

# Perverse Incentives in Hedge Fund Fees

A/Prof Paul Lajbcygier  
David Ghijben

# Hedge Fund Fees: Payment for skill

- Fees for Hedge Fund Managers: 2% of notional AUM and 20% of profits above a high water mark.
- Compare this with other fund managers: mutual funds earn ~1%. Why the HUGE difference?
- Alternative managers are the Über fund managers. **In principle**, they SHOULD have great skill!
- This skill must be manifest in the manager's ability to generate: large, persistent returns for investors.
- Hence, the 20% incentive fee rewards such skill and aligns manager and investor interests.

# But...No Skill?

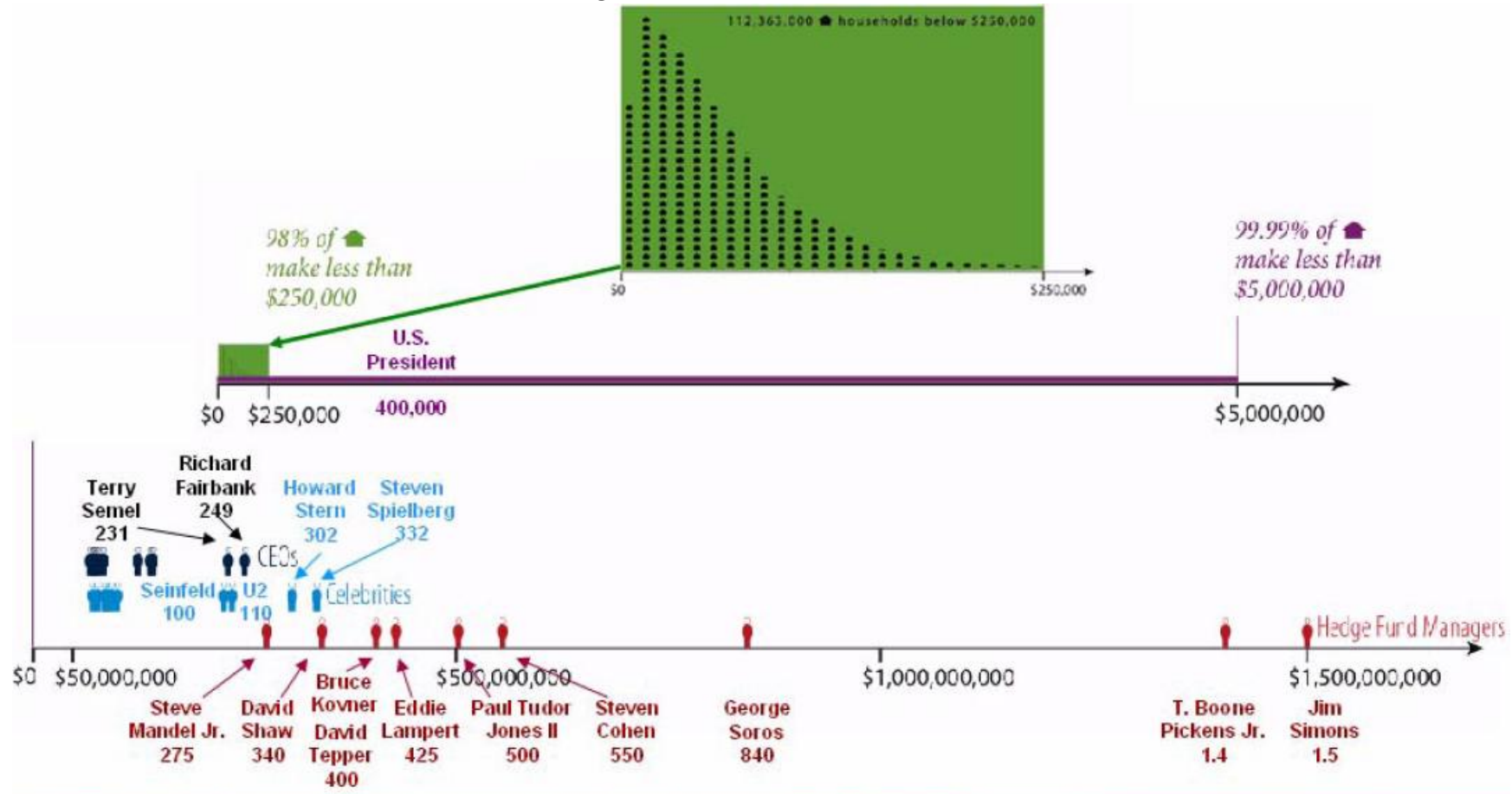
- Due to the 20% incentive fee, absolute returns (above the high water mark) should be the key performance characteristic responsible for fund success and growth.
- The literature suggests, that performance is not persistent, or significant, over the long term (Agarwal and Narayan 2000) (Harri and Brorsen 2004).
- It appears that the incentives embedded in the performance contract to ensure consistent, high, absolute performance do not work.
- Why not? It appears it is VERY hard to consistently 'beat' the markets.

