THE USE OF LISTED REAL ESTATE IN REAL ASSET FUNDS

European Real Estate Society
Reading
June 2018

Alex Moss
Director, Real Estate Research Centre, Cass Business School
Founder, Consilia Capital

alex.moss@consiliacapital.com
alex.moss.1@city.ac.uk

CONTENTS

BACKGROUND

- Real Assets have become a distinct and popular asset allocation category post the Global Financial Crisis, and a number of institutions (Legal & General, Blackrock, Aviva, to name a few) have now incorporated their real estate departments into newly formed real asset departments, to reflect this fundamental and structural change in asset classification.

- Despite this rise in popularity, and broad adoption of the term, there is still some difference of opinion as to what a real assets strategy constitutes, and indeed the composition of the relevant investment universe.

- The term real assets itself can have several different interpretations, typically taken to mean backed by tangible assets, providing a form of inflation protection, or a combination of both.

BACKGROUND

- The investment objective of a real asset fund can vary from inflation protection, to income return, or balanced income and capital growth.

- The investment universe deemed suitable for inclusion in a real asset fund can, but doesn't always, include a number of sectors. These would typically be real estate and infrastructure (itself a wide-ranging classification), but also commodities, natural resources, and any sector deemed "inflation-sensitive".

- Finally, as well as both corporate, SPV, and sovereign issuers, the instruments available to execute the strategy can encompass public and private equity, public and private debt, inflation linked instruments, and derivatives and futures instruments.

PURPOSE OF THIS STUDY

The purpose of this paper is to examine:

1. The rationale for a real assets strategy
2. The current size of the real assets fund market, and the differentiation of strategies.
3. Performance of the different components
4. Whether a simple blended listed real estate and infrastructure fund would have outperformed more complex real assets strategies
5. Implementation issues involved in executing a real assets strategy
6. Which infrastructure sectors might be included with real estate to produce a suitable real asset securities benchmark

DATA

- Consilia Capital database of Real Asset Funds
- Fund Factsheets
- FTSE/EPRA/NAREIT Index series
- GLIO Infrastructure Sectors

1) CRITERIA FOR A REAL ASSETS STRATEGY

- Our working definition of real assets relates to income-producing, physical assets, which provide capital preservation/appreciation over the longer term, with a level of inflation sensitivity.

- We are not concerned with other assets that are included in the “Alternative” category, but only offer the possibility of uncorrelated returns, namely Commodities, Hedge Funds, Private Equity, and more recently Cryptocurrencies.

- The reason being that they lack tangible income-producing asset backing.

- An EIU/Blackrock survey found that the number one motivation in increasing allocations to the real assets area was to grow returns, not to diversify away from equities and bonds. Real estate is the core allocation to the strategy.

- It is estimated that the median allocation to a real asset strategy by institutional investors is 11%.

2) REAL ASSETS STRATEGIES- SIZE

- Size of the Real Asset Mutual Funds market as at January 2018

	Number of Funds	AuM (US$m)
Global Real Estate Funds	249	83,361
Global Infrastructure Fund	104	38,996
Income Funds	41	22,049
Real Assets Funds	**44**	**17,041**
Regional Infrastructure Funds	40	4,764

Source: Consilia Capital, Bloomberg

2) REAL ASSETS STRATEGIES

- Of those in our database 32% mentioned Commodities in their key investment philosophy , 25% REITs, 25% inflation, 18% had a specific Capital focus, and 5% an Income focus.

- In essence, there are three broad strategies ,namely; 1) Inflation based, 2) Growth based, and 3) Income based. To illustrate the differentiation of strategies we will highlight two funds in each of the three main categories. Despite the significant difference in investment universe and objectives real estate securities is a core holding for all of them

- **1) INFLATION BASED STRATEGIES**
- **Case Study 1. Multi-Asset Universe with an Inflation objective**
- **Fund: Principal Diversified Real Asset Fund**
- Stock Sector Breakdown
- The Fund separates its equity holdings into three categories: Cyclical 43.48%, Defensive 16.31%, and Sensitive 40.20%.
- **Listed Real Estate exposure:** Real Estate is categorised as cyclical, and represents **18.9%** of the equity exposure of the Fund.

