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Market Timing Issues in the Variable Products Industry

The issues and their implications

November 11, 2004

Agenda

- The background
- Understanding the issues
- The impact of each area of improper activity
- Variable product considerations
- Looking to the future

The background

Mutual Fund Scandal – one year on

- New York Attorney General Eliot Spitzer
- The SEC – and others

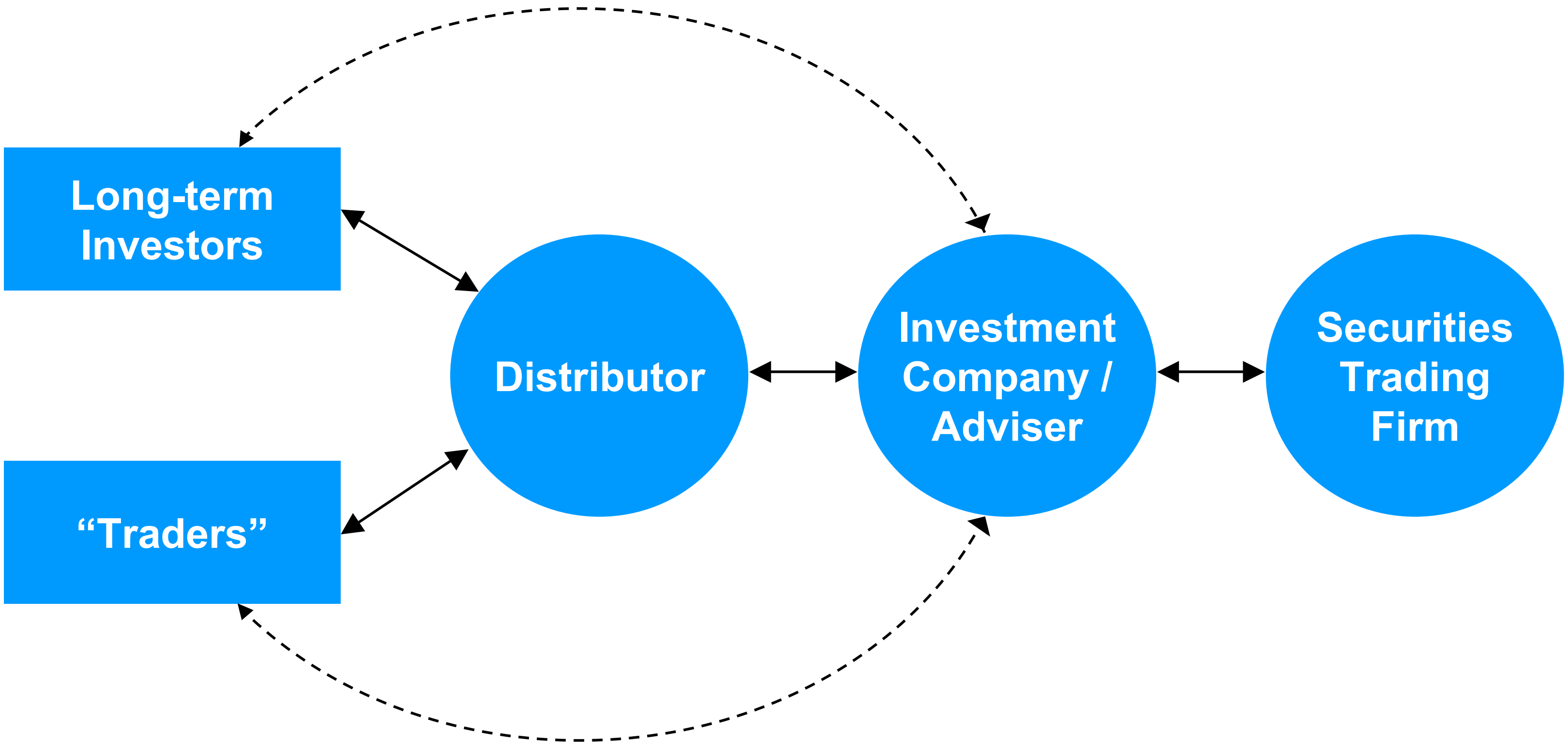
"Contagion effect" for Variable Annuities

- Issues are complicated because of more complex product design and drivers of policyholder behavior.
- Frequent trading activity may be a natural consequence of the variable product design (e.g., automatic account rebalancing options).