# Are hedge fund fees deserved due to manager skill?

- Warren Buffet has commented that :  
“hedge funds are distinguished not by [their manager’s] abilities but by their ability to charge high fees.”
- <http://jvbruni.com/berkshire.htm>
- Buffet reserves some of his most severe criticism for hedge fund management fees, saying “It’s a lopsided system whereby 2% of your principal is paid each year to the manager even if he accomplishes nothing – or, for that matter, loses you a bundle.”
- <http://www.berkshirehathaway.com/letters/2006ltr.pdf>.

# But.. Hedge funds can generate huge revenues!

(Source Graig W. French, JoIM conference)



# So why the HUGE revenue?

- Despite theory which says that capacity constraints should limit fund growth... there are funds which desire & obtain HUGE AUM.
- So, why do funds desire AUM given the erosion of trading profits? Huge AUM have a 'multiplier' effect on fees.
- The huge revenues occur because HUGE funds perform well occasionally and reap the 20% incentive fee.
- When not performing well ... they also make huge revenue from management fees too.

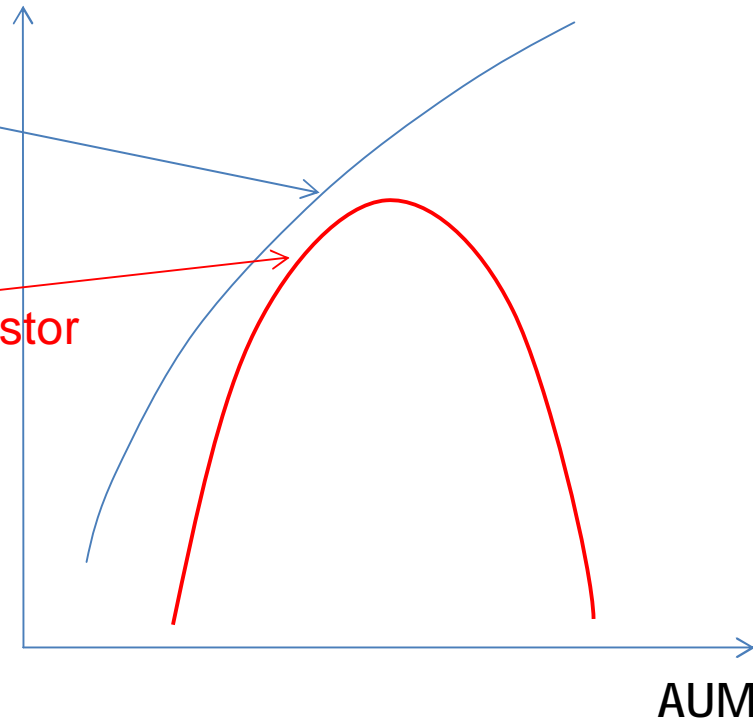
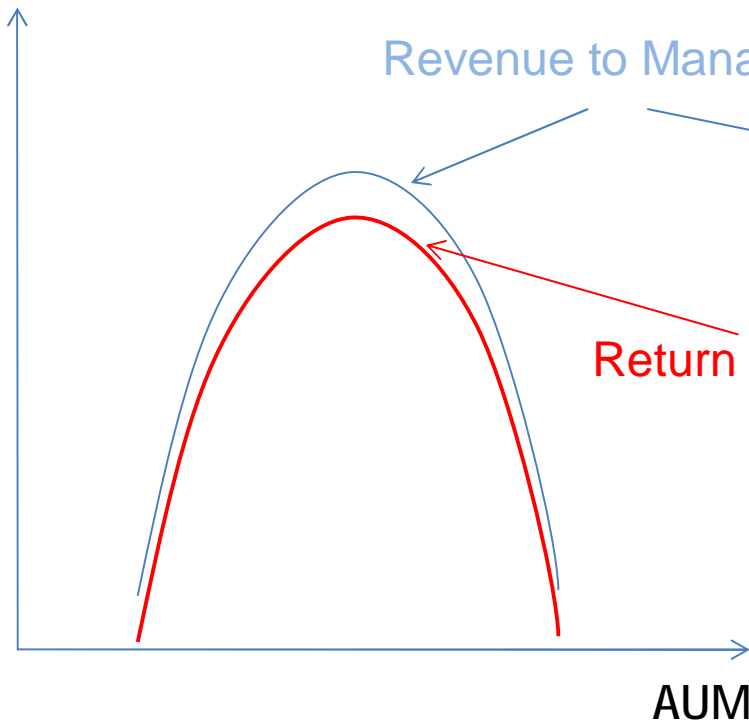
# Which one is correct?

