Introduction

Why would tenants abroad want this real estate?
Need and scarcity of RE products and better RE products

Will they keep paying these prices abroad?
Declining need and better competitors

What do tenants of my international investments want?
Highest asset quality for the lowest prices

How do I know if I am investing in quality real estate?
This research shows you how.
Contents

• Introduction
1. Problem analysis
2. Theory
3. Research
4. Findings
5. Conclusions
6. Recommendation
• Questions

Understanding the influence of asset specific variables on the financial performance of the underlying Real Estate

1. International RE investments
2. Stakeholders
3. The Macro and Meso levels
4. Asset specific criteria

HP Models
Data collection
Statistical Analysis
Outcomes

Relate to theory and answer main research question.

Quantitative Research

Link to theory
“When it comes to analyzing the performance of non-listed real estate funds the available literature remains limited”.
- (Acosta 2012)-

“IPD and INREV Research shows that approximately 80% of investors do NOT use property specific factors in their investment analyses”.
- (IP Real Estate 2014)-
“The growth in RE investments is predominantly caused by the larger number of indirect investments.

Within these indirect investments the amount of international investments has strongly increased.” -(FGH Bank 2013)-
Problem solving

• Improvement of international investment methodology
• Determining which asset specific criteria are influential on performance
• Translating these asset specific criteria into an investment tool

Main research question to be answered

“How can asset specific analysis improve International Real Estate fund investment analysis?
Sub research questions

1. How do the different forms of international private fund investments affect investor criteria?

2. How do the relationships between stakeholders affect investor criteria?

3. How do macro and meso economic aspects influence commercial real estate performance?

4. Which asset specific criteria can be used for underlying asset analysis of international private real estate portfolios?
Hypothesis
Adding ASC analysis to the fund investment process will provide more insights into the financial performance aspects of private funds

Objectives
Determining which ASC are of influence on financial performance of commercial real estate

Adding ASC analysis into the investment process by means of an investment tool.
1. International real estate investments

One of the main goals of this research is decreasing the risk of international private fund investments.

It became clear that NOI and EV are underlying asset based performance figures which are of great influence on the fund and asset returns.

Describing these types of risks has shown that most of the relevant risks for international private real estate fund investments are **micro level based risks**. The NOI and EV will therefore be used as financial performance measure.
2. Stakeholders

1. Investors
2. Funds
3. Tenants

Main conclusions:
• Conflict of interest between stakeholders
• Fee structure influences the returns
• Quality and structure of management is of influence on the NOI and EV

This should be controlled for in the regression models. This is done by adding a fund category variable for each asset.
3. The Macro and Meso levels

- Macro is all about timing.
- Transaction year is therefore used as variable in the research.
3. The Macro and Meso levels

- Meso is about regions and gateways
- Geographical region and gateway city are used as variables in the research
4. Asset specific criteria, the Micro level

**Office Investment Prospect Trends**
- **good**
- modestly good
- fair
- modestly poor
- poor

**Retail Investment Prospect Trends**
- **good**
- modestly good
- Power centers
- Neighborhood/community shopping centers
- modestly poor
- fair
- Regional malls
- poor

**Industrial/Distribution Investment Prospect Trends**
- **good**
- modestly good
- Warehouse industrial
- R&D industrial
- modestly poor

Source: Emerging Trends in Real Estate surveys.

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**U.S. Green Building Council LEED Gold**

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**32 min**

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**15 min**

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**45 min**

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**P**

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**Emerging Trends in Real Estate surveys.**
Hedonic pricing studies

Retail Assets
- 6.4 billion $ in assets
- 120 buildings
- 63 million av. Asset value

Dependent variables
- Net operating incomes
- Estimated Values

Office Assets
- 9 billion $ in assets
- 80 buildings
- 114 million av. Asset value

Dependent variables
- Net operating incomes
- Estimated Values

Industrial Assets
- 8 billion $ in assets
- 230 buildings
- 35 million av. Asset value

Dependent variables
- Net operating incomes
- Estimated Values

4 years 2010-2013
All 8 regions in the US
### Office Property 1
- Location: Los Angeles, CBD, A
- Year: 1986, (No ren)
- Energy Star: Yes
- No LEED
- 24 Stories
- $20 NOI psqf
- $449 EV psqf

### Office Property 2
- Location: Washington, CBD, A
- Year: 2009
- Energy Star: Yes
- LEED Platinum
- 11 stories
- $37 NOI psqf
- $936 EV psqf

### Retail Property 1
- Location: Newington, A Reg Mall
- WalkScore: 66
- TransitScore: -
- 1 story
- $20 NOI psqf
- $449 EV psqf

### Retail Property 2
- Location: Miami, A Super Mall
- Year: 1962, 2013
- WalkScore: 65
- TransitScore: 79
- 2 Stories
- $130 NOI psqf
- $645 EV psqf
<table>
<thead>
<tr>
<th>The Problem</th>
<th>Theory</th>
<th>Research</th>
<th>Findings</th>
<th>Conclusions</th>
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<td>Measurement technique</td>
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<td>Google Walk/Transit Score</td>
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<tr>
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# Retail Assets

