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Where to next?

Embracing global real estate in the era of COVID-19 | White paper

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Real estate is an important part of any multi-asset portfolio. Going global rather than sticking to the domestic market can be highly beneficial for investors, though they must consider strategy carefully and actively manage risk.

A how-to approach to global real estate investing

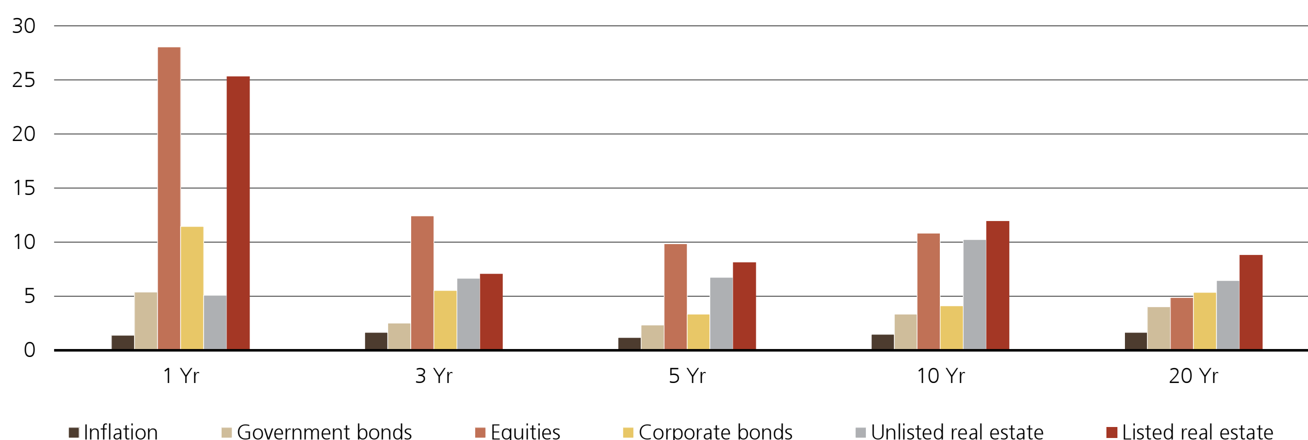
Investors have ramped up their allocations to real estate over recent years and are now aiming for around 11%[1]. Typically they have looked to their domestic markets first and then, as allocations have risen, often sought to broaden their holdings and go global. This can help to diversify and manage risk, which is of particular importance during the COVID-19 pandemic and beyond.

Real estate as an asset class
For institutional investment purposes, real estate usually refers to the commercial sectors of office, retail, industrial (including logistics) and the leased, rather than owner-occupied, residential sector. The real estate investment universe, however, is broader and also includes niche sectors such as student housing, hotels, healthcare, data centers, self-storage, farmland and others, as well as debt secured against property assets. Recently, these alternative investments in real estate have been attracting increasing interest and capital inflows.

Unlisted real estate occupies a relatively favorable position in the performance hierarchy across asset classes (see Figure 1), even after accounting for the volatility-smoothing effect of valuation-based indices (see Appendix).

Over the longer-term horizons usually preferred by institutions, unlisted real estate's performance is exceeded only by listed real estate. The volatility in terms of standard deviation, measured from 1995 to 2019, was 11.9% p.a. for unlisted real estate, 17.3% p.a. for equities, and 20.0% p.a. for listed real estate. The favorable risk-adjusted return performance is the result of a particular feature of real estate, specifically the high proportion of total return which is derived from the contractual rents paid by tenants; i.e. the income return. Over the long-term, it is expected that core real estate will deliver the majority of its total return (70-80%) from income, with the remainder coming from capital growth. The relatively stable income return associated with core investment is particularly attractive in a low interest rate environment, which COVID-19 has accentuated, where yields on other asset classes remain depressed relative to historical averages.

Figure 1: Long-term solid performance from property
Global total returns to 2019 (% p.a.)

