apr return %	Sharpe Ratio	Volatility%	AUM US\$	Туре
iShares Cohen & Steers Realty Majors	7.12	1.31	12.81	3,229	ETF
JPMorgan Realty Income Fund	7.11	1.38	12.66	1,079	Open-End
Virtus Real Estate Securities	7.01	1.27	12.57	1,537	Open-End
Principal Investors Fund Inc - R E Secur	6.80	1.37	13.13	1,873	Open-End
SPDR Dow Jones REIT ETF	6.78	1.44	12.59	2,305	ETF

US Medium Funds US\$100bn to US\$1bn AuM

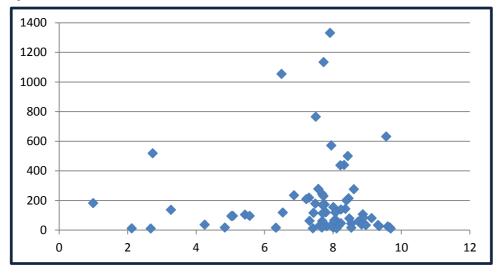
Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Direxion Daily Real Estate Bull 3x	20.85	1.51	37.22	117	ETF
ProShares Ultra Real Estate	11.53	1.71	23.90	425	ETF
LMP Real Estate Income Fund Inc	8.52	2.23	19.01	167	Closed-End
VALIC I - Global Real Estate Fund	7.44	2.09	12.30	424	Variable An'ty
Rakuten US REIT Triple Engine	7.35	1.76	26.76	970	Open-End

US Small < Under US\$100m AuM

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
iShares FTSE NAREIT Retail Capped Inde	8.22	1.97	12.10	21	ETF
GMO Real Estate Fund	7.06	1.50	12.38	13	Open-End
BlackRock US Real Estate Securities	6.93	n/a	n/a	7	Open-End
WTFSC Total Return REIT Portfolio	6.92	1.49	12.31	41	Open-End
Pioneer Real Estate Shares VCT Port'lio	6.90	1.41	12.59	51	Variable An'ty

European Funds

April 2013 Performance



Vertical axis Aum US\$m

Horizontal axis monthly total return rebased in US\$

Source: Consilia Capital, Bloomberg

Most Popular Benchmarks

Benchmark Index	Apr return	Volatility %
FTSE EPRA/NAREIT Dev'd Europe Index	8.35	11.33

By Fund size

Fund	Average	Maximum	Minimum
Europe med.	7.23	9.56	0.99
Europe small	7.43	9.69	2.12

Best Performing Funds

European Medium Funds > US\$ 75m AuM

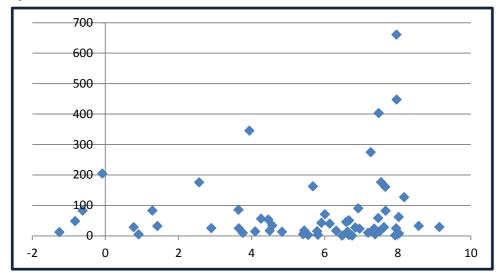
Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
iShares FTSE EPRA/NAREIT UK Prop Fund	9.56	2.63	12.88	631	ETF
ESPA Stock Europe-Property	9.13	1.46	12.15	80	Open-End
Kempen Best Selection European Prop.	8.89	1.97	13.51	83	Open-End
CSIF Europe ex CH Real Estate Index	8.87	2.56	13.34	106	Open-End
Kempen European Property Fund. Index	8.61	1.74	12.84	276	Open-End

European Small Funds < US\$75m AuM

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
AXA Luxembourg Fund - European Immo	9.69	0.85	13.22	11	SICAV
Pioneer Invest - Europa Real	9.66	1.47	12.48	18	Open-End
Allianz Real Estate Securities Europe	9.60	1.78	11.65	25	SICAV
BNP Paribas Property Securities Fund	9.35	1.52	12.81	27	Open-End
AMUNDI ETF REAL ESTATE REIT IEIF	9.32	1.97	13.43	34	ETF

Asian Funds

April 2013 Performance



Vertical axis Aum US\$m

Horizontal axis monthly total return rebased in US\$

Source: Consilia Capital, Bloomberg

Most Popular Benchmarks

Benchmark Index	Apr return %	Volatility %
EPRA NAREIT Asia Total Rtrn Index USD	7.65	13.29

By Fund size

Fund	Average	erage Maximum	
Asian medium	5.91	9.14	0.78
Asian small	5.71	8.17	-0.08

