Liquidity and Asset Management

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A university endowment is unique in the landscape of money management because of the fact that its cash needs are entirely predictable. This fact should affect the investment policy.

Investors value liquidity as it allows them to respond to unexpected cash needs.

An endowment should never accept a lower expected rate of return in exchange for liquidity.

Endowments might consider selling liquidity.
Liquidity and Endowment Portfolios

- For example, Harvard’s $37 billion endowment has only 11% in US equities.
- **Warning**: This maxim does not imply that the funds should be handed over to outside managers with multi-year lock up periods.
- –Why?
- –Subject to coordination problem (i.e., bank runs), which highlights an aspect of liquidity risk.
- What is does mean: *Diversified, Direct Investment* in traditionally illiquid assets.
Drilling down into what liquidity means in relatively liquid financial securities brings us into the realm of market microstructure — the study of how transactions take place.

- It has descriptive and prescriptive aspects.
- An asset manager should manage and minimize execution costs.
  - Bid-Ask Spread
  - Price impact / front-running (bagging)
  - Commissions
- And maximize collateral value (Securities lending: repo specials).
Reg NMS promulgated in 2007.

Desire was to prevent old physical exchanges from holding back US markets from innovating and competing globally.

Creates the concept of National Best Bid and Offer (NBBO) and the requirement that a small market order execute immediately at NBBO.
Market Fragmentation

Trading Places
The business of filling U.S. stock orders has grown increasingly dispersed in the recent years.

Share of the market among U.S. stock trading venues in January:

- **15.2% Nasdaq Stock Market**
- **9.6% NYSE Arca**: All-electronic venue owned by NYSE
- **8.3% BATS BZX**: Bigger of two exchanges owned by BATS Global Markets
- **8.3% EDGX**: Larger of two exchanges run by Direct Edge
- **8.0% NYSE**: The Big Board
- **3.0% Nasdaq OMX BX**: Formerly the Boston Stock Exchange
- **2.7% EDGA**: Smaller of Direct Edge exchanges
- **2.0% BATS BYX**: Smaller of BATS's exchanges
- **0.7% National Stock Exchange**: Owned by CBOE Stock Exchange
- **0.5% Nasdaq OMX PSX**: Formerly the Philadelphia Stock Exchange
- **0.5% Chicago Stock Exchange**
- **0.5% CBOE Stock Exchange**
- **0.2% NYSE MKT**: Formerly American Stock Exchange

*As of Jan. 27. Note: Numbers don't add up to 100% due to rounding.*

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What?
Microstructure?
Reg NMS
Fragmentation
Execution Management
Implications
Technology :: High Frequency Trading (Really: High Frequency Quoting – fishing.)
  ▶ Algorithmic Trading (now > 70%) of total volume.

Fragmentation:
  ▶ Dark Pools (13.5% of US volume).
  ▶ Electronic Trading Networks.

Competition amongst Exchanges: Maker-Taker: rebate to liquidity providers / charge access fee to liquidity takers.
Example from Jan 27, 2014 WSJ: T. Rowe Price asked a broker to buy 2.5 million shares of an actively traded stock, and they tracked the broker’s actions. “To hide the purchase from fast-moving traders, the broker placed and canceled many smaller orders all across the stock market, creating a dense smoke screen of phantom interest in the security. In total, the broker offered to buy 750 million shares of the stock while actually purchasing just 2.5 million.”

Similar experiment by Invesco for a 1,000 share order: This order “traversed 10 separate exchanges and dark pools before it was filled. The order had also been sent to eight other venues where ultimately no shares were bought but where other traders may have had a chance to catch wind of Invesco’s strategy.”
Execution Management
Asset Managers

- Understand where you are on the liquidity spectrum:
  - Mutual Fund is one extreme – it needs liquidity as funds may be withdrawn at random.
  - University Endowment is other extreme.

- And maximize accordingly!
- Make trading costs and execution a point of distinction.
  - Measure both—and benchmark.
  - Don’t give away order flow information.
  - Possible value in relationships.

- Recognize the effects of the new environment:
  - Heightened volatility :: Reconsider Limit / Stop Orders.
  - Black Pools seem an ideal venue—but are they subject to manipulation?