Session on Red Flags for Fraud in the Hedge Fund Industry: Discussion

Edward J. Kane
Boston College
May 16, 2006

Definition of a Hedge Fund

HEDGE FUNDS typically are private, **largely unregulated**, limited partnerships with wealthy individuals and institutional investors as limited partners and the manager/investment advisor as the general partner. A hedge fund can employ leverage, thereby amplifying the variability of outcomes. It restricts redemptions so that the investment is largely illiquid. (Financial Economist Roundtable, 2005)

SOPHISTICATED STRATEGIES AND TAX STRUCTURES: Combine liquid and illiquid long positions, short positions, derivative positions (some of whose prices managers may influence or even set themselves in OTC markets).

RE-REGULATION: Three major loopholes left in Feb. 2006 SEC effort to force investment advisors to register:

Assets < $30 million *or* fewer than 15 investors *or* lock-up period exceeds two years.

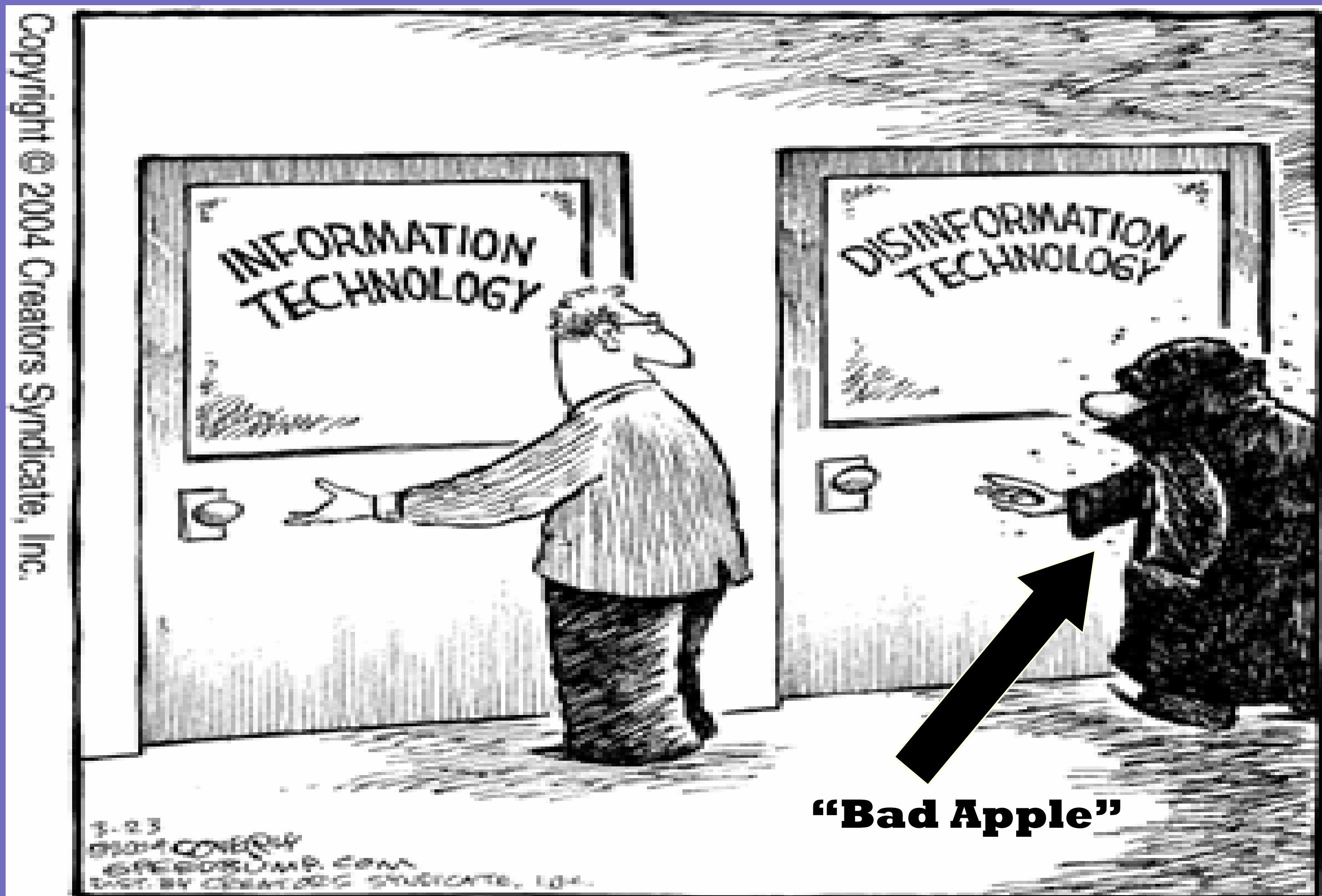
Paper's Take on Title Concepts

- **Fraudulent Reporting** = Intentionally making time-series of self-reported income (R_t^O) smoother than true economic income (R_t) [Fraud is used loosely: smoothing can easily fail at least one of the five common-law tests for fraud].
- **Red Flag** = New and clever statistical multistage regression "screen" for serial correlation in R_t^O due to **intentional smoothing** by "Bad Apples." Test embodies two counterfactual hypotheses:

  (1) that managers typically have an incentive to report large positive returns more readily than large negative returns;

  (2) that current managers cannot use lock-ins to plan a short-horizon ripoff.
- Hedge-Fund Industry: Defined by databases used. Theory applies to any nontransparent firm.

CAN ECONOMETRICS TELL US WHO CHOOSES WHICH DOOR ?



