

CONSILIA CAPITAL



Real Assets Funds Monitor Period End: NOVEMBER 2018

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November 2018

Summary

The report is divided into the following sections:

1) A summary of November performance

As can be seen from the table below, (which is ranked by average November 2018 returns for each main mandate) the last month was positive for most mandates, although average YTD returns remain negative.

Mandate	Nov 2018 return US\$%	YTD 2018 return US\$%
Regional Infrastructure	6.83	-17.86
Asian Real Estate Funds	4.75	-4.92
Global Real Estate funds	2.81	-3.22
US Real Estate Funds	2.78	-0.81
Global Infrastructure Funds	2.59	-6.89
Real estate Income Funds	2.09	-2.62
Alternative Strategy Funds	0.40	-5.72
European Real Estate Funds	-0.44	-7.93

2) Fund Flows(p3)

November saw outflows across all mandates, most notably for Income Funds and active Global real estate funds.

3) Focus : Risk metrics for funds (p4)

This month we take another look at the various risk metrics that can be used for real estate and infrastructure funds, and reprise the work that we first published in March 2013 on the various metrics available and their definitions. In summary we would suggest that the traditional measures such as the Sharpe ratio and the Information ratio are most appropriate and commonly used for dedicated real estate securities funds but market perception of "risk" now encompasses an appreciation of maximum drawdown as well as maximum and minimum monthly returns as appropriate measures.

Having established the principles and uses of each in the theory, we then look at their practical applications and establish:

- 1) How they have moved over time, and
- 2) How they vary between mandates

4) Detailed performance statistics by mandate for November 2018 (p7)

This month we look at the data for November 2018. For each mandate we show: the dispersion of returns by Fund AUM, aggregate performance by size, active vs passive performance, Benchmark Index returns, and the best performing active funds above an AuM threshold for each mandate. For consistency, all returns are rebased in US\$.

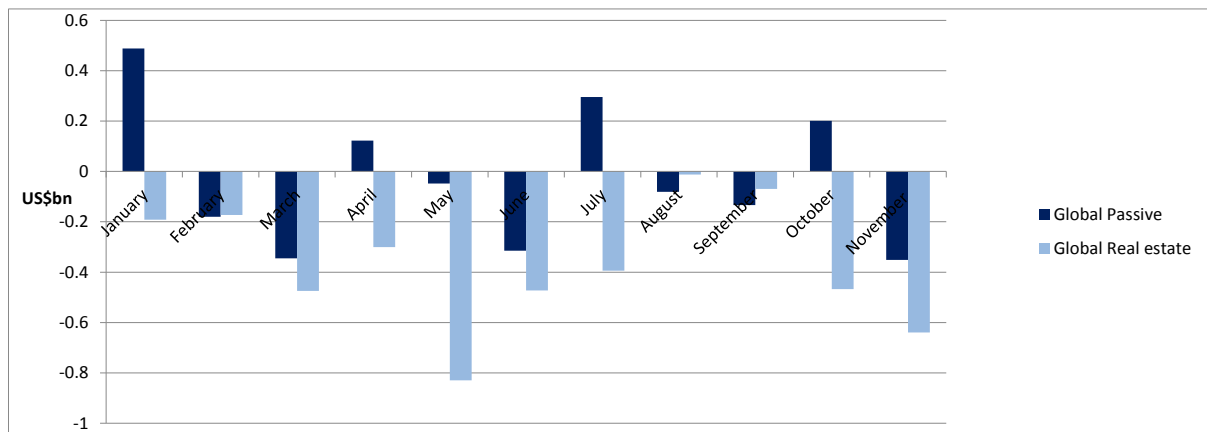
Finally, it is important to note that there are no recommendations or investment advice contained in this publication, and that it is not intended for retail investors. This report represents only a very small summary of the outputs of our database, and the bespoke research and advisory service work we undertake for clients. For further details of our work please contact us.

Fund Flows

As part of our interest in analysing the importance of fund flows on performance we have grouped together the largest funds in our database for each of the major mandates to determine the general direction of flows. The mandates we have chosen are: Global Real Estate (Active and Passive), Global Infrastructure, Income, and Real Assets. We have then summed the daily flows to provide a monthly (net) total with a view to providing an indication of the trend over time. We are aware that there are some potential flaws, namely that we have only used a sample of funds, and that we have not included US Funds which are a particularly active market. However, we believe that the charts below are useful trend indicators and we will be publishing them on a regular basis going forward.

After a brief period of inflows in July and October, passive global real estate funds saw outflows in November, as did actively managed funds.

