



30 September 2014

Investment Regulation Department
Mandatory Provident Fund Schemes Authority
Unit 1501A and 1508, Level 15
International Commerce Centre
1 Austin Road West, Kowloon
Hong Kong

email: mpfinvest@mpfa.org.hk

Dear Sir/Madam

**Consultation on Providing Better Investment Solutions
to Mandatory Provident Fund (MPF) Scheme Members**

The Asia Pacific Real Estate Association (APREA) is delighted to submit its perspective on the above-named consultation.

Our submission focuses on technical issues associated with investment philosophies and asset allocation methodologies relevant to the MPF review. In particular, we provide responses to questions four, five, eight and nine of the consultation paper.

The submission offers a detailed examination of conceptual approaches applicable to target date funds.

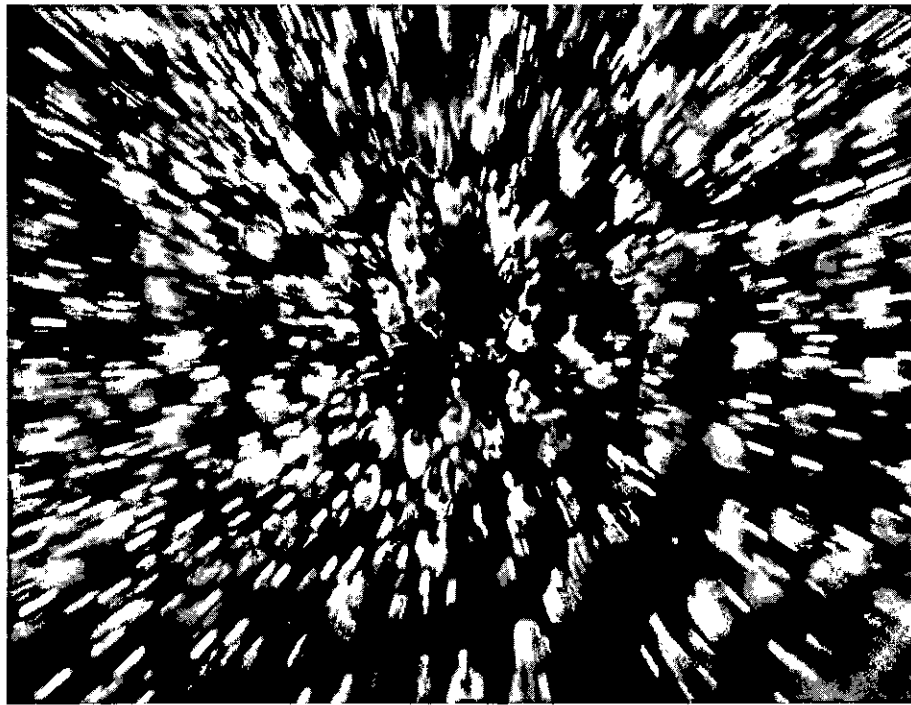
We note the important role to be played by real estate allocations in meeting target date fund objectives.

This is a public submission that can be attributed to APREA.

Please do not hesitate to contact me should you require further information.

Yours faithfully

Peter Verwer
Chief Executive Officer



**APREA's Response to
*Providing Better Investment
Solutions for MPF Members –
A Consultation Paper***

September 2014

APREA: Asia Pacific Real Estate Association

Contents Page

1.	Executive summary	2
2.	APREA in two minutes.....	3
3.	The Case for Real Estate in Pension Funds.....	4
4.	Target Date Account Methodologies and Concepts	11
5.	Optimal Portfolio Allocation for Target Date Funds	13
6.	Implications for the Hong Kong Mandatory Provident Fund	21
7.	Conclusions	25

Appendices

A	Wilshire report on <i>The Role of REITs and Listed Real Estate Equities in Target Date Fund Asset Allocations</i>	27
Contacts	28

1. Executive Summary

This submission offers APREA's perspectives on the consultation paper, *Providing Better Investment Solutions to MPF Members*.

APREA makes the following recommendations:

- a core fund approach operates best where it **optimises the potential to enhance long-term investment returns while reducing risk**;
- the methodology for maximising the design efficiency of default funds should **utilise innovative concepts, such as liability driven investing**, investment glide paths, surplus optimisation and mean variance optimisation, as well as taking account of historical performance;
- evidence-based data on real estate returns (including real estate investment trusts – REITs) clearly indicates **the important role real estate can play in optimising long-term performance**, including risk reduction;
- in several countries, it is **increasingly common for target date funds to include higher real estate allocations** (particularly REITs) to better meet retirement liabilities;
- at present, **Hong Kong's MPF rules restrict allocations to securitised real estate** which thereby reduce the optimality dividend offered by balanced real estate allocations; and,
- APREA recommends the **removal of these restrictions**.

This submission is divided into the following sections:

- the benefits of real estate allocations within pension plan frameworks;
- a discussion of methodologies that optimise investment portfolio design efficiency;
- the evidence-based case for increasing real estate allocations within the Hong Kong MPF framework; and,
- recommendations relevant to specific issues in the MPF consultation paper.

The submission has been prepared on the assumption that a core fund model designed in accordance with the target date fund/ life-stage approach outlined in the MPF consultation paper is adopted. The focus of the submission is, therefore, on technical issues, specifically in relation to fund design – that is, questions four, five, eight and nine of the consultation paper.

Above all, APREA believes that competitive markets are best placed to design and manage funds that meet the public policy objectives of the MPF.

2. APREA in Two Minutes

APREA champions the Asia-Pacific real estate investment industry.

Working closely with world-class partners, APREA provides its members with a **capital markets passport to real estate opportunities** in Asia-Pac and across the globe.

APREA **engages closely with governments** - our evidence-based advocacy helps forge a more globally competitive real estate industry.

APREA also **fosters a more informed and professional market place** by delivering **incisive industry intelligence and best practice tools, along with outstanding networking and learning platforms.**

APREA's members comprise the region's major investors, developers, managers, advisors and thought leaders operating within the real estate wealth creation chain.

At present, APREA hosts chapters in China, Japan, India, Australia, Malaysia, Singapore, Hong Kong and the Philippines.

For additional information on APREA, please visit www.aprea.asia.

3. The Case for Real Estate in Pension Funds

This chapter outlines:

- the twin objectives of mandatory pension fund frameworks;
- the five classic benefits of REITs

The chapter provides relevant US and global data prepared for the National Association of Real Estate Investment Trusts (NAREIT) and AsiaPac-specific data prepared for APREA.

Focus on Mandatory Pension Funds – twin objectives

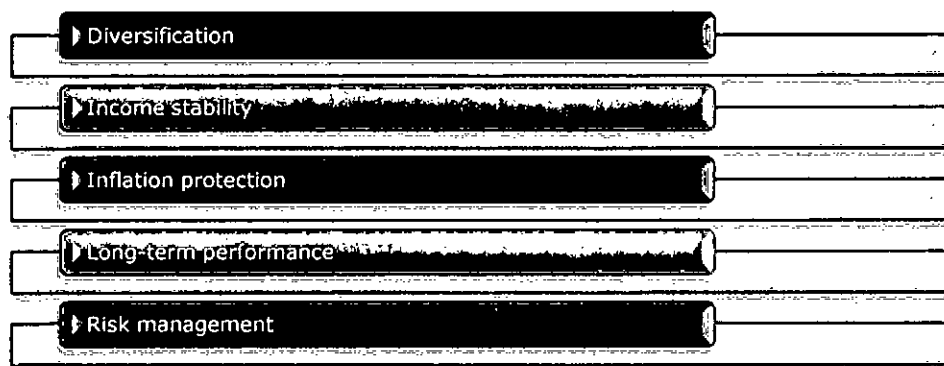
This submission focuses on mandatory pension funds where there is a particular emphasis on:

- maximising net investment returns to meet retirement liabilities; and,
- effectively addressing the changing risks faced by citizen investors at various stages of their working lives.

