

TraderExercise #3



Bruce Weber, April 2010
Pre-read Chap. 5, Schwartz & Weber (2006)

Making Markets – Adding Value as a Trading Intermediary

How markets are structured and how investors bring their orders to a market will largely determine whether there is a role for dealer-intermediaries. Dealers supply liquidity by buying and selling from their own inventory. At most times, this entails holding a long (positive inventory) or short (negative inventory) position. To cover a short position, the dealer must later purchase shares. While holding a position, dealers face the risk of losses from adverse price swings. To supply liquidity in a market, dealers must be able to generate returns on their risk capital. In this simulation, you will trade as a dealer and assess risk and profitability.

In a dealer market, dealing firms take short-term principal positions in the traded securities and trade for their own account. Dealers do not generally speculate in long-term price movements of the instruments they trade. Instead, they seek to profit from the small differences between buying prices and selling prices, and hold positions for short periods of time. *"Stock sold to a dealer is still for sale"* is a common adage.

The foreign exchange market, most options exchanges, and the U.S. treasury securities market are dealer markets. Until the late 1990s, the Nasdaq Stock Market, the London Stock Exchange were dealer markets, although today they are hybrid order book and dealer systems. Dealers post two-sided quotes (bid and ask) that are disseminated to investors and other traders. "Inter-dealer brokers" (IDBs) such as ICAP and eSpeed

facilitate trading between dealers, and disseminate prices over market data terminals. Below is one investment bank's description of its Equity Trading business:

We execute client and proprietary orders and make markets in listed and over-the-counter cash securities, as well as convertible and derivative securities. Credit Suisse provides liquidity to the market through both capital commitment and risk management. (www.credit-suisse.com)

Many observers expect a reduction in intermediated trading on the part of brokerage firms and banks:

Large-scale capital commitment, the preserve of 'full service' brokers that both defined and differentiated them from agency firms, seems likely to be a fatality of the credit crunch. Traditionally, the major full service firms offered capital in a very robust way, so if a client wanted to move a big block they would be the buyer of the entire position. "The commitment of capital on equity desks isn't quite dead, but it's seriously injured and its status is critical" according to TABB Group's latest survey of US institutional equity trading. (TRADE, Oct-Dec 2008, "Capital commitment is dead, long live electronic execution")

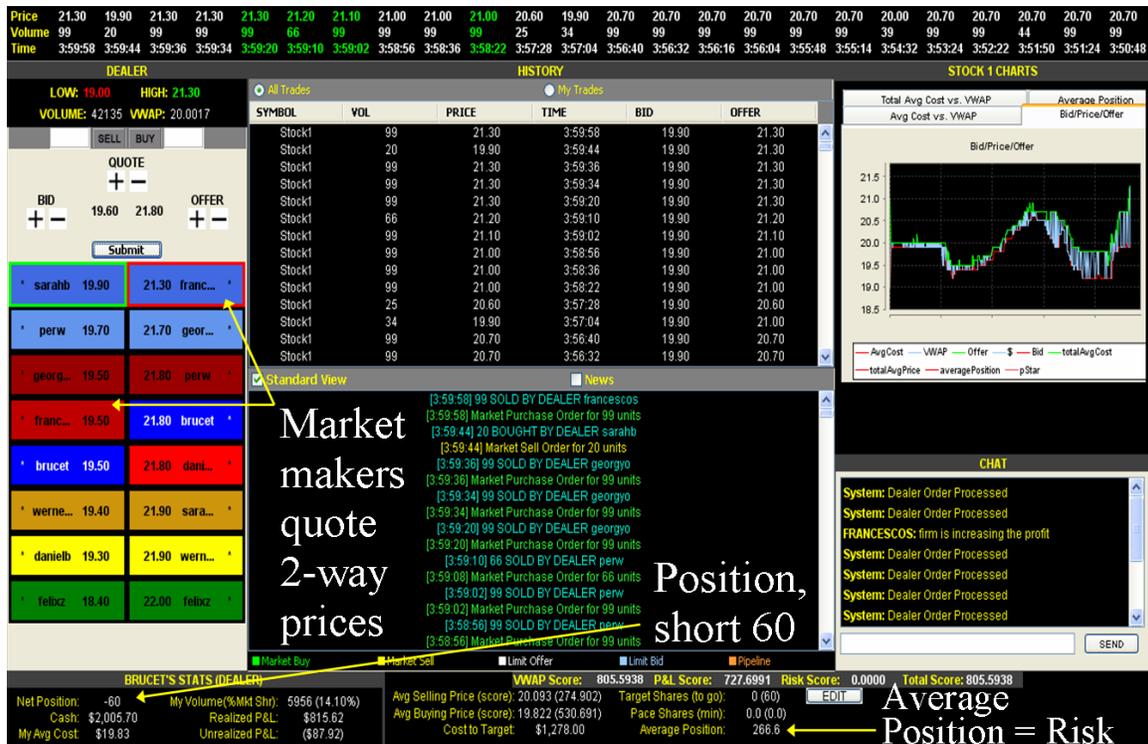
The TraderEx screen will appear as below. On the left are the dealer quotes and on the right the blotter that can display All Trades or My Trades.

The dealer SarahB is making the high bid at 19.90. She will buy when a customer sell order arrives. Dealer Franc is making the low offer of 21.30, and will sell to any incoming customer buy orders. All other dealers are away from the inside market bid and offer and in this simulation without "preferencing" are not eligible to trade with arriving orders.

Performance Metrics

Measuring a dealer's success involves a number of considerations. The user, dealer BruceT* is currently short 60 and has "My Avg Cost" equal to 19.83. In other words, the

shares the trader sold to build the -60 position were sold at an average price per share of 19.83. Buying shares back at the current bid quote of 19.90 will generate realized losses.



At the end of a trading period, dealers assess their performance based on profit (both realized and unrealized), risk, and market share. BruceT's Realized P&L is \$815.62, which means he has opened a position and closed it later by returning to a zero position. He has an unrealized loss of \$87.92, which reflects the mark-to-market cost of covering his short position by buying at the offer price of \$21.30

$$\text{Unrealized P\&L} = 60 \times (19.8347 - 21.30) = \$87.92$$

Dealers that carry larger positions, all else equal, are taking greater risk, and require more risk capital to support their activity. To adjust for risk, in this simulation, we will assess profit in relation to **Average Position**. The Average position is the time-weighted average of the absolute value of the Net Position. For example if a dealer had a long position of 40 for half the day and was short 30 for the other half, the average position is 35. BruceT's average position is 266.6.

Questions - Take notes during the simulation so you can answer these questions.

1. What was your largest inventory position? How did you seek to reduce the risk?
2. When did you adjust your quotes and why?

		<u>Sim #1</u>	<u>Sim #2</u>
3. Record your	<i>Closing position</i>	= _____	= _____
	<i>Profit</i>	= _____	= _____
	<i>Avgpos</i>	= _____	= _____
	<i>MarketShare rank(1-8)</i>	= _____	= _____

4. What would you do differently if you played again?
5. How would market quality be affected by a reduction in the number of market makers?
6. How should the quality and efficiency of an order book and a dealer market be compared?