Why Real Estate?
Why Real Estate?

- One of the most common questions faced by investors, investment managers, and consultants.
  - As the premier association representing the institutional real estate community, PREA is also often asked this question.

- What are the benefits to having an allocation to commercial real estate within an overall portfolio and why should investors consider such an allocation?

- The following presents a brief outline of standard arguments in favor of a real estate allocation along with illustrative numbers updated on a continuing basis, and with links to more detailed resources available to members on the PREA website.
What is Real Estate?

- Important to define exactly what one means by “real estate”.
- Overall real estate market often described as being composed of **Four Quadrants**:

<table>
<thead>
<tr>
<th>Private Equity</th>
<th>Public Equity (e.g. REITs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Debt</td>
<td>Public Debt (e.g. CMBS)</td>
</tr>
</tbody>
</table>
What is Real Estate?

- Each quadrant can have its own role within a portfolio.
- Here, however, we do not discuss real estate debt.

PREA Resources:
- See “Comparing Real Estate Debt and Equity Investments”, PREA Quarterly, Winter 2015, for a look at the differences in the investment characteristics of these two quadrants.
What is Real Estate?

- Public-market and private-market equity real estate are highly related but not perfect substitutes for one another.
  - Each has its own distinct advantages and disadvantages.

PREA Resources:

- For resources comparing the characteristics of REITs and private real estate, see:
  - PREA Research Report: “REITs and Real Estate: Is There Room for Both in a Portfolio?”, October 2010
  - “REITS Versus Private Equity Real Estate: Three Topics of Debate”, PREA Quarterly, Spring 2014

- In this report, we examine only private market equity investments in real estate.
What is Real Estate?

- **Private equity real estate**: ownership interest in commercial properties.

- Spread across sectors such as office, industrial, retail, and apartment, as well as other more specialized sectors such as hotels, self-storage, seniors housing, student housing etc.

- Asset class typically accessed by institutions via direct ownership (sometimes in joint venture with others) or via private equity real estate funds (either closed- or open-ended).
What is Real Estate?

- Private market investment that allows opportunity to attempt to increase value through control of the asset.
  - Distinct from public market investments which are typically held passively

- Cashflows based on leases, with opportunity for changes in property value.
  - Leases are a debt-like obligation of the lessee.
  - As leases roll-over and market rents change, property income changes. Further, owners can work to improve the property to increase lease rates and occupancy – increases cashflow and property value.

- Combines aspects of both debt and equity (but unique and not replicable using those asset classes).
What is Real Estate?

- As a private market investment, real estate is relatively illiquid.
  - Greater costs and time involved in real estate transactions compared to stocks or bonds
  - Must be factored into investment decision making; the need for liquidity varies across investors.

- Many investors believe that real estate should, on average, earn an “illiquidity premium” – i.e. extra return to compensate for its lack of liquidity
  - This can be an attraction to the asset class, especially for investors who do not require liquidity in their real estate investments.
  - However, there is little empirical evidence on the size of this return premium, or even whether it does actually exist.
What is Real Estate?

- Often broken into three categories based on risk/return profile: **core, value-add, opportunistic**.
- No universally accepted definitions of these classes, but typical industry view:

  - **Core**
    - lower risk, lower expected return, most return from income, typically low leverage

  - **Value-add**
    - medium risk, medium expected return, return from income and capital gains, typically medium level of leverage

  - **Opportunistic**
    - higher risk, higher expected return, return mostly from capital gains, typically higher leverage
Institutional allocations within real estate as of 2014:

- Core, 54.0%
- Value-add, 18.1%
- Opportunistic, 27.9%

Source: PREA Investor Report 2015

The discussion that follows concentrates on the lower risk categories of real estate that form the basis for most institutional portfolios.
Five characteristics of commercial real estate commonly cited as benefits of the asset class:

1. Good returns with relatively low volatility
2. Income generation
3. Diversification
4. Inflation hedge
5. Important component of the investable universe
PREA Resources (click links to access on PREA website):

- **PREA Research Report**: “Private Real Estate Allocations in Multi-Asset Investment Portfolios”, November 2011
  - Discussion and analysis of major characteristics of asset class as well as citations to other research on the issues

- For an indication of real estate allocations of institutional investors see PREA survey results at [PREA Investor Reports](#)

- For a look at how pension funds globally invest in real estate, including how much, the approaches used, and the relative costs of the different approaches, see: “A Global Perspective on Pension Fund Investments in Real Estate”, PREA-sponsored special real estate issue of *The Journal of Portfolio Management*, 2013.


Both articles review arguments in favor of a real estate allocation.