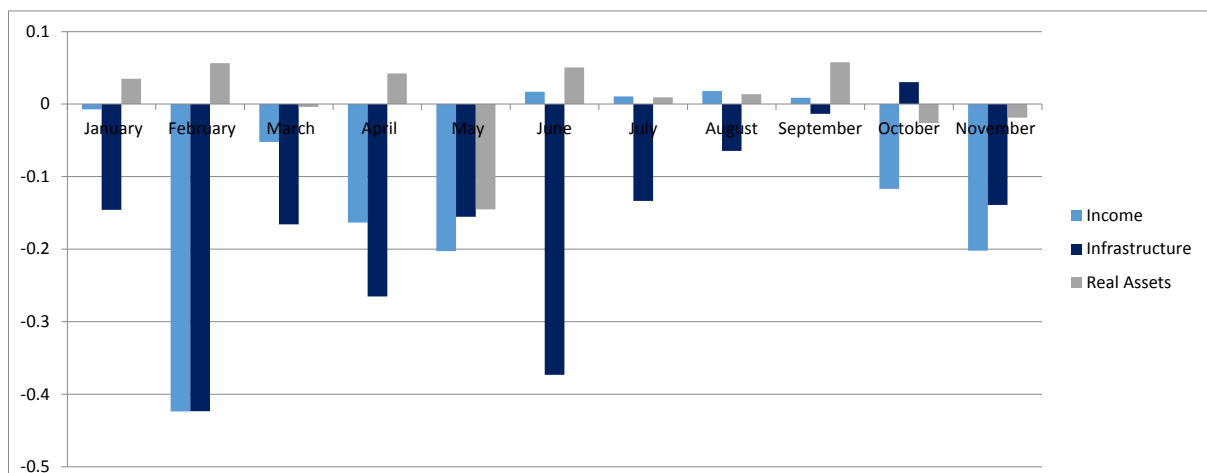
Figure 1 Fund Flows for Global Real Estate YTD 2018



Source: Consilia Capital, Bloomberg

November also saw outflows across infrastructure, income and real assets funds.

Figure 2 Fund Flows for Infrastructure, Income and Real Assets YTD 2018



Source: Consilia Capital, Bloomberg

Focus: Risk metrics

1) Measuring risk adjusted performance in theory

With the decline in liquidity and increase in volatility in 2007-2009 there has been increasing demand for risk adjusted performance measures for mutual funds. However, there has also been differing perceptions of the risks that are captured in the different measures. Should risk be measured by overall volatility, maximum drawdown, average monthly drawdown, or VaR? Similarly are they all relevant to sector specialist funds or are they more appropriate for, say, hedge funds, and multi asset funds? In his excellent book Carl Bacon¹ examines the use of reward to risk measures and divides them into six separate categories. For our purposes it is worth considering four of these classifications. Each group is characterized by the variables it uses for risk and return. From these measures we can determine their relative applicability. For example for a benchmarked long only fund using tracking error as the key metric for risk measurement seems entirely logical, whereas for a global macro hedge fund it makes little sense, and a risk metric based on drawdown, downside or VaR would appear more sensible.

We show below Bacon's classification of the different ratios based on their use of the two variable measures; reward/return (typically the numerator and vertical axis) and risk, (typically the horizontal axis and denominator).

Of the Traditional measures highlighted by Bacon the Sharpe ratio is obviously the most commonly used and understood, whilst the Information ratio is frequently used and favoured by institutional asset managers. The Treynor ratio, which predates the Sharpe ratio, is rarely used in practice.

Traditional Measures		
Ratio	Reward (Return) Measure used	Risk measure used
Sharpe	Return above risk free rate	Variability Standard Deviation
Treynor	Return above risk free rate	Systematic risk β or volatility
Information	Excess return	Tracking error Relative risk
Appraisal	Jensens alpha	Specific risk
Modified Jensen	Jensens alpha	Systematic risk β or volatility

In terms of the drawdown measures shown they all have the same reward variable, and the Calmar ratio is most commonly used, particularly for commodity, future and hedge funds.

Drawdown Measures		
Ratio	Reward (Return) Measure used	Risk measure used
Calmar	Return above risk free rate	Maximum drawdown
Burke	Return above risk free rate	Drawdown deviation
Sterling-Calmar	Return above risk free rate	Average annual max. drawdown
Sterling	Return above risk free rate	Average drawdown
Martin	Return above risk free rate	Ulcer index
Pain	Return above risk free rate	Pain index

¹ "Practical risk-adjusted performance measurement" Wiley Finance 2012

Real Assets Funds Monitor

With regard to downside measures used, the Sortino ratio is widely regarded as the most appropriate ratio to use.

Downside Measures		
Ratio	Reward (Return) Measure used	Risk measure used
Sortino	Return above risk free rate	Downside risk
Upside potential	Upside potential	Downside risk
Omega	Upside potential	Downside potential
Omega-Sharpe	Return above risk free rate	Downside potential
Prospect	Utility adjusted return	Downside risk
Variability skewness	Upside risk	Downside risk

In summary we would suggest that the traditional measures such as the Sharpe ratio and the Information ratio are most appropriate and commonly used for dedicated real estate securities funds but market perception of “risk” now encompasses an appreciation of maximum drawdown as well as maximum and minimum monthly returns as appropriate measures.

2) Measuring risk adjusted performance in practice

We now turn to how some of these measures relate to the funds in our universe, and in particular how time-variant they are, and how they differ between mandates.

Firstly then, looking at Sharpe ratios we have taken a 1, 3 and 5 year time period, as well as an average derived from these three periods, to highlight these factors. We have ranked the mandates by the average of the three periods.