Real estate can play a critical role in meeting these twin objectives.

Real Estate Investment Trusts (REITs), in particular, can help meet these goals as a critical element of a well selected investment set.

The five Benefits of REITs for Pension Plans



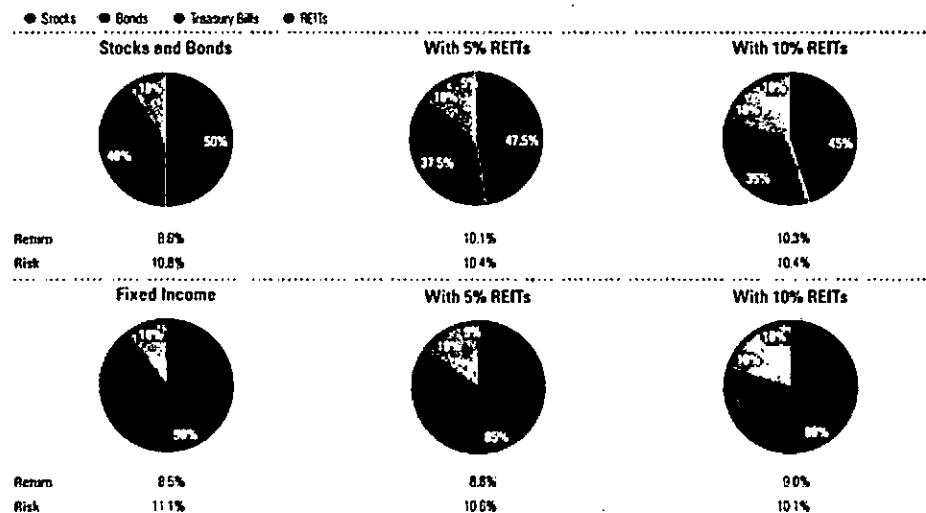
Each of these benefits is explored in greater detail below, drawing on global, United States and Asia-specific evidence.

Benefit 1: Diversification

The National Association of Real Estate Investment Trusts (NAREIT) has commissioned analysis which covers the world's longest time series of real estate investment performance – the 42 years from 1972 to 2013 for US stocks.

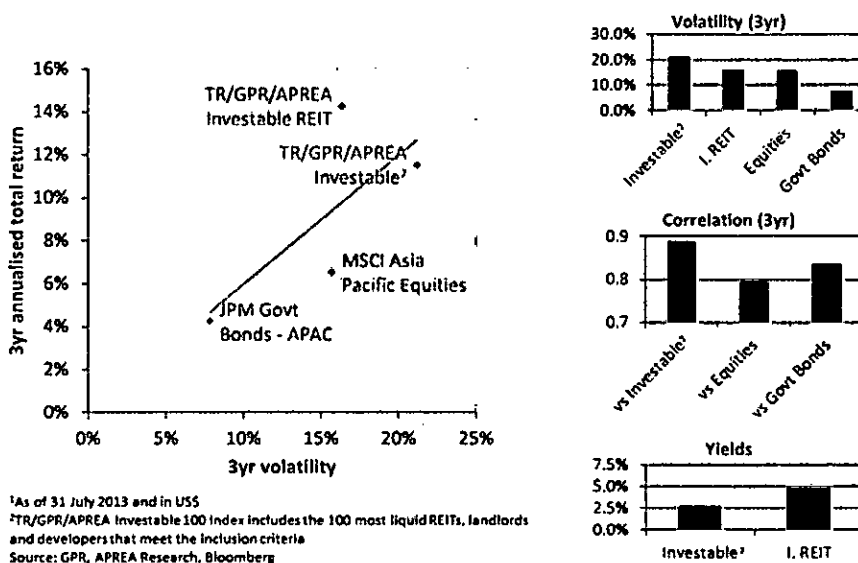
The analysis by Morningstar shows that (for US data) adding a REIT allocation to a hypothetical portfolio increases returns and reduces risk.

Adding a 10% allocation to REITs to a stock, bond and cash portfolio increased returns from 8.6% to 10.3% and reduced risk from 10.8% to 10.4% (compared to a zero REIT allocation).



NAREIT notes that REITs can trade like stocks and thereby fluctuate in price. However, as REITs are unique in paying out the majority of their income, they deliver the twin virtues of higher return and lower risk.

Independent research conducted for APREA based on Asian real estate performance demonstrates similar benefits.



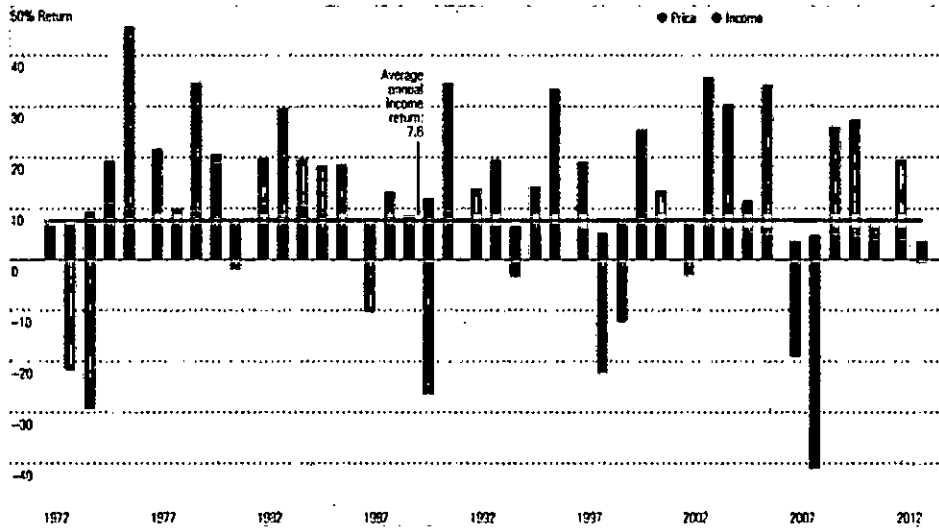
Benefit 2: Income Stability

REITs provide both capital appreciation and income growth.

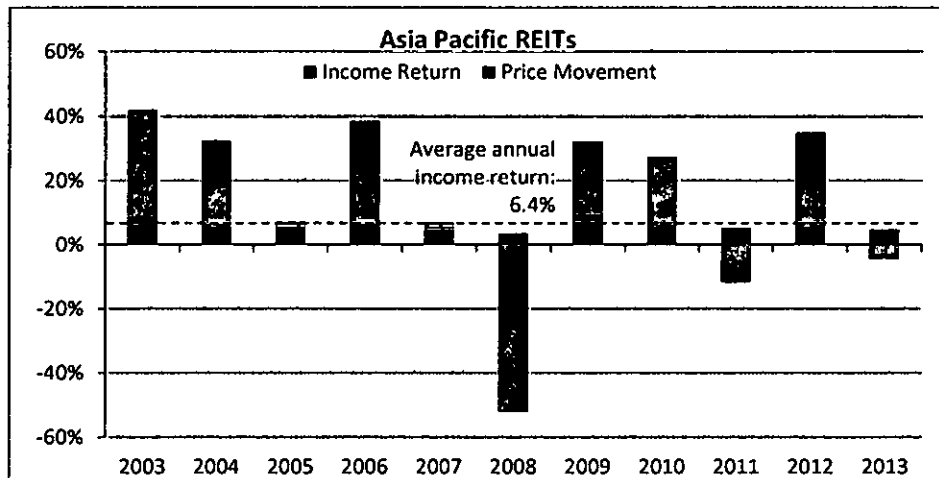
From the perspective of long-term pension wealth creation goals, REITs offer higher income returns than fixed-income investment.