Max

Monotonically Increasing

REVENUE  
TO MANAGER

REVENUE  
TO MANAGER



# The conclusions

- Lucrative fees are charged by managed futures funds. Ideally, these fees should align the interests of managers and investors. However, the fee structure fails in this regard; **we show that by growing their assets under management, managers increase their overall revenue via their management fees but, because of capacity constraints decrease their returns.** Thus, the fee structure motivates perverse behavior: it fails to properly exploit manager skill for the benefit of investors. We suggest increasing contracting flexibility to resolve this conflict of interest.

# Implications....

- It appears that large AUM managers circumvent the hedge fund compensation structure: perhaps, it is **easier to exploit management fees and charge an investor economic 'rent' than it is to apply management skill consistently** and exploit the huge incentive fees and thus provide the investor with large, consistent returns.
- So what? Doesn't this only effect high net worth individuals. No, the perverse incentives lead to managers increasing risk to optimize the value of the option on the investor's capital. Systemic risk increased and that became everyone's problem!

# Lucrative Fees in 2008, the year of the GFC!

[“Brother can you spare a billion?”](#)

## Bad Average Performance

- 2008 worst annual performance on record.
- 2008 record number of hedge funds liquidated.

## High Payouts for a few

- However, for top 35 \$11.6 bn, 2008 3<sup>rd</sup> best year.
- Top four made more than \$1bn each.

Hedge funds have “long been shielded” from executive compensation ‘debates’.

# The role of hedge funds in the GFC

- Krugman (2009) argues that it is the run on the “shadow” banking system, precipitated by the Lehman Brothers collapse in September 2008 that caused the crisis. We submit that the root cause of the crisis was not the shadow banking system per se, **but rather the flawed incentive system under which it operated** and which drove the protagonists to behave in such a way that led directly to the “financial crisis, the worst since the great depression.”

# Why are perverse hedge fund incentives important?

- [Paul Krugman Argues that Hedge Fund Perverse Incentives Caused the GFC](#)
  - Perverse incentives led to increased systemic risk.
  - “A hand full of people being paid enormous sums for the **illusion of success** drove this whole thing”.
  - If you can create the appearance of success for 2-3 years you can become immensely wealthy.
  - Capital Decimation Partners.