More Recent Allegations Related to Brokers' Compensation Arrangements

- Spitzer versus, Marsh & McLennan, and other brokers

The parties to a mutual fund



Flows between parties represent communication flows.

What are the areas of potential improper activity?

- Late trading
- Market timing
  - Domestic
  - International
- Non-disclosure
- Improper sales activity

Late trading

- Late trading is illegal, while market timing is not.
- What is late trading?
  - The assignment of the current day's closing price to trades received after 4 pm.
  - Allows favored investors to take advantage of post-market-closing events not reflected in the closing final price.

Market timing

- Can be categorized as “domestic” versus “international” trading activity.
- **Domestic (high frequency of trades):** Rapid movement in and out of funds to benefit from short-term pricing anomalies and market volatility.
- **International (stale pricing):** Market timer benefits from “stale” mutual fund values, taking advantage of the lags between the close of relevant foreign markets when shares are priced, and the close of the U.S. markets when the net asset values of the mutual fund are priced.

Non-disclosure

Commission non-disclosure

- Payment of commissions outside the officially declared brokers' commission scale.

Trading non-disclosure

- Market timing activities are taking place although the prospectus states that such would not take place.

Selective disclosure of portfolio holdings

- Disclosure of portfolio holdings to favored clients and possible resultant "front running."

Improper sales activity

Non-suitability

- Because of differing load and expense structures, different investors are best served by different fund classes.