As can be seen in Figure 3 the ratios vary considerably, both over time and between mandates. . Most noticeably the 1 year figure are all low/negative. Intuitively one would expect that a lower risk solutions based mandate (Income) would provide a more consistent risk adjusted return, and this is indeed borne out by our evidence. Similarly, unless the time period captures a particularly “golden” period, then a highly specialised and volatile mandate such as regional infrastructure might be expected to produce the least consistent returns, and this is also the case.

Given the high US weighting in the global index, these two mandates are not surprisingly very similar. Perhaps a greater surprise was the performance of the Asian funds, which have performed in a far more consistent manner than their underlying securities.

Figure 3 Sharpe ratios over time

Fund	1 yr Sharpe Ratio	3 yr Sharpe Ratio	5 yr Sharpe Ratio	Average
Real Estate Income Funds	-0.05	0.54	0.73	0.41
Asian Real Estate Funds	0.05	0.56	0.54	0.38
European Real Estate Funds	0.09	0.29	0.78	0.38
US Real Estate Funds	-0.08	0.32	0.65	0.30
Global Real Estate Funds	0.01	0.27	0.57	0.28
Global Infrastructure Funds	-0.44	0.55	0.63	0.25
Alternative Strategy Funds	-0.22	0.41	0.32	0.17
Regional Infrastructure Funds	-0.95	0.22	0.40	-0.11

Source: Consilia Capital, Bloomberg

Real Assets Funds Monitor

Secondly we look at maximum drawdown. We have ranked these by again by the average over the three periods. Intuitively one would expect the most diversified (i.e. global) to have the lowest drawdowns and this does turn out to be the case. Because of the time period, i.e. post taper tantrum and with actual and expected interest rate rises in some regions it has been Income Funds which have had the greatest drawdowns.

Figure 4 Maximum Drawdowns over time

Fund	1 yr Max DD	3 yr Max DD	5 yr Max DD	Average
Global Real Estate	-10.80	-14.00	-17.10	-13.97
Income	-11.78	-14.60	-17.93	-14.77
European real estate	-10.67	-15.89	-18.36	-14.97
Global Infrastructure Fund	-12.23	-13.63	-21.74	-15.86
US Real estate	-13.98	-16.69	-19.00	-16.56
Strategy	-13.00	-16.08	-23.17	-17.42
Asian Real estate	-14.11	-15.59	-23.03	-17.57
Regional Infrastructure	-22.00	-22.98	-28.29	-24.42

Source: Consilia Capital, Bloomberg

Finally, we look at alternative risk measures. Of these the one we would highlight is tracking error. It should be stressed, however, that in this study they are derived directly from Bloomberg, so we cannot guarantee that each benchmark is correctly identified. In our commissioned studies for clients we identify the benchmark used by each fund and measure the tracking error separately.

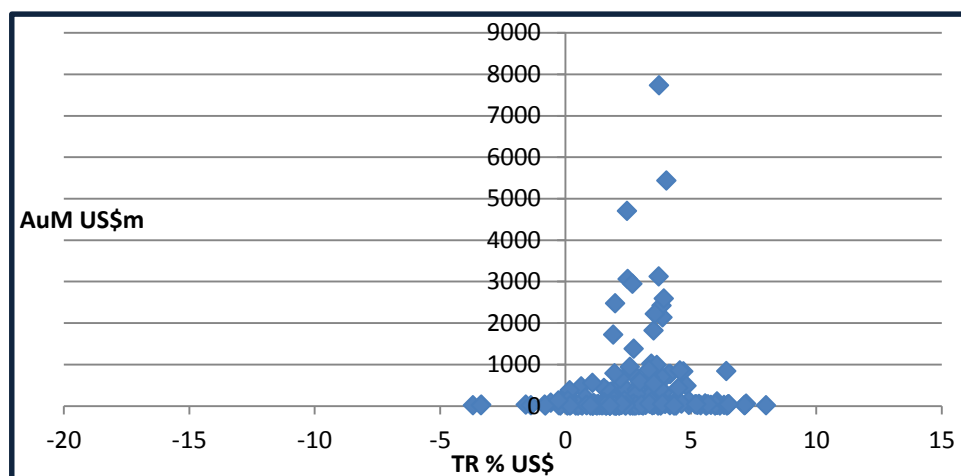
It is still interesting to note that tracking error appears to be (on unweighted average) lower in global real estate, compared to Asia or the US, but not to Europe. The two highest figures, for Regional Infrastructure and Alternative strategies reflect the difference in benchmarks used, as well as the volatility in the securities. In addition the structure used (such as inverse leveraged ETFs) can provide an inherently greater chance of high tracking error.

Figure 5 Alternative risk measures

Fund	Tracking error	Treynor	Sortino
Asian Real estate	6.24	0.00	0.05
European real estate	3.71	0.02	0.11
Global Infrastructure Fund	5.43	-0.05	-0.27
Global Real Estate	4.69	0.00	0.03
Income	5.59	0.03	-0.02
Regional Infrastructure	8.68	-0.18	-0.81
Strategy	11.91	0.25	-0.04
US Real estate	6.35	0.01	-0.07

Source: Consilia Capital, Bloomberg

Global Real Estate Funds Returns: Nov. 2018



Recent changes to our Database: Global Real Estate and Global REIT Funds are now combined, and split between active and passively managed.

