Discussion of:

Breadth of Ownership and Stock Returns

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Texas Finance Festival

April 19, 2001

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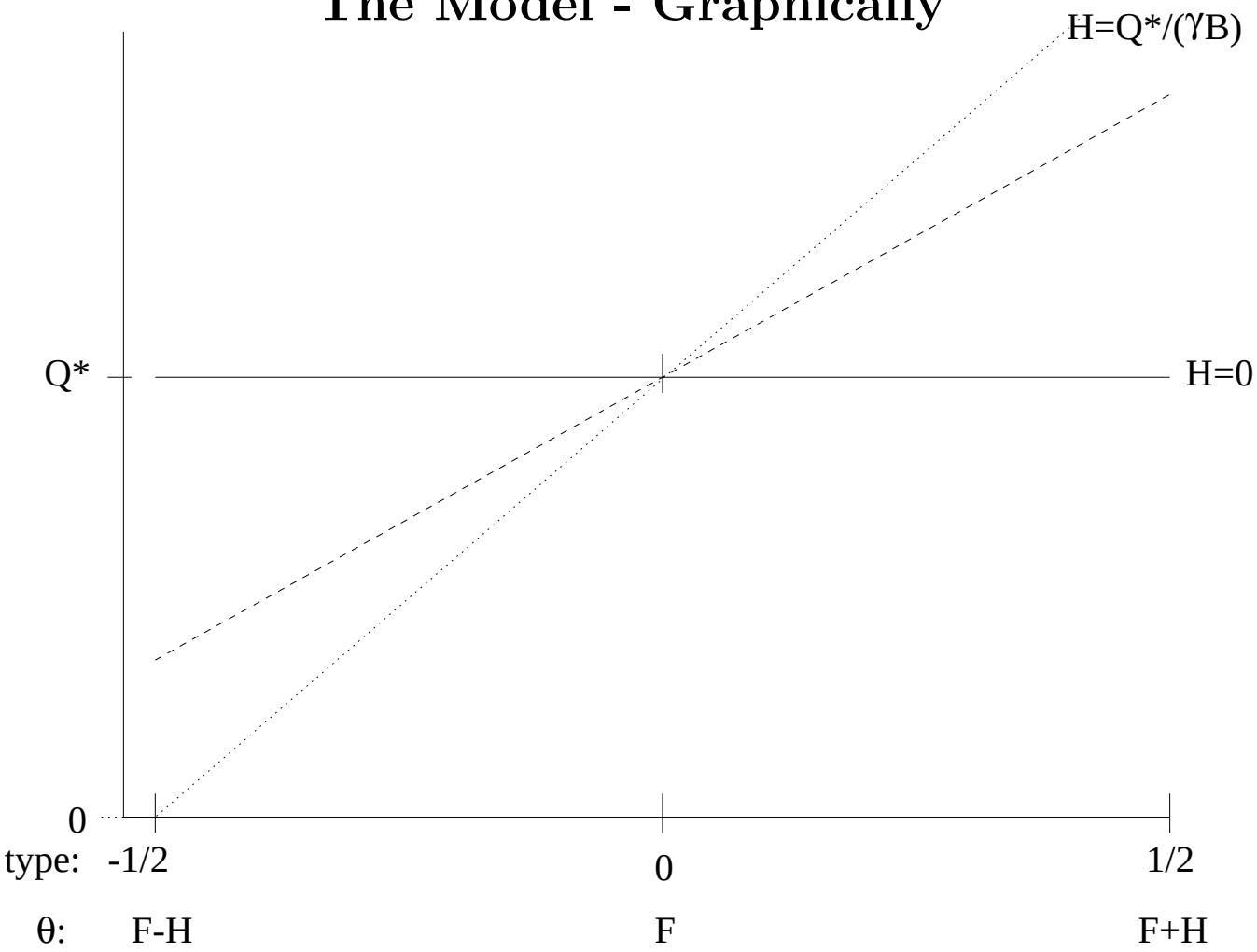
The Basic Idea:

The Model - Graphically



- If $H = 0$, the MF's will each hold their share of the stock – the Arbs hold the rest.
- Since (given CARA preferences) holdings are linearly related to $(\theta - P)$, stock is properly priced if all MF's hold any amount of the stock – even if $H > 0$
- However, for $H > (Q^*/\gamma_B)$, there will be MF's constrained from shorting the stock.
  - This will push the price above the risk-adjusted payoff (P^*)
  - Alternatively, the Arbs will now sell shares to the high θ MF's, so the expected return will fall.

Model Implications

- Model Implies that the relation between Breadth and Holdings is *negative*.
  - This is strongly inconsistent with the empirical results.
- What else causes breadth to change?
  - Probably it is the number of MF's that have information about a stock (or think they do)
  - CHS use controls for these other effects
- It seems like the dispersion of holdings across the MF's who hold the stock would also be an interesting measure of dispersion.

The Model

Mutual Funds are not Rational in this Model!

- The paper seems to suggest that what drives the model results is short sale constraints
  - In fact, it is a combination of the short-sale constraints and the irrationality of the mutual funds.
- They suffer from the winner's curse.
- They ignore the information in the price and in other mutual funds' holdings.
- (In the model) their alphas (risk-adjusted returns) are negative because of this.
  - An individual MF could have a positive alpha if it paid attention to these things.
- However, this sort of irrationality seems plausible:
  - For example, it could be caused by overconfidence on the part of mutual funds.
- Relation to DHS models.

Does Breadth Respond to Changes in Expected Returns?

- One of implications studied is:

  Hypothesis 2: If there are other time t variables that are known to be positively related to risk-adjusted future returns (e.g., book-to-market, earnings-to-price, momentum), then breadth at time t should be positively correlated with these predictive variables.

CHS claim to find some empirical support for this hypothesis.

- However, this is not an implication of the model.
- Assuming that the arbitrageurs also know the relation between the predictive variables and future returns, the quantity held by all investors remains the same.
- Empirically, I don't think that the authors find any support for this hypothesis, (which is good!)
- Perhaps CHS have in mind a model in which there are also "really dumb investors" (like the individual investors in Odean's papers). The arbs and the MF would both take money from the really dumb investors.

Other Comments:

- Why not use $\delta B/B$, $\delta H/H$?
- Why are regressions of the form:

$$\Delta B = a + b \cdot \Delta H + c \cdot \text{LOGSIZE}_t + d \cdot BM_t + e \cdot \text{MOM12} + f \cdot \text{XTURNOVER}_t + \tilde{e}$$

(i.e., changes on levels)?

  - It is no surprise that the ΔH and MOM12 are the only variables that are strongly significant – they are the only variables that are in changes.
  - Since momentum is change in size, is momentum just picking up the relation between size and breadth.