Best Performing Funds

Asian Medium funds >U\$\$100m AuM

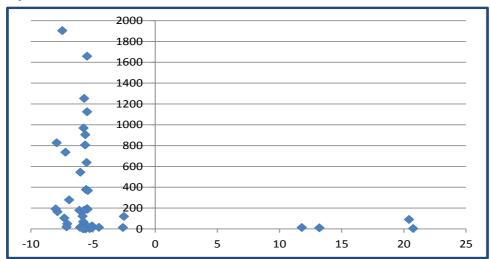
Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Amadeus Capital Vision PLC - Amadeus	8.17	2.81	12.42	127	Open-End
Henderson Horizon - Asia-Pac Property	7.97	2.33	13.76	447	Open-End
Morgan Stanley Asian Property Fund	7.97	2.17	13.87	660	SICAV
Vanguard Property Securities Index ETF	7.67	2.45	11.24	82	ETF
SMTAM Asia REIT Research Open	7.66	n/a	n/a	161	Open-End

Asian Small funds < US\$100m AuM

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Sumitomo Mitsui Asia High Yield REIT	7.96	3.18	15.30	24	Open-End
BOCHK Investment Funds - Asia Pacific	7.93	2.15	13.54	1	Unit Trust
BNP Paribas -Prop Secs Fund Far East	7.63	2.87	17.84	28	Open-End
AmAsia-Pacific Property Equitites Fund	7.50	3.10	12.25	14	Fund of Funds
Henderson Global Select Funds - Asia	7.47	2.60	16.37	58	Unit Trust

Japanese Funds

April 2013 Performance



Vertical axis Aum US\$m

Horizontal axis monthly total return rebased in US\$

Source: Consilia Capital,

Bloomberg

Most Popular Benchmarks

Benchmark Index	Apr return %	Volatility %
Tokyo Stock Exchange REIT Index	-5.79	19.28

By Fund size

Fund	Average	erage Maximum	
Japanes e large	-6.16	-5.47	-7.91
Japanese medium	-2.66	20.43	-7.99
Japanese small	-2.94	20.76	-7.12

Best Performing Funds

Japanese Large funds > US\$500m AuM

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Nissay J-REIT Fund - Monthly Dividend	-5.47	2.25	19.48	1,659	Fund of Funds
Nomura Japan Real Estate Fund	-5.47	2.22	19.41	1,124	Open-End
MHAM Mizuho J-REIT Fund	-5.51	2.26	19.64	638	Fund of Funds
Daiwa J-REIT Open - Monthly Dividend	-5.62	2.23	19.05	905	Fund of Funds
Shinkin J REIT Open - Monthly Dividend	-5.62	2.22	19.36	806	Fund of Funds

Japanese Medium funds<US\$500m >US\$100m AuM

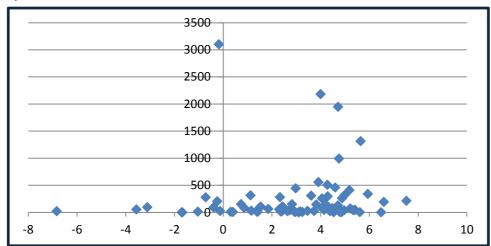
Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Nomura TOPIX-17 Real Estate ETF	20.43	2.38	34.41	90	ETF
Mizuho JREIT Fund BRL Course	-2.51	2.25	26.39	120	Open-End
MHAM J-REIT Active	-5.41	2.30	19.54	368	Fund of Funds
Okasan J REIT	-5.44	2.20	18.74	188	Fund of Funds
Nissay J REIT	-5.48	2.24	19.50	194	Open-End

Japanese Small funds < US\$100m AuM

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Daiwa ETF TOPIX-17 Real Estate	20.76	n/a	n/a	3	ETF
Nomura Index Select Fund Real Estate	13.22	2.54	22.58	10	Open-End
Mizuho JREIT Fund USD Course	-2.59	2.54	22.59	13	Open-End
United J-REIT + Strategy Fund	-4.52	1.86	8.17	15	UIT
Meiji Yasuda JREIT Strategy Fund	-5.07	2.34	19.23	10	Open-End

Infrastructure and Real Asset Funds

April 2013 Performance



Vertical axis Aum US\$m

Horizontal axis monthly total return rebased in US\$

Source: Consilia Capital, Bloomberg

Most Popular Benchmarks

Benchmark Index	Apr	return %	Volatility %
D Jones Brookfield Global Infra Tot Rtn		4.93	8.44

