Session 28

Close Enough? Near Arbitrage

Test

1. When a stock is listed on more than one market at the same time, you should expect to see it trade at the same price in its multiple listings. If there is a price difference on a stock listed on two different markets, in two different currencies, what would you require to make a sure profit?
    a. No differences in dividend payout or voting rights across the listings
    b. Freely convertible currencies
    c. Both markets have to be open for trading at the same time
    d. Transactions costs < Pricing difference
    e. All of the above
2. Many foreign companies list depository receipts (ADRs) in the United States, traded in US dollars. Studies find that some ADRs consistently trade at higher prices than the local listing of these shares. Which of the following would you do to exploit this difference?
    a. Buy the ADR
    b. Sell short the ADR
    c. Buy the ADR and sell short the local listing
    d. Sell short the ADR and buy the local listing

    What is the risk in this strategy?

3. Closed end funds are mutual funds that have shares traded on them. Their assets are marketable securities of various types and the value of these securities is called the Net Asset Value (NAV). Which of the following describes what studies have uncovered about the pricing of closed end funds?
    a. All closed end funds trade at their net asset value
    b. All closed end funds trade at a premium to net asset value
    c. All closed end funds trade at a discount on net asset value
    d. The median closed end fund trades at a premium to net asset value
    e. The median closed end fund trades at a discount on net asset value
4. If closed end funds trade at a discount on net asset value, you should be able to acquire closed funds, liquidate them and claim the difference as an arbitrage profit.
    a. True
    b. False
5. In convertible arbitrage, you try to find different types of securities (options, bonds, convertibles, stock) issued by the same company that trade at prices that are inconsistent with each other. Which of the following would be an attempt at convertible arbitrage?
    a. Buy a convertible bond, buy call options and sell short the bonds issued by the same company.

b. Sell short a convertible bond, buy call options and sell short the bonds issued by the same company.
c. Buy a convertible bond, sell call options and sell short the bonds issued by the same company.
d. Sell short a convertible bond, sell call options and sell short the bonds issued by the same company.
e. Buy a convertible bond, buy call options and buy the bonds issued by the same company.

Solution

1. When a stock is listed on more than one market at the same time, you should expect to see it trade at the same price in its multiple listings. If there is a price difference on a stock listed on two different markets, in two different currencies, what would you require to make a sure profit?
    a. No differences in dividend payout or voting rights across the listings
    b. Freely convertible currencies
    c. Both markets have to be open for trading at the same time
    d. Transactions costs < Pricing difference
    e. All of the above

    Explanation: For the price difference to guarantee a sure profit, you have to buy the stock on its cheaper listing, sell short the stock in the more expensive listing, be able to convert your proceeds from one currency to another and have transactions costs that are less than the price difference.

2. Many foreign companies list depository receipts (ADRs) in the United States, traded in US dollars. Studies find that some ADRs consistently trade at higher prices than the local listing of these shares. Which of the following would you do to exploit this difference?
    a. Buy the ADR
    b. Sell short the ADR
    c. Buy the ADR and sell short the local listing
    d. Sell short the ADR and buy the local listing

    What is the risk in this strategy?

Explanation: By selling short the ADR and buying the local listing, you are effectively selling and buying the same stock at the same time. Thus, it should be riskless but it is not because: (a) the ADR cannot be easily converted into local shares, (b) the price difference may be long term (c) you may not be able sell short the ADR.

3. Closed end funds are mutual funds that have shares traded on them. Their assets are marketable securities of various types and the value of these securities is called the Net Asset Value (NAV). Which of the following describes what studies have uncovered about the pricing of closed end funds?
    a. All closed end funds trade at their net asset value
    b. All closed end funds trade at a premium to net asset value
    c. All closed end funds trade at a discount on net asset value
    d. The median closed end fund trades at a premium to net asset value
    e. The median closed end fund trades at a discount on net asset value

    Explanation: While all not all closed end funds trade at a discount more than 65% of all closed end funds do. Thus, the median fund trades at a discount to its net asset value.

4. If closed end funds trade at a discount on net asset value, you should be able to acquire closed funds, liquidate them and claim the difference as an arbitrage profit.
    a. True
    b. False

Explanation: There are several impediments. First, the closed end fund may have corporate governance constraints that prevent you from taking it over. Second, liquidating the portfolio may create costs (transactions costs) and tax liabilities, leaving you with a lot less than the NAV (and perhaps less than the price you paid) as your proceeds.

5. In convertible arbitrage, you try to find different types of securities (options, bonds, convertibles, stock) issued by the same company that trade at prices that are inconsistent with each other. Which of the following would be an attempt at convertible arbitrage?
    a. Buy a convertible bond, buy call options and sell short the bonds issued by the same company.
    b. Sell short a convertible bond, buy call options and sell short the bonds issued by the same company.
    c. Buy a convertible bond, sell call options and sell short the bonds issued by the same company.
    d. Sell short a convertible bond, sell call options and sell short the bonds issued by the same company.
    e. Buy a convertible bond, buy call options and buy the bonds issued by the same company.

    Explanation: A convertible bond is a combination of the straight bond and a call option on the stock. Thus, to create a riskless (or close to riskless) position, you would have to sell call options and sell short the bond to neutralize the long position in the convertible bond.