Litigations and Mutual Fund Outflows

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Research Questions

I. Can the anticipation of adverse events such as the litigations in 2003 concerning market timing and late trading practices trigger outflows in mutual funds?

II. What are the consequences of litigations for mutual funds in terms of

1. flows,
2. returns,
3. price and liquidity impact on securities held in fund portfolios ?

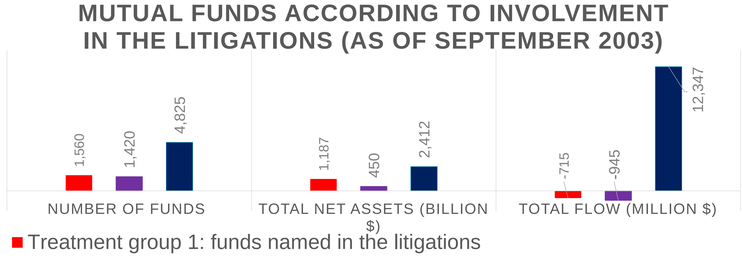
Late Trading & Market Timing

- Shares of open-end mutual funds are priced each day 4:00 PM ET based on their net-asset-value, the value of the assets they hold in their portfolios. Investors place orders to purchase or sell mutual fund shares before 4 PM. Late trading is the purchase or sale of mutual fund shares after 4 PM.
- Market timing is the short-term trading of mutual fund shares to exploit price inefficiencies between mutual fund shares and underlying securities in the funds' portfolios.

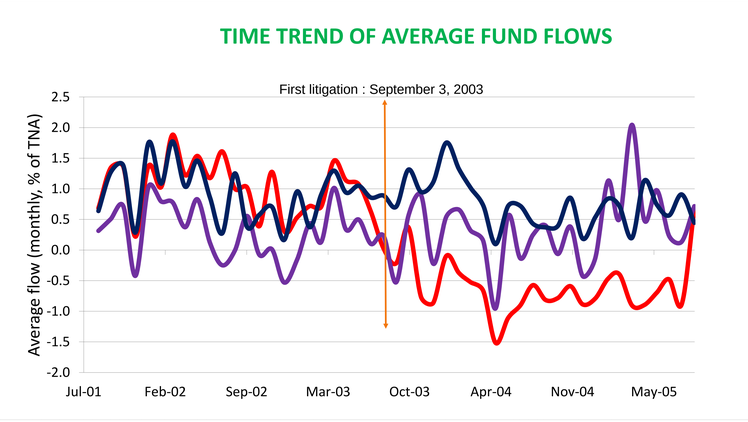
List of Litigated Fund Families

Nations Funds Trust	Alliance Bernstein	Salomon Smith Barney	RS Growth and Value
One Group Family	MFS Family	Alger Funds Family	Fremont Family
Janus Family	Putnam Family	Scudder Family	PIMCO Family
Strong Family	Federated Family	PBHG Family	Columbia Family
INVESCO Family	Franklin Family	Excelsior Family	American Family

1. Mutual Fund Flows



- Treatment group 1: funds named in the litigations
- Treatment group 2: funds who are themselves not named in the litigations but a fund in their family is
- Control group: funds in families with no other fund that is named in the litigations



Pre-event abnormal outflows accumulate to 1.6% of total net assets over a six-month window; post-event outflows accumulate to 8% over the first six-month window.

2. Mutual Fund Returns

Run regressions of fund returns on indicators for litigated funds in the 6 months before and 6 months after the announcement to check if there exist abnormal returns controlling for market risk.

- The model : $Returns_{tj} = a + b*\text{market return}_t + \sum \gamma_j*\text{Event-window indicators}_{tj} + \varepsilon_{tj}$.
- Observations are monthly and cover the years from 1/1999 to 12/2007.

Litigation month indicators in the return models	Market model
Indicator (-1 month) - Indicator (+1 month)	0.7% **
Accumulated indicators (-1 to -2) months - Accumulated indicators (+1 to +2) monhts	0.28% **
Accumulated indicators (-1 to -3) months - Accumulated indicators (+1 to +3) monhts	-0.05

Investors who run before litigation announcements earn significantly higher risk- and peer-adjusted returns—as high as 0.7% more than those who run after.

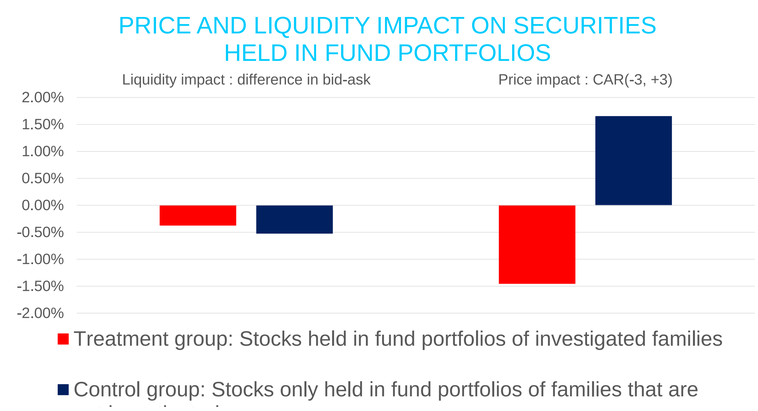
Investors in funds that hold illiquid securities:

- Suffer larger outflows both pre post litigations.
- If they run before litigation announcements earn significantly higher risk-adjusted returns than those investors who run after.

3. Price and liquidity impact on securities held in the fund portfolios

Investigate the price and liquidity impact of litigations on underlying securities held by implicated funds.

- Price impact: 7-day abnormal returns, CAR(-3,+3), around 9/3/2003,
- Liquidity impact: Difference in average bid-ask spread in the week of 9/3/ 2003 relative to average bid-ask spread 3 months before.



Stocks held by investigated fund families suffer a drop in prices (measured by lower CARs) and a smaller increase in liquidity (measured in bid-ask spread) relative to stocks held by fund families that are not investigated.