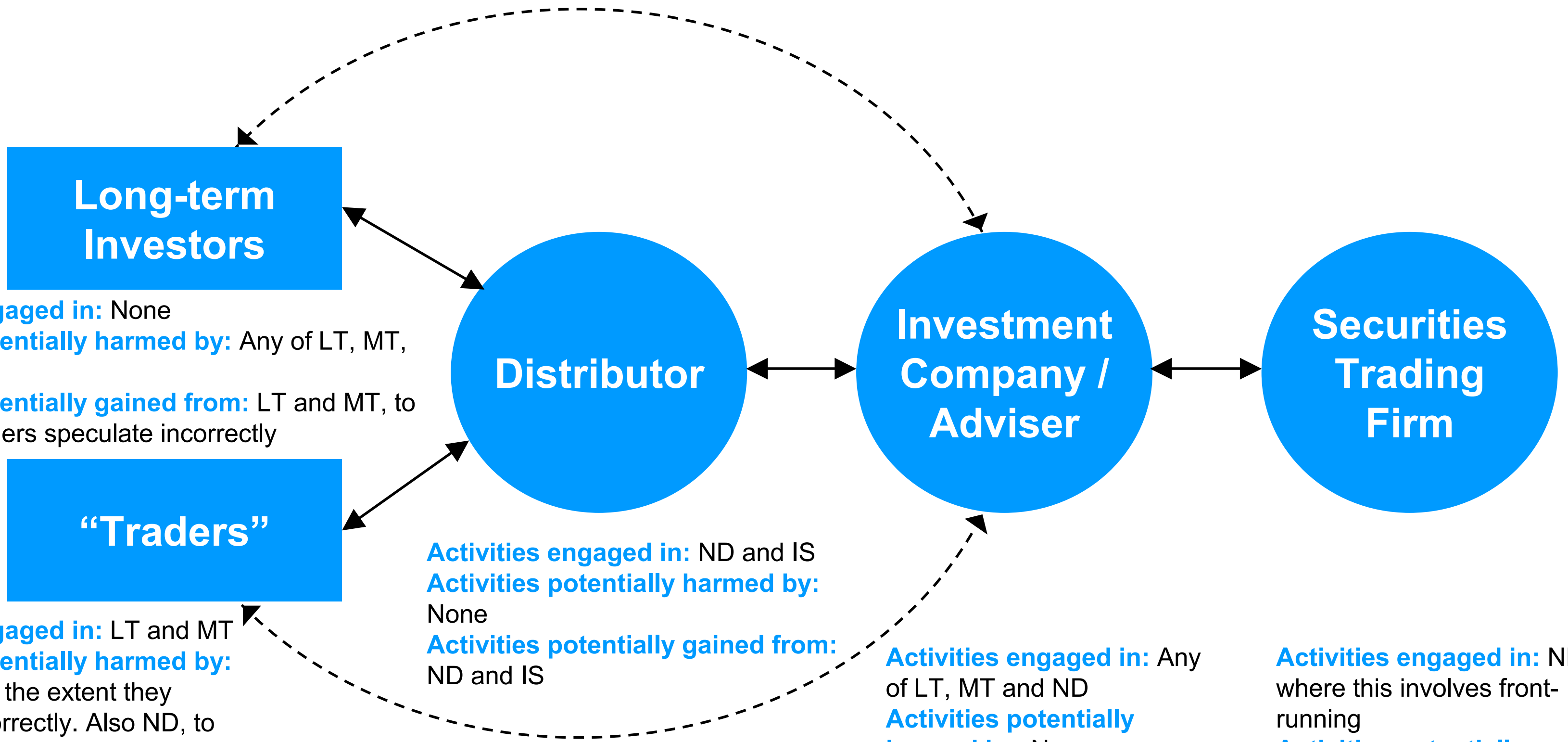
Fund transfers without reasonable basis

- There may be some evidence that some brokers have been recommending moving cash between funds, without having a reasonable basis for doing so (other than to boost brokers' fees).

Breakpoint and net asset value discounts

- Many funds give discounts for mutual fund purchases in excess of certain breakpoints. Some funds also have "net asset value (NAV) transfer programs," which allow transfer of funds from one fund to another without sales charges.

How does each area of improper activity affect the parties to the mutual fund?



Long-term Investors

Activities engaged in: None
Activities potentially harmed by: Any of LT, MT, ND and IS
Activities potentially gained from: LT and MT, to the extent traders speculate incorrectly

"Traders"

Activities engaged in: LT and MT
Activities potentially harmed by: LT and MT, to the extent they speculate incorrectly. Also ND, to the extent increased commissions negatively impact all fund holders.
Activities potentially gained from: LT and MT

Distributor

Activities engaged in: ND and IS
Activities potentially harmed by: None
Activities potentially gained from: ND and IS

Investment Company / Adviser

Activities engaged in: Any of LT, MT and ND
Activities potentially harmed by: None
Activities potentially gained from: Any of LT, MT and ND, to the extent such activity leads to increased business

Securities Trading Firm

Activities engaged in: ND, where this involves front-running
Activities potentially harmed by: None
Activities potentially gained from: LT, MT and ND, to the extent such activity leads to increased trading fees

Key:		
	LT	Late trading
	MT	Market timing
	ND	Non-disclosure
	IS	Improper sales activity

Assessing the financial impact of improper activity on long-term investors

- The main financial consequences of the improper activity are:
  - **Direct cost of late trading**
  - **Increased Expenses**
  - **Increased Liquidity**

