Management fee structure of the (public) Italian real estate funds.
Le strutture commissionali dei fondi immobiliari quotati in Italia.

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Management fees

- Specialness of the managers' compensation schemes of real estate investment funds (REITs)
  - “gross asset value” compensation structures (GAV-REITs)
  - “net asset value”-based compensation structures (NAV-REITs)

- Effect of management fees on
  - Investment choices
  - Capital structure decisions
  - Influence on REIT’s share value and performance

- Preliminary market data...

- …considering the present prudential discipline and regulation
Management fees

Management fee typically refers to:

1. A fixed component defined as an invariable percentage of:
   - total assets (alternatively “gross asset value” (GAV))
   - net assets (NAV)

2. A variable component defined as an (over)performance fee related to target corporate-level total return rates paid out at REIT’s liquidation

- Low variance in compensation methods

### Management Fee Calculation

<table>
<thead>
<tr>
<th>Number of (Public) Equity REITs</th>
<th>Calculation Base</th>
<th>Annual Management Fees</th>
<th>Other Fees (Performance Fee)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>GAV</td>
<td>1.25%</td>
<td>18.00%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>min. 0.5</td>
<td>max 1.8</td>
</tr>
<tr>
<td>13</td>
<td>NAV</td>
<td>1.60%</td>
<td>19.25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>min. 1.3</td>
<td>max 1.9</td>
</tr>
</tbody>
</table>

NAV ... Net Asset Value
GAV ... Gross Asset Value (Total Assets)
(Weighted) mean values. 2012/2013 data.
**GAV-based REIT Compensation Structure**

\[
C_{\text{GAV}} = \sum_{t=0}^{\infty} m_{\text{GAV}} \times \min(\tilde{A}; A_{\text{ACQ}}) \times \left(1 + r_t \right)^{-t} + k \times \text{NAV}_t \left(1 + r_t^{-h} \right) - \left(1 + r_t^{-h} \right)^t \left(1 + i_t \right)^{-t} \\
C_{\text{GAV}} = f \left[m_{\text{GAV}} \times \min(\tilde{A}; A_{\text{ACQ}}) k \times (r - r^-) \right]
\]

Where:
- \( m \) ... fixed fee rate
- \( \tilde{A} \) ... RE assets’ appraisal values
- \( A_{\text{ACQ}} \) ... Acquisition price
- \( k \) ... fixed over-performance fee rate
- \( r^- \) ... hurdle return rate
- \( E \) ... net earnings
- \( \eta \) ... net earnings’ retention rate
- \( i \) ... opportunity cost of capital

\[
\Delta A = f(\Delta D; \Delta \text{NAV}; E; \eta) \\
E_{t+1} = r_A \tilde{A} - r_D - m_{\text{GAV}} \times \min(\tilde{A}; A_{\text{ACQ}}) \pm \text{ValGainLoss} \pm \text{Other ProfitsLosses}
\]

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**Expected Effects on Financial Decisions of GAV-based Compensation Structures**

- Incentive to leverage (fast) up to the max. allowed debt ratio
  - proceeds of debt used to purchase additional real assets (A) that increase compensation base
    - This “regardless” of NPV of investment opportunities \( \Rightarrow \text{NPV} \leq 0 \)
    - Appraisal based assets’ valuation marginally limits opportunistic behaviors of REITs managers due to the reduction of the compensation base to market values in the case of neg. NPV investments (i.e. ≈ property value equal to the present value of expected property’s cash flows in order to obtain a ≈ zero-NPV)
- Increase in debt (D) generates an (expected positive) net earnings contribution to NAV of marginal investment as long as \( r_A > r_D \) as function of \( r \) \( \Rightarrow \text{NAV}_{t+1} > \text{NAV}_t \)
- Increase in debt (D) also amplifies expected volatility of net earnings (E) which in turn increases option value embedded in the (over)performance-fee component of the compensation scheme
- Effects on share value depending on valuation perspective (NAV valuation vs. market price)
NAV-based REIT Compensation Structure