While REITs are more volatile than bonds, an analysis of their longer term performance shows they are relatively stable through periods of fluctuating economic fundamentals.

In the United States, REITs delivered average annualised income returns of 7.6% over a four decade period.



Research commissioned by APREA leads to similar conclusions for AsiaPac REIT markets.



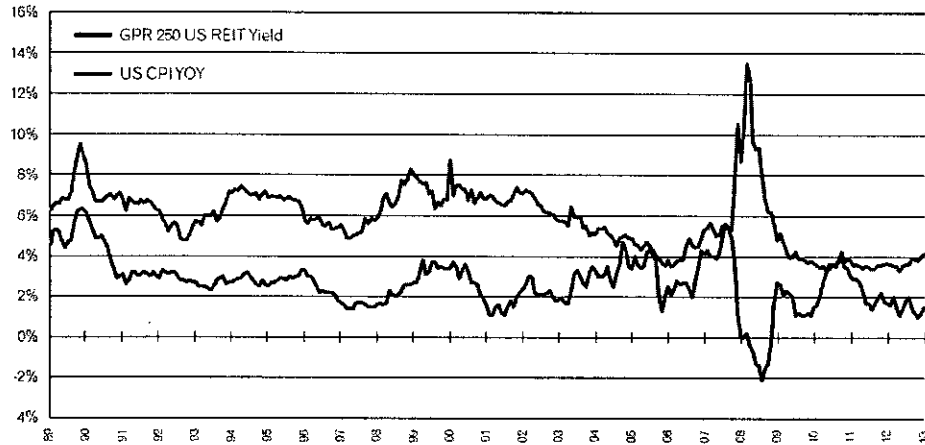
Benefit 3: Inflation Hedge

Inflation erodes savings and purchasing power.

In the US, Morningstar research shows that REIT income returns have outpaced inflation in 36 of the past 42 years since 1972.

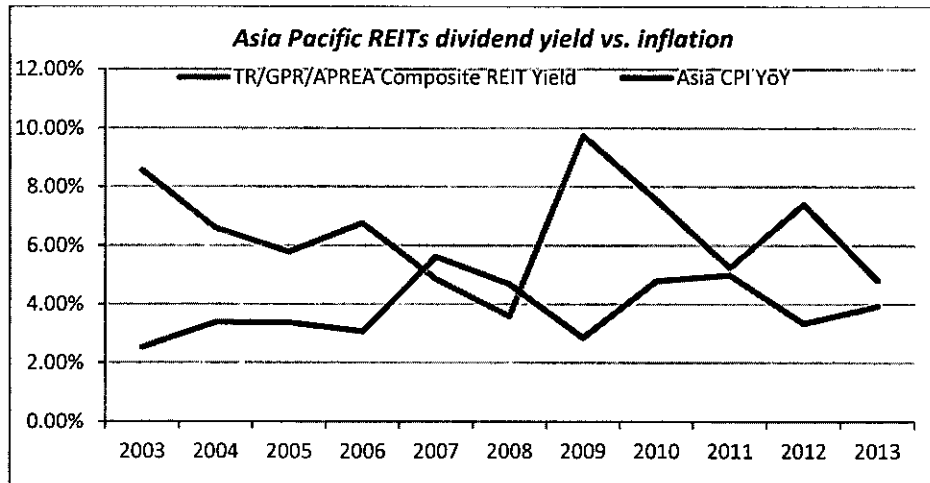
In a more recent perspective since 1981, REIT income has eclipsed inflation in every year except 2007.

Chart 8 – US REITs dividend yield vs. inflation



Source: GPR, Bloomberg, APREA

Studies prepared for APREA show similar inflation-hedging virtues derived from investment in Asian real estate.



Source: GPR, Bloomberg, APREA

Benefit 4: Long-Term Performance

APREA's principle thesis is that real estate and REITs can play a critical role in meeting the twin objectives of mandatory pension schemes.

That is, they *add* unique value to an optimal investment mix.

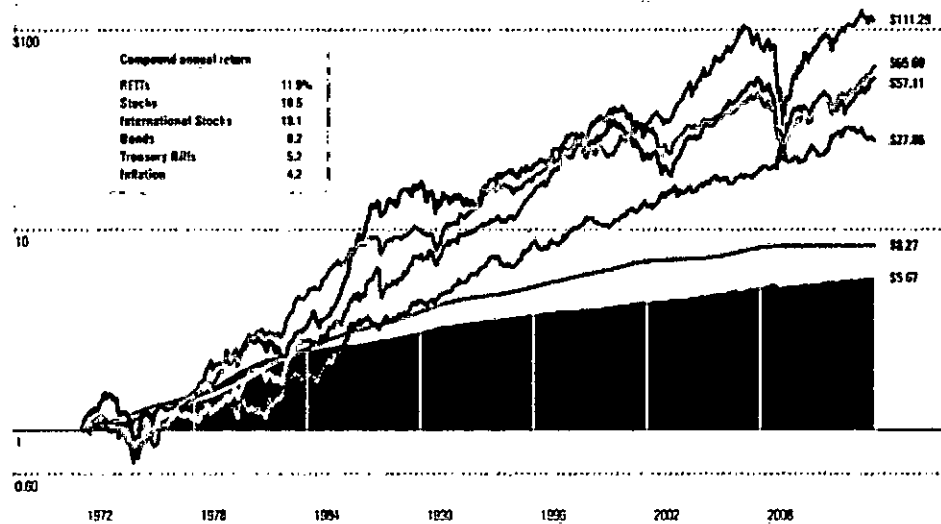
Clearly, total return performance is crucial to making this case.

In the US, Morningstar tested the hypothetical growth of a \$1 investment for five asset classes plus inflation for the 42 years to December 2013.

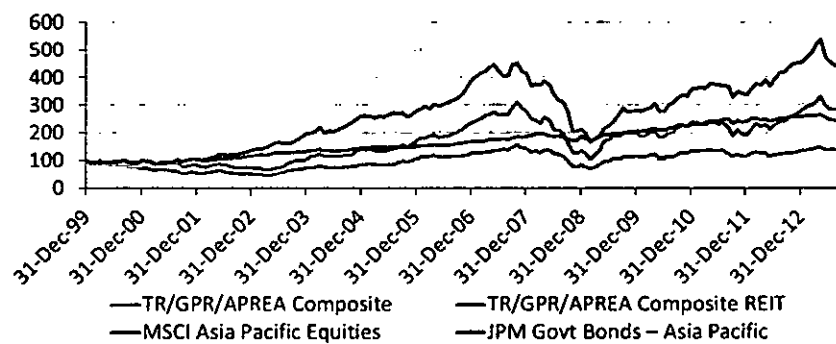
REITs provided the highest return and largest increase in wealth over this time period.

All five asset classes added value to the hypothetical portfolio either as a result of their income and capital performance profile, or their risk management characteristics.

In short, the strong case for including REITs in pension plan portfolios is underlined by their long-term outperformance of other asset classes.