For a discussion of the issues to consider, and the process involved, in creating a real estate allocation from across the various risk/return categories, see “Creating an Optimal Real Estate Asset Allocation”, PREA Quarterly, Winter 2015.
For thoughts from investors and consultants on the role of real asset allocations, and real estate within that allocation, see: “Real Assets in an Institutional Portfolio: A Roundtable Discussion”, PREA Quarterly, Fall 2011.


Defined contribution (DC) plans are becoming an increasingly important aspect of the institutional investing landscape. For an examination of the role of real estate within a DC paradigm see:


“The Evolving Role of Real Estate in Defined Contribution Plans”, PREA Quarterly, Fall 2014.
Good Returns & Low Volatility

Annual returns, 1978 to 2014:

<table>
<thead>
<tr>
<th></th>
<th>S&amp;P 500</th>
<th>Barclays US Aggregate Bond Index</th>
<th>NCREIF Property Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ave. return per year</td>
<td>13.90%</td>
<td>8.00%</td>
<td>9.51%</td>
</tr>
<tr>
<td>Volatility</td>
<td>16.78%</td>
<td>6.90%</td>
<td>7.80%</td>
</tr>
<tr>
<td>Sharpe measure*</td>
<td>0.47</td>
<td>0.32</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Sources: NCREIF, Thomson Reuters Datastream

- The **NCREIF Property Index** represents returns to a direct, unlevered investment in a diversified portfolio of U.S. commercial property.

*Sharpe calculated as average return above one year Treasury yield, divided by volatility. Gives average return per unit of risk; is commonly used to measure risk-adjusted performance.
### Good Returns & Low Volatility

#### Compound average returns (annualized), as of Q2 2015:

<table>
<thead>
<tr>
<th></th>
<th>S&amp;P 500</th>
<th>Barclays US Aggregate Bond Index</th>
<th>NCREIF Property Index</th>
<th>PREA</th>
<th>IPD U.S. Property Fund Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>7.4%</td>
<td>1.9%</td>
<td>13.0%</td>
<td>14.9%</td>
<td></td>
</tr>
<tr>
<td>3 years</td>
<td>17.1%</td>
<td>1.8%</td>
<td>11.6%</td>
<td>13.6%</td>
<td></td>
</tr>
<tr>
<td>5 years</td>
<td>17.3%</td>
<td>3.3%</td>
<td>12.7%</td>
<td>15.1%</td>
<td></td>
</tr>
<tr>
<td>10 years</td>
<td>7.7%</td>
<td>4.4%</td>
<td>8.2%</td>
<td>n.a.</td>
<td></td>
</tr>
</tbody>
</table>

Sources: NCREIF, IPD, Thomson Reuters Datastream

- The **PREA | IPD U.S. Property Fund Index** measures returns, including leverage and other aspects of the fund structure, to open-end real estate funds and is therefore investable for institutional investors. Returns presented are gross of fees.
Good Returns & Low Volatility

- One must be careful in comparing volatility of real estate to other asset classes.
- The NCREIF Property Index (NPI) and PREA | IPD U.S. Property Fund Index are based on appraised values, which typically lag and are smoother than market based prices.
- Also, the indices may not reflect the risk of the actual real estate strategy being undertaken by an investor.
  - indices do not include higher risk types of real estate investments, and the NPI is unlevered
- Using annual data (as on previous slides) mitigates the appraisal smoothing issue, but does not necessarily entirely solve it.
  - Further, due to illiquidity, real estate may by its nature react more gradually to changing conditions than public market securities.
A risk measure less affected by the different characteristics of private and public markets is **maximum drawdown**

- the greatest peak-to-trough loss experienced over a time period

**Maximum drawdown over Q1 1978 to Q2 2015:**

<table>
<thead>
<tr>
<th>Index</th>
<th>S&amp;P 500</th>
<th>Barclays US Aggregate Bond Index</th>
<th>NCREIF Property Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3 2007 - Q1 2009</td>
<td>-45.4%</td>
<td>-12.6%</td>
<td>-23.9%</td>
</tr>
<tr>
<td>Q2 1979 - Q1 1980</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2 2008 - Q4 2009</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For a fuller discussion of the volatility of real estate compared to other asset classes, including the effect of appraisal smoothing, leverage and investor strategy, see: “Is Real Estate Really a Low Volatility Asset Class?”, PREA Quarterly, Winter 2011

For research on the effects of appraisal smoothing, methods to “de-smooth” real estate returns to make them comparable to public market indices, and the effects on asset allocation decisions, see: “Smoothing and Implications for Asset Allocation Choices”, PREA-sponsored special real estate issue of The Journal of Portfolio Management, 2007.
Recent income generation by asset class (trailing year to Q2 2015):

Real estate, different views on the asset class...

| Income return on NCREIF Property Index | Cashflow return (i.e. net of CAPEX) on NCREIF Property Index | Income return on PREA | IPD U.S. Property Fund Index, gross of fees | Income return on PREA | IPD U.S. Property Fund Index, net of fees |
|----------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|
| 5.2%                                   | 3.4%                                                          | 4.9%                                                               | 3.9%                                                               |