2) REAL ASSETS STRATEGIES

- **Case Study 2 Securities Universe with an Inflation Objective**
- **Fund: AB All Market real Return Portfolio**
- Portfolio Split
- Commodity Futures 30.16%
- **Listed Real Estate Exposure: Real Estate Equities 27.80%**
- Natural Resource Equities 25.83%
- Inflation-Sensitive Equities 15.93%
- Other 0.28%

2) REAL ASSETS STRATEGIES

- **2) GROWTH BASED STRATEGIES**
-
- **Case Study 3 Securities Universe with a Growth objective**
- **Fund: T Rowe Price Real Assets Fund**
- The Funds looks at its holdings relative to a combined benchmark of:
- 25% MSCI ACWI Metals & Mining,
- 20% Wilshire RESI,
- 20% FTSE EPRA/NAREIT Dev Real Estate Index,
- 19.5% MSCI ACWI Energy,
- 10.5% MSCI ACWI Materials,
- 4% MSCI ACWI IMI Gold,
- 1.00% MSCI ACWI IMI Precious Metals and Minerals

2) REAL ASSETS STRATEGIES

- **Case Study 4 Securities Universe with a balanced objective**
- **Fund: Cohen and Steers Real asset Securities Fund**
- **Listed Real estate exposure: Global REITs are 28% of the portfolio**
- Commodities represent 25%, Natural Resource equities 17%, Infrastructure 12% and Short Duration credit 11%.

2) REAL ASSETS STRATEGIES

- **3) INCOME BASED STRATEGIES**
-
- **Case Study 5 Real asset debt and Equity Universe with an Income objective**
- **Fund: Nuveen Real Asset Income Fund**
- **Listed Real Estate element: 24%**
- Portfolio Allocation
- Infrastructure Common 16.9%
- **Real Estate Common 24.4 %**
- Infrastructure Preferred 25.6 %
- **Real Estate Preferred 15.3 %**
- Infrastructure Debt 14.9%
- **Real Estate Debt 2.5%**
- Cash and Equivalents 0.5%

2) REAL ASSETS STRATEGIES

- **Case Study 6**
- **Fund: Brookfield Real Assets Income Fund Inc.**
- **Listed real Estate exposure: 22.4%**
- Asset Allocation
- 1) Corporate Credit 33.3%
- Real Estate 7.4% Infrastructure 18.5% Natural Resources 7.1% Other 0.3%
-
- 2) Securitized Credit 39.0%
- RMBS 28.9% CMBS 5.3% Other 4.8%

- 3) Real Asset Equities 22.4%
- Real Estate 9.3% Infrastructure 13.1% Cash & Other 5.3% Cash 5.3%
-

3) PERFORMANCE

- Performance is the key determinant for a real asset strategy, and Brookfield show that from 2003 to 2017 , as with most other long term studies, that the listed components of a real assets strategy add to overall portfolio performance. In their study the (annualised) figures were:
- Global Equities +8.4% p.a.
- Global Bonds +4.1% p.a.

- **Infrastructure Equities +12.5% p.a.**
- **Real Estate Equities +10.3% p.a.**
- Real Asset High Yield Debt +8.9% p.a.
- Natural Resources Equities +8.8% p.a.

- Real asset Investment Grade Debt +5.6%. p.a.
- US TIPS +4.5% p.a.
- **Commodities -0.6% p.a.**

- The non-income producing commodities component has been a significant drag upon performance

3) PERFORMANCE

- The commodities underperformance explains why Real asset Funds have underperformed Real Estate and Infrastructure Funds

	3yr Return (US$ %)	5 yr Return (US$ %)	5 yr Sharpe Ratio	5 year Max drawdown Max D'down(%)	Volatility (%)
Real Assets Funds	9.02	5.03	0.20	-8.56	7.75
Global Infrastructure Funds	22.33	39.35	0.86	-9.81	9.42
Global Real Estate Funds	8.77	24.14	0.56	-10.01	9.52
Income Funds	8.00	27.57	0.61	-11.51	9.79
Regional Infrastructure	32.50	56.08	0.50	-8.96	12.02

4) BLENDED PERFORMANCE 70/30

Therefore, why not construct a real asset portfolio purely focused on real estate and infrastructure funds? Would a blended RE/Infra approach have outperformed Real Assets Funds