An analysis of REITs that includes Asian stocks reveals similar outperformance:



	Return (%)						3Yr σ^3
	Sep 13	YTD	1Yr	3Yr ²	5Yr ²	10Yr ²	
TR/GPR/APREA Composite	7.18	7.01	18.73	11.06	13.17	12.11	0.20
TR/GPR/APREA Composite REIT	9.24	5.05	9.63	13.44	11.58	11.17	0.17
MSCI Asia Pacific Equities	6.95	9.66	16.16	6.08	8.20	8.43	0.15
JPM Govt Bonds - Asia Pacific	3.92	-4.48	-3.29	3.07	6.77	6.58	0.08

¹As of 30 September 2013 and in US\$

²Annualised

³Based on monthly total returns

Benefit 5: Risk Management

Mandatory pension schemes and target date funds, in particular, recognise that investors can tolerate changing levels of risk throughout their careers in the lead-up to retirement.

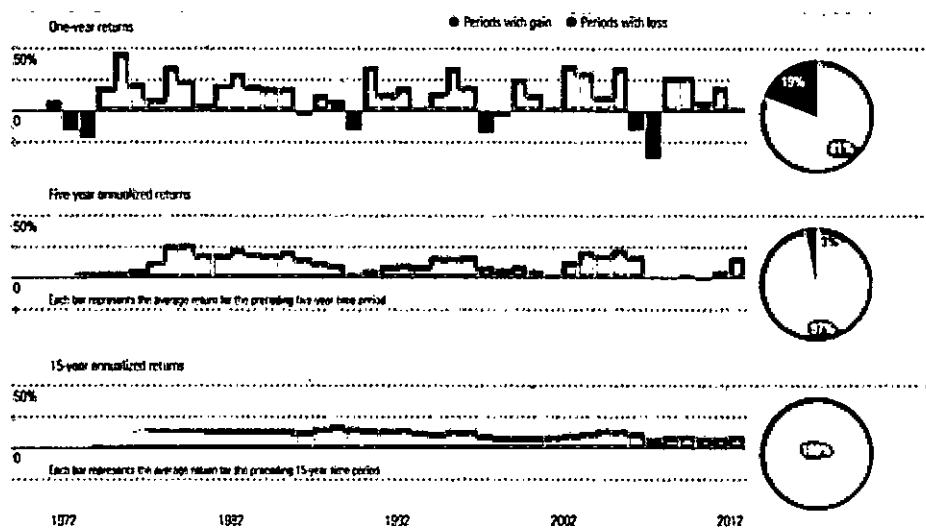
Investors in most asset classes can expect to experience losses or poor real (inflation-adjusted) performance from time to time.

This volatility is a fact of investing.

Well-designed target funds ought, therefore, to include asset classes that offer reliable long-run returns.

The Morningstar analysis of US REIT returns over one, five and 15 years revealed just eight years that resulted in total return losses.

Morningstar noted that by increasing the holding period to five years, only one of the 38 overlapping periods resulted in a loss. When increased to a 15-year annualised return basis, there were **no periods of negative return** between 1972 and 2013.



For Asian REITs, during the 11 years to 2013, there was only a single year of negative returns – this was at the outset of the Global Financial Crisis in 2008.

Chapter Summary

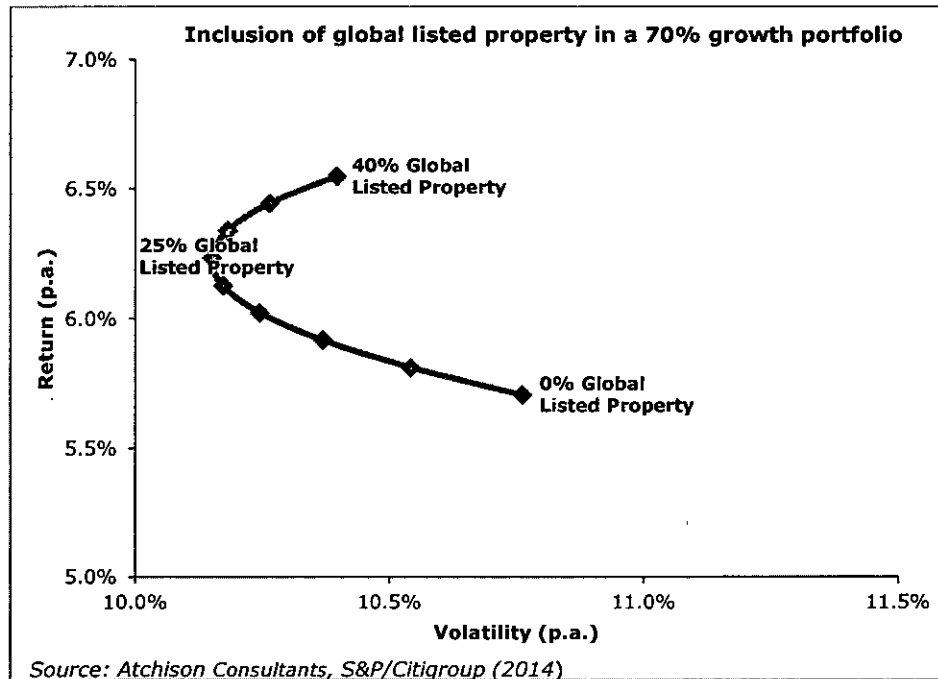
The MPF Consultation paper poses several questions about asset mix allocations in default accounts.

As the US and local evidence in this chapter demonstrates, real estate and REITs, in particular, can make a critical contribution to meeting the twin overarching goals of target date funds.

Indeed, APREA would argue that given the strength of this evidence, it would be difficult to optimise a default core account in the absence of a significant allocation to securitised real estate.

The following chart, prepared by independent consultants, shows that an allocation of ~25% to listed real estate would help meet the retirement liabilities of Hong Kong citizens.

That is, such an allocation produces a higher comparative return with relatively lower volatility compared to a smaller allocation to securitised real estate.



4. Target Date Account Methodologies and Concepts

This chapter outlines concepts relevant to the design of asset allocations in target date funds, including:

- liability driven investing
- glide paths
- SO/MOV optimisation metrics

These concepts are then deployed to argue the case for real estate.

In The Role of REITS and Listed Real Estate Equities in Target Date Fund Asset Allocations (2012) prepared for NAREIT, the independent advisors, Wilshire, outline key concepts for optimising the performance of pension funds.

Wilshire notes the rising popularity of target date and life stage funds.

The paper shows that target date funds were developed to simplify the key factors that drive investment decisions, such as asset selection, portfolio diversification, risk management and re-balancing over time.

It also notes that it is helpful to apply investment concepts developed for defined benefit plans given the common goal of both growing wealth and providing income that is sufficient to meet retirement liabilities.

These concepts are:

- liability driven investing (LDI);
- glide paths; and,
- surplus optimisation (SO) and mean variance optimisation (MVO) as metrics for assessing relative performance.

Liability Driven Investing (LDI)

LDI allocates pension plan assets to better hedge the value of those assets over time to specifically account for expected future liabilities.

The goal is to reduce unexpected funding costs.

Glide Paths

A glide path is the time line, or stages, over which a fund's total equity allocation decreases and the total fixed income allocation increases.

A well-designed glide path is structured to accommodate the varying levels of risk that investors can tolerate during their careers and into retirement.

At the beginning of an individual's career, there is value in seeking to capture higher returns in order to maximise retirement wealth.