By Fund size and Style

Fund	TR% Nov 18	YTD % 2018	Number of Funds	AuM(US\$m)
Global active large	2.89	-0.02	24	38,087
Global active medium	3.08	-2.30	77	20,109
Global active small	2.57	-4.40	128	3,482
Global Index	3.77	0.72	1	n/a
Global passive	3.40	-2.98	12	17,166

Best Performing Funds November 2018

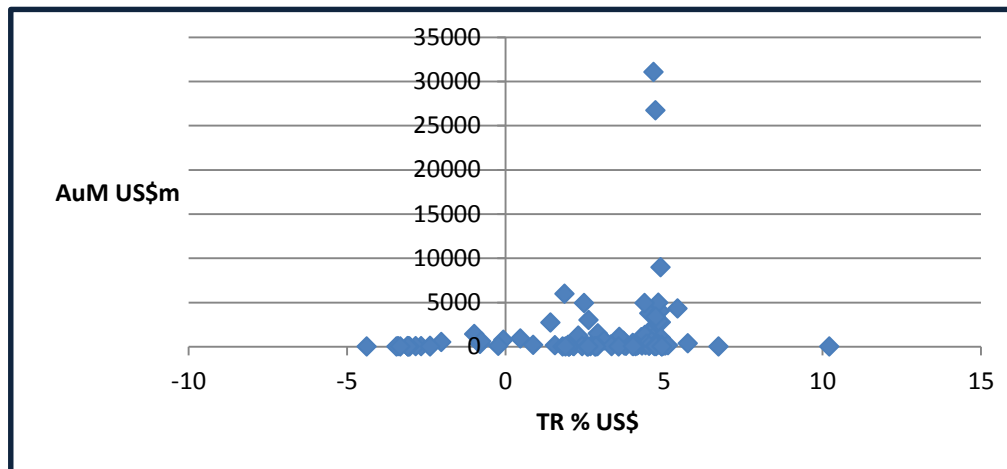
Global Active Funds above US\$50m AuM

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe Ratio	Type
AMP Capital Global Property Securities F	6.41	837	11.16	0.05	Unit Trust
CFS FirstChoice WS Pers Super - AMP Cap	6.04	101	9.92	-0.05	Unit Trust
Nomura Global Real Estate Premium Curr	4.92	120	12.54	-0.39	Open-End Fund
Ivy Advantus Real Estate Securities Fund	4.84	479	15.03	0.07	Open-End Fund
Invesco Global Real Estate Fund	4.70	825	12.62	-0.11	Open-End Fund
UBS CH Institutional Fund 2 - Global Real	4.63	51	10.77	0.42	Open-End Fund
Robeco Capital Growth Funds - Property	4.54	443	11.70	0.64	SICAV
UBS CH Institutional Fund - Global Real E	4.49	422	11.51	0.15	Open-End Fund
SC Global REAL ESTATE EQUITIES FUND	4.45	88	11.92	-0.04	SICAV
LLB Aktien Immobilien Global CHF	4.38	83	12.89	-0.29	Open-End Fund

Global Passive Funds – no size restriction

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe Ratio	Type
iShares Global Real Estate Index ETF	4.49	100	13.22	0.26	ETF
WisdomTree Global ex-US Real Estate Fu	4.40	99	13.77	-0.43	ETF
Vanguard Global ex-U.S. Real Estate ETF	4.02	5,427	13.82	-0.41	ETF
iShares Developed Real Estate Index Fund	3.93	2,587	11.91	0.03	Open-End Fund
SPDR Dow Jones Global Real Estate ETF	3.57	2,217	12.59	-0.01	ETF

US Real Estate Funds Returns: November 2018



Recent changes: Funds are now split between active and passive. Funds with a specific focus or style such as Income, Mortgage REITs, Bull/Bear, and Leveraged are now shown under Alternative Strategy Funds and Indices

By Fund size and style

Fund	TR% Nov 18	YTD % 2018	Number of Funds	AuM(US\$m)
US Active Large	3.76	1.08	25	89,101
US Active Medium	3.16	-0.43	39	11,478
US Active Small	1.45	-3.26	38	698
US Index	4.85	4.79	1	n/a
US passive	4.09	3.03	8	43,339