... compared to equities and bonds:

<table>
<thead>
<tr>
<th>Dividend Yield on S&amp;P 500</th>
<th>Yield on Barclays US Aggregate Bond Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1%</td>
<td>2.4%</td>
</tr>
</tbody>
</table>
For a more detailed discussion on the income return from real estate and caveats in interpreting it, see: “The Income Return from Real Estate: Do You Know What You Are Really Getting?”, PREA Quarterly, Summer 2013
## Diversification

### Correlations (annual returns):

<table>
<thead>
<tr>
<th></th>
<th>Large Cap Equities</th>
<th>Midcap Equities</th>
<th>Small Cap Equities</th>
<th>Treasuries</th>
<th>Inv. Gr. Corp. Bonds</th>
<th>High Yield Corp. Bonds</th>
<th>Hedge Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCREIF Property Index</td>
<td>0.15</td>
<td>0.07</td>
<td>0.07</td>
<td>-0.03</td>
<td>-0.26</td>
<td>-0.37</td>
<td>0.15</td>
</tr>
</tbody>
</table>

- low correlation with other asset classes, good diversifier within portfolio

Based on annual returns to: NCREIF Property Index, Russell Top 200 Index, Russell Midcap Index, Russell 2000, Barclays US Treasury Index, Barclays US Corp. Investment Grade Index, Barclays US Corp. High Yield Index, Dow Jones-Credit Suisse Hedge Fund Index. Correlations based on data to 2014, beginning in 1979 (equity indices), 1978 (Treasury and investment grade), 1984 (high yield), and 1994 (hedge funds).

Sources: NCREIF, Thomson Reuters Datastream
For a discussion of real estate as a diversifier in the context of the financial crisis, see: “Real Estate’s Evolution as an Asset Class”, PREA-sponsored special real estate issue of The Journal of Portfolio Management, 2009

Investors are increasingly concerned with hedging against extreme market events, or “tail risk”, and worried that the relationships between asset classes can change with market conditions. For an analysis, see: PREA Research Report, “Risk Management and Diversification with Real Estate: Correlation is Not Enough”, February 2012

For a discussion of tail-risk in real estate portfolios, see: “Hedging ‘Fat–Tail’ Risk in Real Estate”, PREA Quarterly, Summer 2010
In managing risk, many institutional investors, especially private sector pension plans, have adopted a Liability Driven Investing (LDI) approach:

For a discussion of LDI for institutional investors, see: “Incorporating Liability Driven Investment Strategies Into Investment Policy”, PREA Quarterly, Summer 2010

For a description of LDI and analysis of real estate's role in hedging plan liabilities, see: PREA Research Report, “Liability Driven Investing: What Is It and Does Real Estate Fit?”, September 2011

See also, “Impact of Pension Plan Liabilities on Real Estate Investment”, PREA-sponsored special real estate issue of The Journal of Portfolio Management, 2005
Real estate’s inflation hedging abilities have been tested using a variety of methodologies, with different conclusions. There remains debate about whether real estate is more effective as an inflation hedge than other asset classes.
For more detailed discussions of real estate’s ability to hedge inflation see:

- “Does Real Estate Provide an Inflation Hedge? If You Choose the Right Real Estate”, *PREA Quarterly*, Summer 2011

Commercial real estate is a large part of the universe of potential investments faced by institutions.

Difficult to measure the size of the market exactly; a report from 2014 estimates that private real estate equity represents 4.2% of total global invested capital.¹

Public real estate equity and private real estate debt represent a further 1.2% and 5.7%, respectively, of global invested capital.

Real estate has a significant allocation in the global market portfolio:
  - Traditional portfolio theory views the allocations of the market portfolio as the optimal market-neutral allocations.

As a significant part of the investable universe, an institution with no real estate allocation could be viewed as making an active bet that real estate will underperform.

¹ “Global Invested Capital Market“, Hewitt EnnisKnupp, June 2014
For a discussion of real estate within the global market portfolio, and examples of its use in developing portfolio allocations and development of forward-looking forecasts, see: “Global Commercial Real Estate: A Strategic Asset Allocation Study”, PREA-sponsored special real estate issue of The Journal of Portfolio Management, 2007
This presentation is not meant to cover all considerations in determining a real estate allocation; it presents only a brief outline of the characteristics of real estate most commonly cited as benefits. The discussion is based on real estate as a general asset class; specific investment strategies within real estate may have different characteristics.

No consideration has been given to investor-specific circumstances, goals, and risk tolerances that must be considered when forming investment policy.

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Contact:
Greg MacKinnon
Director of Research, PREA
860-785-3847
greg@prea.org