

# CONSILIA CAPITAL



## Real Estate Securities Funds Monthly

Period End: June 2016

CONTENTS	Page
Summary	2
June 2016 Performance	3
1H 2016 Performance	4
Focus: Liquidity of Real Estate Securities	5
Global Real Estate Funds	10
Global REIT Funds	11
US Real Estate Funds	12
European Real Estate Funds	13
Asian Real Estate Funds	14
Japanese Real Estate Funds	15
Global Infrastructure & Real Assets Funds	16

Author: Alex Moss [alex.moss@consiliacapital.com](mailto:alex.moss@consiliacapital.com)

June 2016

## Summary

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

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

Mandate	June return US\$%
US Real estate	5.35
Asian Real estate	4.56
Global Infrastructure Fund	3.66
Japan Real Estate	3.20
Global REIT	3.16
Global Real Estate	2.59
Real Assets Fund	1.06
European real estate	-4.97

### 2) A summary of 1H 2016 performance by fund mandate and size (p4 )

Mandate	1H 2016 return US\$%
Japan Real Estate	19.97
US Real estate	10.25
Asian Real estate	10.01
Global Infrastructure Fund	9.98
Global REIT	8.74
Real Assets Fund	6.17
Global Real Estate	5.97
European real estate	-1.01

### 3) Focus: Liquidity of Real Estate Securities (ps5-9)

Ahead of the separation of real estate as the 11<sup>th</sup> GICs classification on 1<sup>st</sup> September 2016, we are featuring a series of articles related to this new, explicit weighting. This month we look at liquidity, and feature a paper which we recently had published in the Journal of Property Investment and Finance. The purpose of the paper was to test the relationship between liquidity in listed real estate markets, company size, and geography during three different periods of market conditions, specifically; pre-crisis (2002–2006), during the crisis (2007 – 2009) and post-crisis (2010–2014). Key Findings are:

- Market liquidity factors are correlated globally over time, indicating markets interdependence. However, specific liquidity levels in each market do differ.
- Stock turnover levels have not recovered post-crisis to pre-crisis levels in the majority of markets although spreads have continued moving downward to negligible levels in line with the rest of the equity market.
- With regards to stock performance, the European bias previously detected is not apparent in the US , and there is no evidence of the small cap vs. large cap effect of small companies achieving superior returns, although smaller companies have outperformed in Europe and Asia in each of the last three years (2012-2014).

### 4) Detailed performance statistics by region (ps 10-16) for 1H 2016

This month we look at the data for the first half of 2016. For each mandate we show: the dispersion of returns by Fund AUM, popular benchmark returns and volatility, average, maximum and minimum fund returns, the best performing funds by size, for each mandate. For consistency, all returns are rebased in US\$.

*Finally, it is important to note that there are no recommendations or investment advice contained in this publication, and that it is not intended for retail investors. 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 our work please contact us.*

# Real Estate Securities Funds Monthly

## June 2016 performance summary

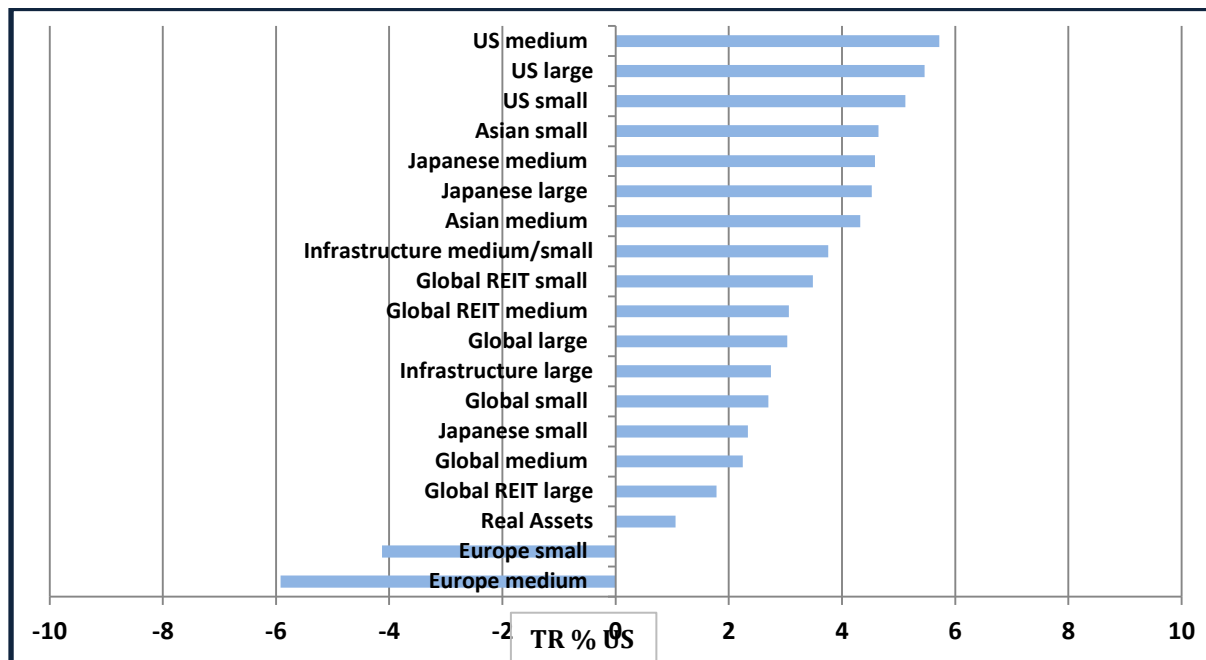
Firstly we show how each region and asset class has performed during the month, with the range of maximum and minimum outcomes. (Figure 1). Secondly, we look at the differences in performance of each mandate classified by size of Fund (Figure 2).