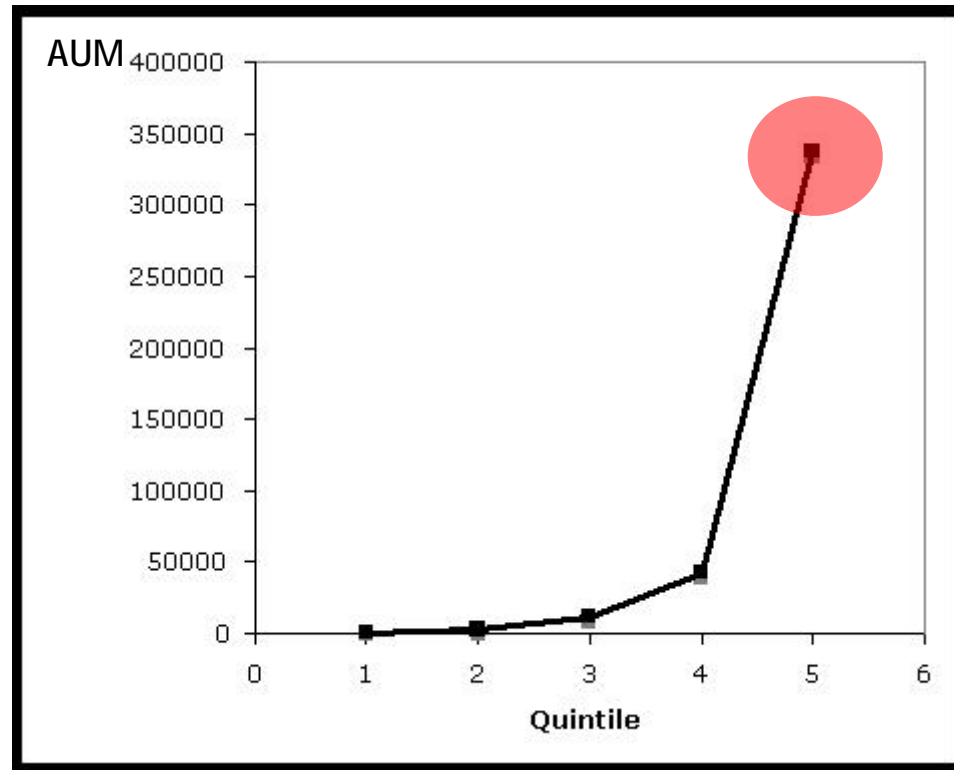
# Hypotheses

- $H_1$ : Total revenue increases with fund size, albeit at a decreasing rate
- $H_2$ : Total revenue increases with fund age, albeit at a decreasing rate
- $H_3$ : The rate of increase in incentive fees per dollar invested is lower for larger funds compared with smaller funds
- $H_4$ : Proportion of total revenue due to management fees increases with fund size

# Data

- Barclays managed futures/CTA data base.
- CTA (i.e. Managed future) “systematic diversified” style.
- Yearly individual fund fees are calculated for the most recent five-year window, from 1 January 2000 to 1 January 2005.
  - Creating a common five-year window controls for time-varying exogenous factors that may affect strategic rate of return.
  - Furthermore, since the majority of funds are new, most funds exist in this latest time period.
- Revenues are calculated for 12 month blocks of a funds returns.

