UNIVERSITY OF TEXAS AT AUSTIN

Lecture 2

Transaction costs.

Transaction costs. It is customary for the facilitators of operations in financial markets to create revenue via *transaction costs* applied to different trades made by investors.

The *market makers'* role is to provide financial instruments and assets to be sold to investors and also to accept sales from the investors. Their source of revenue is the difference between the price at which they are willing to buy an asset, i.e., the *bid price*, and the price for which they are willing to sell an asset, i.e., the *ask price*. Note that the terms "bid" and "ask" are used from the perspective of the market maker. Of course, to make the whole scheme make sense, the bid price is smaller than or equal to the ask price.

The *brokers* work for investors to implement the trades. Typically they charge a type of commission. We will only consider commissions charged per trade. Such commissions may be proportional (a percentage of the monetary amount exchanged in the transaction) or fixed.

Problem 2.1. The bid-ask spread on a share of stock is \$100-\$102. A 5% commission is paid for either buying or selling. Calculate the round-trip transaction cost.

(a) \$14.10
(b) \$12.10
(c) \$6.10
(d) \$4.10
(e) None of the above.

Solution: (b)
You spend $102 \times (1 + 0.05) = 107.10$ to buy the asset, and receive $100 \times (1 - 0.05) = 95$ when you sell the asset. The round-trip transaction cost is $107.10 - 95 = 12.10$.