**Figure 1 Fund performance June 2016**

Funds	Average (%)	Max (%)	Min (%)
US Real estate	5.35	21.33	-18.93
Asian Real estate	4.56	17.54	-1.92
Global Infrastructure Fund	3.66	86.20	-9.10
Japan Real Estate	3.20	8.41	-4.77
Global REIT	3.16	12.00	-6.22
Global Real Estate	2.59	34.87	-7.31
Real Assets Fund	1.06	5.69	-4.47
European real estate	-4.97	4.59	-17.90

Source: Consilia Capital, Bloomberg

**Figure 2 June 2016 performance by mandate and fund size**



Source: Consilia Capital, Bloomberg

## 1H 2016 performance summary

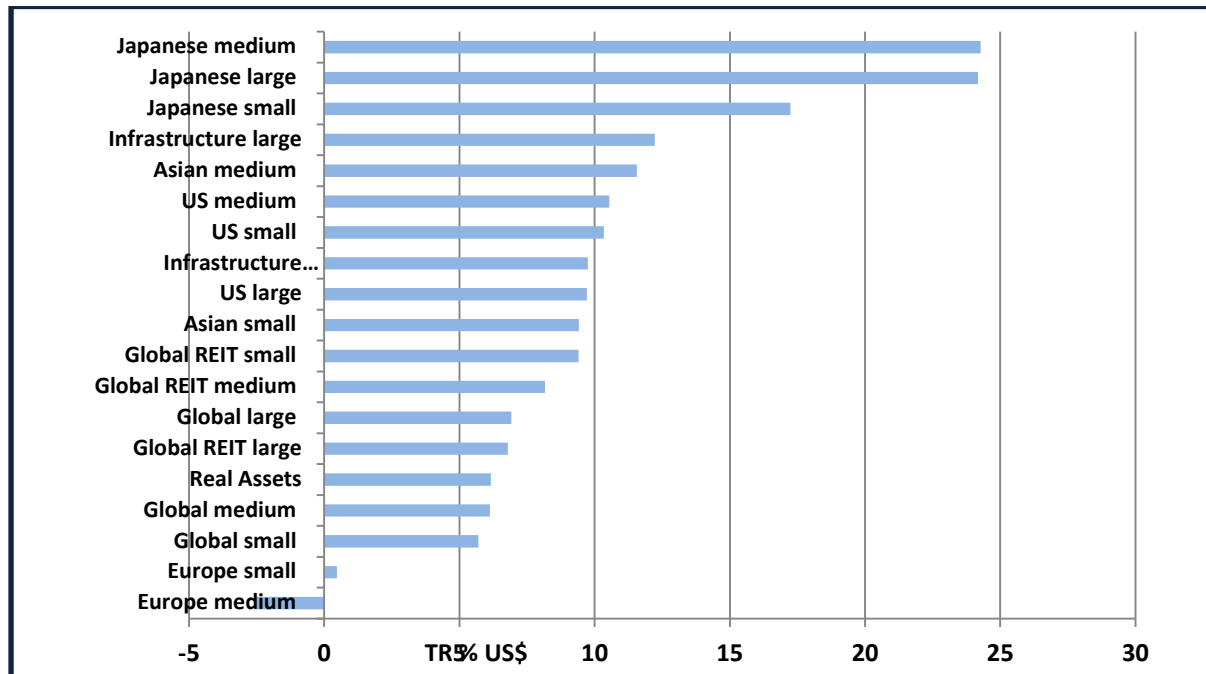
Firstly we show how each region and asset class has performed during the year to date with the range of maximum and minimum outcomes. (Figure3). Secondly, we look at the differences in performance of each mandate classified by size of Fund (Figure 4).

**Figure 3 Fund performance 1H 2016**

Funds	Average (%)	Max (%)	Min (%)
Japan Real Estate	19.97	30.14	-6.08
US Real estate	10.25	37.65	-38.18
Asian Real estate	10.01	38.98	-24.66
Global Infrastructure Fund	9.98	83.42	-8.03
Global REIT	8.74	25.91	-1.61
Real Assets Fund	6.17	19.01	-10.31
Global Real Estate	5.97	31.40	-8.90
European real estate	-1.01	16.57	-22.37

Source: Consilia Capital, Bloomberg

**Figure 4 1H 2016 performance by mandate and fund size**



Source: Consilia Capital, Bloomberg

## Focus: Liquidity of Listed Real Estate Securities

Ahead of the separation of real estate as the 11<sup>th</sup> GICs classification on 1<sup>st</sup> September 2016, we have been featuring a number of topics around the implications of this new explicit weighting, aiming to provide an understanding of certain dynamics of the sector. We have looked at passive strategies, in particular leveraged and inverse ETFs, and answered the question as to whether they had an impact on the underlying securities. In April, we looked at one of the components which may be used to construct an active strategy, namely single sector REITs. This month we examine liquidity, a key risk metric which can influence the level of generalist investment. In particular we look at the findings of a study we undertook with Nicole Lux, now of de Montfort University, which has recently been published in the *Journal of Property Investment and Finance*.

### Liquidity in global real estate securities markets: A cyclical and regional analysis pre, during and post GFC.

Lux, N. and Moss, A. (2016) 'Liquidity in global real estate securities markets', *Journal of Property Investment & Finance*, 34(4), pp. 321–346. doi: 10.1108/jpif-11-2015-0078.

#### Summary

**Purpose** – The purpose of the paper was to test the relationship between liquidity in listed real estate markets, company size and geography during three different periods of market conditions, specifically; pre-crisis (2002–2006), during the crisis (2007 – 2009) and post-crisis (2010–2014). Further, the study analyses the impact of stock liquidity on stock performance. In a previous study (Moss and Lux 2014) we examined the impact of liquidity on the valuation of European real estate stocks. The result showed that there is a strong relationship between liquidity, valuation and market capitalisation post the Global Financial Crisis (GFC).

**Design/methodology/Approach** – The paper studies the linkages between regional market liquidity and company size for 60 listed real estate companies globally, and determines the key drivers of company stock market liquidity pre, during and post-crisis as well as the impact on stock performance. The selected test indicators of liquidity to capture market depth and market tightness are daily stock turnover as percentage of market capitalization and daily bid-ask spreads.

#### Findings

- Market liquidity factors are correlated globally over time, indicating markets interdependence. However, sample groups by company size and geography form independent samples with different sample means, thus specific liquidity levels in each market may be different.
- Stock turnover levels have not recovered post-crisis to pre-crisis levels in the majority of markets while spreads have continued moving downward to negligible levels in line with the rest of the equity market.
- With regards to stock performance, the European bias previously detected is not apparent in the US, and there is no evidence of the small cap vs. large cap effect of small companies achieving superior returns, although smaller companies have outperformed in Europe and Asia in each of the last three years (2012-2014).