By Fund size

Fund	Average	Maximum	Minimum
Real assets small	0.60	6.48	-6.83
Global infrastructure medium	3.86	7.52	-0.71
Global infrastructure small	3.17	5.61	-1.70

Global Infrastructure Medium >US\$150m AuM

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Lazard Global Listed Infrastructure	7.52	n/a	n/a	212	Open-End
Brookfield Global Listed Infrastructure	6.59	1.87	15.60	192	Closed-End
iShares Macquarie Global Infrastructui	5.94	1.91	9.69	339	ETF
First State Global Listed Infrastructure	5.64	2.40	9.01	1,315	OEIC
First Trust Energy Infrastructure Fund	5.18	2.12	16.27	410	Closed-End

Global Infrastructure Small < US\$150m AuM

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
Tata Growing Economies Infrastructure	5.61	0.90	11.17	4	Open-End
T Rowe Price Global Infrastructure	5.41	1.63	10.92	46	Open-End
UBS Lux Equity Fund - Infrastructure	5.34	1.63	13.20	40	FCP
EasyETF NMX30 Infrastructure Global	5.22	2.63	9.98	71	ETF
Shinhan BNPP Tops Global Infra	4.86	0.69	10.93	6	Unit Trust

Real Assets Funds

Fund	Apr return %	Sharpe ratio	Volatility %	AUM US\$m	Туре
MKB Real Estate Fund of Funds	6.48	n/a	9.32	2	Fund of Funds
Planetarium Fund - Riverfield Real Asse	4.96	3.06	7.60	39	Open-End
Argos Investment Fund - Real Assets	4.54	1.86	6.38	4	Fund of Funds
Euromobiliare Real Assets	3.25	0.07	3.18	8	Open-End
L&T Global Real Assets Fund	2.38	0.62	13.06	11	Fund of Funds

The use of listed real estate securities in asset management ¹

With investors placing increasing importance on liquidity, income, and inflation hedging qualities, the popularity of listed real estate securities as an asset class has increased. This article aims to provide a summary of the most important current and potential applications of listed real estate by looking at 1) current mandates for dedicated real estate securities funds, 2) the range of listed real estate strategies available, 3) their different uses and applications in asset management, and 4) how listed real estate can be combined with other real estate asset classes.

1 Real estate securities funds

1.1 Growth in the market

Over the last five years assets under management of dedicated real estate securities funds grew 68% to US\$ 250 billion from 2007 to 2012, and the number of real estate securities funds increased 39% to 677 in the same period (source: Consilia Capital). Reflecting the market growth in lower cost, passive funds, the most recent figures show that growth in real estate ETFs has been explosive, with total assets under management for ETFs pegged to FTSE EPRA/NAREIT real estate indices jumping 85% to US\$ 8.7 billion in the 12 months through to February this year. Although the number of new funds being launched has now slowed down, it is interesting to note that there have been some significant new entrants to the sector, such as *Blackrock*, who have announced the creation of a global real estate securities platform and the formation of regional teams.

1.2 The different mandates available and influence of dedicated funds

To put this into context, we estimate that dedicated listed funds in our database are responsible for around 25% by value of total holdings in the listed sector as represented by the EPRA Index. The actual figure is likely to be higher, as the Consilia Capital database only captures funds which submit returns to Bloomberg. There are two groups which will not feature in the database: funds that do not submit data, and (more importantly) listed separate account mandates rather than collective investment vehicles. *CBRE Global Investors* and *LaSalle Investment Management* are good examples of asset managers which have significant separate account mandates but little representation in our funds database. For reasons of clarity we have also excluded from the table below two categories; International (i.e. Global ex one country and single country specialist funds.

Figure 4: Real estate securities funds by mandate as at end Dec 2012

	AUM(\$bn)	Number of funds
Global Real Estate	61.2	251
US Real Estate	123.4	148
Asian Real Estate	14.2	112
European Real Estate	13.1	85
Global REIT	34.1	78

Source: Consilia Capital

¹ The full report "The use of real estate securities in asset management: A literature review and summary of current practical applications" " by Alex Moss and Professor Andrew Baum is available both on the EPRA website and the Consilia Capital website.

2 Listed real estate securities funds strategies

Having looked at the growth in the universe of listed funds and its constitution by geographical mandate, we now look at the different strategies that are on offer. The table below summarises the main groupings.