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<th>R-SE</th>
<th>GC</th>
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### Walk score effect on NOI per sqf LFA

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**Macro:** Year  
**Meso:** Region and Gateway City,  
**Micro / Asset specific:** Google Walk Score, Retail Type, Size, Tenant Density and Age
Office Assets

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<tr>
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<th>Y12</th>
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<th>GW</th>
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<th>Size</th>
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<td>103%</td>
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<td>65%</td>
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<td>103%</td>
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Walk score effect on EV per sqf LFA

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<th>EV Variables</th>
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<td>Meso</td>
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<tr>
<td>8</td>
<td>-</td>
<td>-</td>
<td>Year 2012</td>
<td>Macro</td>
</tr>
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</table>

Macro: Year,
Meso: Region,
Micro / Asset specific: Google Walk, Size, Office Type, Office Class, LEED, Age, Fund
## Industrial Assets

### Table: Industrial Assets Performance

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<th>Y-12</th>
<th>Reg-Pac</th>
<th>Reg-NE</th>
<th>GT</th>
<th>Airport</th>
<th>Size</th>
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<tbody>
<tr>
<td>Change</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>+1%</td>
<td>No</td>
<td>+1%</td>
<td>No</td>
</tr>
<tr>
<td>NOI</td>
<td>-36%</td>
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</table>

### Graph: Transit Score Effect on EV per sqf LFA

- **Macro:** Year,
- **Meso:** Region and Gateway City,
- **Micro / Asset specific:** Google Transit, Airport property, Size, Age

### Table: Transit Score Effect on EV per sqf LFA

<table>
<thead>
<tr>
<th>#</th>
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<tr>
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<tr>
<td>3</td>
<td>Gateway city</td>
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<td>ASC</td>
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<td>Macro</td>
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<tr>
<td>6</td>
<td>Size</td>
<td>ASC</td>
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</tbody>
</table>
How can asset specific analysis improve International Real Estate fund investment analysis?

• Better understanding of the determinants of financial performances of the underlying commercial assets in private real estate funds. \( \rightarrow \text{decreases knowledge risk} \)

• Comparison of funds on the basis of the influential ASC provided by the research outcomes \( \rightarrow \text{added selection criteria} \)

The analyzed asset specific criteria have proven to be of influence for the NOI’s and EV’s

The investment tool improves the risk-return ratio.
This confirms the hypothesis: Analyzing indirect real estate investments with added underlying asset specific criteria will give better insight into profits of a proposed investment.
Limitations

- Limited amount of data.
  - Sample size per sector
  - Observations per variable
  - Latent variables
  - Missing and omitted variables

- Fails to include many different types of real estate (Hotels, personal storage or residential real estate)

- Focuses on one single international country fund causing the model to be most useful for US fund investments

- Multicollinearity limits the research
Recommendation

• The purpose of this tool is to give investment professionals who are generally a few scale levels away from the assets a relative quick method of examining the underlying assets of a private real estate fund.

• This gives them an idea of the NOI and EV influencing qualities of the assets. This can protect an investor from buying into a fund with bad assets or aid an investor in choosing the fund with better asset specific criteria.
Recommendation

- The private fund investment process consists out of multiple steps.
- In the due diligence phase performs an analysis of the proposed funds in the shortlist on the basis of their investment criteria.
- These criteria include macro, meso, policy criteria, liquidity criteria etc.
- The ultimately chosen fund is the optimal mix of these criteria.
- The addition of the asset specific criteria (ASC) analysis should therefore be placed in this step so that it can be taken into account when comparing funds.
Recommendation

1. Determine contents of Fund A and B. Send request

   - Retail
     - Walk score
     - Retail Type
     - Size
     - Tenant density
     - Age
   - Offices
     - Walk score
     - Office Type
     - Office Class
     - LEED Certif.
     - Age
   - Industrial
     - Transit score
     - Airport property
     - Size
     - Age

2. Calculate Weighted averages and estimates of ASC

   - §3 For Retail Categories - Scales
   - §4 For Offices Categories - Scales
   - §5 For Industrial Categories - Scales

3. Calculate Differences per sector per fund

   - Fund A: NOI +% EV +%
   - Fund B: NOI +% EV +% NOI +% EV +% NOI +% EV +% NOI +% EV +%

4. Compare funds to financials and choose fund

<table>
<thead>
<tr>
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<th>Sig for</th>
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<td>Gateway City</td>
<td>NOI</td>
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</table>
The outcomes indicate that fund A is the fund with higher EV and NOI increasing aspects in all three sectors.
Recommendation

This tool can amongst fund comparison be used for:

- **Identifying underpriced or overpriced funds.**
  Tool assessed NOI’s and EV’s higher or lower as actual NOI’s and EV’s. Profit or loss possibilities

- **Comparing sectors**
  Assessing which sector is spread over better locations, variables used for different sectors such as Google walk can be used. Different estimates per sector

- **Comparing NOI’s to EV’s**
  Certain funds might reflect the influence of their ASC in their NOI’s but not in their EV’s or vice versa.
  Lagging valuations or contract rent adjustments.
Questions?