**Practical implications** The key implication is that although spread levels for smaller companies are higher, implying a slight risk premium when investing in small companies, this did not manifest into consistent superior stock market returns in the periods studied.

#### Introduction

The correlation of global equity markets has been a long-term research topic for investors seeking the optimum combination of risk diversification and maximum return. The quantitative analysis of international diversification dates back at least to Henry Lowenfeld's (1909) study of equal-weighted, industry-neutral, risk-

adjusted, international diversification strategies, using price data from the global securities trading on the London Exchange around the turn of the century. He illustrates the imperfect co-movement of securities from various countries. In general, global equity markets and regional markets are often correlated with one another, especially in times of economic recession with prominent contagion and spillover effects. Listed real estate companies are considered attractive because of their liquidity, and exposure to underlying real estate returns. Since the evolution of the modern-REIT era in 1992 in the US, there has been a significant increase in market capitalisation, both in absolute terms and relative to the general equity market, as well as improvements in liquidity. But, with respect to previous findings about the correlation and co-movement in equity markets during times of stress, how have listed real estate markets been affected by the global financial crisis (GFC) 2007/2008 in terms of market liquidity and performance? This research aims to explore dependence in global markets focusing on factors of liquidity over three different time intervals, pre, during and post GFC. This paper analyses:

- 1) How liquidity in global listed real estate markets has changed pre- (2002-2006), during (2007 – 2009) and post crisis (2010 – 2014)
- 2) Whether liquidity is primarily influenced by company size and geography
- 3) The impact of liquidity and company characteristics on performance

## Data and methodology

### *Data*

The sample comprises 60 listed real estate companies from five regions (UK, Europe, Japan, Asia Pac (ex Japan), and the US; Our terminology reflects the decision to divide Europe into the UK and Continental Europe, and the Asia Pacific region into Japan and Asia (which includes Australia, but obviously not Japan). This allows us to compare regional rather than purely country groupings. We have isolated the UK and Japan as countries because we wanted to see whether the fact that they have independently large real estate markets and listed real estate groups, as well as separate major currencies to their regional neighbours, had an impact on our findings.

Previous studies have typically concentrated on individual countries, notably US, UK, and Australia. In future studies we would consider adding Australia as a separate grouping in the Asia Pac region, and Switzerland as a separate grouping in the European region. The dataset consists of daily data on trading volumes, prices, and market capitalisation over a period of 12 years (2002 – 2014); effectively 5 years pre, 2 years during, and 5 years after the Global Financial Crisis. Using constituents of the EPRA Global Developed Index as a starting point, the selected sample companies were grouped by i) size, based on an initial filter of daily liquidity in the shares (as measured by value traded), and ii) by listing region. The companies have been selected based on market capitalisation (size), historic data availability and data consistency. Each regional sample has an equal amount of small, medium and large companies. Daily liquidity measures of bid-ask spread and stock turnover are calculated for each company and aggregated to group averages representing three different time periods. The following analysis answers the question of the level of homogeneity in each sample as well as illustrating the size of the differences between the samples.

### *Caveats*

It should be noted that due to the limited sample size, results can be distorted by stock specific factors. Companies are not homogenous, especially in non-mature markets. Any valuation premium for liquidity may not be linear or graded, and indeed the impact may be binary, i.e. only companies with a minimum level of liquidity are included in portfolios and can easily raise further equity capital. In addition, what is considered a large or small company may differ depending on geographic region. In the US, a large company has been

# Real Estate Securities Funds Monthly

defined as a company  $\geq$ US\$ 10bn market capitalisation, a small company  $<$ US\$ 5bn market capitalisation, while in Japan a large company is defined as  $>$  US\$ 5bn market capitalisation (Table 1).

**Table 1** Company size bands in each geographic market

USD bn	Large	Medium	Small
US	$\geq 10$ bn	5 – 10bn	$< 5$ bn
UK	$\geq 5$ bn	1 – 5bn	$< 1$ bn
Europe	$\geq 2$ bn	1 - 2bn	$< 1$ bn
Asia	$\geq 10$ bn	5 – 10bn	$< 5$ bn
Japan	$\geq 5$ bn	2 – 10bn	$< 2$ bn

The sample shows that what is considered a large company in Europe or the UK is still only a small company in the US. Ranking the sample by largest to smallest company shows that four of the largest ten companies worldwide were American REITs. The largest company in Europe ranking among the top 10 by market capitalisation is Unibail. On the other hand, eight of the smallest ten are European or UK REITs

## Methodology

In order to measure movements of global market liquidity, two measures have been selected, namely bid-ask spreads and stock turnover ratios. The company data sample is stratified by regional market and company size to identify sample independence. Regarding company size, previous research has shown that globally small caps can be distinguished from large caps in several aspects. For instance, while previous research has examined differences in performance, the turnover and bid-ask spreads can be significantly different. The first section of the paper explores the differences in liquidity on global REIT markets over different time periods.

## Results

### *Bid-ask spreads at three different time intervals*

Over the past 12 years, REIT markets globally have experienced a general growth of the sector and improving liquidity conditions. This is demonstrated by bid-ask spreads declining across all markets geographically. Post-crisis overall lowest spreads and highest price efficiency can be found in the US, where average spreads over the last five years post-GFC have been less than 10 bps. The trend in the US has been from large differences in spreads between company size to no significant spreads in any segment, indicating that this is a very liquid market which can sustain some market pressure. Overall, we expect to observe higher spreads in non-US equity markets due to their smaller market size and smaller market capitalisation and thus more limited market depth. Our data confirms this and highest spreads can be observed in less developed markets such as Asia, where the spread for a large company over the past five years has been 37bps.

Over a 12-year time horizon, the correlation of spreads measured across geographic regions by the Pearson's correlation coefficient show some long term correlation between UK, US and Europe and less correlation with Japanese and Asian markets (Table 2). At times, correlations are not detected immediately because of time lags between markets; for example, both the UK and European samples show peaks of spreads around the periods June – Sept 2006 and Oct – Dec 2008, while Asia and Japan show a slight increase in spreads early on in the crisis mid-2007 – 2008.