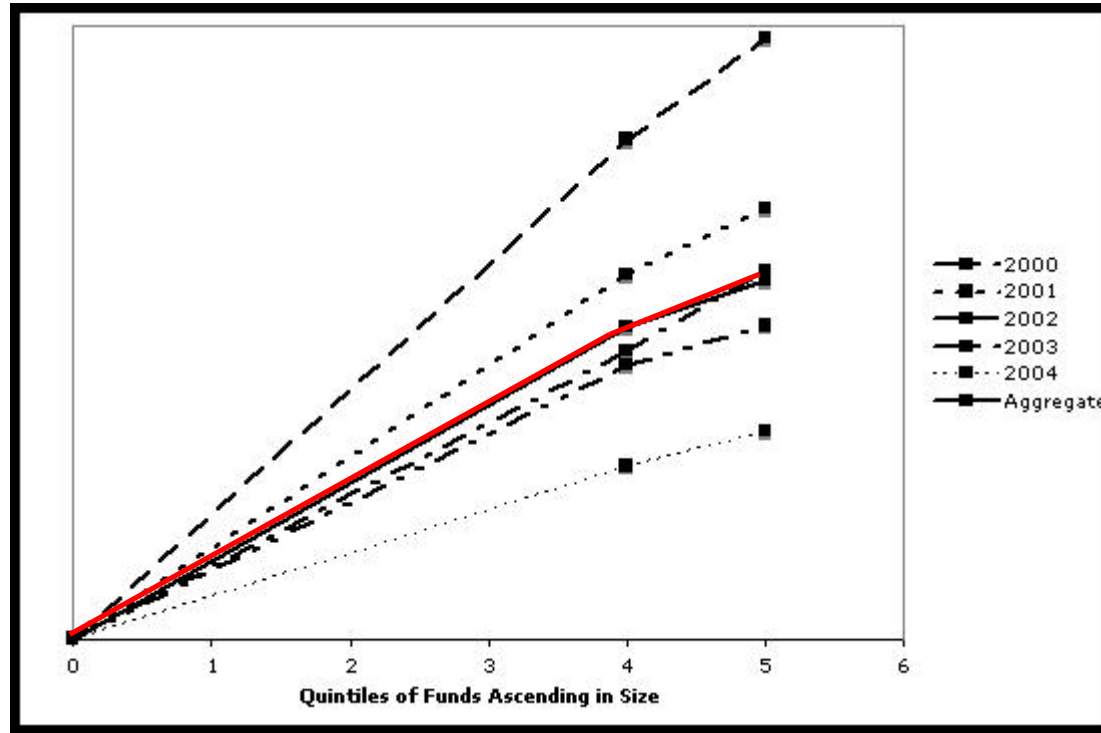
# AUM vs Quintile



- Q5 AUM suggests capacity constraints will be important for Q5 funds only.
- Discrepancy in AUM motivates latter comparison of Q1-4 vs Q5

# Hypothesis 1 Results

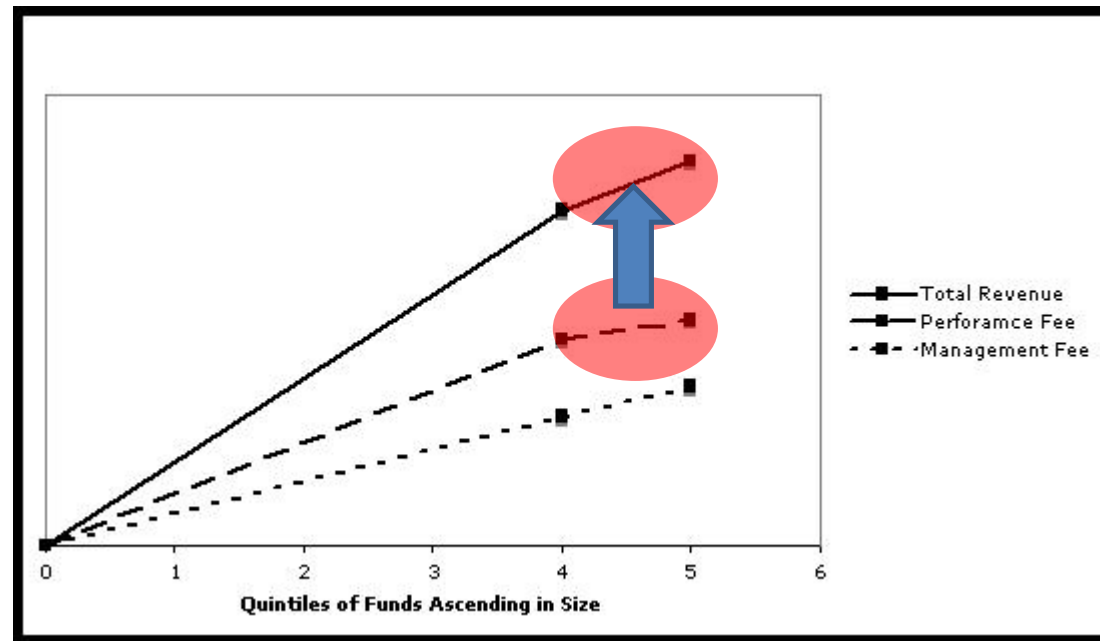
Revenue (\$)