In short, an citizen will likely enjoy many years during which to overcome uncertainties related to inflation, economic setbacks, changes in remuneration levels and investment volatility.

As years progress, uncertainties in relation to career path and remuneration returns are likely to reduce as retirement wealth builds. Consequently, expected retirement liabilities become clearer. However the appetite for risk (which includes the threat of eroding accumulated investment wealth) will decline sharply as investors near and then live in retirement.

The glide path represent a technique for better managing these evolving risk profiles in terms of LDI horizons.

Optimisation Metrics for Constructing Asset Allocation Glide Paths

Two concepts for implementing LDI are surplus optimisation (SO) and mean variance optimisation (MVO) asset allocation tools. Please see the break out box for a technical discussion of these concepts.

Both SO and MVO play a role in constructing asset allocation glide paths. MVO is best suited to medium to long-term asset growth. SO is more relevant to shorter time frames and allocation strategies for those already in retirement (especially as increasing life expectancies means individuals are spending longer in retirement).

As we will see in the next section, both MVO and SO metrics demonstrate the value of significant real estate allocations in target date funds.

MVO and SO – Technical Definitions

“Both SO and MVO develop asset allocations across the opportunity set.

However, MVO allocates assets to maximise portfolio returns while controlling for the variance of those returns, whereas SO allocates assets to maximise expected surplus returns while controlling for the expected surplus risk.

Surplus return is defined as the difference between the return on the assets and the return (or growth of) the liability, whereas surplus risk is defined as the standard deviation of the surplus return and tells us how closely the asset returns track the liability returns.”

Source: *The Role of REITS and Listed Real Estate Equities in TDF Asset Allocations* (Wilshire), 2012, page 34

5. Optimal Portfolio Allocation for Target Date Funds

This chapter notes:

- the rise of target date funds (TDFs)
- the rise of REIT allocations within these funds
- the evidence using MVO and SO analysis for these allocations for both static portfolios and portfolios based on glide paths

A Towers Watson survey conducted in the United States in 2009, noted that 72% of 401(k) plans elected TDFs as their default fund.


A 2009 survey by Callan Associates revealed 73% of 33 unique TDFs included real estate allocations, the majority of which were REITs.

A 2009 survey of 32 investment consultants by PIMCO (which included seven of the top 10 US investment advisors), concluded that REITs more than any other asset class added "the most value" within defined contribution plans.

A 2009 survey of 400 US defined contribution plan sponsors conducted by Casey Quirk and Associates with the Plan Sponsor Council of America, concluded that TDF sponsors chose REITs nearly twice as often as any other asset as the new investment offering that met the needs of a portfolio offering. The alternatives were hedge funds, commodities, global fixed income and REITs.

More recently, a 2013 survey by the Defined Contribution Institutional Investment Association revealed further strong support for listed and diversified real estate allocations, as the following survey results illustrate.

Including Within Asset Allocation Portfolios



Would including alternatives "add value" to a typical DC Plan?

Alternative Asset Class	Within Asset Allocation Portfolio?	Standalone on Core Menu?
Commodities	49%	6%
REITs	35	20
Diversified Real Assets	33	41
Private Equity	29	2
Infrastructure	27	--
Absolute Return/Unconstrained	24	16
Hedge Funds	24	--
Private Real Estate	24	--

Note: Represents % of 25 consulting firms responding "yes" to the question.
Source: 2013 PIMCO Defined Contribution Consulting Report and Trends Survey (21 Respondents)

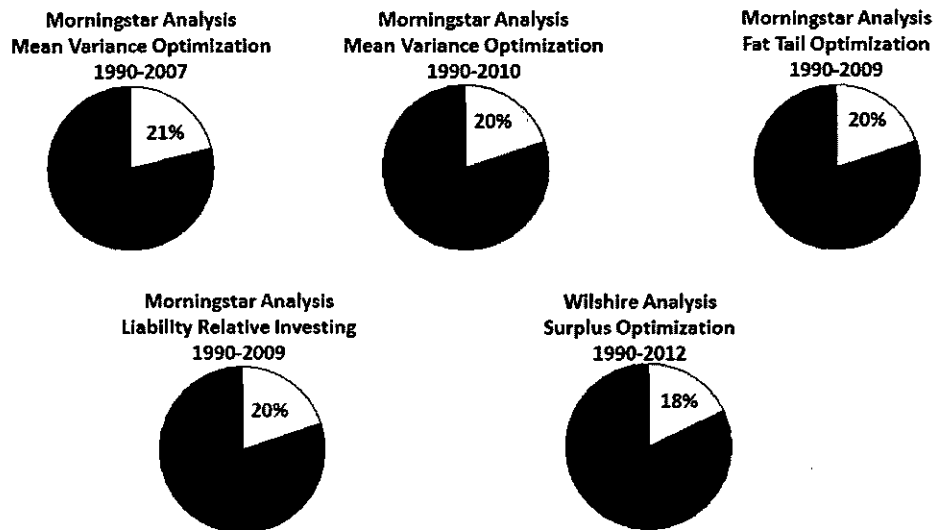
© 2014 DCIIA: Dedicated to Enhancing Retirement Security
1

The findings are not surprising given the mounting wealth of evidence in favour of significant real estate allocations.

The following graph summarises results from five different studies into the role of real estate in mixed asset portfolios.

The yellow pie slices indicate the recommended allocations to real estate, ranging from 18% to 21%.

Portfolio Allocations to Global Real Estate Different Time Periods, Methodologies and Consultants



It is important to note that:

- all studies included a full menu of assets - for example, US and non-US stocks, bonds, Treasury-inflated protection products (TIPS), commodities;
- the studies were conducted by different consulting organisations;
- the studies covered a wide-range of historical periods - including pre, during and post-GFC; and,
- the studies employed a wide range of methodologies - MVO, SO, tail-risk analysis, LDI etc

Despite the variety of approaches and consultants, the recommendation to allocate around one fifth of assets to real estate were remarkably consistent.

Real Estate Performance Based on SO and MVO metrics – Static Portfolio

The following tables demonstrate the relative performance of real estate equities based on MVO and SO metrics. The tables are drawn from the Wilshire study attached at Appendix A.

The first set of tables cover historical returns with and without US REITS in terms of:

- expected portfolio risk;
- annualised portfolio risk;
- annualised portfolio return;
- portfolio starting value; and,
- portfolio ending value

The same analysis is also provided for global REITs.

The historical performance of the three portfolios shows that the third portfolio constructed using Surplus Optimization with U.S. REITs in the opportunity set yields the highest historical return and lowest level of risk.