Universe of Listed Real Estate Securities

Long Only Strategies

Long/short strategies

Benchmark

Non benchmark

Income Funds

Hedge Fund

130/30 style

Figure 5: Overview of real estate securities funds strategies and styles

Source: Consilia Capital

Looking at these strategies in turn we observe the following:

Indexed/ETF

2.1 Benchmarked funds

In Europe, we have identified close to 90 funds with listed real estate at their core. Of these the majority use a benchmark, and EPRA is by far the most popular provider. For global real estate funds, the FTSE/EPRA/NAREIT Developed Index (in its various forms) was easily the most commonly used.

2.2 Non-benchmarked funds

Non-benchmark constrained funds seek to provide what is typically described as 'a mixture of income and capital growth'. A good example of a non-benchmark constrained fund would be the *M&G Global Real Estate Securities Fund,* set up in 2008. As a result of the absence of a benchmark, the fund weightings can be expected to be quite different (typically more concentrated) from those in a benchmarked fund.

2.3 Income funds

There are two specific strategies that seek to deliver a specific income objective: first, using a portfolio of higher-yielding REITs such as the CBRE Clarion Global Real Estate Income Fund, and (on a regional basis) the B&I Pan-Asian Total Return Real Estate Securities Fund. Secondly, through writing call options on the underlying portfolio and taking the premium received, distributing it as a dividend to unit holders. The Schroder Global Property Income Maximiser Fund is a good example of this latter strategy.

2.4 Indexed funds and exchange-traded funds

One of the most noticeable trends across all capital markets has been the increased use of Exchange Traded Funds (ETFs), and the real estate securities sector has seen a number introduced over the last five years in particular. These funds seek to track an index at low cost, albeit with various levels of tracking error. As can be seen the US is the most popular market for these products, followed by global mandates. We are also aware of a number of ETFs which follow various 'International' indices (for example, global excluding the domestic country or region).

Figure 6: ETFs by mandate and AUM as at end Dec 2012

Mandate	AUM (US\$bn	Number
Asian Real Estate	1.5	17
Canadian Real Estate	1.3	1
European Real Estate	2.3	10
Global Real Estate	7.5	10
Global REIT	1.7	3
US Real Estate	30.9	30

Source: Consilia Capital

2.5 Long-short strategies

Many specialist real estate securities teams incorporate these long/short strategies alongside traditional long-only structures. As an example the team at Thames River run a hedge fund (the Longstone Fund), a UCITs 3-compliant style long- short fund, and the F&C Real Estate Equity Long/Short Fund which aims to generate a return of 8-10% by investing in a portfolio of pan-European real estate securities. Cohen & Steers also run a Global Real Estate Long/Short Fund alongside their numerous long only strategies, and it is worth examining their investment philosophy: "Long positions focus on property companies trading at a discount to their net asset values, with strong balance sheets, proven management teams and solid business models. Short positions are used as opportunistic investments based on specific catalysts, or as hedging instruments designed to mitigate risks related to the broad equity market, foreign exchange rates, interest rates and various country- and company-specific factors."

It is worth noting that of the new entrants to the sector in the last five years a number are employing long/short strategies as a means of differentiation.

In 2006 a number of specialist real estate securities hedge funds emerged. These were in sharp contrast to the long only benchmark based fund strategies, and had few constraints in their mandates, but as a group they did not survive the liquidity crisis of 2007-2009.

Finally, it is worth mentioning the involvement of generalist hedge funds, such as Moore Capital, in the sector. Broadly speaking hedge fund interest in the sector will depend upon their broad strategy types, such as Long/Short, Event Driven, Tactical Trading and Relative Value. There will always be some interest in the sector dependent upon corporate activity, liquidity and relative valuation but their significant involvement tends to occur infrequently, at times of maximum liquidity, stress and pricing "dislocation" (i.e. large discounts to a realistic NAV), such as 1Q 2009 when listed companies were having their rescue rights issues at deeply discounted prices.

3 The uses and applications of listed real estate in an investment strategy

Having noted the different strategies available in a dedicated fund structure, we now examine the main uses and applications of listed real estate as an investment strategy. Figure 7 below shows the main applications of listed real estate in asset allocation. It can be used as a proxy for direct or private real estate (section 3.1); it can be used to add liquidity (section 3.2) to a private real estate fund or portfolio (for defined contribution funds, unit-linked funds or PAIFs, for example) or it can be used for sector focus when the best available asset manager happens to be a listed fund or company (section 3.3). This means that sometimes listed real estate will be used on its own, and sometimes it will be combined with other real estate formats, which we examine in section 4.