Best Performing Funds November 2018

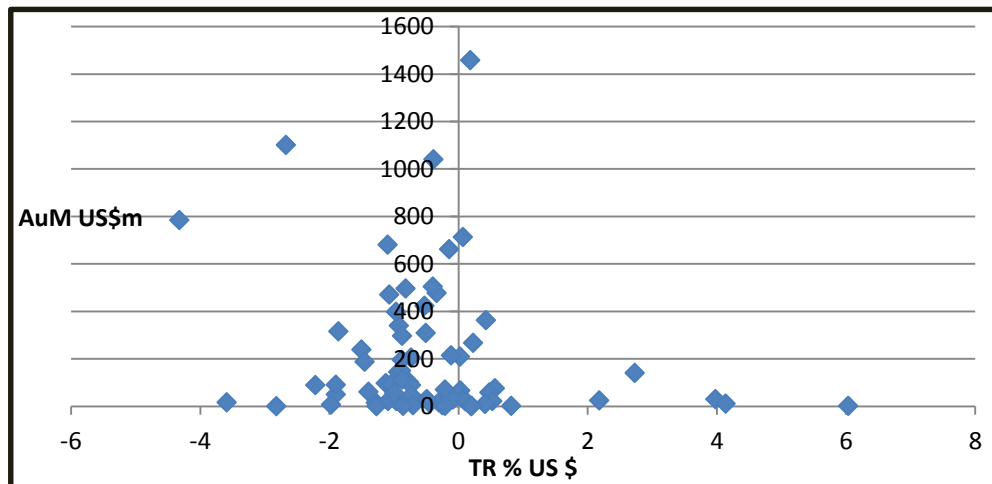
US Active Funds above US\$50m AuM

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe Ratio	Type
Cohen & Steers Total Return Realty Fund	5.75	349	14.14	0.18	Closed-End Fund
Cohen & Steers Real Estate Securities Fund	5.43	4,302	15.26	0.18	Open-End Fund
Natisis AEW Real Estate Fund	5.12	125	15.48	0.24	Open-End Fund
Alpine Realty Income & Growth Fund	5.04	87	16.09	0.01	Open-End Fund
Sterling Capital Stratton Real Estate Fund	4.98	91	15.15	0.26	Open-End Fund
Eaton Vance Real Estate Fund	4.93	58	15.05	0.27	Open-End Fund
Oppenheimer Real Estate Fund	4.90	984	15.05	0.08	Open-End Fund
DFA Real Estate Securities Portfolio	4.89	8,933	15.29	0.27	Open-End Fund
Cohen & Steers Realty Shares Inc	4.87	4,015	15.12	0.19	Open-End Fund
Cohen & Steers Institutional Realty Share	4.83	2,840	15.01	0.21	Open-End Fund

US Passive Funds – no size restriction

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe Ratio	Type
First Trust S&P REIT Index Fund	4.92	123	15.31	0.22	ETF
SPDR Dow Jones REIT ETF	4.90	2,729	15.69	0.26	ETF
Schwab U.S. REIT ETF	4.82	4,925	15.56	0.26	ETF
iShares U.S. Real Estate ETF	4.70	3,821	14.87	0.20	ETF
Vanguard REIT ETF	4.67	31,041	15.12	0.07	ETF

European Real Estate Returns: November 2018



Recent changes: Funds are now split between active and passively managed.

By Fund size and style

Fund	TR% Nov 18	YTD % 2018	Number of Funds	AuM(US\$m)
Europe medium	-0.62	-8.09	35	10,033
Europe small	-0.07	-7.44	29	747
Europe Index	-0.82	-8.72	1	n/a
Europe passive	-1.03	-9.20	7	3,562

Best Performing Funds November 2018

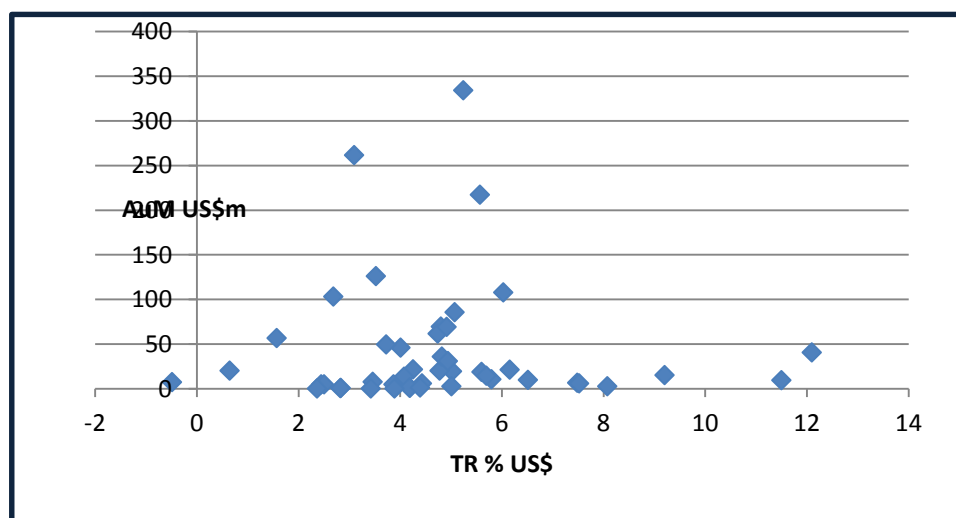
European Active Funds above US\$50m

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe ratio	Type
Kapitalforeningen Institutionel Investor	2.73	140	13.41	1.37	Open-End Fund
MITTU NO SAIFU Europe REIT Fund/Carre	0.56	75	13.10	-0.63	Open-End Fund
ESPA Stock Europe Property	0.48	58	10.80	0.16	Open-End Fund
Allianz Foncier	0.43	363	12.00	0.51	SICAV
Migros Bank CH Fonds - SwissImmo	0.23	267	7.63	0.20	Open-End Fund
ING Direct - Mattone Arancio	0.03	67	12.47	0.26	SICAV
NN L European Real Estate	0.03	210	12.52	0.28	SICAV
Allianz Immo	-0.01	56	12.47	0.42	SICAV
Atlas Real Estate EMU	-0.12	214	11.45	0.19	SICAV
AXA AXA Aedificandi	-0.14	662	11.99	0.13	SICAV