Using the Funds in the Consilia Capital Database we will show three different weightings: 70/30, 50/50 and Equal Weight (i.e. 1/3rd RE. 1/3rd Infra, 1/3rd Income)

Persistent outperformance for 70/30 blended approach

	2017	2016	2015	2014	2013	2012	2011	2010
Real Assets Funds	12.25	8.48	-11.58	-0.10	-0.80	9.24	-5.27	15.48
70/30 Real Estate /Infrastructure	15.69	3.92	-4.81	11.91	3.83	22.49	-4.55	18.62
Relative Performance	3.44	-4.56	6.77	12.02	4.62	13.26	0.72	3.15
Global Infrastructure Fund	20.38	10.45	-10.18	8.60	11.89	15.18	-3.32	14.67
Global Real Estate	13.68	1.12	-2.51	13.34	0.37	25.63	-5.07	20.32
Income	10.91	8.66	-3.48	18.27	-0.06	23.79	0.06	28.94
Regional Infrastructure	38.96	6.28	-7.72	29.49	-8.77	18.46	-32.92	16.30

4) BLENDED PERFORMANCE 50/50

Similar story for 50/50

	2017	2016	2015	2014	2013	2012	2011	2010
Real Assets Funds	12.25	8.48	-11.58	-0.10	-0.80	9.24	-5.27	15.48
50/50 Real Estate /Infrastructure	17.03	5.79	-6.35	10.97	6.13	20.41	-4.20	17.49
Relative Performance	4.78	-2.70	5.24	11.07	6.93	11.17	1.07	2.02
Global Infrastructure Fund	20.38	10.45	-10.18	8.60	11.89	15.18	-3.32	14.67
Global Real Estate	13.68	1.12	-2.51	13.34	0.37	25.63	-5.07	20.32
Income	10.91	8.66	-3.48	18.27	-0.06	23.79	0.06	28.94
Regional Infrastructure	38.96	6.28	-7.72	29.49	-8.77	18.46	-32.92	16.30

4) BLENDED PERFORMANCE Equal Weight

As well as EW

	2017	2016	2015	2014	2013	2012	2011	2010
Real Assets Funds	12.25	8.48	-11.58	-0.10	-0.80	9.24	-5.27	15.48
EW Real Estate /Infrastructure/Income	15.04	6.78	-5.44	13.35	4.15	21.47	-2.78	21.24
Relative Performance	2.80	-1.70	6.15	13.45	4.95	12.23	2.48	5.76
Global Infrastructure Fund	20.38	10.45	-10.18	8.60	11.89	15.18	-3.32	14.67
Global Real Estate	13.68	1.12	-2.51	13.34	0.37	25.63	-5.07	20.32
Income	10.91	8.66	-3.48	18.27	-0.06	23.79	0.06	28.94
Regional Infrastructure	38.96	6.28	-7.72	29.49	-8.77	18.46	-32.92	16.30

In all cases a simple Real Estate and Infrastructure strategy would have outperformed a real assets strategy which included other elements such as commodities, credit etc.

