Securities Trading:
Principles and Procedures

Dealers and dealer markets
Chapter 7
Part 1

Overview: A dealer (market maker) is …

- A proprietary trader who
  - Posts a bid and offer ("makes a market")
  - Acts as a counterparty to incoming orders
  - Earns the bid-ask spread.
  - Avoids holding large positions.
- How does a dealer differ from a broker?
- Formal and informal market makers
- Markets organized around dealers

Dealers and brokers

- Customer order: "Buy 2,000 XYZ limit $50."
- Broker: *agent* for the customer.
  - A broker might send this order to an exchange.
- A *dealer* trades with the customer (sells directly to the customer)
- Many firms have both brokers and dealers.

A broker receives a customer order: Buy 2,000 XYZ limit $50.

- Should the broker send the order to her firm's dealer?
- Suppose that the order can't be executed at any exchange.
  - NBO is $50.10, but dealer will sell to the customer at $50.
- Suppose that the order *could* be executed at an exchange, but the dealer will give a better price.
  - NBO is $50.00, but the dealer will sell at $49.98.
- In both cases, trades with the dealer are good for the customer.

But there's a conflict of interest

- Conflict arises when one person (or one firm) acts as a broker and a dealer.
- A broker (agent) tries to get the best price for the customer.
- The dealer is the counterparty to the customer.
  - Worse price for the customer → higher profits for dealer.
- Example
  - A broker tries to execute a buy order at a low price.
  - A dealer would like to sell to the customer at a high price.
- The conflict can be managed by
  - Reputation
  - Firm and industry standards of conduct
  - Laws, rules and regulations

CME Rule 552: DUAL TRADING RESTRICTIONS

- The term "dual trading" shall mean trading or placing an order for one's own account in any contract … in which [the member] previously executed, received or processed a customer order on the Exchange floor during the same Regular Trading Hours session.
- Subject to the following exceptions, dual trading shall be prohibited …:
  - Customer Permission. A member may engage in dual trading … [if the customer grants] prior written permission.
  - Errors. A member may engage in dual trading to offset errors resulting from the execution of customer orders …
  - …
- Violation of this rule may be a major offense.

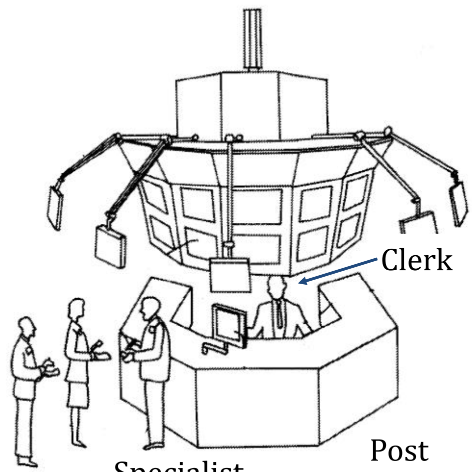
Designated Market Makers

- We have seen limit order books (like PRK) that are almost empty.
- An exchange needs to attract orders and trading volume.
  - If the book is thin/empty, customers won't come.
- The exchange may ask a dealer to post bids and asks, if there are no customer limit orders.
- The exchange might formally designate a dealer.

On the New York Stock Exchange floor, dealers were called "specialists" (late 1800s to late 1900s)

- A specialist was an NYSE member who specialized in trading a small number of stocks.
- Each listed stock had one specialist.
- The NYSE had a near monopoly on trading its listed stocks.
  - → The specialist had a near monopoly.
- Rules and procedures evolved to govern specialist behavior.
  - These rules are still referenced today by regulators.

The NYSE specialist in action (the floor in the late 1900s)



- Orders were delivered electronically, but execution was under the control of the specialist.
- The specialist’s responsibility: “maintaining a fair and orderly market.”

The specialist’s affirmative obligations: he must …

- post a bid and ask (at a narrow spread).
- provide price continuity (avoid large price jumps)
  - A sequence of trades: $50, 50\frac{1}{8}, 50\frac{1}{4}, \ldots 50\frac{7}{8}, 51$ is okay.
  - A sequence 50, 51 is not okay.
  - On good news, the specialist has to smooth the transition, usually by making small sales on his own account.
  - On bad news, …, small purchases.

The specialist's negative prohibitions

- Public priority.
  - If the specialist is bidding 50, and a customer enters "buy limit 50", the customer's bid has priority over the specialist's.
    - The specialist was the agent for the limit order book, and an agent shouldn't trade ahead of the person he's representing.
- Can't trade in a "destabilizing" fashion.
  - In practice, couldn't hit a customer bid or lift a customer offer.
  - This might move the price: the specialist should stay neutral.

