Reading 73

PRICING AND VALUATION OF FUTURES CONTRACTS

1. **(B) positively correlated with the price of the underlying.**

   Explanation

   When interest rates are positively correlated with the price of the underlying, the mark-to market feature of futures means that when additional margin deposits are required (lower price of the underlying), interest cost is lower. When margin can be withdrawn from the account (higher price of the underlying) the interest earned on the cash withdrawn will be higher. This makes futures more desirable than equivalent forward contracts.

   (Module 73.1, LOS 73.b)

2. **(B) futures prices are negatively correlated with interest rates.**

   Explanation

   Differences may exist between forward and futures prices for otherwise identical contracts if futures prices are correlated with interest rates. If futures prices are negatively correlated with interest rates, daily settlement of long futures contracts will require cash when interest rates are increasing and produce cash when interest rates are decreasing. As a result, the futures price will be lower than the forward price. The difference in price does not provide an arbitrage opportunity or suggest that investors should prefer forward or futures contracts.

   (Module 73.1, LOS 73.b)

3. **(B) a change in contract price but no change in contract value.**

   Explanation

   The mark to market adjustment to futures contracts resets the price of the futures contract to the new settlement price, which returns the value of the contract to zero each day.

   (Module 73.1, LOS 73.a)

4. **(A) negatively correlated with the price of the underlying.**

   Explanation

   When interest rates are negatively correlated with the price of the underlying, the mark to-market feature of futures means that when additional margin deposits are required (lower price of the underlying), interest cost is higher.

When margin can be withdrawn from the account (higher price of the underlying), the interest earned on the cash withdrawn will be lower. This makes futures less desirable than equivalent forward contracts.

(Module 73.1, LOS 73.b)

5. (A) the futures contract requires daily settlement and the forward contract does not.

Explanation

The reason there may be a difference in price between a forward contract and an identical futures contract is that a futures position has daily settlement and so makes or requires cash flows during its life.

(Module 73.1, LOS 73.b)

6. (C) exhibit greater convexity.

Explanation

Because payments on forward rate agreements are discounted to the beginning of the loan period at the realized rate, they exhibit convexity, whereas payments on interest rate futures are linear (no convexity).

(Module 73.1, LOS 73.b)