European Passive Funds – no size restriction

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe ratio	Type
iShares European Property Yield UCITS ET	0.18	1,459	12.71	0.01	ETF
BNP Paribas Easy FTSE EPRA/NAREIT Euro	0.07	713	11.98	0.25	ETF
db x-trackers FTSE EPRA/NAREIT Develop	-0.40	505	11.54	0.16	ETF
iShares Europe Developed Real Estate ETF	-0.49	30	13.18	-0.43	ETF
UBS ETF CH-SXI Real Estate CHF	-0.99	55	8.01	0.05	ETF

Asian Real Estate Funds Returns: November 2018



Recent changes: Funds are now split between active and passively managed.

By Fund size and style

Fund	TR% Nov 18	YTD % 2018	Number of Funds	AuM(US\$m)
Asian active medium	4.27	-0.70	10	936.81
Asian active small	4.40	-6.33	31	397.59
Asian Index	5.21	-1.11	1	n/a
Asian passive	7.92	-4.62	5	613.56

Best Performing Funds November 2018

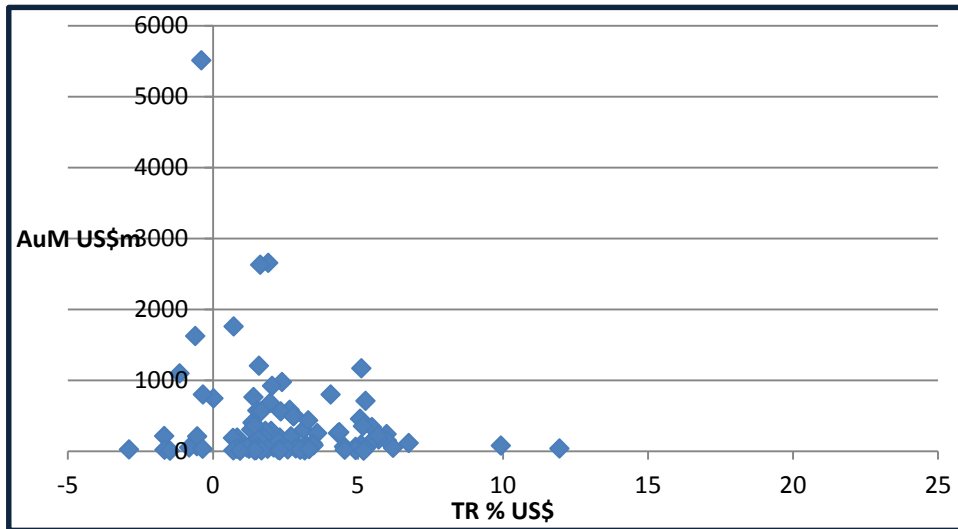
Asian Active Funds above US\$10m AuM

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe Ratio	Type
Schroder International Selection Fund - A	6.16	21	12.63	-0.24	SICAV
Morgan Stanley Investment Funds - Asiar	6.03	108	12.17	-0.08	SICAV
BOCHK Investment Funds - Asia Pacific P	5.80	11	16.34	-0.32	Unit Trust
UBS Asian Real Estate Securities Fund	5.70	15	9.55	0.19	Open-End Fund
Swisscanto CH Index Real Estate Fund Asi	5.60	19	10.73	0.29	Open-End Fund
Henderson Horizon - Asia-Pacific Propert	5.08	86	12.01	-0.32	Open-End Fund
Henderson Global Select Funds - Asia Pa	5.03	19	10.47	-0.27	Fund of Funds
Amadeus Capital Vision PLC - Amadeus A	4.95	31	10.40	0.29	Open-End Fund
Public Mutual - Public Far-East Property	4.92	69	11.31	-0.66	Open-End Fund
Eastspring Asia Pacific REITs Fund	4.82	36	9.85	-0.18	Open-End Fund

Asian Passive Funds – no size restriction

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe ratio	Type
Guggenheim China Real Estate ETF	12.11	40	26.76	-0.08	ETF
Lippo Select HK & Mainland Property ETF	9.20	15	29.27	-0.16	ETF
BMO MSCI Asia Pacific Real Estate ETF	7.49	7	15.91	-0.32	ETF
CSIF CH Asia Real Estate Index	5.58	217	10.78	0.26	Open-End Fund
iShares Asia Property Yield UCITS ETF US	5.24	334	11.54	0.36	ETF

Global Infra Funds Returns: November 2018



Recent changes: Funds are now split between active and passively managed.

