1. Underlying physical assets produce cash flows through products and sale of goods and commodities.
2. Financial assets do not directly generate cash flow, but are indirect claims on the productive real assets.
3. The investment system matches heterogeneous investors (sources of capital) with heterogeneous productive assets (physical assets and receivables).
Innovation in U.S. REITs

- Pre 1986 REITs – passive management
  - Directors, trustees or employees of REITs were not allowed to actively manage REIT properties
  - Independent contractors performed these functions
  - REIT owns underlying physical assets directly

- Post 1986 REITs --- Modern REITs (active management)
  - 1986 Tax Reform Act relaxed management restrictions
  - Allowed REITs to provide normal maintenance and other services for tenants
  - Created **vertically-integrated** operating companies fundamentally different from passive REITs of pre-1986
Taubman UPREIT

GM Pension Trust
Convertible debt

Taubman
75% ownership

Affiliates
25% ownership

Taubman Realty Group (TRG) Partnership –
owns 19 shopping malls
The Innovation in UPREITs

- The UPREIT is a form of financial engineering or structured financing
  - The structure is a tax-deferred mechanism through which real estate developers and other owners transferred properties in the form of a tax-exchange
  - Since the transaction did not trigger a taxable event the REIT is able to acquire properties at better earning multiples
  - Conceivably this resulted in shareholder wealth maximization
  - The development of UPREITs resulted in massive growth in REIT equity market capitalization in 1990s
  - These modern REITs feature active management so as to grow cash flows and portfolio size
36 month local correlations

Source: FTSE EPRA/NAREIT Global Real Estate Index – Monthly Bulletin
REIT Market Capitalization

Number of REITs vs. Capitalization Over Time

- Y-axis: Number of REITs (0 to 250)
- X-axis: Year (1971 to 2011)
- Capitalization: $0 to $700,000

The graph shows a significant increase in the number of REITs and their capitalization over the years.
The Dual Market Nature of Real Estate Creates “Windows of Opportunity”

Exhibit 16:
End of Year Public vs Private Asset Mkt Commercial R.E. Values:
(Indexes set to have Equal Avg Values 1974-98)

NAREIT (Unlevered)  NCREIF (Unsmoothed)
Consider a 20-building portfolio with 2.5 million rentable square feet.

<table>
<thead>
<tr>
<th></th>
<th>Total Portfolio</th>
<th>$/square foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Rent</td>
<td>$40.0 million</td>
<td>$16.00</td>
</tr>
<tr>
<td>Less amortized concessions (15%)</td>
<td>6.0</td>
<td>2.40</td>
</tr>
<tr>
<td>Effective Rent</td>
<td>$34.0 million</td>
<td>$13.60</td>
</tr>
<tr>
<td>Less: Stabilized Vacancy (15%)</td>
<td>5.1</td>
<td>2.04</td>
</tr>
<tr>
<td>Less: Expenses (36.8%)</td>
<td>12.5</td>
<td>5.00</td>
</tr>
<tr>
<td>Net Operating Income (NOI)</td>
<td>$16.4 million</td>
<td>$6.56 psf</td>
</tr>
</tbody>
</table>
Key Parts (Nonrecurring Items)

- Focus attention on recurring maintenance and capital expenditures that are necessary to maintain the relative economic position of the property
  - reflect true economic depreciation
  - probably should be subtracted, not added back to determine FFO
- issue of whether capital expenditure is revenue-enhancing
Impact on FFO

Depending upon management’s strategy with respect to capitalizing or expensing items, calculated FFO and percentage of payout of net income can vary widely.

- Kimco Realty (KIM) expenses everything they can -- reduces measured NOI -- increases amount they can retain (65% payout ratio - lowest in industry)

- Large group of about 10 has payout ratios over 95% -- capitalize aggressively -- raises FFO -- reduces what they can retain
FFO Example

- Washington Real Estate Investment Trust (WRIT)
  - See supplement
REIT Growth

- REITs have limited ability to grow through retained earnings (little free cash flow)
- Most expand through additional stock offerings (follow-on offerings)