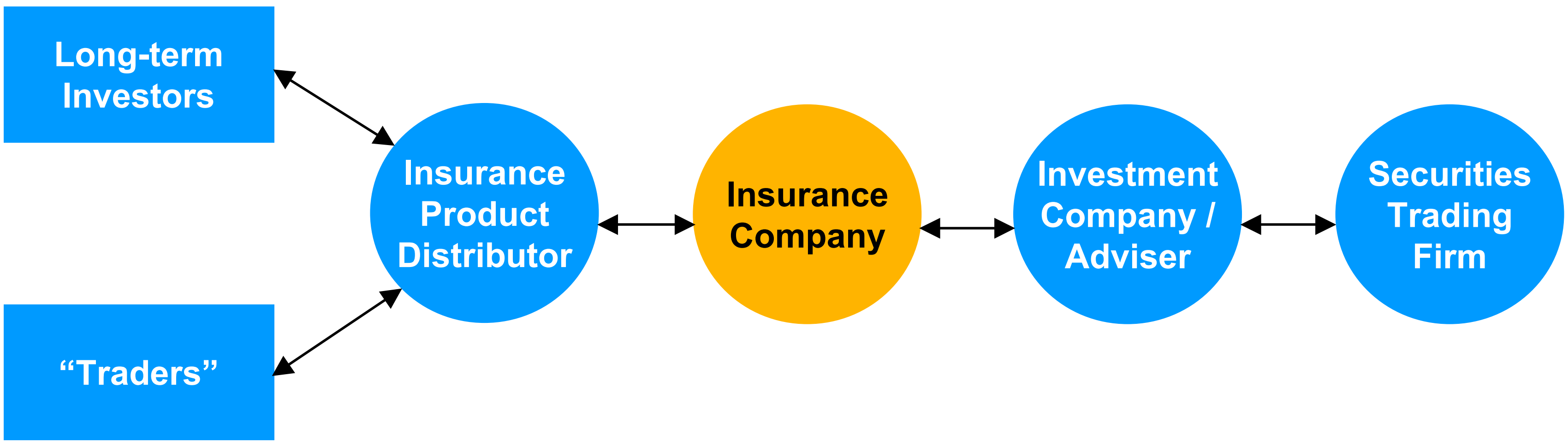
How significant is the impact?

- The magnitude of the impact on individual investors may not be as large as the popular press may tell us.
  - Jaffe (CBS Marketwatch columnist): “Pennies for most small investors”. The major culprit may be “soft dollar” arrangements.
  - Zitzewitz (Stanford Business School): Amount of long-term shareholder wealth lost due to late trading is relatively small in percentage terms.
- However, this does not eliminate the need to properly quantify the impact — without such quantification, the extent of the damage remains unknown and this in itself can work against the mutual fund company/insurer in that the public may perceive the worst.

Variable product considerations

- More complex product design and regulatory environment
- Variable products have an insurance annuity contract, a product prospectus and an underlying fund prospectus
- Issues are also emerging around disclosure and allegations of improper sales activity.
  - A joint SEC/NASD report (June 2004) describes sales, disclosure and documentation abuses observed by the SEC/NASD

Background to variable annuities: Variable products introduce another party to our schematic in our earlier slide — the insurance company



Flows between parties represent communication flows.

Variable product contract holders expectations regarding market timing

- Almost all current prospectuses discuss market timing
- Consistent theme throughout is:
  - Contracts not designed for professional market timing organizations or individuals engaged in benefiting from short-term price fluctuations or irregularities.
- Although market timing is not illegal, regulators have filed civil and criminal complaints against several mutual fund / adviser firms for selectively allowing large clients to market time while the fund's disclosure documents stated that the practice was not allowed.

Indirect effects of inappropriate activity on policyholder behavior

- The allegations relating to market timing and late trading generally suggest policyholder damage directly results in lower returns and hence lower accumulated account values.
  - If the lower returns and values result in policyholders withdrawing their money from the variable annuity and investing elsewhere, any of the following indirect forms of damage could occur:
    - — Incurring surrender charges on withdrawal
    - — Paying commissions on any new investment purchase
    - — Subject to new surrender charge scale starting from year 1
    - — Subject to new waiting periods — e.g., a new ten-year wait period for GMIB
    - — Possible loss of guaranteed minimum benefits to the extent these benefits were previously in the money
    - — Possible lower minimum rate guarantees.
  - Similarly, returns for policyholders remaining with the original product may be further reduced due to the additional transaction expenses and liquidity needed to meet the demands of the withdrawing policyholders.

What lies ahead?

- One year on – who has benefited?
  - Restitution versus fines
  - Increased regulation and monitoring may have the undesirable effect of decreasing competition
- Companies should look to model the potential impact of market timing activity
  - To give an indication of potential liability if litigation occurs
  - To act as an argument against a potentially expensive regulatory fine
  - Actuarial skills can be used to model such