By Fund size and style

Fund	TR% Nov 18	YTD % 2018	Number of Funds	AuM(US\$m)
Global Infrastructure large	1.62	-5.52	10	17,194
Global Infrastructure medium	2.88	-6.50	35	11,396
Global Infrastructure smal	2.71	-7.48	43	2,776
Global Infrastructure Index	1.49	-3.20	1	n/a
Global Infra passive	2.04	-7.07	11	4,950

Best Performing Funds November 2018

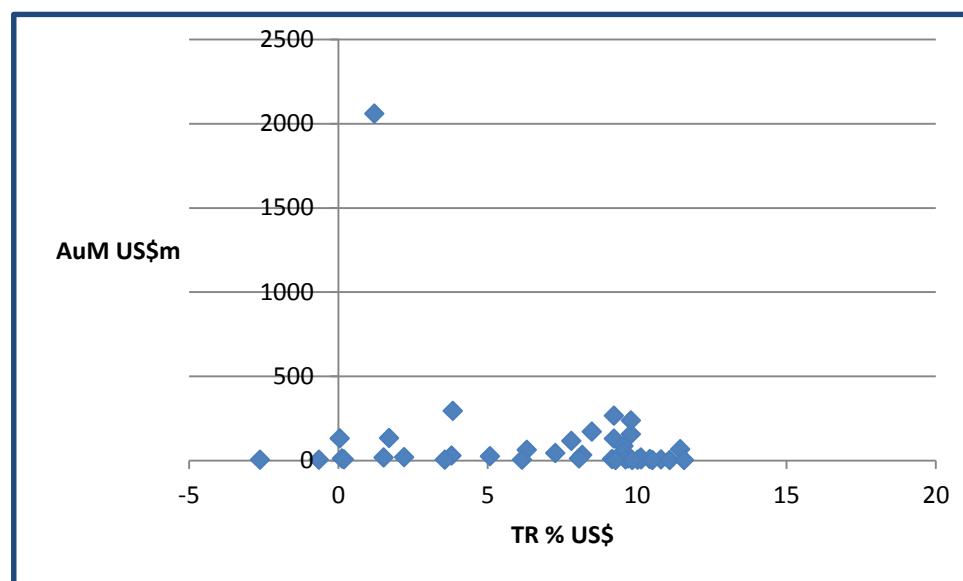
Global Infrastructure Active Funds above US\$50m

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe Ratio	Type
Tata Infrastructure Fund	9.94	73	16.99	-1.16	Open-End Fund
Vanguard Global Infrastructure Fund Hed	6.76	109	11.28	0.30	Unit Trust
Mercer Passive Global Listed Infrastruct	6.02	147	11.12	-0.24	Unit Trust
Macquarie Hedged Index Global Infrastru	6.01	233	11.08	-0.27	Unit Trust
CFS Wholesale Global Listed Infrastructu	5.72	160	10.32	-0.31	Unit Trust
CFS FirstChoice WS Pension - CFS Wholes	5.70	219	10.33	-0.34	Open-End Pensi
BlackRock Utility and Infrastructure Trus	5.50	332	13.91	-0.17	Closed-End Fund
Mercer Listed Infrastructure Fund	5.38	92	10.21	-0.27	Unit Trust
RARE Infrastructure Value Fund - Hedged	5.27	704	10.64	-0.45	Unit Trust
Macquarie Global Infrastructure Total R	5.19	348	18.89	-0.77	Closed-End Fund

Global Infrastructure Passive Funds – no size restriction

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe Ratio	Type
FlexShares STOXX Global Broad Infrastru	4.07	795	12.29	-0.30	ETF
iShares Emerging Markets Infrastructure	2.86	30	13.89	-0.98	ETF
iShares Global Infrastructure UCITS ETF U	2.66	577	11.80	0.52	ETF
PowerShares Emerging Markets Infrastru	2.59	18	20.04	-0.42	ETF
iShares Global Infrastructure Index ETF	2.11	44	10.86	-0.62	ETF

Regional Infra Fund Returns: November 2018



Recent changes: Funds are now split between active and passively managed. Real Assets Funds are now classified as part of Alternative Strategies.

By Fund size

Fund	TR% Nov 18	YTD % 2018	Number of Funds	AuM(US\$m)
Regional Infrastructure Medium	7.56	-21.99	15	3,885
Regional Infrastructure Small	6.44	-15.54	23	293
Regional Infrastructure Passive	5.76	-13.47	2	17

Best Performing Funds November 2018

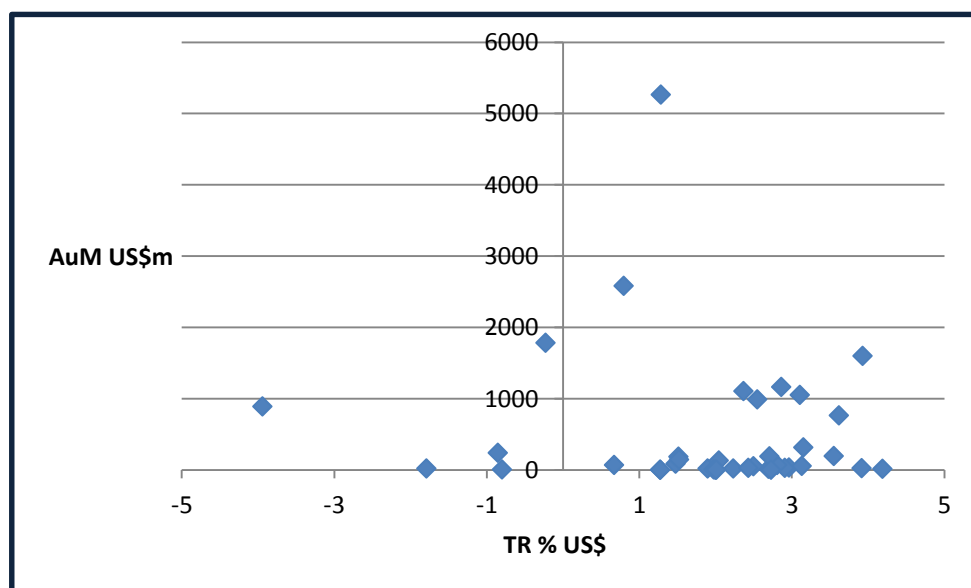
Regional Infrastructure Active Funds above US\$10m AuM