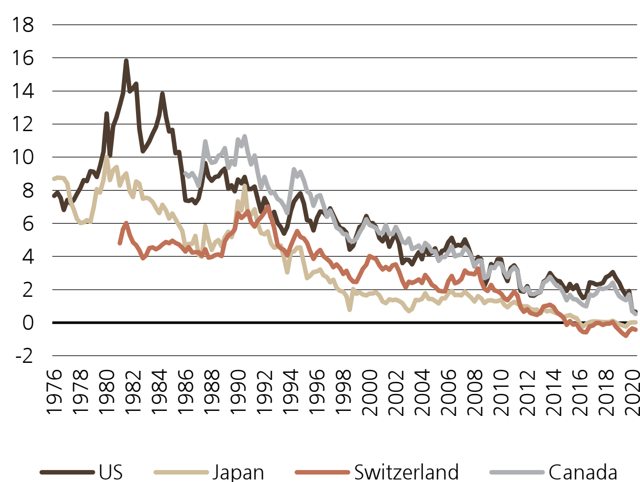


Sources: Oxford Economics; Datastream; MSCI (de-smoothed by UBS; see Appendix); UBS Asset Management, Real Estate & Private Markets (REPM), data to end-2019. Note: Past performance is not a guarantee for future performance. Note: **1** Hodes Weill & Associates 2019 Institutional Real Estate Allocations Monitor; INREV Investment Intentions Survey 2020; UBS Asset Management, Real Estate & Private Markets (REPM), June 2020

Long-term drivers of real estate demand
From the early 1980s there has been a progressive reduction in interest rates and bond yields, which has only accelerated since the Global Financial Crisis of 2009 and seen a renewed downward leg due to the COVID-19 pandemic (see Figure 2). This has flattered the performance of real assets, including real estate, through strong capital value growth. It has also attracted inflows to what remains a relatively high-yielding asset class in a low-yielding world.

Interest rates look like they will remain on hold for the foreseeable future due to the impact of COVID-19. Even if they do eventually rise one day, there is little prospect of a normalization back to the highs of the 70s and 80s. Given the outlook for technology and demographic change, it is very probable that growth, inflation, and interest rates will all remain below the levels that prevailed for the past half-century or longer.

Figure 2: 10 year government bond yields (quarterly, %)



Sources: Thomson Datastream; UBS Asset Management, Real Estate & Private Markets (REPM), data to 2Q20

This has implications for real estate, both in terms of pricing and performance. At the same time, technological innovation and evolving user preferences are altering how, where, and why real estate is required, and has been accentuated by the lockdowns of the COVID-19 pandemic. Indeed, COVID-19 has accelerated the shift online, hurting retail, benefiting logistics and creating uncertainty for offices. This challenge means on the one side that returns are very likely to be lower than in the past and the rule of thumb of 6-8% for core real estate is over-estimated. On the other side, it means that what was 'core' in the past may no longer be, e.g. the shift from shopping centers to distribution warehousing and leisure.

Furthermore, environmental best practice continues to evolve and improve the way buildings are managed, while there is an increasing focus on the social and governance aspects of investment. This influences how and where we invest.

All told, it is a challenging time to create a portfolio resilient to these trends and able to meet institutional income needs over the long-term. Strategic allocations and diversification are vitally important, but so is a tactical framework for evolving the portfolio over time. This paper will explore how we think through these challenges on behalf of our clients.

Benefits of going global
In most cases, the conventional practice for investors has been: a) to invest in their domestic market; and then b) to consider cross-border opportunities. Real estate investment has not been exclusively domestic, but there has been a strong home bias for the majority of investors. Real estate markets differ across the globe and are subject to different risks and local practices. With investor expertise typically focused on domestic markets, this forms a deterrent to those wishing to invest beyond their home market, on top of the very real concerns around currency risk, transparency, and tax issues. For these reasons, it is important to work with investment managers who have knowledge of the local markets.

Historically, the starting point for investment outside the home market was to overlook diversification benefits and demand a risk premium over the returns at home. Typically, the requirement of higher returns has driven investors to accept risks that they may not choose to take on locally. These risks have often been magnified by the additional layer of volatility introduced through relatively high leverage, not to mention currency and other market-specific risks. The results too often have been disappointing. This approach is changing, with global real estate investment becoming more accessible, increasingly transparent, and better understood in a multi-asset context.

In particular, the ability to select funds across the globe where managers being specialists in their local markets has offset the asymmetry of information between domestic and non-domestic investors. Investors can now access real estate globally, with broadly the same risk profiles as they adopt locally. It is still not straightforward to implement a global strategy though and a great deal of due diligence is required to make the correct decisions along the way.

Global real estate investment opens up a set of opportunities at four key levels:

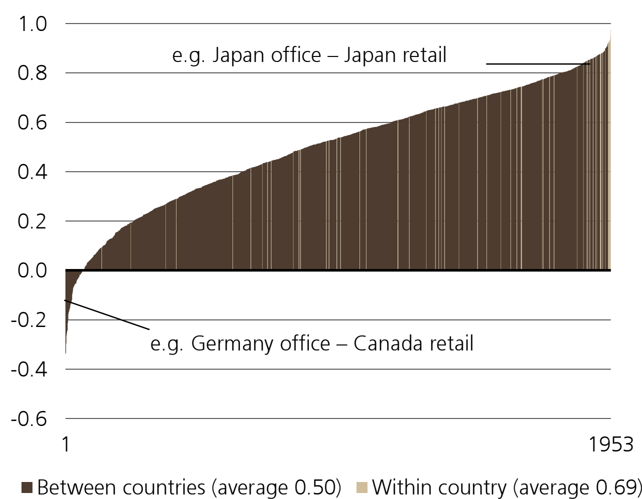
Wider opportunity set
For smaller markets, by definition, the domestic real estate stock that is available to investors is limited. This can result in a strong underpinning of demand by local investors supporting elevated valuations which drives down yields. For such investors, by investing beyond the domestic market, the size of the investable market can be increased considerably. Larger markets, such as Japan, can achieve greater diversification at home. In 2019, the value of Japanese real estate held by investors was estimated at USD 0.9 trillion, equal to nearly 10% of the total value of real estate in developed markets, which was USD 9.6 trillion. This home bias can lead to a different challenge; one of over-exposure and the associated concentration risks.

Broadening the investment horizon can open up a wide set of opportunities, including access to different sectors. For example, the residential sector is available in a number of markets via institutional grade vehicles and can form a significant part of a country's institutional stock. Other sector opportunities include hotels, retirement homes, medical offices, leisure facilities and student accommodation. Styles of investment can also differ across the globe; e.g. developed market investors can be attracted to the higher growth rates available in emerging markets and are willing to accept the resulting volatility. More investors are complementing their core investments in developed markets with higher growth strategies in emerging markets to boost overall performance.

Diversification
Beyond widening the opportunity set, global investment can provide powerful diversification benefits. This is shown in Figure 3, where the correlation between the key markets and sectors can be relatively low. In contrast, the correlation between sectors within a single country is relatively high. This implies that the diversification benefits within a single market are limited compared to cross country exposure. Although it is possible that the relatively low levels of inter-regional correlations are flattered by the use of domestic valuation indices. The correlations remain relatively low even after using adjusted data, suggesting that global exposure can reduce an investor's portfolio volatility and boost risk-adjusted returns.

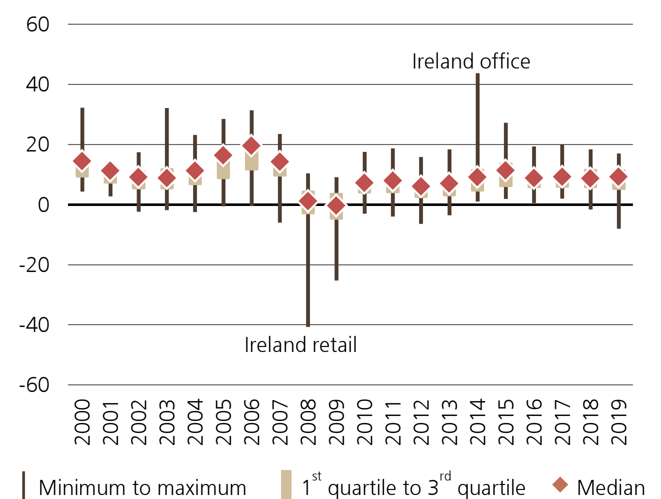
Greater opportunities to enhance returns
For investors seeking to enhance returns beyond those available in a single market, there is a wide range of possibilities when returns are reviewed in a global context. Figure 4 shows the historical range of returns from the set of institutional markets tracked by MSCI. The range between top and bottom performers was close to 60 percentage points in 2008, before narrowing in the subsequent years as credit markets and global growth stabilized. This widened in 2014 as some markets – notably Ireland – experienced a sudden jump in capital values. Even over the past 15 years the range has averaged 30 percentage points, which provides opportunities for investors to implement active strategies. However, the limited liquidity of the asset class means it is not always possible to switch tactically between countries and sectors as quickly as might be desired. In such cases, the use of derivatives or a fund-of-funds approach may assist.

Figure 3: Direct real estate correlations off estimated price returns (2004-2019)



Note: Includes 1,953 individual country-sectors with total returns de-smoothed by UBS. Past performance is not a guarantee for future results. Sources: NCREIF; MSCI; UBS Asset Management, Real Estate & Private Markets (REPM), data to end-2019.

Figure 4: Range of returns at the country/sector level (p.a., unlevered, local currency, %)



Sources: MSCI; NCREIF; UBS Asset Management, Real Estate & Private Markets (REPM), data to end-2019; Note: Past performance is not a guarantee for future results.

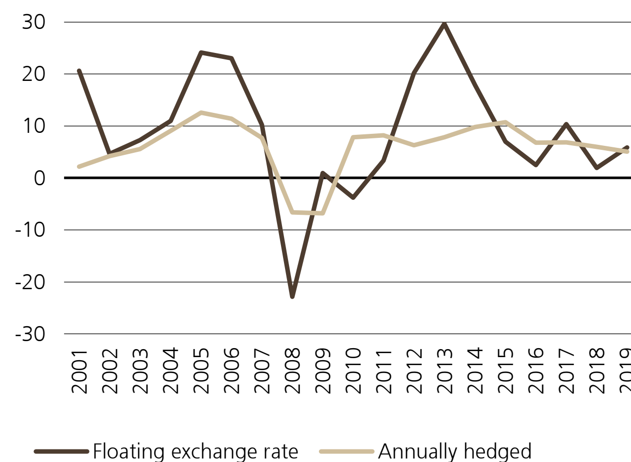
Inflation protection characteristics
For investors seeking protection from inflation, real estate has delivered strong historical real returns over medium to longer-term holding periods (see Figure 5). In part, the strong performance is due to the relatively high and stable income returns generated from core investments. Over shorter investment horizons, real estate's inflation protection characteristics are mixed. Low and negative correlations between real estate performance and inflation suggest the asset class provides only a partial hedge against inflation, where a hedge is defined as moving at the same time and in the same direction as inflation, rather than just keeping pace with it over long periods. That correlation can change over time, as other factors drive real estate, which are not influenced by inflation, e.g. supply. Real estate performance can be negatively correlated with rising inflation, particularly where higher inflation is driven by higher costs such as rising commodity prices. In the absence of increased sales, higher costs tend to reduce profit margins thereby limiting the ability of occupiers to pay higher rents. For example, global real estate returns turned negative in many markets during the financial crisis. However, headline inflation rates continued to rise due to increasing oil prices.

Overall, while the academic literature in this area is inconclusive, income and valuations do not generally adjust quickly enough to protect investors against unexpected shocks to inflation, at least in the short run. Nonetheless, as returns have outstripped inflation on an ex-post basis – in other words, based on actual results rather than forecasts – real estate is generally accepted to provide some protection against inflationary pressures. Real estate indices data from MSCI show that the retail sector has provided the strongest real income growth over the past 30 years, suggesting it offers more protection against inflationary pressures than the office and industrial sectors. This would not, however, protect against the structural challenges faced by retail today, accelerated by COVID-19, in the form of rising online sales.

Managing the risks
As with any investment, there are risks as well as opportunities in going global, and also partial mitigation strategies:

Currency risk
This relates to any asset class when investment is made non-domestically or outside a currency zone or fixed exchange rate regime. There are numerous mitigation strategies. Borrowing in local currency is a partial hedge, while long-term direct investors have flexibility in their exit timing. Formal hedging is also feasible, and is most likely for a fund-of-funds approach or in a private equity regional or global fund. In real estate, the tendency to hedge appears greater than for equities, but less than for bonds. This relates to the proportion of total risk that is attributable to currency risk, which for real estate is relatively high given its longer holding period and limited liquidity.

Figure 5: Global all property total return in JPY
(p.a., unlevered, %)



2001-2019	Return (% p.a.)	Risk (StDev)
Floating rate	8.5	12.0
Annually hedged	5.9	5.1

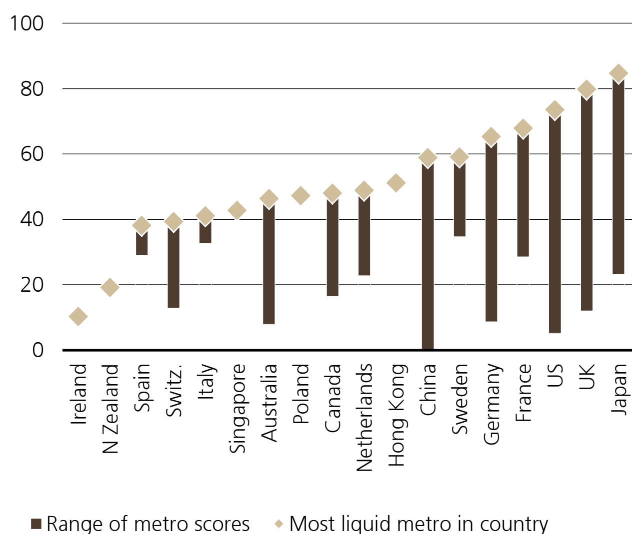
Sources: MSCI; NCREIF; Thomson Datastream; UBS Asset Management, Real Estate & Private Markets (REPM), data to end-2019; Note: Past performance is not a guarantee for future results.

Any international investment must consider currency risk, and the cost of managing that risk explicitly. High expected returns in the foreign market may be eroded by adverse exchange rate movements. The cost of hedging this currency risk drives a wedge between the gross and net return to the investors over and above the transaction fees, management fees and taxes.

Tax
It is important to look at returns delivered net of tax when thinking about allocating globally to real estate. Some countries will have taxation regimes for all investors, while others employ punitive taxes directed at foreign investors. So, overall tax leakage of some kind will be experienced, but the selection of particular styles of investment (income vs. capital growth), sectors, or countries may help to lessen any potential leakages. In addition, investment vehicle structuring can be used to mitigate tax leakage, though this should be done with appropriate detailed tax advice.

Liquidity
The ability to transact, namely the ability to buy or sell properties, or to subscribe to or redeem from a fund, varies significantly across geographies and over time (see Figure 6). Smaller markets tend to be less liquid, making it almost impossible to transact during times of stress. Investors accustomed to a certain degree of liquidity may find global property investment more constraining. This can be mitigated by diversification, by keeping sufficient allocation to the larger, more liquid markets like the US and the UK, or through certain structures.

Figure 6: RCA minimum liquidity scores by market



Sources: RCA; UBS Asset Management, Real Estate & Private Markets (REPM), June 2020

Valuation/appraisal

Valuation and appraisal processes vary significantly across the globe and can have a major impact on the accuracy of a fund's published Net Asset Value (NAV). While the goal of appraisers around the world may be similar, some major differences exist depending upon the valuation regime, especially in domestically dominated markets with few transactions. It is important to understand how different valuation practices can impact performance and liquidity. Notably international standard valuations are increasingly available in many jurisdictions.

Benchmarking performance

Benchmarking performance in some markets has a long history (particularly in the US, UK, and Australia), but there are still issues with regional and global real estate indices. Most of the benchmark indices rely on valuations to estimate capital growth. Differences in valuation procedures, however, may mean that indices are not comparable across countries. Furthermore, there are compatibility problems that relate to differences in terminology, ownership, lease contract terms, and taxation. Such differences need to be accounted for in order to make a direct comparison of returns meaningful.

Even in those markets where there is a long history of benchmarking, underlying fund performance can diverge significantly from the benchmark because of the lumpiness or specific risk associated with individual assets. This tracking error can be an additional risk factor for investors. To some extent, these challenges are being overcome by the growth and development of the asset class. Gradual improvement is being driven by a variety of market participants. At the global level, two fund indices have developed independently: one by the Asian and European Associations for Investors in Non-listed Real Estate Vehicles (ANREV and INREV, respectively) and NCREIF, called the Global Real Estate Fund Index, or GREFI; the other by MSCI, the MSCI Global Quarterly Property Fund Index, or GPFI.

Despite the infancy of these regional and global benchmarks, investors need to measure performance in some manner. It is important to pick a benchmark suitable for the investor's risk tolerance and investment goals. Some other commonly used indicators for benchmarking include cash-on-cash returns and internal rates of return. These are typically benchmarked against cash returns plus inflation or against a risk-free rate. Some investors have also adopted absolute return targets for unlisted real estate funds.

The STAR Model

UBS Asset Management, Real Estate & Private markets adopts a proprietary approach to portfolio modelling which covers all steps in the process, from strategic allocation through to performance forecasting and periodic tactical revisions. We call this model STAR (Strategic Allocation to Real Estate) and it is used in one form or another by all our global products and mandates, whether direct or indirect. It is set out in summary form in Exhibit A.

Exhibit A: Constructing a global real estate portfolio step by step – the STAR model

Source: UBS Asset Management, Real Estate & Private Markets (REPM), September 2020

Ultimately, the appropriate strategic allocation starts with the client's objectives: what is real estate meant to accomplish in their portfolio? Will it be a stable ballast based on dependable income and exhibiting low volatility? Or actively-managed excess returns but with a low correlation to equities? Or will it be something else entirely? Each client, each product is different and cooperative discussion in stages 1, 2 and 3 of Exhibit A will set the scene for much of what follows.

One choice an investor needs to make is the route through which they will access real estate – public or private, debt or equity. This choice involves a number of trade-offs, around liquidity, diversification, cost, and control. Direct investment can be slower and more costly but provide maximum control. Unlisted funds and funds-of-funds can provide the access to expertise at different risk levels. The most suitable format will depend on the requirements of the investor.

STAR encapsulates this entire process, but only deploys quantitative modelling from stage 4, when we seek to define strategic ranges by geography, sector, and risk style. There is no single, definitive data source defining the universe for unlisted real estate. We work with data from MSCI, RCA, and Preqin; industry groups such as INREV, ANREV, and NCREIF; listed real estate courtesy of EPRA; and others. We also have in-house data on the fund universe. Our goal is an approximation of the investment universe for institutional-grade real estate across the major markets. Our estimates for an unconstrained neutral portfolio are in Figures 7 and 8.

This is a starting point and the term 'unconstrained' is significant. Some of the potential constraints that might come up in the stages 1 to 3 discussions include:

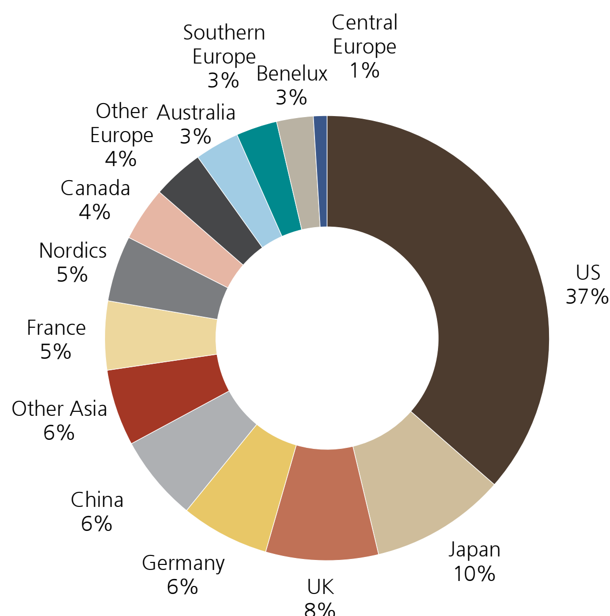
- Excluding the home country because of a large domestic portfolio
- Excluding emerging markets or markets with certain non-investment criteria (environmental, political, etc.)
- Limiting the portfolio to certain currencies because of existing exposures or liabilities
- Excluding particular markets due to tax structures
- Targeting or avoiding particular sectors because of domestic exposure or investment aims
- Avoiding specific sectors because of operating risk, e.g. hotels or student accommodation
- Limiting exposure to smaller or harder-to-access markets or sectors due to liquidity requirements
- Regulatory constraints, e.g. on leverage, or specific to an investor group, e.g. real estate quota compliance in Germany

The result is an adjusted investment universe which defines neutral allocations and a target range, which can be wide or narrow depending on the desired flexibility of the mandate or product. How this portfolio is initially deployed and managed tactically over time will depend on the relative performance of markets and sectors.
STAR utilizes our in-house forecasts for market performance and estimates of required return in order to compare markets for allocating capital to or withdrawing it from specific geographies or sectors.

We forecast unlisted property performance for 26 countries across three or four sectors, depending on the maturity of the multifamily sector. This provides a view on short- and medium-term total returns, broken into income and capital growth. These forecast returns are then compared against a hurdle rate or required return, composed of the risk free rate and premia for liquidity, transparency, and depreciation. This comparison identifies suitable markets for entry or exit and the relevant timing.

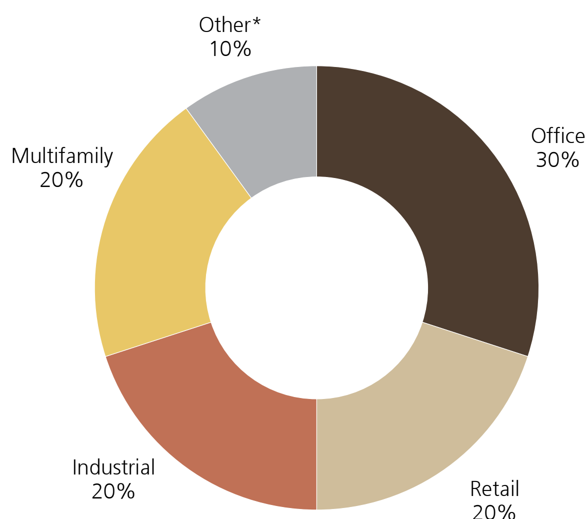
The top-down tactical recommendations from STAR, however, are only part of the equation. Execution is vital and this depends on the bottom-up opportunities available by market, highlighting the importance of portfolio management and sourcing. Stages 5 and 6 are the ongoing interplay between

Figure 7: Neutral market allocation, calculated in USD



Sources: MSCI; UBS Asset Management, Real Estate & Private Markets (REPM), data to end-2019

Figure 8: Neutral sector allocation, calculated in USD



Source: MSCI; ANREV/INREV/NCREIF; UBS Asset Management, Real Estate & Private Markets (REPM), data to end-2019; Note: "other" includes hotels, data centers, self-storage, and other niche sectors

How to invest in global real estate

Nearly all investors will have a home bias in their real estate portfolio. This is perfectly sensible as it is the market they know best and likely where they have most of their liabilities. Furthermore, for currency and tax reasons, the home market also carries less risk. In nearly all circumstances this component will continue to form the majority of the portfolio. The question is how much of the minority should go global.

The answer to this will vary depending on the market and will change over time. Countries with a large domestic real estate market and low savings rates, like the US and Japan, have less incentive to go abroad. Meanwhile, those with a high savings rate and smaller domestic market, like France or Canada, are incentivized to go global. In Japan's case, large local players, developers, REITs and pension/insurance funds, dominate the domestic market. This can make market entry difficult and costly for medium- and small-sized institutions.

Diversification should be an important factor to take into account. Exposure to North American or European core real estate can improve risk adjusted returns through lower correlated sectors, e.g. German office (see Figure 3). Similarly, investors can look to foreign real estate to access certain product types more easily. For example, some markets have less developed industrial sectors, which is expected to remain the outperforming property sector during this cycle, particularly due to the impact of COVID-19. Some countries also have undeveloped multifamily sectors.

Timing is also important and looking at how the domestic market is forecast to perform versus the global market. For example, since the Global Financial Crisis, Based on MSCI data Japan's total return has lagged the global average in every single year, sometimes by as much as 800 basis points. This has eased as capital value growth has slowed in other markets, but clearly there is a long-term incentive to invest in higher growth, higher inflation markets.

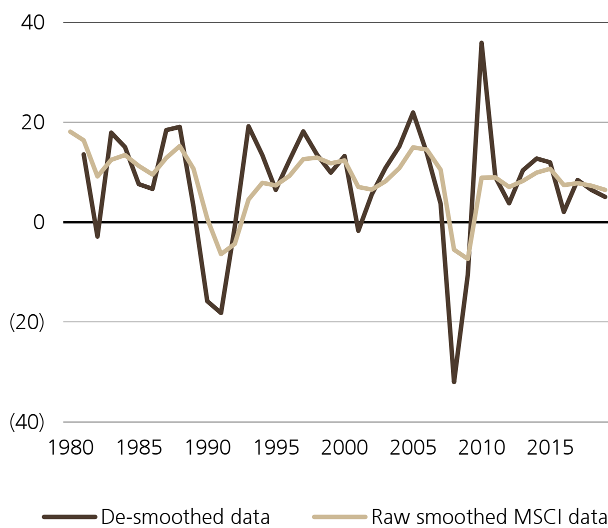
Real estate is a long-term investment with transaction times measured in weeks and months. Shifting portfolio allocations, even a fund-of-funds much less a portfolio of actual buildings, takes time and investing in global real estate is not something that can be turned off and on at will. The long-term benefits like diversification and an enhanced investment universe provide a boost to portfolios even when the timing is not, on the surface, opportune.

As we discussed earlier with regards to STAR, it all starts from an investor's portfolio objective. This informs where and how they should access real estate. Fortunately, there are real estate solutions that can meet the goals of institutions of all sizes, characteristics, and risk tolerances.

Appendix – De-smoothing property returns

- Raw MSCI data is based on real estate valuations, which can be monthly, quarterly or even annual. Therefore, they lag market pricing and result in a smoothed series
- We use a de-smoothing methodology comparable to Brown and Matysiak, *Real Estate Investment – A Capital Markets Approach*[1]
- The de-smoothed series attempts to measure intra-period volatility
- The de-smoothed series is more representative for comparisons with other asset classes which have more frequent transactions performance data
- As shown in Figure 9, the de-smoothed returns are significantly more volatile than the raw data
- This is a statistical adjustment and should not be taken as indicative of actual market pricing at any specific moment in time

Figure 9: Global unlisted real estate total returns (% p.a.)



Sources: MSCI; UBS Asset Management, Real Estate & Private Markets (REPM), June 2020. Past performance is not a guarantee for future results.

[1] Gerald R. Brown and George A. Matysiak (2000), Real Estate Investment; A Capital Market Approach: A Capital Market Approach, chapter 12

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