



FDIC/JFSR -7th Annual Research Conference Equity Markets Session

Richard Evans



The Problem With Liquidity

- How to define liquidity...

“I shall not today attempt further to define the kinds of material I understand to be embraced within that shorthand description; and perhaps I could never succeed in intelligibly doing so. But *I know it when I see it*, and the motion picture involved in this case is not that.”

Justice Potter Stewart

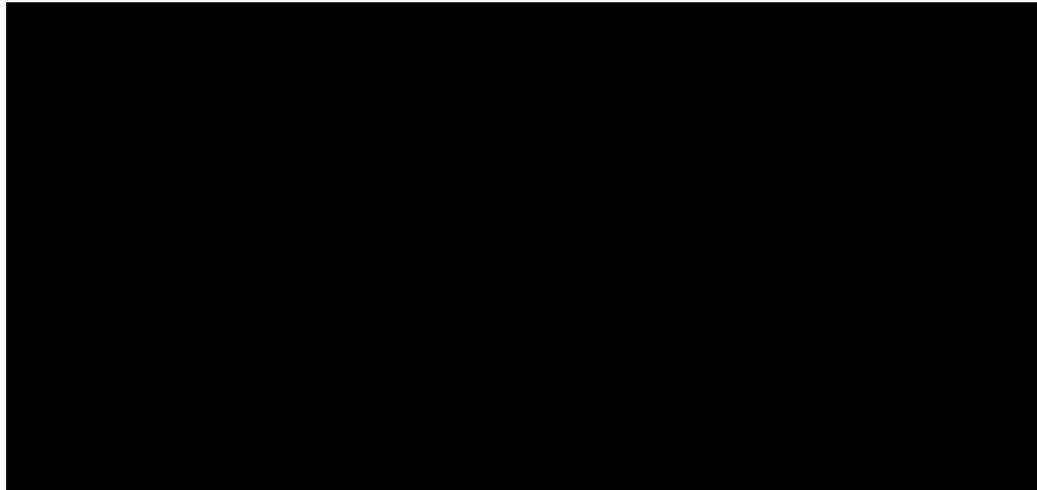
Jacobellis v. Ohio

- I know liquidity when I see it...
...and these papers are good examples of liquidity.

Payoff Complementarities and Financial Fragility: Evidence from Mutual Fund Outflows

by Qi Chen, Itay Goldstein, Wei Jiang

- Comparing Bank Runs and Fund Runs



- Fund Runs (redemptions) will be worse when the fund...
 - Has more retail (small) investors...less institutional (big) investors
 - Holds less liquid assets (Small/MidCap/Int'l vs. US LargeCap)

Convertible Bond Arbitrage, Liquidity, Externalities and Stock Price

by Darwin Choi, Mila Getmansky, Heather Tookes

- Convertible bond arbitrage
 - Purchase the convertible bond
 - Sell short the equity (proportional to the delta)
- The Set-Up
 - Identify convertible issuance dates
 - Use short interest as a proxy for arbitrage activity
 - Relate arbitrage activity to liquidity measures
- Conclusions:
 - Convertible arbitrage increases liquidity

Liquidity – The Common Theme

- Fund Runs and Liquidity Demand
 - Investors demand liquidity through redemptions ($t+1$)
 - Funds sell assets to meet investor demand...
...and demand liquidity in the stock market
- Convertible Arbitrage and Liquidity Supply
 - Arbitrageurs purchase convertibles and sell short stock
 - The hedged position moves opposite the stock price/demand
 - As stock price \uparrow , then the arbitrageur sells
 - As stock price \downarrow , then the arbitrageur buys
 - Arbitrageur is a liquidity supplier

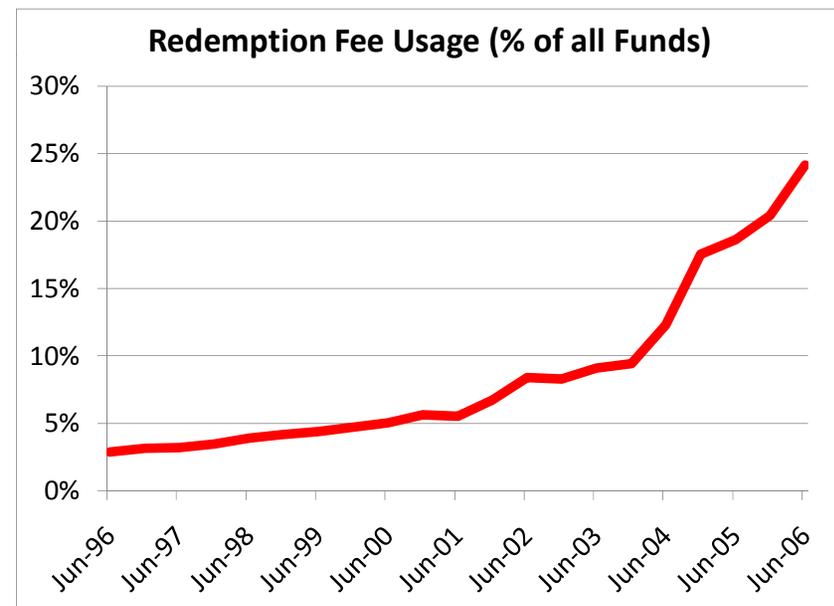
Fund Runs: Redemption Fees

FORM N-SAR

SEMI-ANNUAL REPORT FOR REGISTERED INVESTMENT COMPANIES

37. Did Registrant/Series impose a redemption fee other than a deferred or contingent sales load during the reporting period? (Y/N) _____
[If answer is "N" (No), go to item 39.]