# Real Estate Securities Funds Monthly

**Table 2 Pearson correlation coefficient for bid-ask spread 2002 - 2014**

	UK	Europe	US	Asia	Japan
UK	100.00%				
Europe	71.59%	100.00%			
US	69.82%	51.32%	100.00%		
Asia	18.50%	15.73%	8.52%	100.00%	
Japan	6.09%	10.03%	-9.77%	15.78%	100.00%

## *Stock turnover at three different time intervals*

Stock turnover has been highly correlated for the five years post the GFC between all five global markets analysed and over the long-run period of 12 years correlations are visible (Table 3).

**Table 3 Regional market correlation stock turnover 2002-2014**

	US	UK	Asia	Europe	Japan
US	100.00%				
UK	43.20%	100.00%			
Asia	62.88%	71.83%	100.00%		
Europe	58.34%	22.71%	42.29%	100.00%	
Japan	46.35%	50.84%	68.23%	40.30%	100.00%

Similar to spreads, certain markets experience a time lag or might be influenced by local economics. Until 2007, markets in Japan, Europe and US are well correlated; however, very low correlations are found during the period of 2007 – 2009.

Overall, trading volumes in all markets have been at historically lowest levels since the European sovereign crisis in 2010 and show no significant signs of recovery. Especially UK trading volumes (6%) for large companies over the last 5 years have remained significantly below pre-crisis levels of 11.5%. The US is the only market where trading levels have significantly improved and are now double the amount for small companies compared to pre-crisis levels (Table 4).

**Table 4 Regional market stock turnover as a % of market capitalisation**

	5yr pre GFC			5 yr post-GFC average		
	Large	Medium	Small	Large	Medium	Small
US	8.10%	9.70%	9.50%	12.00%	20.00%	20.00%
EU	3.60%	4.10%	4.20%	7.00%	4.00%	3.00%
UK	11.50%	7.10%	3.20%	6.00%	4.00%	3.00%
Asia	4.70%	3.70%	4.20%	4.00%	3.00%	2.00%
Japan	9.30%	5.00%	6.30%	10.00%	6.00%	6.00%



## *Performance*

Over the last five years post-GFC small companies have outperformed large companies in less mature markets like Europe and Asia, while in the UK and US small companies no longer have an advantage. These are also the markets with highest stock turnover levels

## **Conclusions**

Our findings confirm that of the the most influential prior research, by Brounen et al (2009) into the determinants of international share liquidity in US, UK, EU, and Australia, where the authors find a relationship between market capitalisation, or firm value, and liquidity.

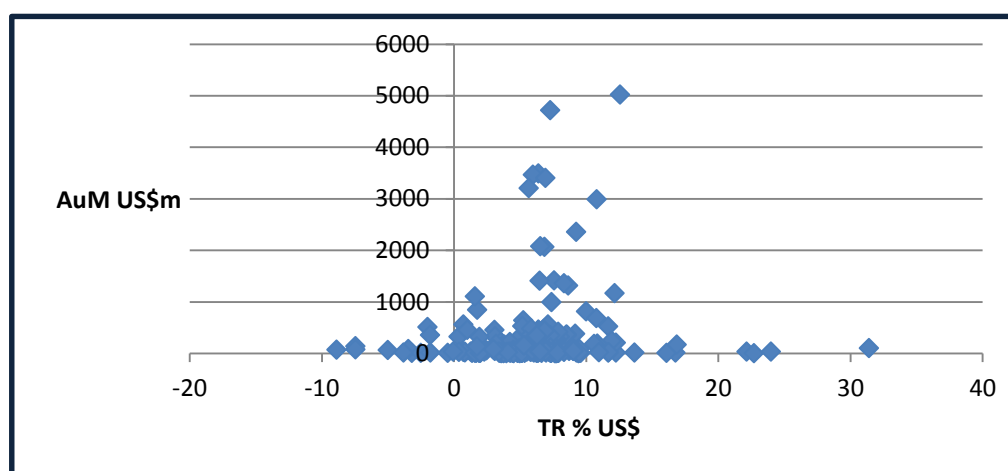
A significant finding from our analysis is that spread levels are more characterised by company size, and the general decline in spreads and narrowing of variances within groups indicate that REIT markets are maturing and developing globally in the same direction. This trend has continued through all three tested time intervals from post GFC, during GFC to post GFC. Results post-GFC from 2010 onwards show that despite higher general market correlation averages for both bid-ask spreads and turnover have moved further apart between regional markets. Differences in stock turnover are more driven by geographic market and have been more affected to show increased variances during the volatile period of the GFC, which is in line with previous findings by Cannon and Cole (2011) and Bhasin et al (1997).

Our initial purpose was to answer the question of whether liquidity in listed real estate markets is dependent on geography and company size. From our analysis the following conclusions can be drawn:

- 1) bid-ask spreads were historically more dependent on company size
- 2) volatility of spreads has reduced in each market and size group
- 3) across all size bands, and regions there has been a downward trend in bid ask spreads reflecting, inter alia, increased competition amongst market participants
- 4) as expected, it is also true that throughout the period the percentage bid ask spread reflects the overall liquidity of the stock, i.e. more liquid stocks have lower bid ask spreads
- 5) the European sector also saw a general increase in spreads starting in the summer of 2011, reflecting investor concerns regarding the Euro crisis
- 6) overall, it can be concluded that regional market is a less important variable when distinguishing between liquidity of companies than their market capitalisation by size.

Finally, while market liquidity differs by company size and geography, on an aggregate basis the small cap vs. large cap effect, does not always hold with regards to performance and depends on market maturity. In some markets, an inverse relationship can persist. Hence finding of Amihud (2002) and Hibbert (2009) that the liquidity premium for small caps translates into excess returns may not always be of use in listed real estate markets. The maturity of markets and economic cycle are more relevant in determining the performance of these markets. Thus, there is no obvious advantage that by investing specifically in small or large companies or Asia vs. US provides any higher probability of outperformance.

