Real Estate Investments

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Winter 2015 — REIT Lecture Notes (These notes rely heavily on the “Real Estate Capital Markets” course at MIT)
Objectives

In this note, we study

• What are REITS

• What are the rules to form a REIT

• How is REIT accounting different than other equity accounting

• What is the difference between an Equity REIT and a MORTGAGE REIT

• How does adding a REIT improve your portfolio

• What are the returns of a REIT during a recession
What are Real Estate Investment Trusts?

- Operating companies that own, develop and manage commercial real estate
- Chartered as a corporation or business trust
- Elective choice under tax code creates pass-through of income
- Revenue must primarily come from real estate investments
- Required to distribute at least 90 percent of their taxable income
- Taxation of income is passed through to shareholder level
What Makes a REIT Different?

75% of assets should be invested in

- Equity ownership of real property
- Mortgages
- Other REIT shares
- Government securities and cash income
- Taxation of income is passed through to shareholder level
75% of revenue must come from

- Rents from real property
- Mortgage interest
- Gains from sales of real property
REIT as an Asset class

REITs smell like real estate, look like bonds and walk like equity

Greg Whyte, Analyst, Morgan Stanley

- REIT returns are influenced by Real estate fundamentals and Equity market valuations
- Real estate market supply and demand determine occupancy and rental growth
- Equity market assesses risk and prices cash flow
- REITs = Real Estate Stocks
DIVIDENDS REPRESENT A HIGH PERCENTAGE
OF REIT TOTAL RETURNS
REIT Structure and Market Evolution

REITs are exempt from corporate income tax

Original intent of 1960 REIT Act was to create a mutual fund type vehicle to allow small investors to invest in commercial real estate.

(Mutual funds pay no taxes, but pass through tax obligations to investors on dividends and capital gains realized in the fund each year.) To implement the spirit of this law, REITs must be

• Passive “pass pass-through through” type vehicles similar to mutual funds

• Confined to “pure plays plays” in real estate investment

• Required to maintain broadly broadly-dispersed ownership (many investors).
Legal rules that REITS must abide by

- **Five or Fewer Rule** — A REIT cannot be a closely held corporation. No five or fewer individuals (and certain trusts) may own more than 50% of the REIT’s stock, and there must be at least 100 different shareholders. [Ownership Test]

- **Real Estate Pure Play Play** —. 75% or more of the REIT’s total assets must be real estate, mortgages, cash, or federal government securities, and 75% or more of the REIT’s yearly gross income must be derived directly or indirectly from real property (including mortgages, partnerships and other REITs). [Asset Test]

- **Passive Investment Entity Requirement Requirement**. REITs must derive their income from primarily passive sources like rents and mortgage interest, as
distinct from short-term trading or sale of property assets. They cannot use their tax status to shield non-real-estate income from corporate taxation. A REIT is subject to a tax of 100% on net income from "prohibited transactions", such as the sale or other disposition of property held primarily for sale in the ordinary course of its trade or business. However, if the REIT sells property it has held for at least 4 years and the aggregate adjusted basis of the property sold does not exceed 10% of the aggregate basis of all assets of the REIT as of the beginning of the year, then no prohibited transaction is deemed to have occurred. [Income Test]

- **Earnings Payout Requirement Requirement** — 90% or more of the REITs annual taxable income must be distributed to shareholders as dividends each year. (Shareholders will then pay ordinary income tax on the earnings in their personal taxes.) [Distribution Test]
How binding is the 90% payout constraint?

<table>
<thead>
<tr>
<th>EBITDA</th>
<th>$100</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Interest</td>
<td>20</td>
</tr>
<tr>
<td>- Depreciation</td>
<td>30</td>
</tr>
<tr>
<td>= GAAP Net Income</td>
<td>$50</td>
</tr>
</tbody>
</table>

\[
\begin{align*}
\text{Dividends Paid} & \quad \text{How can the REIT pay more in dividends than it receives in income?}
\end{align*}
\]

\[
\text{How can the REIT pay more in dividends than it receives in income?}
\]

\[
\text{How can the REIT pay more in dividends than it receives in income?}
\]

\[
\text{$54.25 > 90\% \times 50 = 45$.}
\]

\[
\text{Hence REIT “passes” Distribution Test.}
\]

\[
\begin{align*}
\text{• GAAP NI represents } & \text{accounting earnings not cash flow} \\
\text{• Funds from Operation (FFO) = GAAP NI + Depreciation} \\
\text{FFO} & = \text{$80$} \quad & \text{Div/FFO} & = 54.25/80 = 68\% \ll 90\%
\end{align*}
\]
REIT rules relaxation