# Comment on H1 Results

- At first instance it may seem that these findings are to be expected, given that both management fees and incentive fees are calculated as functions of AUM. That is, AUM magnifies both fees.
- However, the relevant literature often posits that **managers have a strong incentive to resist growth in fear of future performance reduction.**
- Despite this future performance only affects incentive fees, not necessarily the total revenue of the fund. Ultimately all that a manager cares about is maximising her total revenue.

# Comparison of Aggregate Incentive & Management Fees Results



# Test of H3

- $H_3$ : The rate of increase in incentive fees per dollar invested is lower for larger funds compared with smaller funds
- Incentive fee<sub>i</sub> =  $\alpha + \beta \text{ave\_aum}_i + \varepsilon_i$

# Hypothesis 3 Results

**TABLE 4**

*Piecewise Regression (Dollar Incentive fee), Upper Quintile Funds Partitioned*

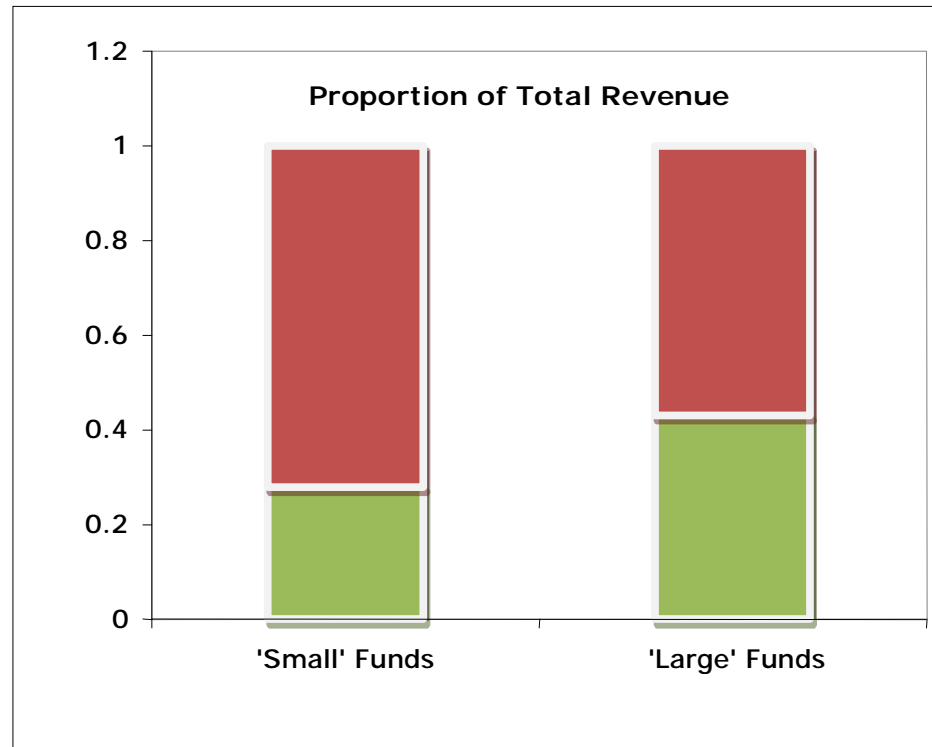
	2000		2001		2002		2003		2004		Aggregate	
	Q1-Q4	Q5	Q1-Q4	Q5	Q1-Q4	Q5	Q1-Q4	Q5	Q1-Q4	Q5	Q1-Q4	Q5
intercept	62.799 (1.044)	1953.775* (1.940)	10.194 (0.134)	-1533.928 (-1.147)	-26.158 (-0.129)	-449.724 (-0.125)	201.948 (1.297)	-2168.872 (-0.560)	235.287 (1.193)	2474.514 (0.766)	97.053 (1.471)	4726.482*** (3.550)
ave_aum	0.0323*** (7.852)	0.013** (2.309)	0.045*** (10.204)	0.0533*** (8.441)	0.078*** (7.694)	0.061*** (5.150)	0.037 (7.500)	0.045 (5.972)	0.013*** (4.030)	0.005 (1.426)	0.040*** (12.295)	0.015*** (5.444)
t-stat	-3.542***		-	-1.442*		-	-2.224**		-9.064***		-	
no. of obs	202	50	198	49	210	53	211	52	169	42	989	247
R <sup>2</sup> (%)	23.56	10.00	34.70	60.25	22.16	34.20	21.21	41.64	8.86	48.39	17.15	10.79