## Global Funds Performance 1H 2016



### By Fund size

Fund	Average	Maximum	Minimum
Global large	6.92	12.56	1.59
Global medium	6.13	12.25	-7.47
Global small	5.70	23.98	-8.90
All Funds	5.97	31.40	-8.90

## Best Performing Funds

### Global Large Funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
DFA Global Real Estate Securities Portfolio	12.56	1.20	15.02	5,013	Fund of Funds
CBRE Clarion Global Real Estate Income Fund	12.14	0.71	19.04	1,165	Closed-End Fund
iShares Developed Markets Property Yield	10.79	1.99	16.64	2,981	ETF
SPDR Dow Jones Global Real Estate ETF	9.25	0.90	15.43	2,349	ETF
Deutsche Global Real Estate Securities Fund	8.64	0.90	14.45	1,313	Open-End Fund

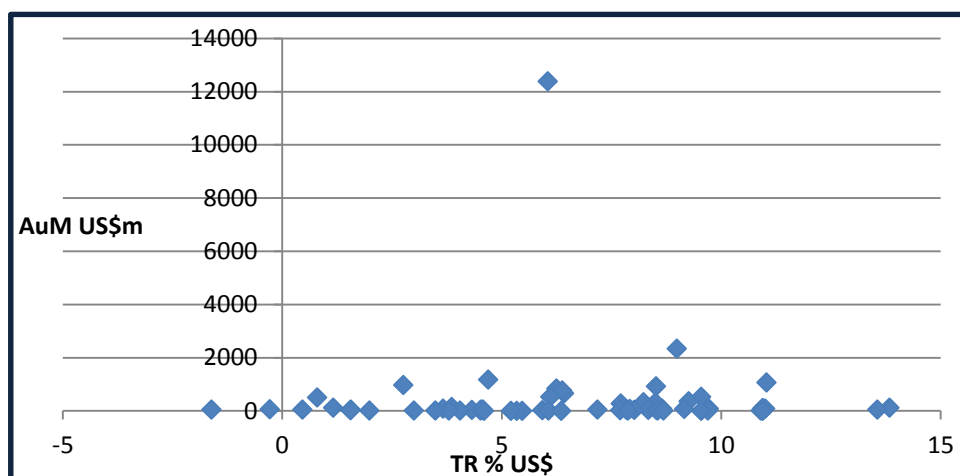
### Global Medium Funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
MFS VIT III Global Real Estate Portfolio	12.25	0.67	15.74	204	Variable Annuity
Dimensional Global Real Estate Trust	11.94	1.54	12.17	240	Unit Trust
MFS Global Real Estate Fund	11.67	1.03	14.21	516	Open-End Fund
FORTIS Mix Umbrella Fund NV - High Income	10.84	0.74	14.96	186	Open-End Fund
Dreyfus Global Real Estate Securities Fund	9.99	0.84	15.14	811	Open-End Fund

### Global Small

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
Strategic REIT Fund Forecasted Dividend	23.98	1.33	9.53	29	Open-End Fund
Fixed Distribution Type Developed REIT A	22.69	0.50	9.11	0	Open-End Fund
TMB Property Income Plus Fund	16.86	0.73	9.89	168	Open-End Fund
High Dividend Global REIT Premium Fund	16.75	0.23	13.37	9	Open-End Fund
B&I Global Real Estate Securities Fund	13.66	n/a	n/a	8	Open-End Fund

## Global REIT Funds Performance 1H 2016



### By Fund size

Fund	Average	Maximum	Minimum
Global REIT large	6.79	11.04	2.76
Global REIT medium	8.16	22.73	-0.28
Global REIT small	9.41	25.91	-1.61
All Funds	8.74	25.91	-1.61

## Best Performing Funds

### Global REIT Large Funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
Sumitomo Mitsui Global REIT Open	11.04	-0.25	20.02	1,070	Fund of Funds
DIAM World REIT Index Fund - Monthly D	8.99	-0.08	20.90	2,331	Fund of Funds
DLIBJ DIAM World REIT Income Open - M	8.51	-0.28	19.25	916	Fund of Funds
Global REIT Open/Nomura	6.42	-0.45	19.53	653	Fund of Funds
World REIT Selection US/Okasan	6.25	-0.04	21.41	836	Fund of Funds

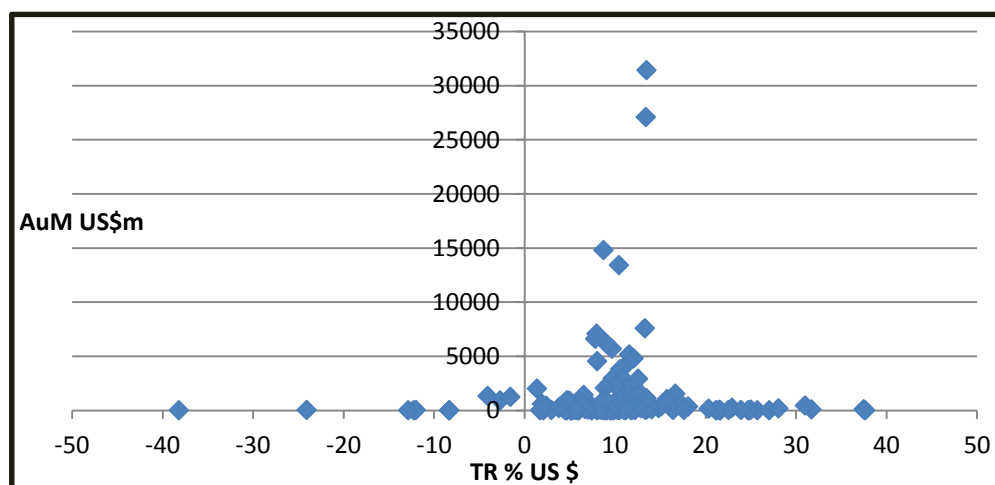
### Global REIT Medium Funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m
Daiwa Developed Market REIT Alpha Curr	22.73	1.34	9.20	112
Sumitomo Mitsui Global REIT Open - 3 M	11.01	-0.25	20.11	77
GS Global REIT Portfolio - Monthly Divide	9.72	-0.53	19.54	86
Sompo Japan Global REIT Fund	9.55	-0.02	20.30	530
Nomura Global REIT Premium Currency S	8.50	-0.48	22.76	311

### Global REIT Small Funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
Nomura World REIT Currency Selection F	25.91	-0.13	31.21	37	Open-End Fund
Nikko AMP Global REIT Fund - Monthly D	18.77	0.83	14.99	15	Fund of Funds
Global REIT Selection/Okasan	13.56	-0.08	20.32	49	Fund of Funds
DC Global REIT Open/SMAM	10.94	-0.25	20.15	3	Open-End Pensio
Sumitomo Mitsui Global REIT Open - Year	10.91	-0.25	20.14	13	Fund of Funds