- 1986: REITs permitted to “self manage manage”
  - No longer have to hire an external manager
  - This permits REITs to be much more “active”

- 1993: REITs permitted to “look through through” a pension fund
  - avoids Five or Fewer Rule for pension fund investment in REITs

- 1999: REITs permitted to engage in non-REIT type activity via Taxable REIT Subsidiaries (TRS)
  - the subsidiary is subject to corporate income tax (e.g., 3rd-party property management, brokerage, property trading).
These rules can and do cause a lot of regulatory headaches. To avoid these constraints is the reason why many real estate firms (some publicly-traded) have elected to be “C-corporations” subject to corporate income tax. Such firms are called “REOCs” (Real Estate Operating Companies).

Major publicly-traded tract housing developers, are all REOCs.
REITs are gaining in popularity and they are gaining respect.

National Association of Real Estate Investment Trusts (NAREIT) as of Jun. 30, 2013. Bars shown represent total number of publicly traded U.S. REITs.
Securities Offerings by REITs
(Quarterly 1992:Q1-2006:Q2)
# REIT Exposure in Major Indexes

<table>
<thead>
<tr>
<th>Index</th>
<th>Index Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500 Index</td>
<td>2.11</td>
</tr>
<tr>
<td>S&amp;P 400 Index</td>
<td>9.73</td>
</tr>
<tr>
<td>S&amp;P 600 Index</td>
<td>7.81</td>
</tr>
</tbody>
</table>
EXHIBIT 4: On average, U.S. equity mutual funds in all nine style box categories tracked by Morningstar maintain a lower exposure to REITs relative to respective benchmark indexes.
## REIT Membership in the S&P 500 Index

<table>
<thead>
<tr>
<th>REIT</th>
<th>Ticker</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIMCO</td>
<td>AIV</td>
<td>3/13/2003</td>
</tr>
<tr>
<td>Archstone-Smith</td>
<td>ASN</td>
<td>12/17/2004</td>
</tr>
<tr>
<td>Equity Office</td>
<td>EOP</td>
<td>10/1/2001</td>
</tr>
<tr>
<td>Equity Residential</td>
<td>EQR</td>
<td>11/1/2001</td>
</tr>
<tr>
<td>Plum Creek Timber</td>
<td>PCL</td>
<td>1/16/2002</td>
</tr>
<tr>
<td>ProLogis</td>
<td>PLD</td>
<td>7/16/2003</td>
</tr>
<tr>
<td>Public Storage, Inc.</td>
<td>PSA</td>
<td>8/18/2005</td>
</tr>
<tr>
<td>Simon Property</td>
<td>SPG</td>
<td>6/25/2002</td>
</tr>
<tr>
<td>Vornado Realty Trust</td>
<td>VNO</td>
<td>8/11/2005</td>
</tr>
</tbody>
</table>

*In the fall of 2001, REITs finally gain some respect!*
# REITs as part of a portfolio

EXHIBIT 10: REITs have fared well relative to other asset categories, particularly over longer time periods.

<table>
<thead>
<tr>
<th>Average Annual Total Returns (%)</th>
<th>Year-to-Date (Cumulative)</th>
<th>1 Year</th>
<th>3 Year</th>
<th>5 Year</th>
<th>10 Year</th>
<th>20 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. REIT Stocks</td>
<td>-0.4</td>
<td>1.4</td>
<td>13.2</td>
<td>5.3</td>
<td>9.7</td>
<td>10.0</td>
</tr>
<tr>
<td>U.S. Equities</td>
<td>16.2</td>
<td>18.7</td>
<td>18.4</td>
<td>7.3</td>
<td>7.1</td>
<td>8.6</td>
</tr>
<tr>
<td>Small-Cap U.S. Equities</td>
<td>20</td>
<td>26.3</td>
<td>20.5</td>
<td>8.0</td>
<td>8.8</td>
<td>8.8</td>
</tr>
<tr>
<td>Global Equity</td>
<td>9.3</td>
<td>16.4</td>
<td>12.1</td>
<td>4.4</td>
<td>7.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Investment Grade Bond</td>
<td>-2.8</td>
<td>-2.5</td>
<td>2.6</td>
<td>4.9</td>
<td>4.8</td>
<td>5.7</td>
</tr>
<tr>
<td>U.S. High Yield Bond</td>
<td>2.8</td>
<td>7.6</td>
<td>9.6</td>
<td>11.2</td>
<td>8.9</td>
<td>7.7</td>
</tr>
<tr>
<td>Gold</td>
<td>-17.1</td>
<td>-17.8</td>
<td>3.1</td>
<td>10.1</td>
<td>13.1</td>
<td>6.7</td>
</tr>
</tbody>
</table>
### RISK/RETURN SPECTRUM OF HYPOTHETICAL PORTFOLIOS WITH REIT EXPOSURE