Hypotheses Imbedded in the Test Fail to Model the Full Range of Abusive Manager Options and Incentive-Conflict Controls

Objective Functions and Constraints Under Which Investors and Hedge-Fund Managers Operate:

1. Incentive-Based Fee Structure Encourages Timing Games and Risk-Taking: (A) Base fee is proportional to size of fund; (B) Asymmetric performance bonus is usually based on the difference between R_t^O and a hurdle rate, usually a Highwater Mark (R_t^{HW})

2. Incentives are influenced by structure of legal and reputational penalties for managers that are found to deceive (i.e., smooth returns) or abuse their limited partners in other ways.

3. Exposure to noninformational abuses:
   - Risk of *forced exit* for investors: Managers may close the fund and start a new fund with a lower Highwater Mark.
   - Possibility of "*side letters*" that treat some investors better than others.

Dataset focuses on Monthly Returns for Individual Funds

1. CISDM Hedge-Fund Database (Dec. 2003)
   - Ten classes by strategic style, cross-classified by "live" or "dead" as of December 2003.

2. Commodity Trading Advisors
   - six classes by focus

3. Managed Futures: Public vs. Private Pools.

4. Models: For Three Different Horizons (120 mos; 60 mos; 36 mos), Individual-fund returns are regressed in factor models against market returns and corresponding indices for each style.

Multistage Regression Experiments

1. Stage One: Observed returns are first passed through factor models to generate "betas."
2. Stage Two: Beta estimates are applied in experiments in which factor indices and other instruments are sampled to generate *simulated* true returns: R_t^s.
3. Stage Three: Simulated returns are tested for "conditional smoothing" in Equation (10). Authors find **significant** differences in b^+ and b^- in some cases.
4. Proportion of funds flagged proves less than 5 percent.

