SOLUTIONS

Problem Set 2.4.
Preferred stock is like long-term debt in that it typically promises a fixed payment each year. In this way, it is a perpetuity. Preferred stock is also like long-term debt in that it does not give the holder voting rights in the firm.

Preferred stock is like equity in that the firm is under no contractual obligation to make the preferred stock dividend payments. Failure to make payments does not set off corporate bankruptcy. With respect to the priority of claims to the assets of the firm in the event of corporate bankruptcy, preferred stock has a higher priority than common equity but a lower priority than bonds.

Problem Set 2.5.
Money market securities are referred to as "cash equivalent" because of their great liquidity. The prices of money market securities are very stable, and they can be converted to cash (i.e., sold) on very short notice and with very low transaction costs.

Problem Set 2.7.

a. The closing price today is \$74.59, which is \$0.17 higher than yesterday's price. Therefore, yesterday's closing price was: \$74.59 - \$0.17 = \$74.42.

b. You could buy: \$5,000/\$74.59 = 67.03 shares.

c. Your annual dividend income would be 1.20% of \$5,000, or \$60.

d. Earnings per share can be derived from the price-earnings (PE) ratio. Price/Earnings = 16 and Price = \$74.59 so that Earnings = \$74.59/16 = \$4.66.

Question 1

(a) CDL possesses a comparative advantage in the floating rate market; while Granarolo possesses a comparative advantage in the fixed rate market. Since the former desires to borrow with a fixed rate loan and the latter desires to borrow with a floating rate loan, these comparative advantages can be captured using a swap contract.

(b) Granarolo possesses an absolute advantage with respect to CDL of 1.4% in the fixed rate market and of 0.5% in the floating rate market. Hence, the comparative advantages of the two companies yield a potential gain of 0.9%, given by the difference between the absolute advantage of Granarolo in the two markets.

(c) To exploit these comparative advantages: i) Granarolo should borrow in the fixed rate market and CDL in the floating rate market; and ii) the two companies should employ a swap contract where Granarolo pays a floating rate to CDL and CDL pays a fixed rate to Granarolo.

(d) Since Mediobanca, the financial intermediary, requires an annual return of 0.1% on the loan of €10 million, the gain for CDL and Granarolo should be 0.4% each per year. To obtain such a gain CDL and Granarolo could use the following contracts (notice the solution is not necessarily unique) represented in Figure 1:

  1. CDL borrows €10 million paying Euribor + 1.0% per year in the floating rate market; Granarolo borrows €10 million paying 7% per year in the fixed rate market.
  2. CDL enters into a *swap* contract with Mediobanca on €10 million, where it pays a fixed rate of 7.2% and receives a floating rate equal to Euribor + 0.2%.
  3. Granarolo enters into a *swap* contract with Mediobanca on €10 million, where it pays a floating rate equal to Euribor + 0.2% and receives a fixed rate of 7.1%.

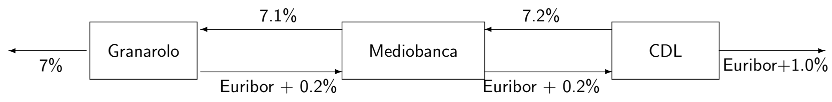

Figure 1: *Swaps* contracts in Question 1.