## US Funds Performance 1H 2016



### By Fund size

Fund	Average	Maximum	Minimum
US large	9.71	16.66	-4.08
US medium	10.54	31.02	1.96
US small	10.34	37.65	-38.18
All Funds	10.25	37.65	-38.18

## Best Performing Funds

### US Large Funds

Fund	1H 2016 TR %	Sharpe Ratio	Volatility%	AUM US\$	Type
Cohen & Steers Quality Income Realty Fu	16.66	1.62	21.81	1,544	Closed-End Fund
Cohen & Steers REIT and Preferred Incom	15.75	1.58	15.47	1,033	Closed-End Fund
iShares Mortgage Real Estate Capped ETF	13.48	0.67	16.87	1,121	ETF
Vanguard REIT ETF	13.48	1.36	16.35	31,422	ETF
Vanguard REIT Index Fund	13.43	1.35	16.40	27,101	Open-End Fund

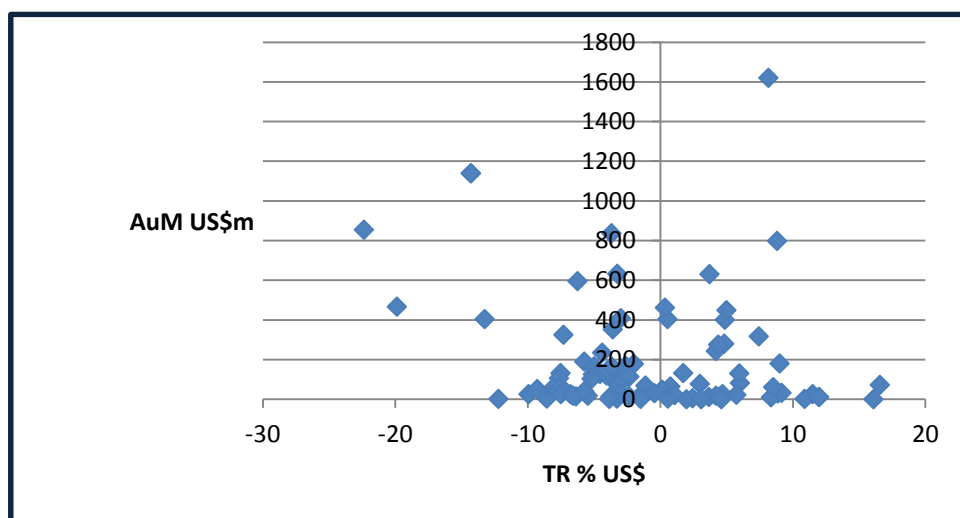
### US Medium Funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
Goldman Sachs US REIT Fund A Course - C	31.02	1.13	18.50	440	Fund of Funds
Fidelity US REIT Fund A - Hedged	28.06	1.39	18.76	172	Fund of Funds
ProShares Ultra Real Estate	22.95	1.16	32.17	228	ETF
PowerShares KBW Premium Yield Equity	20.36	1.09	19.79	159	ETF
Nuveen Real Estate Income Fund	18.09	1.37	19.68	358	Closed-End Fund

### US Small Funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
T&D Bull Bear Fund US REIT Bull Course	37.65	n/a	n/a	1	Fund of Funds
Dirxion Daily Real Estate Bull 3x Shares	37.49	1.24	49.80	99	ETF
American REIT ALPHA Quattro Currency S	31.72	n/a	n/a	84	Open-End Fund
PineBridge US REIT Income Fund A Course	27.04	1.34	17.83	4	Fund of Funds
Mitsubishi UFJ US REIT Fund A - Currency	25.72	1.11	18.10	4	Open-End Fund

## European Funds Performance 1H 2016



### By Fund size

Fund	Average	Maximum	Minimum
Europe medium	-2.58	9.01	-22.37
Europe small	0.47	16.57	-12.20
All funds	-1.01	16.57	-22.37

## Best Performing Funds

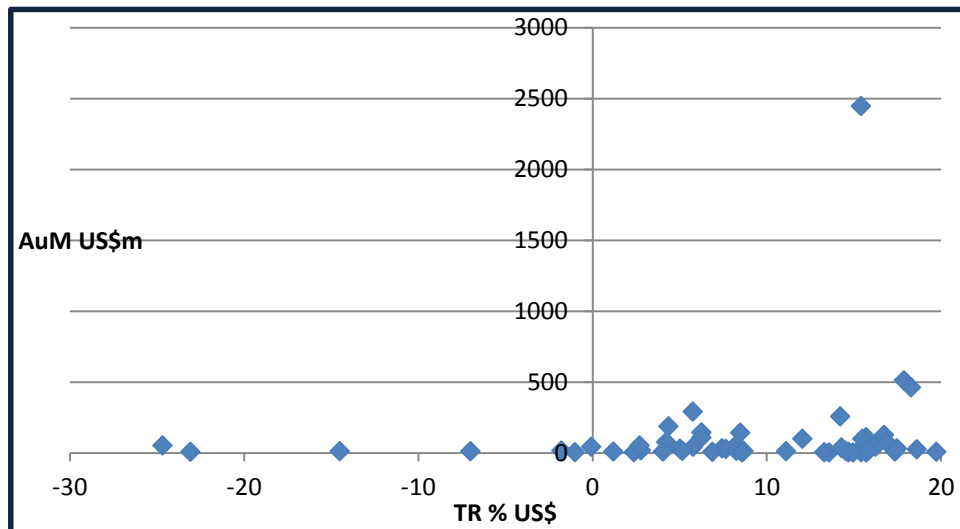
### European Medium Funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
Mi-Fonds CH - SwissImmo	9.01	1.61	7.05	180	Open-End Fund
UBS CH Institutional Fund - Swiss Real Es	8.82	1.36	7.39	798	Open-End Fund
iShares European Property Yield UCITS ET	8.16	2.34	17.77	1,620	ETF
Banque Martin Maurel BMM Pierre Capit	7.44	0.95	13.47	317	FCP
DJE Real Estate	6.02	1.43	4.99	81	FCP

### European Small Funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
Kapitalforeningen Institutionel Investor	16.57	1.25	19.06	72	Open-End Fund
Amundi Europe REIT Fund High Interest C	16.08	-0.05	28.65	1	Open-End Fund
NN Europe REIT Fund Asset Growth Cours	11.99	0.05	21.29	11	Open-End Fund
Deutsche Europe REIT Fund Monthly AJPY	10.90	0.26	16.26	1	Open-End Fund
UBS ETF CH-SXI Real Estate CHF	9.16	1.56	10.98	32	ETF