5) IMPLEMENTATION ISSUES

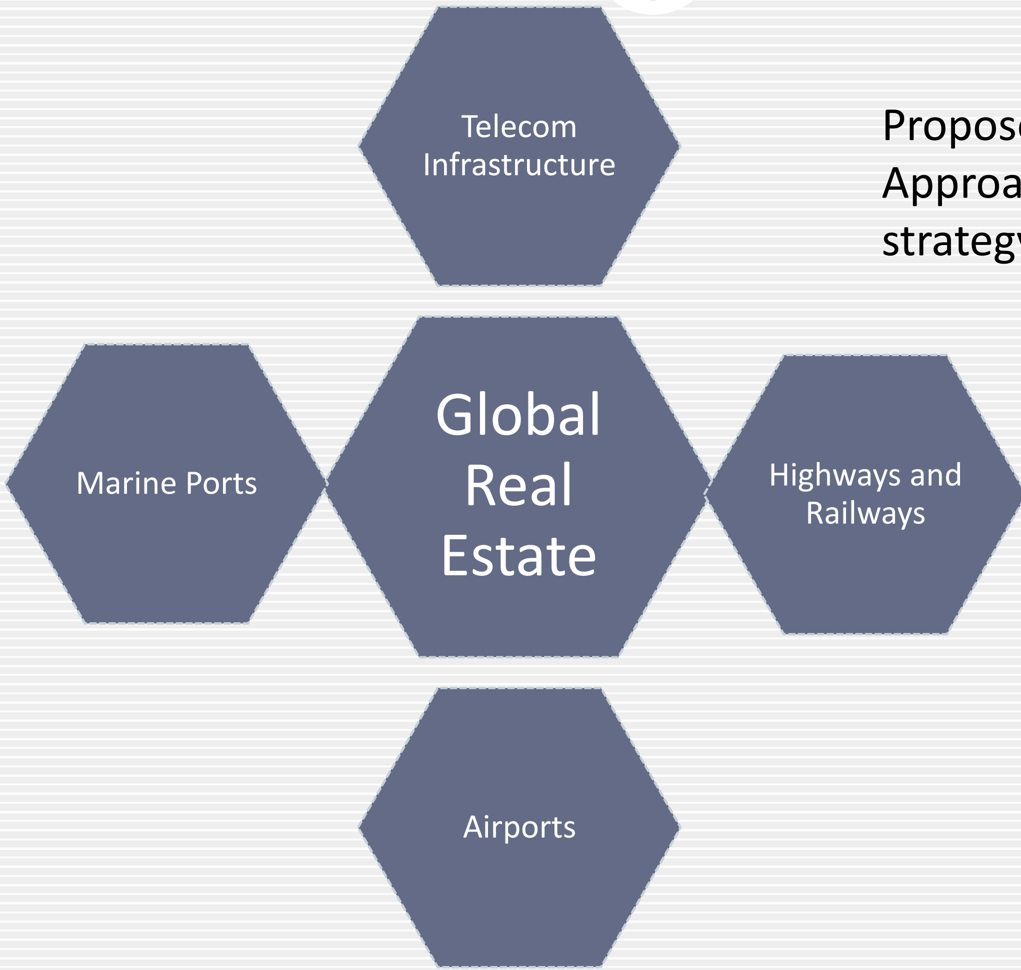
- That works for funds, but how can we define a combined universe of individual stocks ?
- In essence the main area that practitioners are currently addressing is how to incorporate infrastructure equities into a real estate sector expertise.
- In order to address this issue we must first determine the number of sectors involved in the broader infrastructure category, and then take out the sectors which we do not believe have the core requirements for inclusion in a real assets portfolio. The core requirements are
- 1)physical assets for which the return as expected to come largely from the yield,
- 2)income, or income-generating potential, and which provide:
- 3) Storage of value over the longer term,
- 4) Inflation sensitivity and
- 5) Diversification within a portfolio.

6) INFRASTRUCTURE SECTORS TO BE INCLUDED

Infrastructure sectors, size, and relationship with real estate

	Relationship with Real Estate	FFMC US$
Electric Utilities	No	620
Ground Freight	No	282
Oil and Gas Distribution	No	250
Multiutilites	No	146
Telecom Infrastructure	Yes	126
Ground Transportation services	No	101
Highways and Railways	Yes	85
Airports	Yes	71
Gas Utilities	No	66
Water Utilities	No	56
Marine Ports	Yes	18
Diversified	No	17
Satellites	no	14
Construction and Engineering	No	5

5) INFRASTRUCTURE SECTORS TO BE INCLUDED



Proposed Core and Satellite Approach for a Listed real assets strategy

CONCLUSIONS

- Our view is that more Real asset Funds purely combining Real estate and Infrastructure will be launched and this will change the performance profile of the asset group going forward by reducing the commodity /natural resource impact.

- In all the funds we have surveyed there is a core listed real estate allocation of 25%-40%.
- The performance evidence is clear, that listed real estate fulfils all the key criteria for being a core part of a real asset strategy.
- We have modelled the implementation of a real assets strategy by blending global real estate securities funds, global infrastructure funds and income funds to produce a real asset allocation.
- In seven out of the last eight years these would have outperformed existing real asset mutual funds.
- We believe that only four of the 11 infrastructure sub-sectors should be added to a real estate index to form a real estate plus listed real assets index. These are Airports, Telecom Infrastructure, Highways and Railways, and Marine Ports.
- Adding these four sectors as a satellite to a core real estate securities portfolio provides a clear solutions based product, with consistent investment characteristics.