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

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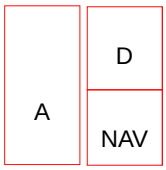
Management fees

- 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 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

Number of (Public) Equity REITs	Calculation Base	Annual Management Fees mean %	Other Fees (Performance Fee) Annual	Other Fees (Performance Fee) Final (mean)
9	GAV	1,25%	...	18,00%
		min. 0.5 max 1.8		
13	NAV	1,60%	...	19,25%
		min. 1.3 max 1.9		

NAV ... *Net Asset Value*
GAV ... *Gross Asset Value (Total Assets)*
(Weighted) mean values. 2012/2013 data.

GAV-based REIT Compensation Structure

$$C_{GAV} = \sum_{t=0}^{n} \frac{m_{GAV} \times \min\left(\tilde{A}; A_{ACQ}\right)}{(1+i)^t} + \frac{k \times NAV_0 \left[(1+r)^n - (1+r^*)^n\right]}{(1+i)^n}$$

$$C_{GAV} = f\left[m_{GAV}; \min\left(\tilde{A}; A_{ACQ}\right); k; (r - r^*)\right]$$

fixed | fixed | fixed

$$\Delta A = f\left[\Delta D; \Delta NAV(E; rr)\right]$$

$$E_{t+1} = r_A \tilde{A} - r_D D - m_{GAV} \times \left[\min\left(\tilde{A}; A_{ACQ}\right)\right] \pm \text{ValGainLoss} \pm \text{OtherProfitsLosses}$$

m …fixed fee rate
$\tilde{A}$ … RE assets' appraisal values
$A_{acq.}$… Acquisition price
k … fixed over-performance fee rate
r^* … hurdle return rate
E … net earnings
rr … net earnings' retention rate
i … opportunity cost of capital

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 ➔ NPV >=< 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 $\tilde{r}_A > r_D$ as function of *rr* ➔ $NAV_{t+1} > NAV_t$
- 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

$$C_{NAV} = \sum_{t=0}^{n} \frac{m_{NAV} \times \left[\min\left(\tilde{A}; A_{ACQ}\right) - D\right]}{(1+i)^t} + \frac{k \times NAV_0 \left[(1+r)^n - (1+r^*)^n\right]}{(1+i)^n}$$

$$C_{NAV} = f\left[m_{NAV}; \left[\min\left(\tilde{A}; A_{ACQ}\right) - D\right]; k; (r - r^*)\right]$$

(fixed) (fixed) (fixed)

$$\Delta(A - D) = f\left[\Delta NAV(E; rr)\right]$$

$$E_{t+1} = r_A \bar{A} - r_D D - m_{NAV} \times \left[\min.\left(\tilde{A}; A_{ACQ}\right) - D\right] \pm ValGainLoss \pm Other\ Profit Losses$$

m …fixed fee rate

$\tilde{A}$ … RE assets' appraisal values

$A_{acq.}$… Acquisition price

D… Debt

k … fixed over-performance fee rate

r^* … hurdle return rate

E … net earnings

rr … net earnings' retention rate

i … opportunity cost of capital

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 rr ➔ $NAV_{t+1} > NAV_t$
  - REIT managers are expected to use debt proceeds to select only investment opportunities which have zero or positive NPV ➔ NPV ≥ 0 [transaction price ≤ market value]
    - Net asset-based compensation disincentivizes NPV<0 investments valuaton 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)

GAV vs. NAV-based REITs – Relative Comparison

- 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

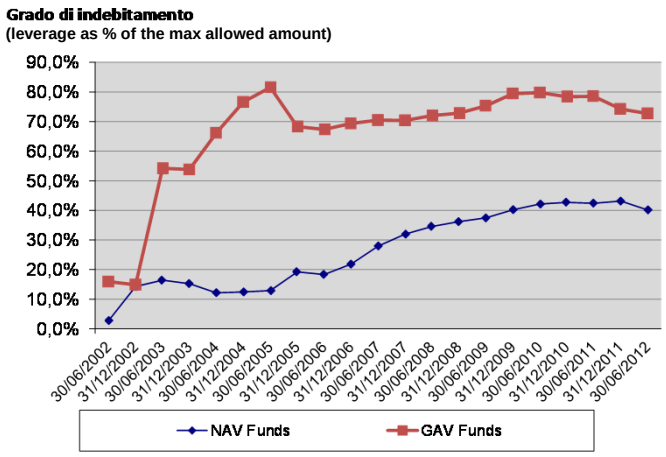
(3) NAV-REITs are expected to be more selective in investment decisions and to experience a higher RE assets' trading intensity in order to exploit gains from asset valuation in respect to GAV-based REITs

$$\frac{r_A \times \tilde{A}_{GAV}}{\tilde{A}_{GAV}} < \frac{r_A \times \tilde{A}_{NAV}}{\tilde{A}_{NAV}}$$