## Asian Funds Performance 1H 2016



### By Fund size

Fund	Average	Maximum	Minimum
Asian medium	11.56	16.75	-0.06
Asian small	9.42	38.98	-24.66
All Funds	10.01	38.98	-24.66

## Best Performing Funds

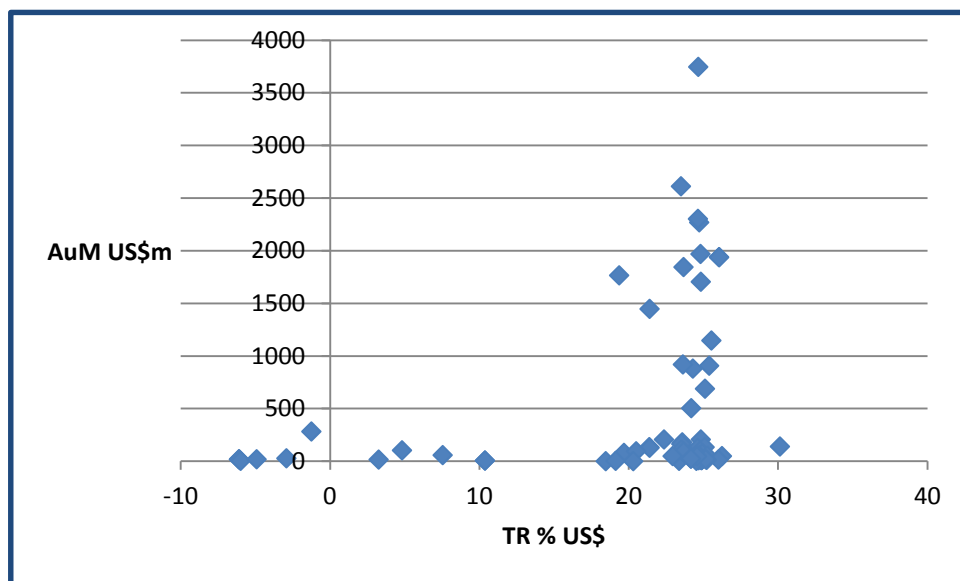
### Asian Medium funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
B&I Pan-Asian Total Return Real Estate S	16.75	0.57	13.65	125	Open-End Fund
Asia Pacific Select Reit Fund Monthly/MU	15.72	n/a	n/a	109	Open-End Fund
B&I Asian Real Estate Securities Fund	15.49	0.53	15.85	98	Open-End Fund
Asia High Yield REIT Fund/SMAM	15.43	-0.32	19.08	2,444	Open-End Fund
iShares Asia Property Yield UCITS ETF	14.22	1.16	18.97	255	ETF

### Asian Small funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
Asia High Yield REIT Fund BRL/SMAM	38.98	0.13	31.56	2	Open-End Fund
Asia REIT Strategy Open Hedged Monthly	28.26	n/a	n/a	1	Fund of Funds
Nomura Asia REIT Fund Monthly Dividend	19.76	-0.02	19.14	6	Fund of Funds
REIT Asia Mix Open/SMAM	18.62	0.05	19.66	22	Open-End Fund
Manulife Investment Asia-Pacific REIT Fu	17.37	n/a	n/a	6	Fund of Funds

## Japanese Funds Performance 1H 2016



### By Fund size

Fund	Average	Maximum	Minimum
Japanese large	24.18	26.06	19.36
Japanese medium	24.28	30.14	21.39
Japanese small	17.25	26.25	-6.08
All Funds	19.97	30.14	-6.08

## Best Performing Funds

### Japanese Large funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
NEXT FUNDS REIT INDEX ETF	26.06	0.56	22.63	1,938	ETF
Listed Index Fund JREIT Tokyo Equity Exch	25.55	0.53	21.93	1,146	ETF
Nomura Japan Real Estate Fund	25.40	0.57	23.24	907	Open-End Fund
MHAM J-REIT Index Fund - Monthly Settle	24.84	0.49	22.86	1,703	Fund of Funds
Daiwa J-REIT Open - Monthly Dividend	24.82	0.49	23.01	1,967	Fund of Funds

### Japanese Medium funds

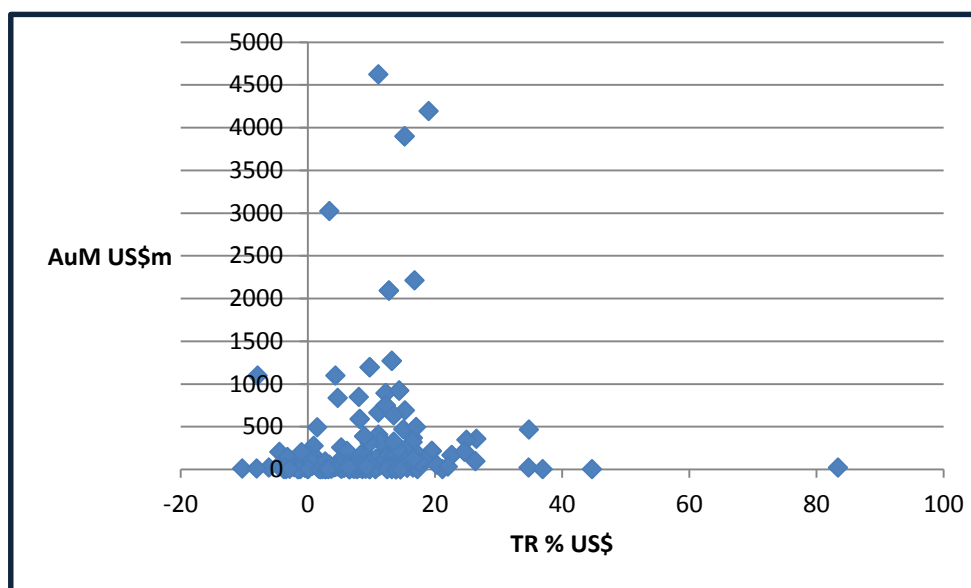
Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
JREIT Fund BRL Course Monthly Dividend	30.14	-0.09	38.11	140	Open-End Fund
Daiwa Fund Wrap J-REIT Select	25.11	0.62	22.57	688	Open-End Fund
SMTAM SMT J-REIT Index Open	25.10	0.52	23.22	132	Fund of Funds
Daiwa J-REIT Open	24.84	0.49	23.05	204	Fund of Funds
J REIT Open - Monthly Dividend/Okasan	24.41	0.50	22.48	220	Fund of Funds