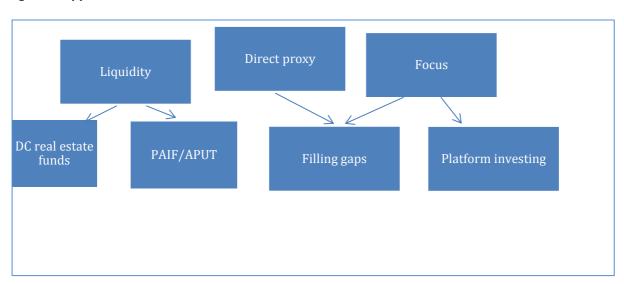


Figure 7: applications of listed real estate

3.1 Using listed real estate as a proxy for direct real estate

The China National Council for Social Security Funds recently awarded a listed real estate mandate to use listed real estate to deliver a real estate exposure as part of the multi-asset portfolio. In the US this strategy has been extremely popular with US state pension funds, which have awarded domestic and global REIT mandates to fulfil their requirement for a real estate exposure. In Europe PGGM and APG have both (at times) been keen proponents of using the listed sector as a way of delivering direct real estate returns.

Dutch pension fund BPF Bouw has increased its allocation to listed real estate as part of a plan to invest in both public and private real estate in a fully integrated way, and will be able to invest as much as 8% of its real estate capital in listed investments as part of a portfolio managed by a single, integrated team at asset manager Bouwinvest Real Estate Investment Management.

The fully integrated listed strategy will enable Bouwinvest to take advantage of market cycles and arbitrage opportunities with the non-listed sector. Another main objective is to 'fill in holes' where Bouwinvest is unable to find the right non-listed product, whether this is a real estate fund, club deal or joint venture. A recent example of the execution of this strategy was an investment in five real estate investment trusts (REITs) to gain exposure to regional malls in the US, given that many of the best assets in the sector are held by listed REITs.

3.2 Using listed real estate to add liquidity:

For DC schemes

Given the introduction of auto-enrolment for Defined Contribution ("DC") pensions schemes in the UK one of the key challenges for the real estate industry is how to provide real estate exposure in a manner which is suitable for a DC rather than the historic Defined Benefit schemes. Legal & General Property (LGP) together with Legal & General Investment Management (LGIM) launched a new product, the *Hybrid Property Fund*, in 2011 which they claim offers DC pension schemes a new and innovative way to invest in property funds while managing volatility and liquidity. Developed in conjunction with an investment consultant, the fund invests in LGP's UK balanced fund (the Managed Property Fund) and LGIM's Global REITS Index Tracker Fund on a default position split of 70:30. As at May 2011 the fund was available to a number of other DC schemes and has been selected by a major life platform to provide its clients with global real estate exposure.

Providing a property allocation that has been specifically designed in conjunction with investment consultants to meet the optimum criteria of UK DC pension schemes, L&G say the fund caters to the increasing long-term growth trend of DC. The combination of UK direct and global indirect funds provides greater diversification and liquidity, while reducing fund expenses and the entry and exit costs typically associated with direct property investment. In order to provide the ability to adapt to market movements, the manager has the flexibility to alter the 70:30 default position of the fund within pre-set benchmark ranges.

In a direct property fund

In the UK, Property Authorised Investment Funds (PAIFs) are new tax-efficient collective vehicles for the retail and institutional market. They follow (and may replace) the Authorised Property Unit Trust, which is a direct property fund required to hold 15% of its assets in a liquid form. The increasing popularity of these vehicles could lead to an increase in the use of listed real estate in direct property funds.

3.3 Using listed real estate for focus: platform investing

The concept of platform investing (allocating money to specialist asset managers) is well known to real estate private equity managers, but it is increasingly being used in the listed sector. There are two specific reasons for this: firstly, a belief that specialist management teams and niche sectors deliver superior returns over the long term; secondly, the current limited equity funding available for smaller listed companies means that platform investors can fill the gap, providing a critical lifeline of support and expansion in the same way that mezzanine debt funds are filling the gap left by the reduction in senior debt. As an example, Forum Partners have successfully executed this strategy globally, with over 70 investments in 17 countries in Europe and Asia.