Efficient Portfolios with and without U.S. REITs
Using Historical Monthly Returns, December 1975 – December 2010³⁶

Asset Allocation Methodology	Expected Portfolio Risk	Annualized Portfolio Risk	Annualized Portfolio Return	Portfolio Starting Value	Portfolio Ending Value
MVO w/o REITs	11.76%	10.13%	10.58%	\$10,000	\$337,726
MVO w/U.S. REITs	11.76%	9.90%	10.85%	\$10,000	\$367,396
Surplus Opt w/U.S. REITs	11.76%	9.72%	11.16%	\$10,000	\$405,947

Source: Barclays Capital Live, NAREIT, Wilshire Compass

The portfolio constructed with Surplus Optimization also includes a higher allocation to REITs than the portfolio constructed with MVO (10.7% vs. 7.5%). Also interesting to note is that the increasing allocation to REITs is accompanied by shrinking or zero allocations to U.S. TIPS, U.S. High Yield Bonds and U.S. Small Cap Equities, indicating that **REITs serve as a more efficient asset class for combining the investment attributes of high and stable income, long-term capital appreciation and inflation protection.**

Optimized Asset Class Allocations with and without U.S. REITs

	MVO w/o REITs	MVO w/U.S. REITs	Surplus Opt w/U.S. REITs
Cash	0.0%	0.0%	0.0%
TIPS	4.5%	4.5%	0.0%
U.S. Bonds	19.1%	26.4%	31.7%
High Yield	9.6%	3.3%	0.0%
Non-U.S. Bonds	6.8%	2.6%	5.8%
Large Cap	31.2%	31.2%	26.8%
Small Cap	9.4%	4.0%	0.0%
U.S. REITs	0.0%	7.5%	10.7%
Non-U.S. Dev'd Mkts	18.7%	18.1%	17.2%
Emg Mkts	0.7%	2.3%	7.9%
Commodities	0.0%	0.0%	0.0%

Source: Wilshire Compass

Similar results are found when we expand the opportunity set to include **Global** listed REITs and property companies instead of U.S. REITs. That is, this modelled portfolio results in the highest historical return with the lowest risk level.

Efficient Portfolios with and without Global REITs
Using Historical Monthly Returns, December 1975 – December 2010³⁷

Asset Allocation Methodology	Expected Portfolio Risk	Annualized Portfolio Risk	Annualized Portfolio Return	Portfolio Starting Value	Portfolio Ending Value
MVO w/o REITs	11.59%	10.77%	10.49%	\$10,000	\$327,892
MVO w/Global REITs	11.59%	10.80%	10.52%	\$10,000	\$331,297
Surplus Opt w/Global REITs	11.59%	10.74%	10.78%	\$10,000	\$360,402

Source: Barclays Capital Live, NAREIT, Wilshire Compass

As was the case with a portfolio focussed on US REITs, an opportunity set comprising Global REITs also serves as a more efficient asset class for combining the investment attributes of high and stable income, long-term capital appreciation, and inflation protection.

Optimized Asset Class Allocations with and without Global REITs

	MVO w/o REITs	MVO w/Global REITs	Surplus Opt w/Global REITs
Cash	0.0%	0.0%	0.0%
TIPS	6.5%	5.8%	0.0%
U.S. Bonds	21.0%	27.2%	32.3%
High Yield	7.7%	2.4%	0.0%
Non-U.S. Bonds	4.8%	1.6%	5.3%
Large Cap	32.8%	33.1%	29.2%
Small Cap	6.3%	4.1%	0.8%
Global REITs	0.0%	7.7%	11.6%
Non-U.S. Dev'd Mkts	18.4%	15.7%	13.6%
Emg Mkts	2.4%	2.3%	7.2%
Commodities	0.0%	0.0%	0.0%

Source: Wilshire Compass

Analysis Based on Glide Paths

Wilshire also constructed a TDF portfolio by introducing a glide path to the analysis detailed above.

The glide path reallocates the modelled portfolio over time as an investor moves closer to retirement.

As with the static portfolios, the TDF portfolios constructed with Surplus Optimization that includes U.S. REITs delivers the highest return and lowest risk.

Introducing a glide path reduces risk levels across the board compared to the static portfolios.

A TDF portfolio constructed with Surplus Optimization and including U.S. REITs resulted in the highest return and lowest risk of the three TDF portfolios, returning 10.43% at a 6.56% risk level.

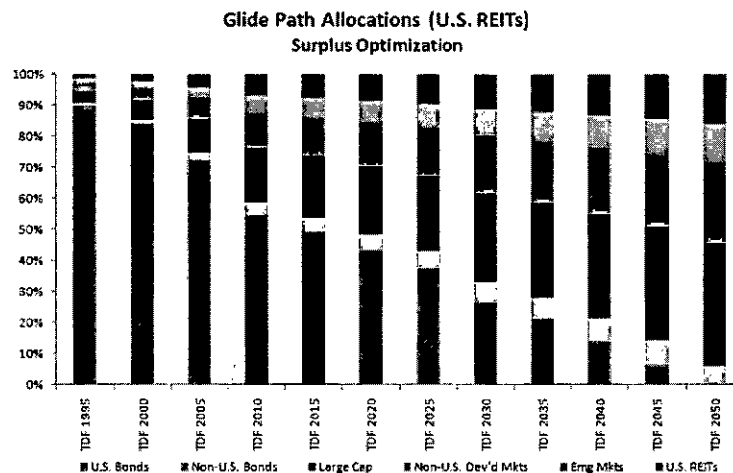
Over a 35-year investment period, the TDF portfolio using Surplus Optimization would have resulted in a portfolio value at the end of 2010 that is 9.8% higher than that of the portfolio without U.S. REITs.

Target Date Funds with and without U.S. REITs
Using Historical Monthly Returns, December 1975 – December 2010³⁸

Asset Allocation Methodology	Annualized Portfolio Risk	Annualized Portfolio Return	Portfolio Starting Value	Portfolio Ending Value
MVO w/o REITs	6.90%	10.14%	\$10,000	\$293,645
MVO w/U.S. REITs	6.79%	10.25%	\$10,000	\$304,175
Surplus Opt w/U.S. REITs	6.56%	10.43%	\$10,000	\$322,279

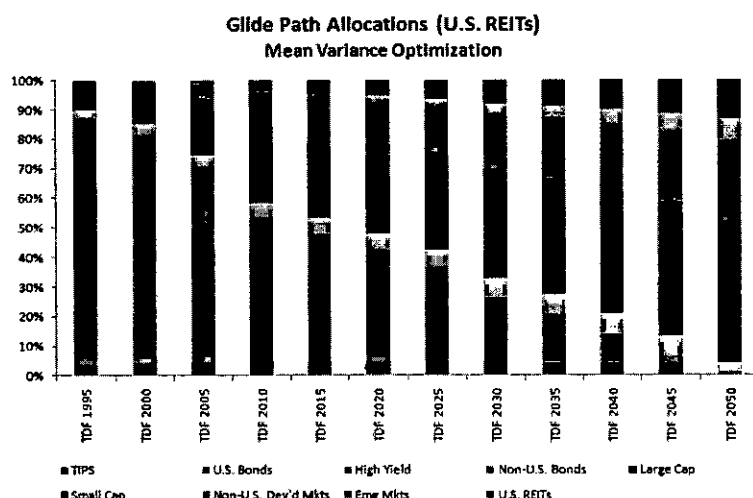
Source: Barclays Capital Live, NAREIT, Wilshire Compass

U.S. REIT allocations in a TDF portfolio constructed with Surplus Optimization begin at 15.80% for an investor with a 40-year investment horizon, gradually declining along with other equities as the investment horizon shortens, but remain sizeable at 7.10% for an investor at retirement.



Source: Wilshire Compass

Figure 28.a



Source: Wilshire Compass

For **global** REITs, the introduction of a glide path also reduces risk levels compared with static portfolios.

A TDF portfolio constructed with Surplus Optimization that includes Global REITs has the highest return and lowest risk of the three TDF portfolios, returning 10.27% at a 7.09% risk level.

Over the 35-year investment period, the TDF portfolio using Surplus Optimization would have resulted in a final portfolio value at the end of 2010 that is 4.6% higher than that of the portfolio without Global REITs and 4.3% higher than that of MVO portfolio including Global REITs.