### Japanese Small funds

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
SMBC Fund Wrap J-REIT/DaiwaSB	26.25	0.62	23.14	49	Fund of Funds
Daiwa J-REIT Fund	26.01	0.67	22.41	15	Fund of Funds
Nomura Index Fund J-REIT	25.27	0.54	23.22	50	Open-End Fund
Nomura J-REIT Index Nomura SMA EW	25.23	0.47	23.22	12	Open-End Fund
J-REIT Index Fund Wrap/MUKAM	25.16	0.46	23.23	17	Open-End Fund



## Infrastructure/Real Asset Funds 1H 2016



### By Fund size

Fund	Average	Maximum	Minimum
Infrastructure large	12.22	34.78	-7.90
Infrastructure medium/small	9.75	34.76	-8.03
Real Assets	6.17	19.01	-10.31
All Funds	9.79	34.78	-10.31

## Best Performing Funds

### Global Infrastructure Large

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
Nomura Deutsche High Dividend Infrastr	34.78	-0.16	33.85	465	Open-End Fund
First Trust Energy Infrastructure Fund	24.96	-0.09	38.08	347	Closed-End Fund
Deutsche Global Infrastructure Fund	15.24	0.41	15.33	3,897	Open-End Fund
iShares Global Infrastructure ETF	14.36	0.26	16.14	922	ETF
Nuveen Global Infrastructure Fund	13.54	0.54	14.37	634	Open-End Fund

### Global Infrastructure Medium/Small

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
Nomura Deutsche High Dividend Infrastr	34.76	-0.16	33.91	22	Open-End Fund
BlackRock Utility and Infrastructure Trus	26.51	1.18	18.45	356	Closed-End Fund
Shinko Global Infrastructure Equity Fund	26.38	-0.17	14.71	95	Open-End Fund
Dynamic Real Estate & Infrastructure Inc	24.66	2.45	12.27	209	Open-End Fund
BMO Global Infrastructure Index ETF	22.63	0.66	14.22	168	ETF

### Real Assets

Fund	1H 2016 TR %	Sharpe ratio	Volatility %	AUM US\$m	Type
T Rowe Price Real Assets Fund Inc	19.01	0.36	19.25	4,193	Open-End Fund
AB SICAV I - Real Asset Portfolio	14.10	-0.17	18.41	20	SICAV
Cohen & Steers Real Assets Funds Inc	12.58	-0.03	12.75	139	Open-End Fund
Ofi MultiSelect - Lynx Real Assets	12.12	-0.36	17.51	35	SICAV
Prudential Real Assets Fund	8.41	-0.03	9.13	175	Open-End Fund

## Disclaimer

The information contained in this report was obtained from various sources. No representation or warranty, express or implied, is made, given or intended by or on behalf of Consilia Capital Limited or any of its directors, officers or employees and no responsibility or liability is accepted by Consilia Capital Limited or any of its directors, officers or employees as to the accuracy, completeness or fairness of any information, opinions (if any) or analysis (if any) contained in this report. Consilia Capital Limited undertakes no obligation to update or correct any information contained in this report or revise any opinions (if any) or analysis (if any) in the light of any new information. Notwithstanding the foregoing, nothing in this paragraph shall exclude liability for any representation or warranty made fraudulently.

This report (including its contents) is confidential and is for distribution in the United Kingdom only to persons who are authorised persons or exempt persons within the meaning of the Financial Services and Markets Act 2000, or any Order made thereunder, or to persons of a kind described in Article 19(5) (Investment Professionals) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended) and, if permitted by applicable law, for distribution outside the United Kingdom to professionals or institutions whose ordinary business involves them in engaging in investment activities. It is not intended to be distributed or passed on, directly, indirectly, to any other class of persons. **This report may not be copied, reproduced, further distributed to any other person or published, in whole or in part, for any purpose other than with the prior consent of Consilia Capital Limited.** Whilst Consilia Capital Limited may at its sole and absolute discretion consent to the copying or reproduction of this report (whether in whole or in part) for your usual business purposes no representation or warranty, express or implied, is made, given or intended by or on behalf of Consilia Capital Limited or any of its directors, officers or employees as to the suitability or fitness of the report for the purpose to which you intend to put the report.

The information, opinions (if any) and analysis (if any) contained in this report do not constitute, or form part of, any offer to sell or issue, or any solicitation of an offer to purchase or subscribe for, any securities or options, futures or other derivatives ("securities") nor shall this report, or any part of it, or the fact of its distribution, form the basis of, or be relied on, in connection with any contract.

This report is intended to provide general information only. This document may not cover the issues which recipients may regard as important to their consideration, evaluation or assessment of the any of the securities mentioned herein, and where such issues have been covered herein no assurance can be given that they have been considered in sufficient detail for recipients' purposes. This report does not have regard to any specific investment objectives, the financial situation or the particular requirements of any recipient. To the extent that this report contains any forward-looking statements, estimates, forecasts, projections and analyses with respect to future events and the anticipated future performance of the securities referred to herein, such forward-looking statements, estimates, forecasts, projections and analyses were prepared based upon certain assumptions and an analysis of the information available at the time this report was prepared and may or may not prove to be correct. No representation or warranty, express or implied, is made, given or intended by or on behalf of Consilia Capital Limited or any of its directors, officers or employees that any estimates, forecasts, projections or analyses that are used in this report will be realised. These statements, estimates, forecasts, projections and analyses are subject to changes in economic and other circumstances and such changes may be material. Potential investors should seek financial advice from a person authorised under the Financial Services and Markets Act 2000 who specialises in advising on the acquisition of securities. Investors should be aware that the value of and income in respect of any securities may be volatile and may go down as well as up and investors may therefore be unable to recover their original investment.

# 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](mailto:alex.moss@consiliacapital.com)

[www.consiliacapital.com](http://www.consiliacapital.com)

# 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](mailto:alex.moss@consiliacapital.com)

[www.consiliacapital.com](http://www.consiliacapital.com)