4 Mixing listed real estate with other real estate assets

Against a background of new risk/return requirements the liquid, listed real estate sector is increasingly used in portfolio construction with other real estate-related assets. In this final section we examine the potential range of combinations available to portfolio managers and product developers, using listed real estate as all or part of the real estate portfolio. We can think of this as a palette of available real estate options with subtly different risk and return characteristics compared to a benchmarked listed real estate exposure. Having identified the available options, we look at each in turn to see what investment products are currently available, how they differ, and which areas are likely to increase as a result of regulatory or market factors.

The chart below illustrates the palette of available options, with listed real estate at the core, forming part of all the strategies. We examine all the possible strategies, starting with combining listed real estate with direct real estate, and continue round the palette clockwise.



Figure 8: Palette of listed real estate combinations

4.1 Listed real estate plus direct real estate

The most well-known example of combining listed and direct property in a fund format is the *TR Property Investment Trust*. The manager currently applies the following guidelines for asset allocation:

UK listed equities 25 - 50%, Other listed equities 0 - 5%, European listed equities 45 - 75%, Listed bonds 0 - 5%, Direct UK property 5 - 20%.

It is important to note that as the TR Property Investment trust is close ended, it is able to add debt to the balance sheet to part finance the direct property holdings. In addition to the TR Property Investment Trust the same manager also runs a smaller, open ended vehicle, which combines direct property and listed real estate, and has a greater emphasis on income, called the Thames River Property Growth and Income Fund. It should be noted that this structure does not use debt.

4.2 Listed real estate fund plus external unlisted funds

A good example of a structure combining listed funds with unlisted funds is the *HSBC Open Global Property Fund* run by Guy Morrell. This combines a geographic allocation strategy with the ability to invest in funds that are exposed to both listed and unlisted property markets. In addition we are aware that a number of fund of property fund managers have a mandate to invest in listed real estate but at present this does not appear to be actively used either at a tactical or at a strategic level. More typically, cash would be invested in the listed sector pending completion of an investment in an unlisted fund, and subsequently withdrawn.

4.3 Listed real estate fund plus internal unlisted funds

The best example currently is the *Legal & General Hybrid Property Fund* that we mentioned in section 3.2 as a solution for DC schemes. The fund invests in LGP's UK balanced fund (the Managed Property Fund) and LGIM's Global REITS Index Tracker Fund on a default position split of 70:30. The manager has the flexibility to alter the 70:30 default position of the fund within pre-set benchmark ranges.

4.4 Listed real estate plus debt

As yet this area has yet to be fully explored, but a number of consultants are espousing the use of commercial real estate debt. Insurance companies are providing long term debt once again as a result of more beneficial Solvency II regulations for debt than direct investment, and numerous asset managers are setting up debt funds. It appears to be a matter of time before the two are combined to provide a 'blended' real estate exposure, although what the investment characteristics of such a hybrid may be are hard to define.

4.5 Listed real estate plus other 'real assets'

The growth in commodities and resources as an asset class, coupled with a need to provide protection against inflation, has led to increasing attention on 'real asset' funds. A good example is the *Cohen & Steers Real Assets Fund* which invests primarily in core real asset categories, consisting of global real estate securities (25–35%), commodities (25–35%) and global natural resource equities (15–25%). It may invest up to 20% of the portfolio in diversifiers for added stability, including gold and fixed income in multiple currencies. It utilises a multi-manager approach for core real asset categories.

As a result of this investor interest in other real assets we include infrastructure funds and real asset funds in our database and performance monitoring publications.

4.6 Listed real estate plus derivatives

Combining listed real estate and derivatives is the key strategy employed by the *Iceberg funds* managed by CBRE Reach Aim. The fund invests across the full spectrum of investment vehicles, but focuses on listed real estate and derivatives with a highly quantitative investment process.

Summary

Academic research has shown how the returns of the listed sector are related to the returns of the underlying assets, and that inclusion of REITs in a multi asset portfolio can improve both return and risk. The liquidity, efficient pricing and transparency offered by the listed property sector means it is now being used by a broader range of investors, and in a wide variety of applications, including defined contribution pension plans, platform investing, and long/short hedge fund strategies.

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CONSILIA CAPITAL

Consilia Capital, 2nd Floor, Berkeley Square House, Berkeley Square, London W1J 6BD

m: +44 (0) 7807 868 237 T: + 44 (0) 207 887 6086

alex.moss@consiliacapital.com www.consiliacapital.com