“...so far many funds choose not to implement the [redemption fee] rule, either because of the competition...or because of insufficient information regarding individual redemptions from the omnibus accounts.”



Fund Runs: Institutional Fund vs. Share Class

- Institutional Share Class
 - Larger minimum investment
 - Lower management fee
 - Lower/No 12b-1 fee
- Institutional Fund
 - Ditto...and your funds are not pooled with retail funds

Fidelity® Advisor Aggressive Growth Fund – Class A, Class T, Class B and Class C

Top Ten Stocks as of November 30, 2006

	% of fund's net assets
St. Jude Medical, Inc.	5.6
Broadcom Corp. Class A	2.6
Potash Corp. of Saskatchewan, Inc.	2.5
Comverse Technology, Inc.	2.4
Nintendo Co. Ltd.	2.4
Marvell Technology Group Ltd.	2.4
PMC-Sierra, Inc.	2.3
Deere & Co.	2.2
ASML Holding NV (NY Shares)	2.2
Monsanto Co.	2.0
	<hr/> 26.6

Fidelity® Advisor Aggressive Growth Fund – Institutional Class

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St. Jude Medical, Inc.	5.6
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Marvell Technology Group Ltd.	2.4
PMC-Sierra, Inc.	2.3
Deere & Co.	2.2
ASML Holding NV (NY Shares)	2.2
Monsanto Co.	2.0
	<hr/> 26.6

GE U.S. Equity Fund

Ten Largest Holdings as of September 30, 2006 as a % of Market Value

Exxon Mobil Corp.	4.30%
Microsoft Corp.	3.26%
Bank of America Corp.	3.00%
Pfizer Inc.	2.92%
American International Group, Inc.	2.39%
PepsiCo, Inc.	2.38%
Industrial Select Sector SPDR Fund	2.33%
Wyeth	2.17%
First Data Corp.	2.13%
The Coca-Cola Co.	2.09%

GE Institutional Funds U.S. Equity Fund

Ten Largest Holdings as of September 30, 2006 as a % of Market Value

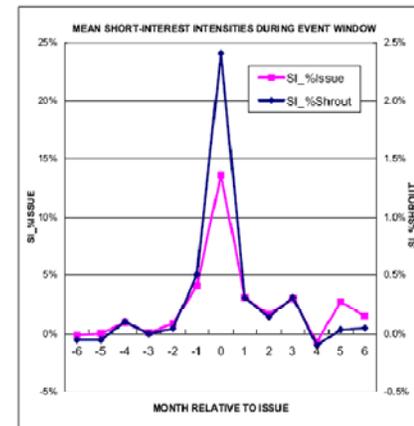
Exxon Mobil Corp.	4.39%
Microsoft Corp.	3.32%
Bank of America Corp.	3.06%
Pfizer Inc.	2.97%
American International Group, Inc.	2.43%
PepsiCo, Inc.	2.42%
Industrial Select Sector SPDR Fund	2.31%
Wyeth	2.22%
First Data Corp.	2.17%
The Coca-Cola Co.	2.13%

Fund Runs: Share Class vs. Fund

- Share Class vs. Fund Observation Level
 - Investors in different share classes are subject to the same redemption costs, they should be grouped together
 - Flow approximation at share class level ignores the aggregation...
...redemptions from class C offset by inflows from class A
 - Clustering solves statistical concerns...but doesn't fix the weights.
Bergstresser, Chalmers, Tufano (2007)
 - Weight by share class - No-load 19%, Load 81%
 - Weight by TNA - No-load 44%, Load 56%
 - Percent load variable has very low correlation with actual loads paid. Use as an indicator only.
- Are flows through different channels different?
 - Redemptions in load channel less performance sensitive

Converts: Short Interest & Shorting

- How does short interest relate to overall shorting?
 - May not capture shorting via single stock futures
 - May not capture shorting via options
 - May not capture short-lived shorting
- Boehmer, Jones, Zhang (2007) – In 2004...
 - NYSE Order Data - shorting is 17.5% of trading volume (lower bound)
 - NYSE Short Interest – shorting is 2% of shares outstanding
- Control for the supply of lendable shares (Institutional Ownership)
- Valuation Shorts
 - Figure 1 of the Paper
 - $t = -1$ shorts aren't arbitrageurs



Converts: Short Interest & Arbitrage

- Short Interest and the Convertible Arbitrage Capital
 - TNA of convertible hedge funds
 - Dollar value of convertible issues
 - Amount of short interest
 - How do supply of convertible capital (controlling for the supply of converts) relate to changes in short interest around convertible issuance?
 - How do they relate to the impact on liquidity?

Figure 2b – TNA of Convertible Arbitrage Hedge Funds