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>Allocation</th>
<th>Sharpe Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>55% S&amp;P 500 35% BarCap U.S. Aggregate Bond 10% FTSE NAREIT Equity REITs</td>
<td>0.34</td>
</tr>
<tr>
<td>2</td>
<td>40% S&amp;P 500 40% BarCap U.S. Aggregate Bond 20% FTSE NAREIT Equity REITs</td>
<td>0.46</td>
</tr>
<tr>
<td>3</td>
<td>33.3% S&amp;P 500 33.3% BarCap U.S. Aggregate Bond 33.3% FTSE NAREIT Equity REITs</td>
<td>0.49</td>
</tr>
<tr>
<td>4</td>
<td>60% S&amp;P 500 40% BarCap U.S. Aggregate Bond</td>
<td>0.27</td>
</tr>
<tr>
<td>5</td>
<td>80% S&amp;P 500 20% BarCap U.S. Aggregate Bond</td>
<td>0.17</td>
</tr>
</tbody>
</table>

**Average Annualized Return (%)**

- Portfolio #1 (10% REITs) 8.2
- Portfolio #2 (20% REITs) 8.4
- Portfolio #3 (33% REITs) 8.8
- Portfolio #4 (0% REITs) 9.0
- Portfolio #5 (0% REITs) 9.2

**Standard Deviation of Return (%)**

- 7.8
- 8.0
- 9.0
- 10.0
- 11.0
- 12.0
- 13.0
- 14.0

*Source: Morningstar EnCorr, as of Jun. 30, 2013. See endnotes for index definitions.*
EXHIBIT 8: REIT stock performance has been fairly inconsistent during previous periods of rising interest rates.

### REIT STOCK PERFORMANCE DURING PERIODS OF RISING INTEREST RATES

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>Median</th>
<th>Average</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>REITs</td>
<td>-10%</td>
<td>6%</td>
<td>-4%</td>
<td>18%</td>
<td>23%</td>
<td>14%</td>
<td>41%</td>
<td>13%</td>
<td>3%</td>
<td>13%</td>
<td>13%</td>
<td>41%</td>
<td>-10%</td>
</tr>
<tr>
<td>S&amp;P 500 Index</td>
<td>-3%</td>
<td>1%</td>
<td>27%</td>
<td>8%</td>
<td>15%</td>
<td>7%</td>
<td>31%</td>
<td>15%</td>
<td>16%</td>
<td>15%</td>
<td>13%</td>
<td>31%</td>
<td>-3%</td>
</tr>
<tr>
<td>Interest Rate Increase During Period (basis points)</td>
<td>219</td>
<td>122</td>
<td>213</td>
<td>71</td>
<td>140</td>
<td>111</td>
<td>143</td>
<td>92</td>
<td>72</td>
<td>122</td>
<td>139</td>
<td>219</td>
<td>71</td>
</tr>
<tr>
<td># of Months</td>
<td>11</td>
<td>6</td>
<td>15</td>
<td>5</td>
<td>11</td>
<td>12</td>
<td>16</td>
<td>6</td>
<td>12</td>
<td>11</td>
<td>10</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>Avg Monthly Increase (basis points)</td>
<td>20</td>
<td>20</td>
<td>14</td>
<td>14</td>
<td>13</td>
<td>9</td>
<td>15</td>
<td>6</td>
<td>14</td>
<td>14</td>
<td>20</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>
What are EQUITY REITS

Equity REITs invest in and own properties (thus responsible for the equity or value of their real estate assets). Their revenues come principally from their properties’ rents.

- Equity REITs tend to specialize in owning certain building types such as apartments, regional malls, office buildings or lodging facilities

- Some are diversified and some are specialized, meaning they defy classification - such as, for example, a REIT that owns golf courses.
What are MORTGAGE REITS

Mortgage REITs deal in investment and ownership of property mortgages. These REITs loan money for mortgages to owners of real estate, or purchase existing mortgages or mortgage-backed securities.

- Their revenues are generated primarily by the interest that they earn on the mortgage loans.

- These REITs make loans secured by real estate, but they do not generally own or operate real estate.
Further analysis of REITS

check out Reitanalysis.xls on polylearn