Emerging from a Crisis:
The mutual fund industry and the stock market
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Canary in a Coal Mine

- Canaries were used to test the air in coal mines.
- Canaries were sent into the mine, if they emerged, then it was safe to enter.

- What do we learn from the Canary today?
- How will the mutual fund industry emerge from the darkness of the current scandal?
A Market in Crisis

- Bull Market in Wall Street Scandal
  - Enron, Tyco, Investment Banks, Martha, NYSE, ...

- September 3, 2003
  - New York Attorney General Eliot Spitzer files a complaint alleging mutual fund trading improprieties by Canary Capital Management LLP
    - Market Timing
    - Time Zone Arbitrage
    - Late Trading
The Dilution Impact of Daily Fund Flows on Open-end Mutual Funds

July 2002
Journal of Financial Economics

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### Example: No market timer

<table>
<thead>
<tr>
<th></th>
<th>Day 0</th>
<th>Day 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risky assets</td>
<td>$100</td>
<td>$110</td>
</tr>
<tr>
<td>Cash</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Net assets</td>
<td>$100</td>
<td>$110</td>
</tr>
<tr>
<td>Shares</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>NAV</td>
<td><strong>$10.00</strong></td>
<td><strong>$11.00</strong></td>
</tr>
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**Example: With a market timer**

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Mutual Fund Dilution

- Fund traders contribute cash
  - Cash can be invested in risky assets after a lag
- If fund traders are skilled
  - Cash dilutes positive risky asset returns
- Skill can be expected in international funds, but domestic funds are generally a “fair game”
  - Stale prices
  - International funds typically set their end-of-day prices (NAV$s)$ using closing prices from the home exchange, which are usually hours stale
Industry in Crisis

- In the weeks after the initial complaint, numerous fund families were named
  - Many funds had “arrangements” with timers
  - More far-reaching than the initial complaint
- Reports of investors fleeing named funds
- A vast majority of the allegations have been directed at domestic funds
  - Why?
  - Are there stale prices in domestic funds?
Late Trading

- Prices are “stale” to a late trader
  - “Yesterday’s horse race”

- Allegedly, intermediaries provided late-trading facilities to some traders
  - Retirement plans and other order processors normally submit good orders at night
    - Traders apparently gained illicit access to the system
  - Security Trust Corporation ordered to shut down
Emerging from the Crisis

- How far-reaching is this scandal?
  - Watch for the Canary to emerge
    - Alliance Funds settlement
    - MFS Funds settlement
    - Federated Funds
  - Instances other than Canary are isolated?

- Solutions
  - SEC Proposal: All orders must be received by the mutual fund by 4:00 PM
  - How will the industry weather this storm?
Fund Flows and the Market
Outlook

- The mutual fund industry will emerge from the crisis with stronger regulation and scrutiny.

- The industry will remain the primary access point to the markets for many households.

- Flows into stock funds will continue to reflect investors’ confidence in the market.