Target Date Funds with and without Global REITs

Using Historical Monthly Returns, December 1975 – December 2010³⁹

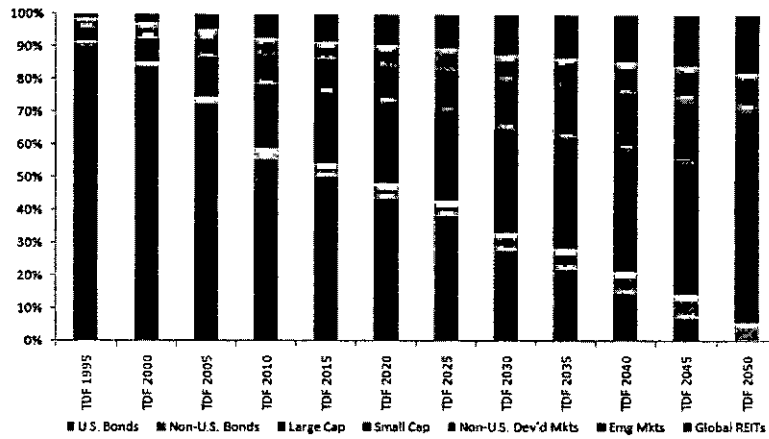
Asset Allocation Methodology	Annualized Portfolio Risk	Annualized Portfolio Return	Portfolio Starting Value	Portfolio Ending Value
MVO w/o REITs	7.31%	10.13%	\$10,000	\$292,447
MVO w/Global REITs	7.27%	10.13%	\$10,000	\$293,182
Surplus Opt w/Global REITs	7.09%	10.27%	\$10,000	\$305,835

Source: Barclays Capital Live, NAREIT, Wilshire Compass

Global REIT allocations in a TDF portfolio constructed with Surplus Optimization begin at 16.6% for an investor with a 40-year investment horizon, gradually decline along with other equities as the investment horizon shortens, but remain sizeable at 7.5% for an investor at retirement.

3

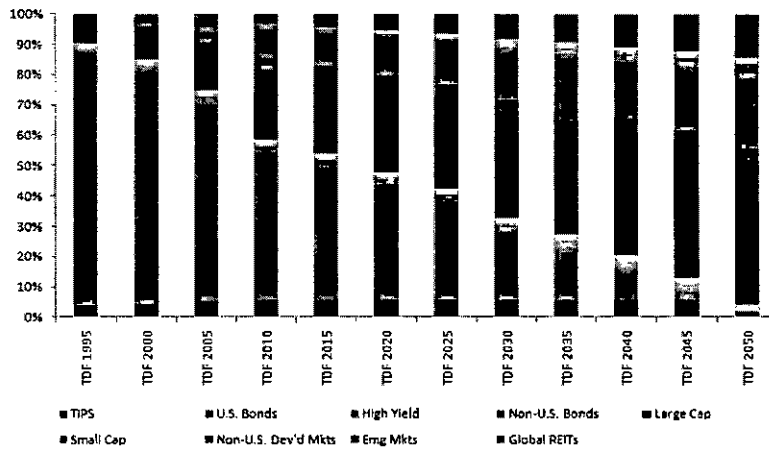
Glide Path Allocations (Global REITs)
Surplus Optimization



Source: Wilshire Compass

Figure 29.a

Glide Path Allocations (Global REITs)
Mean Variance Optimization



Source: Wilshire Compass

Chapter Summary

The detailed Wilshire analysis shows that the inclusion of listed real estate achieves the twin optimisation goals of target date funds:

- annualised **portfolio returns *increase***; and
- annualised **portfolio risks *decrease***.

Using both the MVO and SO optimisation approaches, the long-term investment performance of funds that include either US listed REITs alone or global REITs and real estate securities, ranged from five to eight per cent for investment performance horizons of five to 10 years and 18% for investment horizons up to 40 years.

The analysis also showed that inclusion of the real estate allocations significantly reduced the need for exposure to other investment types, such as small cap equities.

In other words, real estate securities offer an efficient asset class for inclusion in investment glide paths.

That is, the evidence from the analysis bears out the critical features of real estate securities outlined in chapter three above.

Given these conclusions, we propose that it would be difficult to construct an efficient mandatory provident fund core account that did not include a significant allocation to real estate.

6. Implications for the Hong Kong Mandatory Provident Fund

This chapter identifies barriers to meeting the goals of an optimally designed core fund approach.

It recommends that barriers to accessing the return and diversification benefit of more significant real estate exposures be removed.

This submission has demonstrated that significant investment allocation to REITs will help meet the objectives of core/target date funds.

Indeed, it argues that optimality is more difficult to achieve in the absence of such securitised real estate allocations.

It is for this reason that an increasing number of pension funds offer target date products and that these products include exposure to securitised real estate.

Existing MPF rules limit the capacity of citizens to benefit from these optimality dividends in two ways:

1. REITs allocations in MPF accounts are restricted

MPF schemes currently limit allocations to REITs to 10% of total scheme funds.

This occurs because of the categorisation of REITs as a permissible asset under section 8(2)(c) of Schedule 1 of the Mandatory Provident Fund Schemes (General) Regulation (MPFS Regulation).

APREA supports a recommendation in the *Developing Hong Kong as a Capital Formation Centre for Real Estate Investment Trusts (2013)* research paper, prepared by the Hong Kong Financial Services Development Council (HKFSDC).

Under this proposal REITs would be categorised in a new section 6B of section 8(1)(c) of the relevant schedule.

The HKFSDC has suggested the following drafting:

8. Permissible investments: equities and other securities

(1) The funds of a constituent fund may be invested in

- a) fully-paid up shares listed on an approved stock exchange other than the shares of a company which is a collective investment scheme;
- b) an index-tracking collective investment scheme approved by the Authority for the purposes of section 6A of this Schedule; or
- c) a real estate investment trust approved by the Authority for the purposes of section 6B of this Schedule; or
- d) securities listed on an approved stock exchange that are approved, or are of a kind approved, by the Authority.

6B. Permissible investments: real estate investment trust

The funds of a constituent fund may be invested in a real estate investment trust which is-

(a) either-

- i. authorised by the Securities and Futures Commission, within the meaning of the Securities and Futures Ordinance (Cap 571); or
- ii. listed on a stock exchange approved by the Authority for the purposes of this section; and

(b) approved by the Authority for the purposes of this section.

The following charts demonstrate how a 10% restriction on REITs **decreases** returns in mixed asset portfolios.

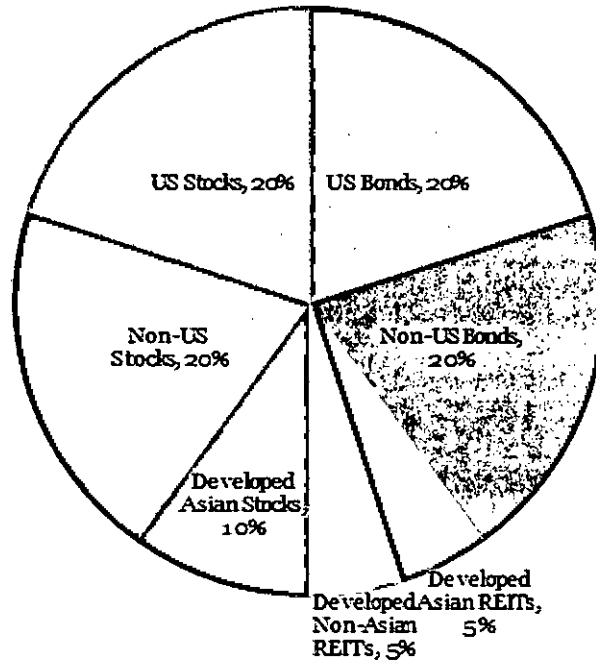
These charts show:

- average annual returns with a 10% restriction on REITs (with an equally shared Asian/non-Asian allocation); and
- average returns with a 10% allocation to Asian REITs *and* a 10% allocation to non-Asian REITs.