Table 4, Panel A reports piecewise regression results of Eq (3) where the dependant variable is estimated dollar incentive fees calculated over a year. The independent variable is average assets under management for that year. Funds are classified into quintiles on the basis of ascending ave\_aum of the fund. The t-stats in parentheses test whether  $H_0: \beta_1 = 0$  versus  $H_1: \beta_1 \neq 0$ . The t-statistic between Q1-4 funds and Q5 funds is a 1-sided test, testing  $H_0: \beta_{Q5} \geq \beta_{Q1-4}$  versus  $H_1: \beta_{Q5} < \beta_{Q1-4}$ . \*, \*\*, \*\*\* indicate rejection of  $H_0$  at the 10%, 5%, and 1% significance levels, respectively.

# Comment of H3 Results

- In aggregate, each coefficient remains positive and statistically significantly different to zero, meaning that actual dollar incentive fees continue to increase with fund size, albeit at a decreased rate.
- This is consistent with a capacity argument... **but** the capital per dollar invested is used less effectively in larger funds, due to reduced incentive fees.
- This fact motivates fee reform: Managers are permitted to act in their own self interest before their investors!

# H<sub>4</sub>: Proportion of total revenue due to management fees increases with fund size



- 28% of annual revenue in small funds is from management fees.
- 43% of annual revenue in large funds is from management fees.