\[ C_{NAV} = \sum_{t=0}^{m_{NAV}} \times \min(\frac{A_{NAV}-D}{1+i}) + k \times NAV_r \left[ \frac{(1+r)^t - (1+r')^t}{(1+i)^t} \right] \]

\[ C_{NAV} = f(m_{NAV}, \min(\frac{A_{NAV} - D}{1+i}), k, (r-r')) \]

\[ \Delta (A - D) = f(\Delta NAV, [E, r]) \]

\[ E_{t+1} = r_{NAV} - D - m_{NAV} \times \min(\frac{A_{NAV} - D}{1+i}) + ValGainLoss \pm Other OffitLosses \]

Expected Effects on Financial Decisions of GAV-based Compensation Structures

- **Compensation base not directly affected by (D)**
- **But, below others:**
  - (Limited, in relative terms) incentive to leverage in order to use the proceeds to purchase more real assets that increase compensation base because of:
    - an (expected positive) NAV increases (at decreasing rates) via net earnings contribution of the marginal investment as long as \( r_A > r_D \), as function of \( r \) \( NAV_{t+1} > NAV_t \)
    - REIT managers are expected to use debt proceeds to select only investment opportunities which have zero or positive NPV \( NPV \geq 0 \) [transaction price ≤ market value]
    - Net asset-based compensation disincentivizes NPV<0 investments valuation losses negatively affect NAV (i.e. the compensation base)
    - Increase in debt (D) also amplifies expected volatility of net earnings (E) which in turn increases option value embedded in the (over)performance-fee component of the compensation scheme
  - **Net effect:** incentive to leverage (but at lower rates compared to GAV-Reits)
  - **Effects on share value depending on valuation perspective (NAV valuation vs. market price)**
In relative terms, given the regulatory and market framework, it might be expected, below others, that:

1. We should observe positive debt trend for all REITs
   - Leverage process should be faster for GAV-based REITs
   - Leverage of NAV-based REITs could be lower because of selective in investment decisions

2. Management fees of GAV-based REITs should exceed – in the course of time and as function of $m$ – in relative terms management fees of NAV-based REITs and negatively affect net RE returns

3. NAV-REITs are expected to be more selective in investment decisions and to experience a higher RE assets' trading intensity in order to exploit gains from asset valuation in respect to GAV-based REITs
   - Gross return of RE investments could be higher for NAV-based REITs than for GAV-based REITs
   - Returns not of management fees should be higher for NAV-based REITs than for GAV-based REITs because of expected higher fee incidence for GAV-based REITs

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**GAV vs. NAV-based REITs – Relative Comparison**

Preliminary market data
### Average return for GAV vs. NAV-Reits (entire population)

#### Overall RE Asset Returns

<table>
<thead>
<tr>
<th>DATA</th>
<th>NAV</th>
<th>GAV</th>
<th>Difference (NAV - GAV)</th>
<th>Annual mean difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>30/06/2006</td>
<td>0,04987</td>
<td>0,04682</td>
<td>0,00305</td>
<td>0,00195</td>
</tr>
<tr>
<td>31/12/2006</td>
<td>0,04987</td>
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</tr>
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<td>30/06/2007</td>
<td>0,05073</td>
<td>0,04651</td>
<td>0,00422</td>
<td>0,00210</td>
</tr>
<tr>
<td>31/12/2007</td>
<td>0,05073</td>
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<td>30/06/2008</td>
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#### Overall RE Asset Return net of Management Fees

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<tr>
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Final considerations

- Management fee choice is peculiar of real estate investment funds

- The alternative between GAV and NAV compensation base affects the investment decisions and capital structure choices which in turn may influence REIT share value and performance

- Need to define the compensation base and the fee level considering the investment objectives and target leverage ratios at initial stage (i.e. at REITs constitution)