Over the time period from 1990 to 2014, a 20% allocation to global and Asian REITs scores a higher average annual return – 7.26% versus 7.07% - than the lower 10% allocation.

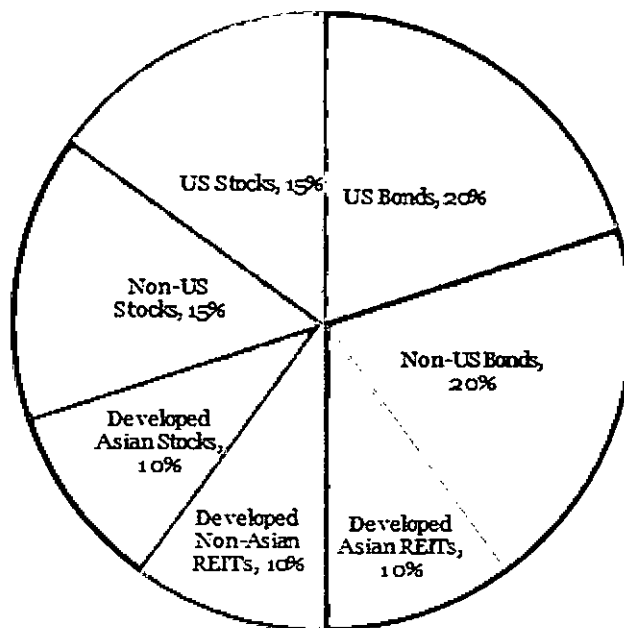
Blended Portfolio With 10% Restriction

Average = 7.07% per year
Sharpe Ratio = 0.414
January 1990 - August 2014



Blended Portfolio With REITs

Average = 7.26% per year
Sharpe Ratio = 0.423
January 1990 - August 2014



2. Geographical limitations

MPF schemes are currently only allowed to invest in REITs listed on approved stock exchanges in the countries of Hong Kong, Australia, the United Kingdom or the USA (as set out under section 8(b) of the Mandatory Provident Fund Schemes Guidelines III.2).

APREA recommends the list of countries in which REITs are investable by MPF schemes be expanded to include other markets that are sizeable and liquid.

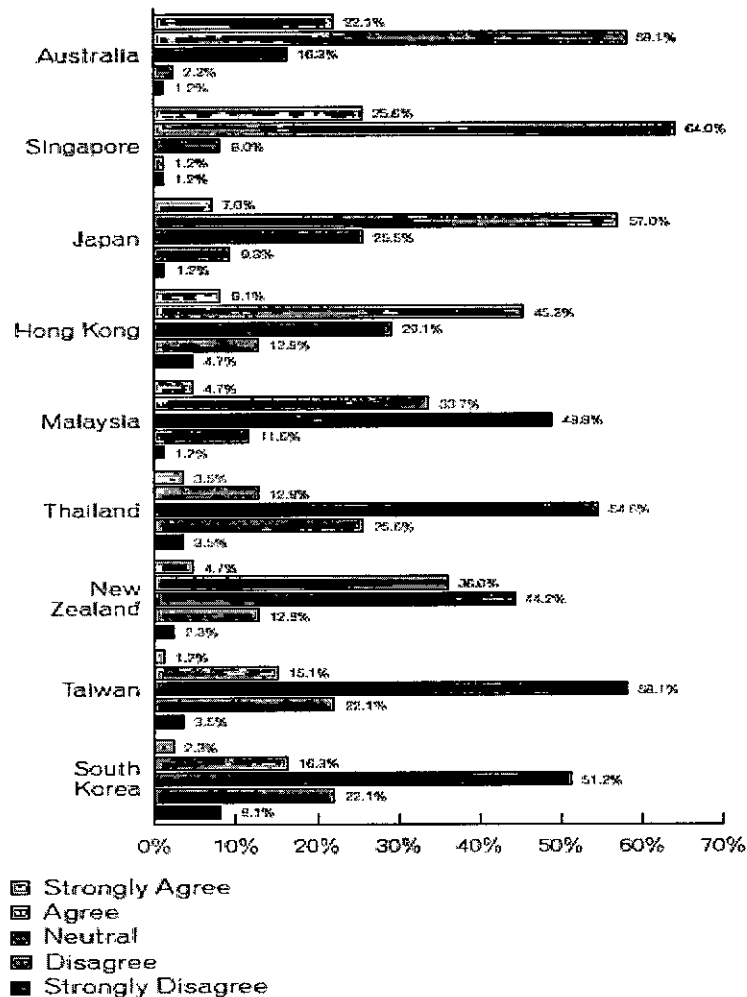
Table 4: REIT market liquidity

Country	REIT Free Float Market Capitalisation (US\$bn)	2013 Average Daily Volume (US\$m)	Volume as a % of FP Market Capitalisation
Australia	68.23	665.9	0.98%
Japan	61.32	470.6	0.73%
Singapore	26.84	179.2	0.67%
Hong Kong	16.31	80.9	0.50%
Malaysia	3.20	8.4	0.26%
New Zealand	2.55	5.5	0.21%

Source: Bloomberg, GPR, APREA Research

A 2013 survey of global real estate fund managers and investment professionals demonstrates a clear preference for a mix of REIT market opportunities.

Chart 19 – REIT regulatory regimes regarded as conducive



Source: APREA 2013

7. Conclusion

This submission has addressed several technical issues posed by the MPF discussion paper.

APREA has not endorsed a particular public policy approach in relation to core fund accounts, fees et al.

APREA's overriding philosophy is that competitive markets are best placed to understand and meet the long-term needs of fund beneficiaries.

However, the submission recognises a requirement for mandatory pension schemes to better meet payout liabilities, to maximise growth and protect against inflation while managing risk.

In doing so, the submission provides a detailed analysis of conceptual and methodological approaches to liability driven investment models.

It has applied international thinking on optimisation analysis devised for target date funds to technical questions raised in the consultation paper.

On the basis of this detailed analysis of global and Asia-specific evidence, APREA concludes that real estate allocations (particularly securitised real estate) can play a critical role in achieving the policy objectives of mandatory pension schemes.

In short, the analysis shows that the inclusion of listed real estate achieves the twin optimisation goals of target date funds:

- annualised **portfolio returns increase**; and
- annualised **portfolio risks decrease**.

We show that these virtues also accrue when applied to a range of glide paths.

From a fund perspective, significant allocations to securitised real estate provide an ideal pathway to meeting long-term pension fund liabilities with greater certainty.

We also demonstrate that significant pension markets, such as the United States, have witnessed a growing recognition that an optimal pension fund asset mix will include securitised real estate.

We've identified barriers to increasing real estate allocations in Hong Kong and provide constructive recommendations for removing these barriers.

APREA would be delighted to elaborate on any aspect of this submission.

Appendices

Appendix A: Wilshire report on *The Role of REITs and Listed Real Estate Equities in Target Date Fund Asset Allocations*

<http://www.reit.com/sites/default/files/portals/0/PDF/Wilshire-Target-Date-Fund-White-Paper-2012.pdf>

Contacts

Peter Verwer, Chief Executive

58 Tras Street #02-01
Singapore 078997

Office: +65 6438 1110

Mobile (Singapore):

Email: