



Real Estate Primer

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Table of contents

| | |
|--|-----------|
| Introduction | 3 |
| • Figure 1: Professionally managed real estate market share by region (US\$13 trillion total)..... | 3 |
| • Figure 2: Professionally managed real estate market share by owner type..... | 3 |
| Why invest in real estate?..... | 4 |
| Current income..... | 4 |
| Inflation protection..... | 4 |
| • Figure 3: Returns during periods of high and low inflation..... | 4 |
| Diversification..... | 5 |
| • Figure 4: Annualized performance by asset class—20 years ending 2Q2023..... | 5 |
| • Figure 5: Asset class correlation matrix—20 years ending 2Q2023..... | 5 |
| Attractive total return..... | 6 |
| • Figure 6: Non-core fund return dispersion by quartile—vintage 2000–2021..... | 6 |
| How to invest in real estate..... | 7 |
| Risk level..... | 7 |
| • Figure 7: Real estate risk and return strategies..... | 8 |
| • Figure 8: Accessing real estate varies by risk-return choices..... | 10 |
| • Figure 9: Core and non-core real estate returns—20 years ending 2Q2023..... | 11 |
| Vehicles..... | 11 |
| Portfolio diversification..... | 13 |
| Execution..... | 14 |
| • Figure 10: Number of funds raised 2015–2022 (2,116 total)..... | 15 |
| Pulling it all together..... | 16 |
| Appendix 1: Vehicle options..... | 17 |
| Private, direct real estate..... | 17 |
| Private, commingled funds..... | 17 |
| Secondaries..... | 18 |
| Co-investments..... | 19 |
| Multi-manager SMAs..... | 19 |
| Public securities..... | 20 |
| Appendix 2: Property types..... | 21 |
| Appendix 3: The array of real estate..... | 23 |

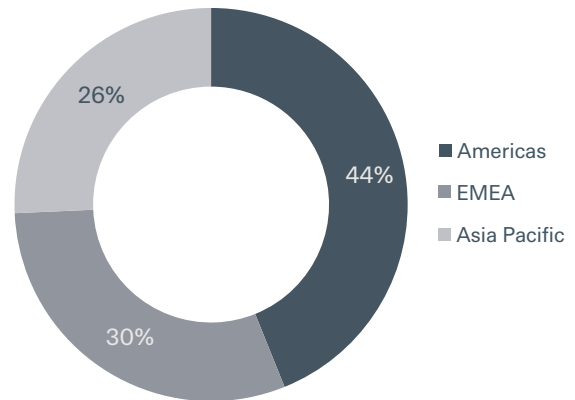
Introduction

This paper provides a primer on real estate investing, addressing foundational questions such as why and how to invest in the asset class. It includes a brief survey of the list of choices faced by investors, ranging from where to position on the risk spectrum to how to approach selecting from the many product and manager choices. The real estate asset class derives its returns from ownership of income-generating physical properties; this means buildings and usually the land they sit on. Real estate debt is not addressed in this paper; it is another interesting way to gain exposure.

A disciplined framework is particularly useful given the vast size and diversity of the real estate markets. The investable universe of global real estate assets has an estimated value of \$58 trillion.¹ Within that vast total, MSCI estimated the professionally managed global real estate market to be \$13 trillion in its July 2023 report.

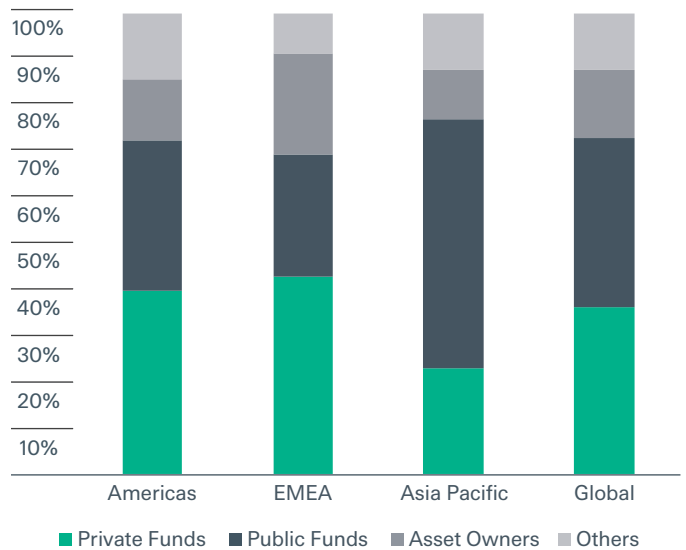
By owner type, unlisted (or private) funds account for 36% of professionally managed global real estate by value, or \$4.8 trillion. This includes open- and closed-ended funds as well as unlisted REITs. Private funds represent 43% of real estate ownership in EMEA, 40% in the Americas, and 23% in Asia Pacific, as shown in **Figure 2**.

FIGURE 1: PROFESSIONALLY MANAGED REAL ESTATE MARKET SHARE BY REGION (US\$13 TRILLION TOTAL)



Source: MSCI Real Estate Market Size Report, July 2023.

FIGURE 2: PROFESSIONALLY MANAGED REAL ESTATE MARKET SHARE BY OWNER TYPE



Note: "Asset Owners" include pensions, sovereign wealth funds, insurance companies, endowments and other segregated accounts. "Others" include banks, conglomerates and other private investors. Source: MSCI Real Estate Market Size Report, July 2023.

¹ Global investable universe is sourced from LaSalle Management, Accessing the Real Estate Investment Universe in 2021, January 2021. Global Equity market capitalization is estimated to be \$109 trillion, and global fixed income is estimated to be \$125 trillion, sourced from PREA The Real Estate Investment Universe in 2021, Spring 2021.

Why invest in real estate?

Equity investments in real estate can have multiple benefits in a well-constructed portfolio.

- Current income
- Inflation protection
- Diversification
- Attractive total return

A clear understanding of purpose and priorities among these benefits forms the foundation for successful portfolio construction.

Current income

The dominant share of capital in real estate is focused on its ability to generate steady income with the added benefit of long duration (low reinvestment risk) if properly executed. This capital comes from a variety of sources, including the following:

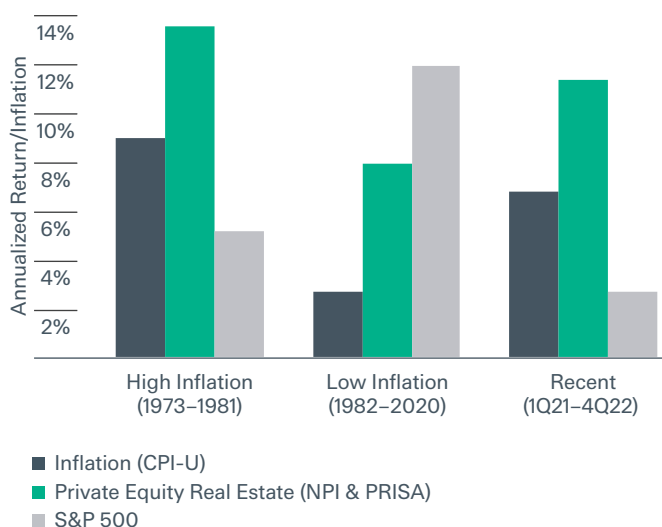
- A significant share of properties of all types and sizes, many of which don't trade, are in the hands of long-term "buy and hold" investors, often family entities. These owners are focused on income, usually with a view to value increases over time but without a plan to sell.
- Defined benefit pension funds are major investors in the real estate markets, particularly in the US. Those that are actively paying out benefits rely on current income to fund (and potentially match) their current liabilities, as do other sorts of investors who use this kind of income to fund payments.
- Some investors use real estate tactically as a fixed income substitute. When interest rates are lower, yield hungry investors are more willing to overlook the fact that buildings have a more complex risk profile than bonds—so as interest rates go down, capital shifts into real estate, pushing up prices. Lower interest rates add to the benefits of using leverage or gearing, which further pushes up pricing.

While it can be similar, equity real estate is not a fixed income security, so prices don't move in lock-step with interest rates. It often happens that economic growth lifts both interest rates and property income and vice versa; these have opposite effects on value. Nevertheless, the spread between real estate returns and BBB bond returns is steady enough to be a useful indicator of whether real estate in aggregate is over- or underpriced.

Inflation protection

This is a classic reason for including real estate in the portfolio that fell out of favor after a long period of lower inflation. It is likely to become more of a driver in a higher-inflation environment. This refers more to protection against inflationary shocks than garden-variety CPI. Most equity investments including real estate keep up with the CPI, though real estate has done a better job of it. Real estate is one of the few asset classes that have offered protection from inflationary shocks.

FIGURE 3: RETURNS DURING PERIODS OF HIGH AND LOW INFLATION



Source: NCREIF, Prudential Real Estate Investors, CapIQ and FRED at Federal Reserve Bank of St. Louis, July 2023. The NCREIF Property Index (NPI) was established with a base year of 1979; consequently, PRISA is used as a proxy for the period 1973-1978.

The inflationary shocks in the 1970s were devastating to many investors, and apart from investments in oil and gas (whose price hikes were the cause of the shocks), real estate did a superior job of holding value. It also does well in non-shock periods, so some view it as cheap insurance. There are different schools of thought on why this works, though it's generally thought to result from values keeping pace with rising replacement costs, including materials, labor and finite desirable land, often with rents also adjusting where landlords have pricing power.

Diversification

Private real estate returns have a low correlation with other asset classes, which makes it a valuable component in total portfolio composition. This is in stark contrast to publicly held real estate which has a high correlation with public stock market returns.

As shown in **Figure 5**, total returns for core and non-core private real estate have a low 20-year correlation with equities and a low, negative 20-year correlation with bonds. This is due to multiple factors.

First, there is a lag effect due to:

- long-term leases that characterize income in large portions of the market,
- the slow nature of real estate sales and price discovery (a fast sale of a building can take two to three months), exacerbated by the need to have relevant comparable trades among a highly diverse asset base, and
- the slow valuation cycle for private real estate, which extends the lag, typically leaving a gap between recorded net asset value and trading value in times of rapid price change in either direction.

This lag has been beneficial in stabilizing total portfolio results during downturns in financial asset markets. Among other things, this stabilization can have a positive behavioral effect on decision making in a crisis. However, this effect is temporary; real estate results are cyclic. They eventually drop

FIGURE 4: ANNUALIZED PERFORMANCE BY ASSET CLASS—20 YEARS ENDING 2Q2023

| Index | Return | Volatility | Sharpe Ratio |
|--|--------|------------|--------------|
| Core RE: NFI-ODCE, net of fees | 6.9% | 7.1% | 0.65 |
| Non-core RE: Burgiss, net of fees | 8.0% | 11.1% | 0.52 |
| Public RE: FTSE NAREIT, all REITs | 8.9% | 21.8% | 0.30 |
| S&P 500 | 10.0% | 15.9% | 0.49 |
| US AGG bond index | 3.0% | 4.1% | 0.19 |

FIGURE 5: ASSET CLASS CORRELATION MATRIX—20 YEARS ENDING 2Q2023

| Index | NFI-ODCE | Burgiss | NAREIT | S&P 500 |
|--|----------|---------|--------|---------|
| Core RE: NFI-ODCE, net of fees | 1 | | | |
| Non-core RE: BURGISS, net of fees | 0.79 | 1 | | |
| Public RE: FTSE NAREIT, all REITs | 0.17 | 0.37 | 1 | |
| S&P 500 | 0.06 | 0.39 | 0.76 | 1 |
| US AGG bond index | -0.24 | -0.15 | 0.19 | 0.01 |

Source, Figures 4 and 5: NCREIF (NFI-ODCE), CapIQ (S&P 500), Burgiss, Bloomberg Barclays Capital US Aggregate Bond Index; data as of June 30, 2023. The referenced indices/benchmarks are shown for general market comparisons and are not meant to represent any particular fund. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented.

in major downturns and then lag as other assets recover, which is less welcome.

Apart from the lag, a complex blend of driving forces means the real estate cycle doesn't always match the broader business cycle. Real estate houses the economy, with demand in different segments linked to different growth factors—

industrial to GDP growth and trade volumes, residential to job growth, retail (and increasingly industrial) to consumer spending and so on. Local economic growth patterns (think Rust Belt versus Silicon Valley) and trends in where people want to live and how they use space also matter, as do physical supply constraints. Both national and local government policy affecting supply, lending regulations, tax and capital movement can have a meaningful impact on returns.

Public REITs have a much higher correlation with public equities due to faster repricing mechanisms and inclusion in stock market indices in an era of high indexation. Thus, private market positions are far more useful for asset class diversification than publicly traded real estate securities. The latter are often referred to somewhat misleadingly as REITs owing to the legal structure of many public companies; there are both public and private companies structured as REITs. With lower correlation, whether public or private real estate outperforms is endpoint sensitive and varies over time.

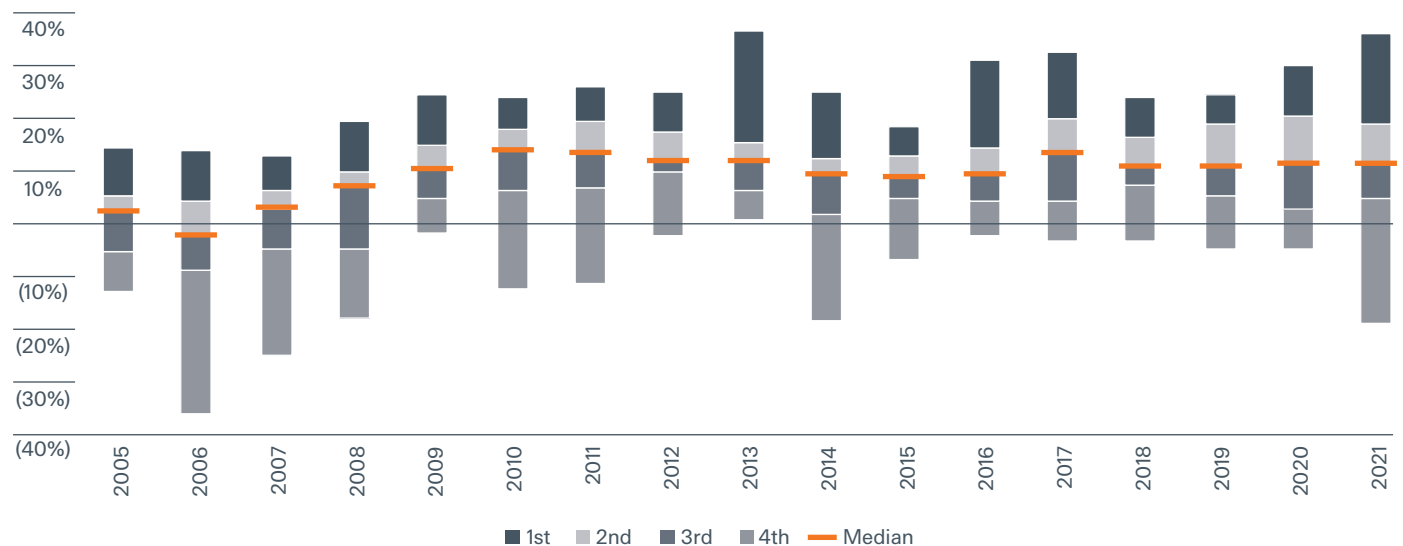
Attractive total return

Many investors include real estate for its potential to deliver attractive returns versus other asset classes in absolute terms

and/or in risk-adjusted terms. These investors often cite inefficiency as the main appeal. Real estate assets are not fungible—every property is different. Properties are traded predominantly one-off, often in limited auctions, sometimes with non-institutional owners and operators in the mix. While the market overall is reasonably efficient, there is scope for mispricing, particularly for assets that are in any way impaired. Impairment adds to the complexity of pricing and limits the buyer pool. *These factors create opportunities for managers with superior networks, knowledge, and experience to earn outsized returns.*

There is also potential for attractive returns from repositioning, redeveloping, or developing, though this means taking on more risk. This type of higher-risk investing is necessary for strategies focused on higher absolute returns, including when real estate must compete with private equity on a return basis to win an allocation. *While in aggregate the non-core median only modestly outperforms the core benchmark, there is a wide dispersion of performance across funds that creates the potential for differentiated performance. Sophisticated investors with information and process asymmetries can capture excess returns.*

FIGURE 6: NON-CORE FUND RETURN DISPERSION BY QUARTILE—VINTAGE 2000–2021



Source: Burgiss, as of June 30, 2023, excluding top and bottom 5% percentile returns for each vintage. Note: 2022 to 2023 vintage funds are in J-curve and StepStone believes that their performance is not meaningful as of publication.

How to invest in real estate

First and foremost, it is important to decide on the purpose of the program, and it may be one or more of the elements above. This is often determined in the context of a broader portfolio asset allocation project.

Risk tolerance should be realistically assessed. This is particularly important because real estate offers investors a choice of risk levels, unlike some other asset classes. The different investment purposes roughly correspond to certain risk levels. Designing a satisfactory program requires alignment between goals and risk tolerance. It's also important to consider risks versus goals to ensure that the program is not taking on unnecessary levels of risk. For example, those seeking high returns will have difficulty meeting their goals with low-risk programs, whereas the latter might be quite appropriate for those seeking purposes such as income generation that are best served by lower-risk strategies.

The resources of the investor should be carefully considered in designing a sustainable, high-quality program. Resources play an important role in determining the types of vehicles used as well as the number and type of managers and investments. Resources include size of both program and staff, access, expertise, decision-making processes (including speed and complexity), operational resources and other factors. Investors undertaking programs requiring many internal decisions who are unrealistic about having limited bandwidth and/or expertise may end up frustrated. Programs can be successfully tailored to meet the actual and greatly varied resources and interest of each investor.

Portfolio diversification is one of the most valuable tools for mitigating risk and should be designed into the program from

the outset in a way that addresses purpose, risk tolerance and resources.

While the cliché of “location, location, location” has great merit, it leads people to think that real estate investing begins with selection of location and property type. In fact, for quality locations and property types, the diversity of market opportunities means there are often ways to invest in different assets across the risk spectrum in the same property type and market. At the same time certain property types and/or markets are inherently more or less risky than others. This is why it's important to start at the top—why you are investing in real estate—and build a solid framework to guide the portfolio to those goals, before embarking on the often much more captivating selection of individual funds and investments from the bottom up. The latter step is much easier with a clear purpose in mind.

Risk level

Real estate investors have an unusually wide range of choices of risk levels compared with other asset classes. Investment opportunities are sorted into categories according to their risk level. The following categories are important to understand when designing a real estate portfolio. The terms below are in regular, daily use by institutional real estate investors, but at the same time, there are no precise definitions. As risk and complexity increase, the boundaries become a little less clear and sometimes various levels of risk may be present. It is particularly important for investors to properly understand the level of risk involved, both to manage risk and to ensure returns are appropriate.

Core: This refers to equity investments in quality properties, with no or low levels of financial leverage, that are performing at their potential. These are well-located in deep markets, well-maintained, well-leased assets, ideally in the hands of capable managers who will maintain that status. This is the most liquid and efficient segment of the property market.

- Over the long term, the return is dominated by income and core assets tend to be held for longer periods. Some income needs to be regularly reinvested into the properties to maintain them at core quality.
- Core can provide all four of the benefits listed above except for attractive total return strategies that are focused on high absolute returns.

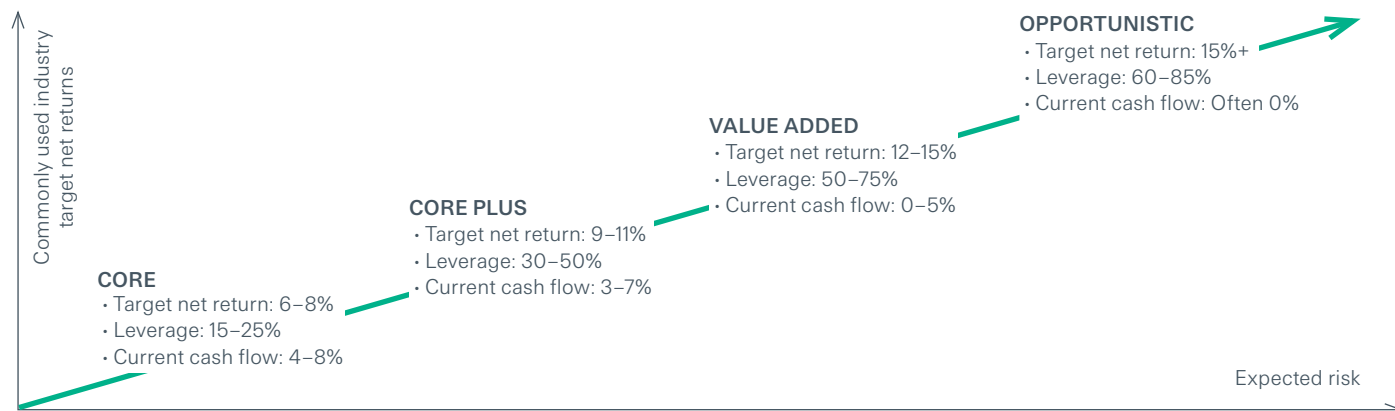
Core Plus: For the past several years, core-plus assets have been defined to have slightly more risk than core; at other times, they have had quite a bit more. Core plus is a fluid filler category that evolves with the opportunity set and sometimes disappears entirely. Now core-plus assets might have modest vacancy or turnover (10–15% is common), they might need a little more than maintenance capex, or have another similar, easily fixable issue that keeps the property in a lower-risk category. There are also assets that are permanently core plus, such as dominant properties in tertiary locations or

older assets in good but not great locations. These factors mean core-plus assets typically trade at slightly lower prices than core assets and thus have the potential to generate a bit more income. The latter has led to considerable recent expansion of the core-plus segment during the low interest rate environment.

- Like core, most of the return is from income. The assets tend to be held for longer periods with moderate leverage. Once the work is done, the result is a return-enhanced core portfolio.
- Core plus can provide any of the benefits of real estate investing except it is not expected to generate high absolute returns.

Value Added: This refers to investments in properties that are somewhat impaired in ways that can be fixed. Value-added properties typically have some income though it may be markedly below the property’s potential. They can have high vacancy or turnover (roughly 30–50%), there may be deferred maintenance and/or physical repositioning needed (e.g., renovating common areas or other activities that can be done with existing tenants in place), and/or they may be in an improving location. Value-added assets often come about because properties have been undermanaged,

FIGURE 7: REAL ESTATE RISK AND RETURN STRATEGIES



For illustrative purposes only. All information provided is at an industry level, no StepStone investments are included in any of the above metrics. All information provided here is based on research related to third party managers. Target returns are hypothetical and are neither guaranteed nor predictions or projections of future performance. Future performance indications and financial market scenarios are no guarantee of current or future performance. There can be no assurance that such net target IRRs will be achieved or avoid substantial losses. Further information regarding net target IRR calculation is available upon request.

managed to the wrong goals (e.g., occupancy versus income), or undercapitalized, either through mounting deferred maintenance or by failing to meet evolving trends. The more impaired an asset is, the less efficient trading will be. Skill is required to design and cost out improvements and releasing plans, and there is execution risk. The strategy when investing in non-core assets is to get them performing at their potential, which means they become core or core-plus assets. As long as the depth of demand for the property type and location are appropriately vetted upfront, exit (or liquidity) risk for the resulting core assets is low and the sale process is straightforward.

- While there may be an income component, much of the return on value-added assets is from capital appreciation. These assets are usually purchased with a buy, fix and sell strategy, though it is not unusual for value-added assets to be held a few years for income to improve the multiple after they are fixed, though IRR is important.
- Institutional real estate is somewhat unusual in that its typical approach is that the higher the asset risk, the higher the debt that is usually employed (balance sheet management elsewhere tends to have the two moving inversely). The goal is to increase returns towards those of classic (non-real estate) private equity strategies to attract capital that is focused on high absolute returns. While the opposite leverage strategy seems more logical, it is difficult to find in commingled vehicles and it is difficult for anyone other than the owner (or controlling manager) to leverage a core portfolio. It is important to understand and manage the nature of the leverage (including amount, structure, etc.) versus the asset risk and the manager's skill when assessing investment opportunities.
- The value-added strategy is aimed at total-return investors, and usually attracts those seeking higher returns than core but not wanting to go all the way up the risk spectrum to

opportunistic strategies. The property's income is usually re-invested in the asset, so these strategies tend not to pay out much current income. Value-added strategies can provide diversification and inflation protection.

Opportunistic: This refers to investments in properties that occupy the high end of the risk spectrum. They often have little or no income. This category includes new development and major releasing, repositioning or change of use that may empty the building. This also typically refers to assets in higher-risk locations, including those undergoing meaningful change or in emerging markets. While infrequently undertaken within real estate programs, this category also encompasses entity-level or platform investing that has risk components more like PE. Loan-to-own or highly distressed debt typically fits here; this refers to lending done in a distress situation with the hope of foreclosing.

- Returns are dominated by appreciation, usually with a focus on IRR. This means a buy, fix and sell approach with a strong sell discipline.
- To bolster returns, high leverage is often used. This can be self-defeating. A major benefit of real estate investing is strong downside protection inherent in the physical asset. The combination of high asset risk and high leverage can lead to material loss of capital. That said, successful opportunity fund managers have effectively negotiated this to generate attractive returns over long periods.
- The purpose of these strategies is high absolute returns, and opportunistic strategies are most often employed when real estate must compete with private equity for allocation. There is generally no current income, or what there is goes into the asset. Opportunistic strategies can provide diversification and inflation protection, but the higher potential volatility lowers the odds.

Build to core or rehab to core: This is two investments, not its own category. Its popularity in recent years makes it worth noting. First there is a development or rehab period that has higher risk and should be expected to generate higher returns; when this is completed there is a core period that should be assessed on its own merits. Ensuring appropriate return on both requires an accurate assessment of market value at the time of completion. The fact that the developer plans to hold the assets a long time does not mitigate development risk, though that is often asserted. These strategies have been popular as a way for investors with low risk budgets and high return targets to seem to meet these conflicting goals in a low-rate environment. This approach can be used to build desired core product that doesn't exist yet and as such can be more common in expanding niche property types.

A note on returns: One of the more challenging aspects of applying quantitative analysis to real estate is the lack of performance data. The available time series is relatively short and there is very little granularity to the data, which makes it difficult to effectively apply performance analysis tools

typically used in public markets. Benchmarking is challenging and not easily addressed in a short primer. Using the data available, we note two interesting facts:

- Over the long term, aggregate core returns are not substantially different from non-core returns despite the difference in risk, and
- During the recovery portion of the cycle, non-core returns can meaningfully outperform core.

This suggests for investors not solely focused on income that there is some merit to shifting capital to non-core strategies at the bottom of the cycle and to core strategies as the market returns to midline. This is not easy to achieve, and cycles can be quite different across markets. It requires active attention and a willingness to change course as the environment changes. The first fact also points to the importance of quality program design and investment selection to increase odds of outperforming in the non-core arena. If the program doesn't outperform the average, there is not a lot of justification for taking on additional non-core risk.

FIGURE 8: ACCESSING REAL ESTATE VARIES BY RISK-RETURN CHOICES

| | Core | Core plus | Value added | Opportunistic |
|-------------------------|------|-----------|-------------|---------------|
| Current income | ○○● | ○○● | ●○○ | ●○○ |
| Inflation protection | ○○● | ○○● | ○●○ | ○●○ |
| Diversification | ○○● | ○○● | ○○● | ○●○ |
| Attractive total return | ○●○ | ○●○ | ○○● | ○○● |

Key:

- Readily available/easy
- Moderately available/moderately easy
- Not available/difficult

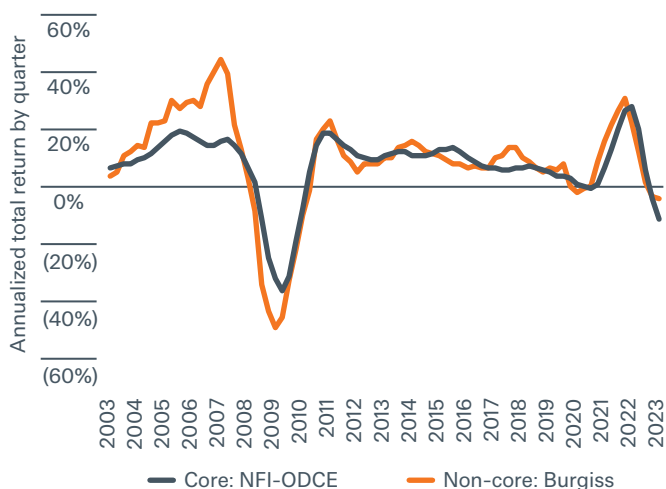
Note: The opinions expressed herein reflect the current opinions of StepStone as of the date appearing in this material only. There can be no assurance that views and opinions expressed in this document will come to pass.

Benchmarking: Benchmarks are improving continually but are still quite limited. Core benchmarks are published by regional industry groups such as NCREIF (US), INREV (UK/Europe) and ANREV (Asia Pacific). Open End Diversified Core Equity (ODCE) fund indices from these groups track diversified, open-ended core funds that meet certain criteria, with returns reduced by the cost of manager compensation. There are also some property level indices, such as the NCREIF Property Index (NPI), which is unlevered and excludes consideration of manager compensation.

Non-core benchmarks are published by groups such as Burgiss; these reflect net fund returns, factoring in all leverage and manager compensation. Non-core fund indices generally lump all closed-ended funds together (ranging from mezz debt to very opportunistic, with limited regional detail—this is confounded by global mega funds). It is advisable to combine both value-added and opportunistic and simply take a “non-core” view because there are no formal definitions of either category, making the division meaningless in a benchmarking context. There are as yet no benchmarks for core-plus or debt funds.

Portfolio benchmark selection should factor high-level investment goals for top-level reporting. That said, it is also valuable to meet the granularity of available indices to understand risk exposure and analyze investment selections. For example, core and core-plus portfolios are best evaluated versus the appropriate regional core indices and non-core funds versus non-core indices. A non-core portfolio should outperform a core index over time; comparing one with the other highlights a portfolio with more risk than the index, not superior investment selection.

FIGURE 9: CORE AND NON-CORE REAL ESTATE RETURNS—20 YEARS ENDING 2Q2023



Source: NCREIF, Burgiss, September 2023.

Vehicles

Forty years ago, investors generally had to find ways to participate directly in individual assets if they wanted to invest in real estate. In today’s value, this direct approach would require a multibillion-dollar portfolio to achieve suitable institutional-level diversification and justify the necessary staffing. Since then, an array of useful commingled vehicles have come on the scene. These have simplified and broadened participation in the asset class such that it is now a standard allocation in professionally managed investment portfolios. This section provides an overview with more detailed information on vehicle options in **Appendix 1**.

Private, commingled vehicles provide broad market access and diversification with far fewer resources and skills required of investors than the direct methods. The structure of primary fund raising typically aligns with the risk/return strategy.

1. **Open-ended funds**, typically used for core/core+ strategies
 - a. Core and increasingly core-plus assets are usually held in open-ended funds; they are well suited to the longer holding periods. They are evaluated based on time weighted return and income, which is regularly distributed. The number and type of open-ended fund offerings continue to expand.
 - b. Open-ended funds allow investors to attain and maintain target exposure (net asset value, drawn capital, etc.) relatively quickly, without a J curve. Capital can usually be fully deployed in a matter of months, and there are liquidity provisions.
2. **Closed-ended funds**, typically used for value-added and opportunistic strategies
 - a. Closed-ended funds are ideally suited to the buy, fix and sell strategy of non-core strategies, where they are the standard vehicle in use. They are typically evaluated based on IRR and multiple in a vintage year context. Core-plus assets can be held in closed-ended funds with longer lives (10–15 years).
 - b. Closed-ended funds allow investors to be more tactical about their exposures. They require a plan and ongoing work to maintain target exposures, which can take four to seven years for a new program to attain. During the ramp-up period for a fund or a new program, the combination of impaired assets undergoing change and fees charged on committed capital can cause a J-curve effect, which means income can initially be negative. Established programs

can generate steady, growing distributions, and the J curve from add-on funds is less likely to dominate program outcomes.

Additional commingled options include secondaries and co-investments. These can be related to commingled vehicles as well as the more direct forms of real estate ownership including joint-ventures, clubs, etc. They may occur across the risk spectrum and are most discussed in the context of non-core investments. These tend to have a short decision-making period and require skills more akin to direct investing, so they are offered by dedicated managers in funds or SMAs (separately managed accounts).

1. **Secondary** investments can be traditional or LP led, or GP led, with each having very different characteristics.
 - a. Sales by LPs of minority non-controlling positions are usually heavily marketed by intermediaries, and trade based on limited information. They can involve staples, or commitments to the next blind pool fund offered by the GP.
 - b. GP-led sales or recapitalizations can include control rights, access to more detailed asset and fund-level information, sufficient time to underwrite, the ability to restructure the interest and the GP compensation and can include allocating a limited amount of additional capital for new investments to the GP, in addition to gaining exposure to existing assets.
2. **Co-investments** are entered at the inception of an investment alongside a GP. They allow investors to be more tactical about exposures and a big part of their appeal is lower costs paid to the GP. Some GPs offer co-investment vehicles alongside their main funds purely to lower average costs; the GPs offer little or no selectivity with respect to asset selection.

Portfolio diversification

Diversification is one of the most powerful tools investors have to mitigate risk, and a thoughtful diversification strategy is a key element of successful investment policy and practice. Setting a framework to maintain thoughtful diversification without being overly detailed and using ranges rather than specific targets enables investors to be responsive to changes in the market and opportunity set. It allows for tactical considerations while still building a portfolio designed to meet its goals. Real estate portfolio construction should include consideration of exposures across the following variables as both potential return drivers (or drags) and sources of diversification.

Location

This includes major geographic regions, countries, regions within countries, cities, suburbs, etc. As discussed above, very local factors drive real estate returns.

Property type

- The four primary property types—industrial, multifamily, office, and retail plus hotel in certain locations—have dominated portfolios. Allocations to alternative property types such as self-storage, data centers and non-traditional rental housing (including student and senior) are growing. The SRE House Views discuss major shifts underway as technology has changed space demand in favor of industrial and certain niche properties and away from retail and office, and residential formats are increasingly available at institutional quality. Each property type has subcategories to choose from when executing, which are summarized in **Appendix 2**.
- Property types have different tenant demand drivers. Some are more demographically oriented, such as residential, or depend upon economic growth patterns, such as industrial, office and retail, or are driven mainly by technological change, such as data centers.
- Property types also differ by their management characteristics with some more complex to manage than

others. For example, hotels and senior housing are more operationally intensive, whereas industrial, at the other end of the spectrum, is more about having the right property and leasing it well.

- Land tends not to be held in institutional real estate portfolios unless it is entitled or in the process for development. It has a net carrying cost (usually little or no income combined with taxes, maintenance, financing if any, etc.). Entitlements and exit are highly uncertain, potentially taking decades.

Timing

Real estate is a cyclic asset class, and entry timing matters. While it is possible to identify when a cycle is ripe to turn, it is far harder to time this properly given the wide-ranging external factors that can drive it (e.g., the Lehman Brothers failure, Covid). For this reason, a slow, measured investment pace has merit, and within that, thoughtfully selecting appropriate investments and managers to match cycle opportunities can be a way to add value.

Closed-ended fund returns are best described by their vintage year cohort in the manner of private equity. Given the cyclic nature of the market and the short holding periods, vintage year pricing has a meaningful impact on returns.

Investors usually enter open-ended funds by buying shares in an established portfolio, so capital is fully deployed up front. Entry pricing is based on appraised values of the funds' underlying assets. Pricing should be carefully considered when entering, and again, staging commitments over time can manage pricing risk.

Vintage year or timing diversification execution is aided by:

- Modelling contributions, distributions and asset values for closed-ended fund portfolios to develop a pacing plan to spread out commitments over time and achieve top line goals.
- Entering or exiting open-ended funds over time by dollar-cost averaging.

Investment strategy

This can include a myriad of things. The following make useful starting points:

- Risk level, which largely determines leverage and open versus closed-ended vehicles.
- Access choices such as direct versus commingled, then primary, secondary, co-investment.
- General approach to selecting location and property type, as well as areas to be excluded.
- Consideration of market segment, demand drivers, speed of execution, etc.
- More nuanced asset level considerations, including the choice to develop.

Manager

Real estate investment management requires both broad, top-down market knowledge and specialized, bottom-up knowledge. Manager styles have evolved in various ways to address this, and a good plan should contemplate and address manager style. Some managers are top-down allocators who partner with local operators. Others are bottom-up vertically integrated operators. Some managers are generalists with broad footprints, while others are specialized by property type, location or often both. There are pros and cons to each of these; none is inherently good or bad. It's about fit with the investor and the investment strategy.

- Even large, diverse managers can have systemic bias in their portfolio selection, pricing and/or management.
- Organizational risk is present across the board, though it plays out differently at large and small managers.
- With few exceptions, individual managers have limited market exposure, so it usually takes multiple managers to get broad based exposures.
- Impact goals, a preference for highly focused strategies or other factors may require additional managers.

Execution

After all the above factors have been considered and woven into a set of portfolio guidelines, the next step is designing the manager structure and then selecting managers and investment vehicles.

Manager structure

The manager structure articulates the number and type of vehicles, managers and investments that will be used to execute the strategy. The two most important inputs for deciding this are resources and portfolio strategy.

Decision-making resources: Commonly, decision-making time is the most limited resources of investors. This often means investment committee time, and the investment committee can be making decisions about the total portfolio in relatively short meetings held periodically. To manage this, some or all decisions can be delegated to staff (who often have more specific expertise), with or without additional oversight, or they can be outsourced in a variety of ways.

- The most direct is to outsource all or part of the portfolio to a dedicated manager who has skills, experience and resources focused on building and managing a tailored portfolio.
- Some investors implicitly outsource by selecting a very few managers and participating in vehicles that will result in broad-based market exposure. These are usually allocator funds, which in turn allocate the capital to local managers and invest in joint ventures with varying levels of oversight or build such capabilities in-house. This approach has helped fuel the growth of multi-billion-dollar "mega funds."

Portfolio management resources using direct vehicles:

Direct investment requires considerable staff with direct investing skills and operational sophistication. This is true even if the program is executed through a series of separate account managers unless the SMA involves full outsourcing of all decision making and operations. The staff size and skill requirements rise with the level of decision making and operations undertaken in house versus by the SMA manager.

Portfolio management resources using commingled

vehicles, usually commingled funds: These do not typically require direct real estate experience, though it is helpful. Operational requirements are modest and usually focused on cash management to and from the vehicles. If fund selection decisions are being made internally, whether by committee or staff, they require market intelligence to build a pipeline, comparative analysis and due diligence capabilities. Due diligence includes review of the manager and all aspects of the investment program as well as operational matters and potentially ESG considerations. Once invested, monitoring is important and even relatively passive investments such as closed-ended funds tend to require periodic decision making in the normal course, more so if things are not going as planned.

Even when organizations are staffed for internal decision making, some segments of the portfolio are typically outsourced because of the additional and often specialized workload they present. This includes:

- Strategies involving emerging or diverse managers
- Nondomestic exposures
- Secondaries and co-Investments

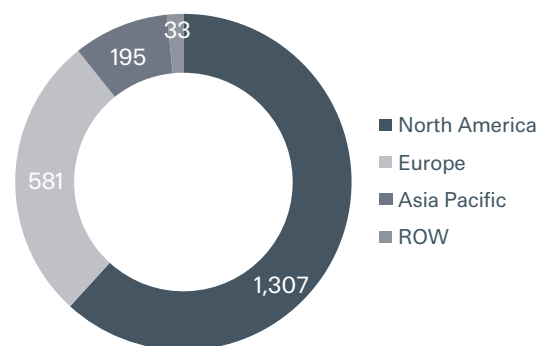
Manager/investment selection

The portfolio guidelines plus the manager structure including a pacing plan (usually leveraging a pacing model for closed-ended funds) and size, number, and type of investments, will define the manager selection that needs to occur to achieve the goals of the program. Manager selection follows planning. This may seem obvious, yet it’s worth noting because it is surprisingly common to want to start with manager selection because a promising sounding manager is knocking on the door. It’s also valuable to have a framework because there are literally thousands of managers actively seeking capital from real estate investors; again, a clear sense of purpose can enable investors to quickly narrow their focus to the most relevant opportunities.

Manager/investment selection is where the actual exposures of the portfolio are selected, and where tactical considerations are made. Given the cyclic and very dynamic nature of the real estate markets, individual investment decisions must consider current market conditions and outlook. A well-designed program includes flexibility to meet the opportunities of the marketplace within a structure that ensures primary program goals regarding purpose, risk level and resources are met.

The non-core closed-ended fund universe includes thousands of funds encompassing a diverse array of strategies and risk levels (see **Figure 10** and **Appendix 3**). When making comparisons among managers it is important to properly analyze the risk level while comparing returns, because an “underperforming” manager can be earning a good return for a much lower level of risk undertaken versus a high-risk “outperforming manager.” Benchmarks include such a broad array of risk levels that quartile rankings can be misleading. Each quartile includes a wide range of returns, as can be seen in **Figure 6**. Within a well-designed program, thoughtful manager selection can add value.

FIGURE 10: NUMBER OF FUNDS RAISED 2015–2022 (2,116 TOTAL)



Source: StepStone analysis, July 2023.

Pulling it all together

The process is relatively straightforward; the myriad of choices and dynamic environment are what makes it interesting.

- Start with a sound understanding of purpose, risk tolerance and resources.
- Use this understanding to design a suitable program, addressing selection of target risk level, vehicles, a plan for the number and type of managers and investments. Define exposure targets and ranges to help ensure that the resulting

portfolio is thoughtfully diversified and suited to meeting all the parameters and flexible enough to respond effectively to a dynamic investment environment.

- Select and monitor the managers and investments, factoring current market conditions and outlook as well as top-down goals and evolving portfolio composition.

Please contact us for the *SRE House Views* for additional information on current market conditions.

Appendix 1: Vehicle options

Forty years ago, investors had to find ways to participate directly in individual assets if they wanted to invest in real estate. Since then, an array of useful commingled vehicles has come on the scene. These have simplified and broadened participation in the asset class such that it is now a standard allocation in professionally managed investment portfolios.

Private, direct real estate

These vehicles allow the greatest level of control over which assets are purchased and how they are managed. They also require significant investment resources and skills as well as scale to achieve diversification, so this approach tends to work for larger teams with direct real estate experience. These vehicles can be used for assets of any risk level. Fees and profit sharing (aka carried interest, promoted interest or promote) are negotiated and vary greatly depending on the scope of work and risk levels.

- 1. JVs or joint ventures**—This is the classic way to invest at the asset level, in a joint venture between investors (usually one or very few) and the manager. A more streamlined version is a programmatic joint venture, in which a manager pursues a series of assets usually with a well-defined strategy.
- 2. SMA or separately managed accounts**—In collaboration with the investor, the SMA manager manages a portfolio of assets (often held in JVs but this can encompass any vehicle) that can be tailored to the investor's needs. Traditionally, investors large enough to attain diversification within their own portfolio of direct assets use this method, usually for core exposure. In recent years, SMAs have been used to provide a mix of exposures across direct and commingled vehicles that give the investor the ability to affect strategy and buy/sell decisions without requiring the investor to do heavy lifting.

Private, commingled funds

These vehicles provide broad market access and diversification with far fewer resources and skills required of investors than the direct methods.

- 1. Open-ended funds**—These are analogous to stock market mutual funds. The manager actively manages a portfolio of properties, and investors buy or sell shares in the existing portfolio. The analogy breaks down in that the real estate transactions happen over a much longer time frame than the daily trading of stocks and mutual fund shares, and pricing is based on calculated valuations rather than sales of shares. Properties can be held in the portfolio for decades. It often takes one to three quarters for investors to complete requests to enter or exit. This slows at market peaks and troughs, and exit can be suspended during extreme market shifts. Requests are made to the manager who matches requests to buy and sell or buys additional properties to expand the portfolio to accommodate net new investors and vice versa. There is a secondaries market for these interests.
 - a. Core and increasingly core-plus assets are usually held in open-ended funds; they are well suited to the longer holding periods. Established programs usually generate steady, growing distributions. The US presently has over two dozen core open-ended funds that constitute the NFI-ODCE (NCREIF Fund Index – ODCE; pronounced “odyssey”); this is the most common performance benchmark for US core investors.
 - b. Costs: Core open-ended fund management fees are typically 85–95bps; fees include discounts for larger programs. There is typically no carried interest. Core-plus open-ended funds have slightly higher fees, and

some carried interest such that the all-in cost at target returns is 100–250 bps depending on the program.

- c. Open-ended funds allow investors to attain and maintain target exposure (net asset value, drawn capital, etc.) relatively quickly, without a J curve. Capital is fully deployed in a matter of months.

2. **Closed-ended funds.** This structure was imported to real estate from private equity in the early '90s to provide align the interests of the manager (GP) and investors (LPs).

- a. "Closed-ended" refers to the funds for which there is a stated investment period (three to four years) and life of the vehicle (usually less than 10 years), and investors are admitted only at the outset of the program. The vehicle has a stated investment strategy, target return, scope, and other defined parameters.
- b. The manager acquires assets during the investment period and calls capital over time to fund them; proceeds are then distributed to investors over time as assets are realized. Closed-ended funds usually entail "blind pool" investing because most or all of the properties are not identified at the outset.
- c. Strong alignment of interest is necessary, and it is created in two ways. The manager typically invests in the vehicle, and after the portfolio has generated a stated minimum preferred return to investors, also called a hurdle, the manager shares in the profits as carried interest.
- d. Closed-ended funds are ideally suited to the buy, fix, and sell strategy of non-core strategies, where they are the standard vehicle in use. Core-plus assets can be held in closed-ended funds with longer lives (10–15 years).
- e. Costs: The all-in cost of these is usually 400–600 bps of IRR at target returns; it can be significantly higher in the event of outperformance. There is an annual asset management fee typically of 1.5% based on committed capital during the investment period and called capital thereafter. Preferred returns are typically an 8–9% IRR, and carried interest is most often 20% of profits

with payout beginning once performance exceeds the preferred return (so the full 20% may not be achieved if returns are insufficient). There may be a catch-up in which the manager gets an outsized share of returns, often 50% or more, until they have received a share of total profits equal to the carried interest. The carried interest may be calculated on the pool (European style) or deal by deal (American style); the former is much more investor friendly.

- f. Closed-ended funds allow investors to be more tactical about their exposures. They require a plan and ongoing work to maintain target exposures. It can take four or more years for a new closed-ended primaries program to attain target exposures. During the ramp-up period for a fund or a new program, the combination of capital being invested in assets, without simultaneous value accretion and fund-level costs, and fees charged on committed capital can cause a J-curve effect, which means returns can initially be negative. Investing in established investment vehicles with a higher weight of stabilized cash-flowing assets to offset fees, and secondaries acquired at discounts to NAVs, can help eliminate the J-curve effect.

Secondaries

These refer to purchases of LP interests in existing ownership vehicles; the purchase is secondary to the original, primary commitment made by the seller. Purchasing these interests takes resources and skills; it requires an ability to source transactions and price and conduct due diligence on the underlying assets in the vehicle, usually in a short time.

A traditional or LP-led secondary refers to the purchase of an LP interest in an open- or closed-ended fund where the buyer becomes a substitute LP, subject to the same fund terms as the seller. The real estate secondaries market began about 20 years ago and gained scale in the post-GFC period. Most trades are now brokered to facilitate better price discovery for sellers. Positions are traded based on far less information than

would be available for a direct property sale, and access to information tends to be limited to a fund's standard reports.

Another increasingly popular structure is a GP-led secondary, in which the GP works with the buyer. These can involve recapitalizing the vehicle and facilitating exit by some or all LPs. These are usually privately negotiated transactions with limited or no competition. The buyer has access to full information to conduct due diligence on the underlying assets. Often the buyer can negotiate new terms and even decision-making rights.

As secondary capital raising has grown, so have the ways it is deployed. It can mean purchasing the interest of a partner in a direct-deal JV and/or purchasing a "slice" or share of all the assets in a fund, usually to facilitate more fundraising. These are also usually negotiated, with full information.

Secondary purchases can involve any type of vehicle anywhere on the risk spectrum.

In a traditional secondary, the buyer steps into whatever fee and promote structure is in place for the purchased interest and in a GP-led secondary, the buyer may renegotiate the terms of the vehicle, including manager compensation. One potential benefit of secondaries purchases of closed ended funds is that the initial J-curve period may have passed. Existing assets may be partially de-risked.

Dedicated secondaries managers are common owing to the considerable resources, access and skill required to purchase secondaries. Secondaries fund costs are roughly two-thirds those of typical close-ended funds, with the same structure.

Co-investments

The classic co-investment occurs when investors are invited to invest in assets that are being acquired by a fund. This more often occurs with smaller managers where deals are more likely to be too large to comfortably fit into a fund. In real estate, it can also mean co-investing in a direct structure by being one of multiple JV partners. It requires real estate skills to properly underwrite the asset in a relatively short time period. Many

investors simply follow trusted GPs into co-investments with little or no underwriting, and others pass because they don't have the skills or the time to underwrite the assets.

Co-investments can involve any position in the risk spectrum.

Costs for co-investments are generally half to three-quarters the fee and promote for funds though there is a considerable range. The lower fees have drawn considerable capital into these strategies.

- This is a significant difference from private equity where fees and carried interest are often not charged on co-investments.
- Costs for managed co-investment portfolios tend to be half those of the direct funds. Combining these with the co-investment fees gets to an all-in cost close to the level of going into a direct fund, with a second level of scrutiny as the assets are selected for the co-investment portfolio.

Co-investment programs can allow investors access to quality managers with strong alignment, while building a portfolio tailored to their own exposure goals and market views. It also broadens the selection pool to include co-investments from fundless sponsors.

Multi-manager SMAs

Multi-Manager SMAs (also funds of funds, funds of one) offer investors diversified exposure to the commingled market. They involve using a manager who has resources and skills to build a portfolio of funds; it can also involve adding secondaries or direct asset co-investments. They can be applied as completion strategies or used to access areas of the market an investor can't properly access because of staff or scale issues.

These can involve any position on the risk spectrum.

Costs are negotiated and vary depending on the scope of work and risk levels. Managers who can access scale discounts can offset fees, and additional access or alpha can justify the additional costs.

Public securities

In this same period, a high-quality public real estate stock sector has evolved. Its main advantage is daily liquidity and pricing, which are unavailable among the private options that, at best, tend to quarterly liquidity and mark to market. While liquidity is available, it may entail exiting at sharp discounts in down markets. Inclusion in public stock indices means that most investors now gain exposure to public real estate as part of their public stock portfolios, and the pricing is highly correlated with broad stock market indices owing to the prevalence of indexation strategies.

Public real estate companies essentially own core portfolios. They mostly operate at only one point on the risk spectrum (just above private core owing to slightly higher leverage), and don't allow participation in the less efficient non-core sectors. Impaired cash flow and income profiles mean non-core transactions are better executed in the private markets.

In the US, public companies are specialized by property type. While the US model is spreading to major countries globally and is included in global REIT indices, some other countries have real estate stocks that are more diversified and can include ancillary businesses such as construction companies. In the US, less than half the index value as of July 2023 was comprised of companies focused on the major, liquid property types that dominate private portfolios. The majority is comprised of a broad array of niche exposures, some of which may be categorized as real assets or infrastructure.

In the US market, value is concentrated in a small number of larger stocks; for example as of July 2023 45% of the index value was comprised of 10 names. This makes it hard for larger portfolio managers (and successful managers get large) to generate alpha.

Public real estate stocks are *highly correlated with the broader markets in the short term, so they will act more like equities than real estate*. They are in the universe of the public equity allocation of a comprehensive total portfolio. Investors considering adding a public component to their real estate

portfolios should review their organization's exposure within the equity allocation to avoid unintentional duplication. In the longer term, prices are linked to private real estate. If public prices move too far from the private market value of the assets they hold (price: net asset value or NAV ratio), they will be arbitrated until price: NAV gets into a narrower range, usually about 10% or less.

The reason to include public real estate securities in a real estate portfolio is that they are more liquid. Unlike any of the private options, transactions can be requested and completed in just a few days at a known market price. In down markets for real estate or broad equities, this price may entail a steep discount.

1. Returns are highly volatile, markedly more so than for the main stock market indices (see **Figure 4**). This is the most important consideration when adding public exposure. This relatively small sector is the only place investors (notably the tactical ones) can quickly move in and out of real estate.
 - a. This requires discipline to avoid selling at the wrong time and may generate uncomfortable results at the wrong time.
 - b. The volatility plus higher equity market correlations create a compelling case against using public real estate exposure to park capital committed to private vehicles and waiting to be called.
2. With higher correlation to public markets, real estate securities are less likely to provide diversification benefits, particularly in times of crisis. Given the strong performance of the stock market in recent decades, they have generated attractive absolute returns. The current income is often substantially less than in private core portfolios. The liquidity means public securities can be a useful component of an inflation protection strategy.
3. These are stock portfolios and are priced accordingly. Active funds tend to charge approximately 30–40bps, and passive, index-oriented funds can be much lower. This is a flat, asset-based fee with no carried interest for long-only portfolios.

Appendix 2:

Property types

The table below provides an overview of major property types and their respective subtypes as classified by NCREIF. Many reports from GPs and others differ in how they group the subtypes, so it is critical to understand the components when making comparisons. For example multifamily is often reported on its own line, with the other residential subcategories placed in an 'other' category.

Medical office and life sciences may be in office or in "other." The table below lists types ranked by their unlevered market value as a share of total NFI-qualified unlevered property value among the 25 NFI-ODCE funds as of 2Q2023. With many growing subtypes, categories shift; again, review of categorization helps ensure consistent comparison of results, etc.

| Property type (NFI-ODCE share) | Subtype | Description |
|--------------------------------|---------------------------------|--|
| Industrial (30%) | Flex | At least 25% office finishes, such as for showroom or R&D space |
| | Manufacturing | Used for goods fabrication or assembly |
| | Specialized | Cold storage, air cargo, truck terminal, or other specialized use |
| | Warehouse | General warehousing or distribution space |
| Residential (27%) | Manufactured housing | Prefabricated housing units rented or owned by the resident; when owned, the resident rents the pad site |
| | Multifamily | Traditional attached multi-unit housing; can be garden-style, multi-story, and/or age restricted |
| | Single-family rental (SFR) | Single-family, typically detached housing for rent |
| | Student housing | On- or off-campus rental housing for college students |
| Office (25%) | Central business district (CBD) | Located in commercial districts with at least 2 million sq. ft. of office space per mile |
| | Life science | Building infrastructure supports lab use and has life science tenancy |
| | Medical office | At least 90% leased to tenants delivering out-patient medical care |
| | Secondary business district | Located in commercial districts with 0.5–2 million sq. ft. of office space per mile |
| | Suburban | Located in mixed-use or residential area |
| | Urban | Located in commercial district that lacks office density of a central or secondary business district |

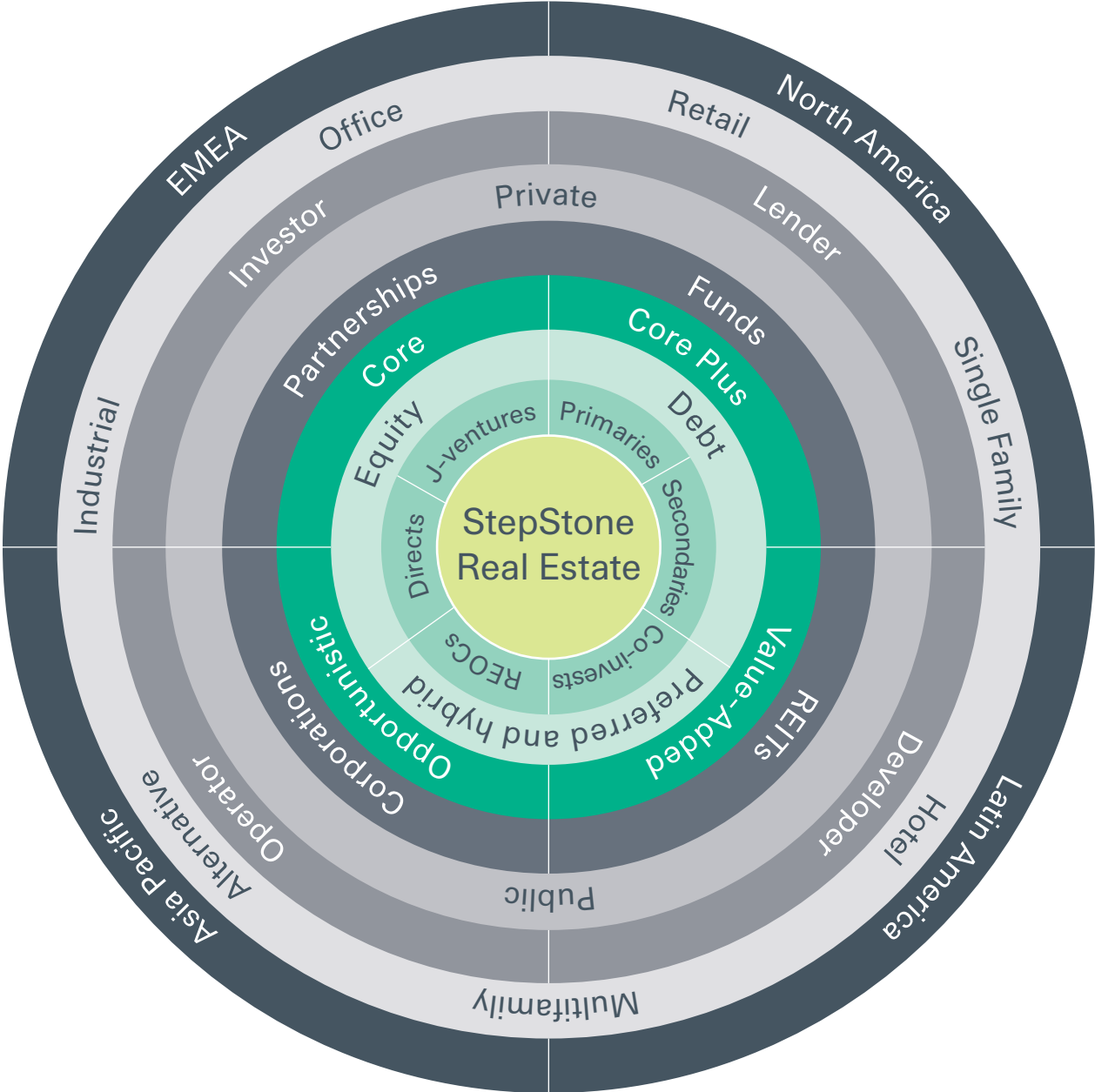
Appendix 2:

Property types

| Property type (NFI-ODCE share) | Subtype | Description |
|-----------------------------------|--------------------------------------|---|
| Retail (12%) | Mall | Enclosed or open-air connected retail center of at least 400,000 sq. ft. with walkways and a variety of stores and services |
| | Street | Storefront retail with no or limited street setback and access to heavy pedestrian and/or vehicle traffic |
| | Strip | Anchored or unanchored shopping center of in-line space with common parking area |
| Self-storage (4%) | Self-storage | Multi-unit storage spaces rented on a short-term basis, typically monthly |
| Other (0.4%) | Data center | Designed with infrastructure to support data servers and network equipment |
| | Entertainment | Properties such as golf courses and bowling alleys |
| | Operating land | Income-generating land |
| | Parking | Lot or structure generating income from parking |
| Hotel (0.2%) | Full service | Amenities include food and beverage service |
| | Limited service | Rooms-only operation |
| Seniors housing (<0.1%) | Assisted living | Residents receive personal care and oversight, but not medical care |
| | Continuing care retirement community | Mixed community of independent, assisted and nursing care uses |
| | Independent living | Amenitized community, but no personal or medical care |
| | Skilled nursing | Licensed, long-term health care residence |
| Land (<0.1%) | Land | Undeveloped, vacant land |

Source: NCREIF, August 2023.

Appendix 3: The array of real estate



- Region
- Vehicle type
- Product
- Risk category
- Role
- Capital structure
- Capital market
- Investment approach

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All data is as of October 2023 unless otherwise noted.

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