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe Ratio	Type
SBI Infrastructure Fund-Series I	11.45	65	17.59	-1.13	Open-End Fund
Canara Robeco Infrastructure	10.12	17	17.51	-1.57	Open-End Fund
Franklin Build India Fund	9.80	154	16.05	-1.06	Open-End Fund
Eastspring India Infrastructure Equity Fu	9.79	235	18.35	-0.64	Fund of Funds
IBK India Infra Securities Investment Trus	9.70	11	14.80	-1.05	Unit Trust
Aditya Birla Infrastructure Fund	9.55	83	18.08	-1.45	Open-End Fund
Kotak Infra and Eco Reform Fund	9.55	53	16.49	-1.40	Open-End Fund
L&T Infrastructure Fund	9.23	265	16.21	-1.12	Open-End Fund
IDFC Infrastructure Fund	9.23	129	18.86	-1.73	Open-End Fund
Prudential ICICI Infrastructure	8.49	170	15.66	-1.35	Open-End Fund

Regional Infrastructure Passive Funds – no size restriction

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe Ratio	Type
Reliance ETF Infra BeES	10.02	2	16.11	-1.02	ETF
First Asset Active Utility & Infrastructure	1.51	16	10.11	-0.20	ETF

Income Funds Fund Returns: November 2018



By Fund size

Fund	TR% Nov 18	YTD % 2018	Number of Funds	AuM(US\$m)
Income large	2.30	-0.40	11	20,111
Income medium	2.11	-4.31	8	2,235
Income small	2.16	-3.64	17	479
Income passive	1.23	-0.96	4	352

Best Performing Funds Oct 2018

Income Active Funds above US\$10m AuM

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe Ratio	Type
Cohen & Steers Quality Income Realty Fu	5.86	1,445	19.57	0.14	Closed-End Fund
JPMorgan Realty Income Fund	5.44	2,583	15.10	-0.03	Open-End Fund
Lion Global Income Real Estate Fund QDI	4.19	15	16.68	0.03	Open-End Fund
Asia High Yield REIT Fund/SMAM	3.93	1,598	11.96	0.13	Open-End Fund
DLIJ DIAM J-REIT Open - Owners Income	3.62	763	8.27	1.73	Fund of Funds
RMR Real Estate Income Fund	3.55	195	17.34	-0.28	Closed-End Fund
Nuveen Real Estate Income Fund	3.15	316	14.97	-0.54	Closed-End Fund
Cohen & Steers REIT and Preferred Incom	3.10	1,052	14.41	-0.35	Closed-End Fund
Phillip Singapore Real Estate Income Fun	2.96	32	6.28	-0.57	Open-End Fund
Public Mutual - PB Asia Real Estate Incon	2.91	28	7.10	-0.65	Open-End Fund

Income Passive Funds – no size restriction

Fund	Nov 2018 TR %	AUM US\$m	Volatility %	Sharpe Ratio	Type
Guggenheim S&P High Income Infrastruct	3.13	56	13.00	-0.50	ETF
Global X SuperDividend REIT ETF	2.04	131	12.88	0.27	ETF
VanEck Vectors Mortgage REIT Income ET	1.52	146	11.32	0.31	ETF
VanEck Vectors High Income Infrastructu	-1.79	20	20.79	-0.02	ETF

Alternative Strategies Funds and Indices Returns: Q3 2018

Overview of Funds by Strategy

Strategy	TR% Nov 18	YTD % 2018	Number of Funds	AuM(US\$m)
Active ETF	2.85	2.34	1	29
Cities	2.60	-4.08	1	827
Equal Weights	2.36	-1.13	2	384
Housebuilders	4.47	-19.24	1	591
Inverse	-4.31	-3.02	1	9
Leaders	4.95	2.78	2	2,071
Leveraged Bear	-10.51	-12.22	2	42
Leveraged Bull	10.49	1.09	3	183
Leveraged Mortgage REIT	2.81	2.04	2	496
Mortgage REIT	2.06	3.23	1	1,242
Multifactor	2.15	-2.61	3	27
Prime RE	2.97	0.22	1	2
Quant Real assets	1.41	-9.42	1	6
Real Assets	-0.83	-7.75	49	16,736
Real Assets eTF	2.52	-3.51	1	14
Residential	6.80	10.66	1	335
Small cap	2.34	-0.95	1	75
Sustainable	2.60	-4.23	4	14

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