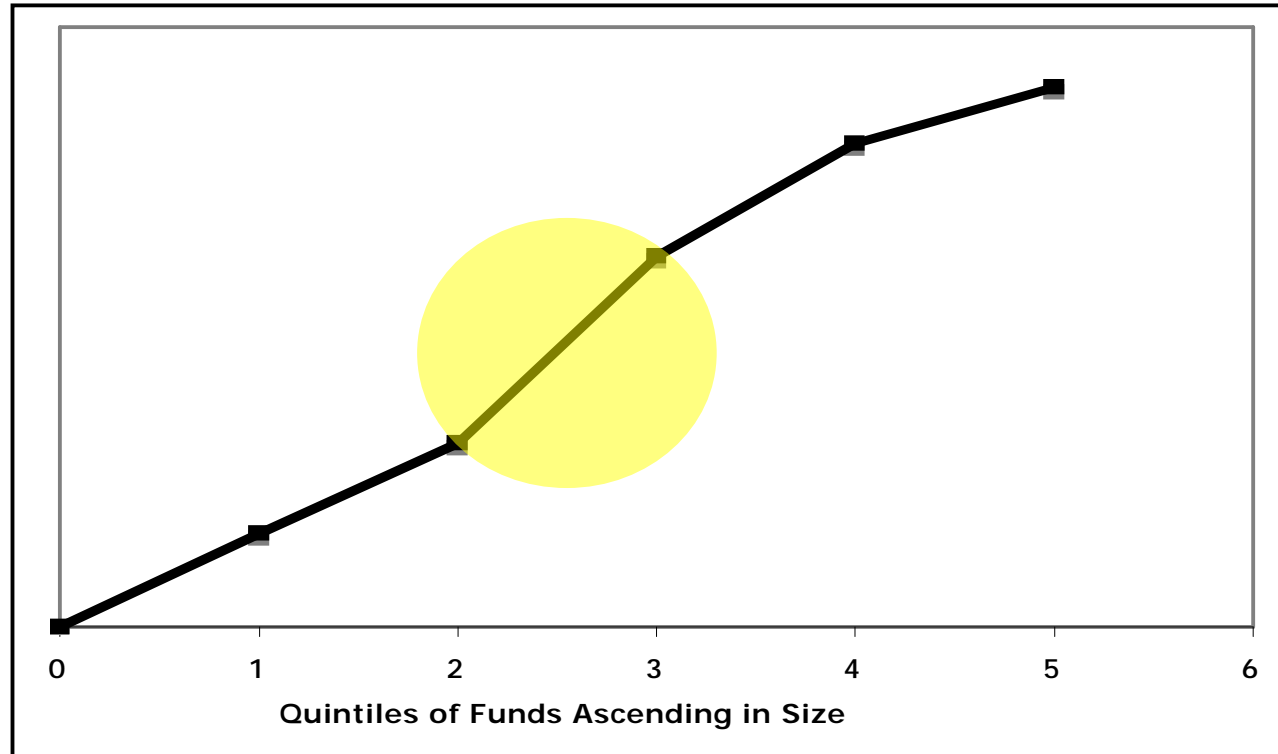
# Fee Reform: Remove Management Fees?

- If zero management fees for large funds became the norm, the only fee clients would pay is when they receive a cumulative return above the high water mark. Interestingly, this is reminiscent of Jones' original hedge fund. Such a fee structure reduces the incentive to embrace growth in assets under management as a value generator for managers **but does not entirely eliminate it, as coefficients are still positive in upper quintile funds (Table 4A).**

# Fee Reform: Change Incentive Fees?

- How should the trading profits be divided between manager and investor? Ultimately the answer to this question must hinge on an ethical consideration of what amount of profits are deserved (Arnold, 1987) by an entrepreneurial fund manager.
- Here we answer this question by focusing on how the fund manager can best serve the investor in terms of 'efficiency per dollar invested' from the perspective of the investor (not in total revenue generated for the manager).

# Incentive fee per \$ invested (Beta)



The coefficient attached to ave\_aum is largest for Q3 funds and statistically different to zero at the 5% level. This suggests the relation between ave\_aum and incentive fees is steepest for Q3 funds.

# Comments

- Prima facie the result suggests that money invested with a quintile 3 fund is utilised most efficiently and should demand the highest share of the profits, relatively speaking.
- In other words, clients may be willing to enter contracts that offer these managers more of the realised profits as an incentive to perform well when capacity constraints are not prohibitive.
- In contrast, for young/small managers, clients may be willing to offer a lower proportion of realised profits for want of a track record.
- Similarly, a reasonable argument for a client of an old/large fund is that, since these funds tend to set relatively lower variance strategies to ensure survival (Brown et al., 2001), their incentive fees should be more conservative than the 20% industry benchmark.

# Conclusion

- These results have several important implications for future contracting arrangements between investor and manager within the managed futures industry. Principally, they identify different efficiencies in use of capital amongst managed futures. Institutional fund allocators, fund-of-fund managers, and high net worth individuals can utilize this work to further understand the issues that should rationally underpin fee structure negotiations within this industry.

# You can't fool all the people all the time!

- [The "Pyramid Economy"](#) on the Daily Show.
  - \$3.4bn in Earnings in April-June 2009.
  - Pay out of \$20bn in bonuses.
  - \$700,000 per employee.
  - >14 times average household income.
  - AFTER Government bailouts in 2007-2008.