The specialist's rights

- Only the specialist knows the limit order book.
  - And he can't show it to other members.
- The specialist has a first-look at incoming orders.
  - Suppose there's a customer order "sell 200, limit $50" and the NYSE gets a second order "buy 100 at the market".
    - The specialist can't sell 100 shares at 50.
      - This would violate public priority.
    - The specialist *can* sell 100 shares at $49\frac{7}{8}$.
      - He might have do this if incoming order is small.
      - If the incoming order is "buy 10,000 shares", he might let the order walk through the (customer) limit orders.
- These advantages enabled most specialists make profits.

The decline of the specialist system

- 1997: the tick size goes from 1/8 to 1/16.
  - 2001: … to $0.01.
  - The bid-ask spreads ↓, and trading revenue ↓.
- 2005: the NYSE became an automated market.
  - The specialist lost the right of first refusal.
- April, 2005: seven specialist firms targets of US investigation.
- The NYSE still has “specialists” but they are now called *designated market makers*.

The DMMs

- Still responsible …
  - For maintaining a fair and orderly market, and
  - Posting bid and ask quotes.
- The DMM’s bids and asks can be accessed and executed instantaneously.
  - The DMM does not get an advance look at the order.
- The DMM trades “at parity,” that is, along side of the book.
- A simplified example
  - Suppose that the DMM wants to buy and the book has a public order, a $10 bid for 500 shares. A market sell order arrives for 200 shares.
  - The (former) specialist would have to yield to the public order.
    - All 200 shares would be executed against the public buyer.
  - A DMM trading at parity can share with the public buyer. Each gets 100 shares.
- The DMM is not prohibited from trading actively (hitting the bid / lifting the offer)

NASDAQ Market Makers

- To trade on NASDAQ (use NASDAQ markets and systems), you (or your firm) must become a NASDAQ *member*.
- To act as a broker (agent) for customer orders, you must also become an *order entry firm*.
- To trade against your customers (take the other side of their trades) you must also become a market maker.

- You register to be a market-maker in a specific security.
  - You can register in many securities.
- A stock must have at least 2 MM's, but can have many more.
  - MSFT has ~ 50; PRK, ~ 30
- Market makers must post a bid and offer ("two-sided quotes") that are no more than the designated percentage from the best bid and offer (or last sale price). [Rule 4612]
- The designated percentage for most stocks is 8%.
- Sources
  - www.nasdaqtrader.com → U.S. Market → Membership;
  - www.nasdaqtrader.com → Regulation → Rule manuals

De facto market makers (in the U.S.)

- Traditional market makers (NYSE specialists, DMMs, Nasdaq MMs) have been displaced and replaced by de facto market makers.
  - Market makers "in fact" (but not by formal designation)
- Traders who use algorithms and technology to act like market makers (most of the time).
  - But they aren't regulated like traditional market makers.
- Like traditional MMs, they usually post bids and offers. BUT:
  - They can withdraw from the market completely if they think that trading is too risky.
  - They can trade actively (hit bids and lift offers).

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Market making in European securities markets

- The important regulation is the "markets in financial instruments directive" (MiFID II/MiFID 2), 2014/65/EU.
- Article 48
  - Member States shall require a regulated market to have in place:
  - (a) written agreements with all investment firms pursuing a market making strategy on the regulated market;
  - (b) schemes to ensure that a sufficient number of investment firms participate in such agreements which require them to post firm quotes at competitive prices with the result of providing liquidity to the market on a regular and predictable basis…

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- Article 17
  - An investment firm that … pursue[s] a market making strategy shall, …
  - (a) carry out this market making continuously during … the trading venue's trading hours, except under exceptional circumstances, with the result of providing liquidity on a regular and predictable basis to the trading venue;
  - (b) enter into a binding written agreement with the trading venue which shall at least specify the obligations of the investment firm in accordance with point (a); and
  - (c) have in place effective systems and controls to ensure that it fulfils its obligations under the agreement referred to in point (b) at all times.

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MiFID 2 summary

- Market makers are responsible for providing liquidity.
- Markets are responsible for incentive schemes to ensure that enough market makers participate in these arrangements.
  - Rule has no guidance on what incentives are acceptable.
- Member states are responsible for enforcing these requirements.

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How do you incentivize or reward market makers?

- Maybe you should pay them.
- Listed companies believe that a liquid market helps their reputation.
- In Euronext markets (Amsterdam, Paris, Brussels, etc.)
  - A listed company may contract with one or more traders (members) of an exchange to provide liquidity.
  - The firm can pay the market maker, but can't share in the trading profits.
- Rationale: the costs of market making are shifted to those who benefit (the shareholders of the listed firm)

The US view

- US securities regulators generally avoid contract market makers.
  - Could a corporation pay the market maker to support or run up the price of the stock?
- Exception: exchange-traded funds (like SPY)
  - Issuers of ETFs can pay trading firms to serve as lead market makers for the ETFs.