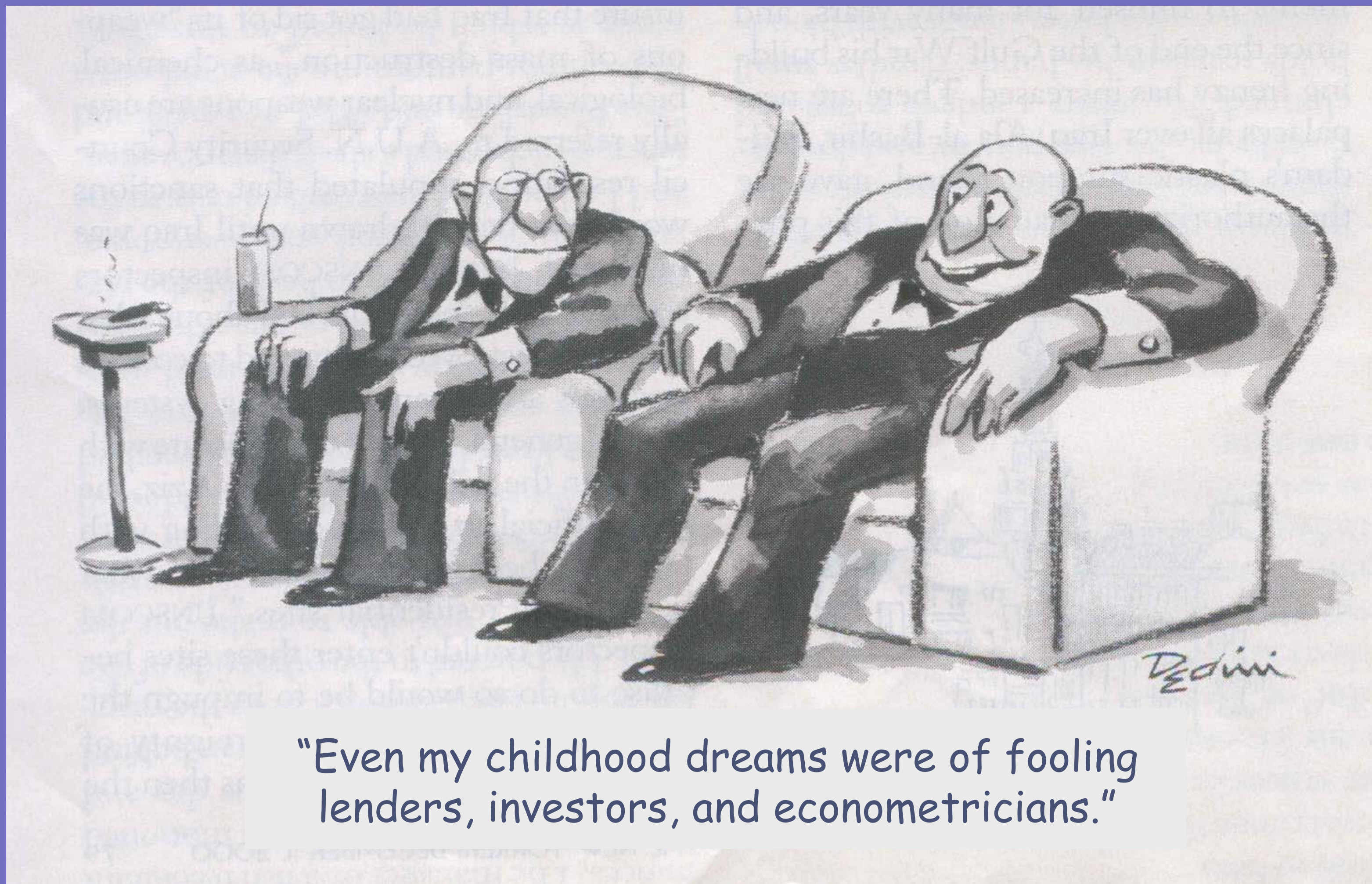
Validation Issues are Shortchanged

1. The validity of the benchmark return-generating model for observed returns requires $b^{+}_{1} > 0$. That this condition holds for only 16% to 17% of funds undermines the 5% interpretation (what is the right denominator?).
2. Table 13 endogenizes "flagging by the screen" rather than *fraudulent activity*.
3. Need to compare screen with more than the null hypothesis: What does it add to models using (say) an <u>audit indicator</u> as a predictor.

   (a) Richer selection models would be appropriate for funds identified as fraudulent by SEC.

   (b) Then see how much their "screen" contributes at the margin to selecting SEC-certified 53 bad-apple hedge funds within the context of a validated multiple-regression model.

Policy Implications: Bad-Apple Managers Will Trumpet the Allegedly Scant Evidence of Abuse



"Even my childhood dreams were of fooling lenders, investors, and econometricians."

What Will Their Offspring Say?