- Gross return of RE investments could be higher for NAV-based REITs than for GAV-based REITs
- Returns net 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

$$\frac{r_A \times \tilde{A}_{GAV} - C_{GAV}}{\tilde{A}_{GAV}} < \frac{r_A \times \tilde{A}_{NAV} - C_{NAV}}{\tilde{A}_{NAV}}$$

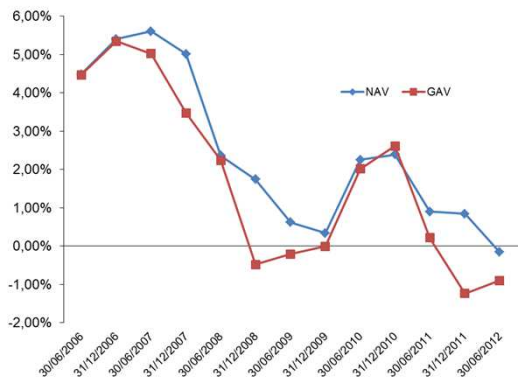
Preliminary market data



Asset return (total return)

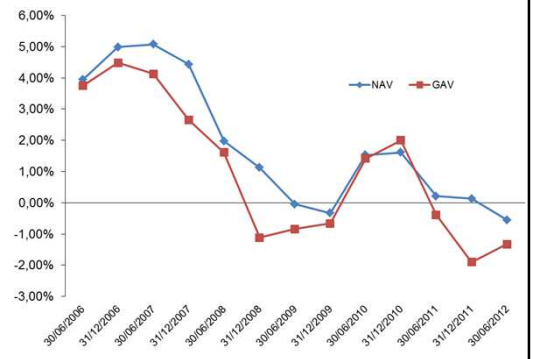
- Average return for GAV vs. NAV-Reits (entire population)

Overall RE Asset Returns				
DATA	NAV	GAV	Difference (NAV - GAV)	Annual mean difference
30/06/2006	0,04479	0,04468	0,00011	
31/12/2006	0,05404	0,05341	0,00063	0,07%
30/06/2007	0,05602	0,05021	0,00581	
31/12/2007	0,05015	0,03470	0,01545	2,13%
30/06/2008	0,02361	0,02237	0,00124	
31/12/2008	0,01740	-0,00483	0,02223	2,35%
30/06/2009	0,00621	-0,00210	0,00831	
31/12/2009	0,00339	-0,00007	0,00346	1,18%
30/06/2010	0,02252	0,02016	0,00236	
31/12/2010	0,02391	0,02609	-0,00218	0,02%
30/06/2011	0,00899	0,00216	0,00683	
31/12/2011	0,00841	-0,01238	0,02079	2,78%
30/06/2012 -	0,00158	-0,00900	0,00742	
				1,42%



Asset return net of management fees

Overall RE Asset Return net of Mgmnt. Fees				
DATA	NAV	GAV	Difference (NAV - GAV)	Annual mean difference
30/06/2006	0,03943	0,03748	0,00195	
31/12/2006	0,04987	0,04482	0,00505	0,70%
30/06/2007	0,05073	0,04128	0,00944	
31/12/2007	0,04432	0,02659	0,01774	2,73%
30/06/2008	0,01972	0,01614	0,00358	
31/12/2008	0,01125	-0,01116	0,02241	2,61%
30/06/2009	-0,00045	-0,00838	0,00793	
31/12/2009	-0,00332	-0,00662	0,00330	1,13%
30/06/2010	0,01532	0,01414	0,00118	
31/12/2010	0,01611	0,01997	-0,00387	-0,27%
30/06/2011	0,00210	-0,00388	0,00598	
31/12/2011	0,00135	-0,01902	0,02037	2,65%
30/06/2012	-0,00549	-0,01322	0,00773	
				1,59%



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)