FIFTH MIDTERM EXAM

EC26101: MONEY, BANKING AND FINANCIAL MARKETS

MAY 5, 2004

This exam has 22 questions on five pages. Before you begin, please check to make sure that your copy has all 22 questions and all five pages.

All questions will receive equal weight in determining your exam score.

Please answer all questions on the answer sheet provided.

1. Consider a share of stock that sells for price P_t today (time t) and pays a stream of dividends $D_{t+1}, D_{t+2}, D_{t+3},\ldots$ in future years $t+1$, $t+2$, $t+3,\ldots$ out into the possibly infinite future. An investor can replicate the stream of payments made by this share of stock by buying a portfolio of discount bonds that includes:

    A) A one-year discount bond with face value D_{t+1}, a two-year discount bond with face value D_{t+2}, a three-year discount bond with face value D_{t+3}, and so on, out into the possibly infinite future.
    B) A one-year discount bond with price D_{t+1}, a two-year discount bond with price D_{t+2}, a three-year discount bond with price D_{t+3}, and so on, out into the possibly infinite future.
    C) A one-year discount bond with yield to maturity D_{t+1}, a two-year discount bond with yield to maturity D_{t+2}, a three-year discount bond with yield to maturity D_{t+3}, and so on, out into the possibly infinite future.

2. According to the dividend valuation model, the price of a share of stock should equal the _____ value of all future dividends paid by that share of stock.

3. The dividend valuation model implies that all else equal, a stock that is expected to pay higher dividends in the future ought to have a:

    A) Higher price.
    B) Lower price.

4. Some stocks do not currently pay dividends, but still sell for a price that is greater than zero. The dividend valuation model can explain this fact if:

    A) The stock is expected to pay dividends at some point in the future.
    B) Interest rates on discount bonds are expected to rise in the future.
    C) Interest rates on discount bonds are expected to fall in the future.
    D) None of the above.

5. In the Gordon growth model, the future dividends paid by a share of stock are assumed to grow at the constant rate g. If D_t denotes the dividend paid by the share of stock this year, and if D_{t+j} denotes the dividend paid by the share of shock j years from now, this assumption implies that

    A) $D_t = (1+g)^j D_{t+j}$.

    B) $D_{t+j} = (1+g)^j D_t$.

    C) $D_t = (1+g)^j (1+D_{t+j})$.

    D) $D_{t+j} = (1+g)^j (1+D_t)$.

6. According to the Gordon growth model, a share of stock that pays a larger dividend today should:

    A) Sell for a higher price today.
    B) Sell for a lower price today.

7. According to the Gordon growth model, a share of stock with future dividends that are expected to grow at a faster rate ought to have:

    A) A higher price today.
    B) A lower price today.

8. Let P_t denote the price of a share of stock today (at time t), let D_t denote the dividend paid by the stock this past year, let g denote the assumed constant growth rate of future dividends, and let k denote the assumed constant required return on equity. Then which of the following equations summarizes the Gordon growth model?

A) $P_t = \left(\dfrac{1+g}{k-g} \right) D_t$.

B) $D_t = \left(\dfrac{1+g}{k-g} \right) P_t$.

C) $P_t = \left(\dfrac{1+g}{k+g} \right) D_t$.

D) $P_t = \left(\dfrac{1+g}{1+k} \right) D_t$.

E) None of the above.

9. When using the Gordon growth model to assess the fundamental value of any particular stock, a higher setting for the required return on equity k corresponds to an assumption that:

A) The stock is less risky.
B) The stock is more risky.

10. During the period from 1923 to 1933, an interval that includes the Great Depression, the dividends paid by the stocks in the Dow Jones Industrial Average as a group:

A) Decreased.
B) Increased, but at a rate that is below average compared to the period from 1933 to 2003.
C) Increased at a rate that is above average compared to the period from 1933 to 2003.

11. Bank capital, net worth, or shareholders' equity is calculated by taking the value of a bank's assets and subtracting off the value of its _____.

12. Checkable deposits are a bank's "lowest cost source of funds," in the sense that:

A) Checkable deposits tend to have lower interest rates than other bank liabilities.
B) Checkable deposits tend to be the least costly type of deposits for banks to service or maintain.
C) Checkable deposits are payable on demand.
D) Both (A) and (B) above.
E) All three, (A), (B), and (C), above.

13. Bank reserves must always equal:

    A) The sum of its vault cash and its deposits at the Federal Reserve.
    B) The sum of its required reserves and its excess reserves.
    C) The sum of its demand deposits and its NOW accounts.
    D) Both (A) and (B) above.
    E) All three, (A), (B), and (C), above.

14. When a bank borrows funds from the Federal Reserve, the loan is called a _____ loan.

15. The relationship in which a small bank holds deposits at a larger bank and, in return, the larger bank helps the small bank with check collection and securities transactions is called _____ banking.

16. The securities listed on a bank's balance sheet can include:

    A) US Treasury bills, notes, and bonds.
    B) US Government Agency bonds.
    C) State and Local Government bonds.
    D) Both (A) and (B) above.
    E) All three, (A), (B), and (C), above.

17. The loans listed on a bank's balance sheet can include:

    A) Commercial and industrial loans.
    B) Real estate loans (mortgages).
    C) Interbank loans.
    D) Both (A) and (B) above.
    E) All three, (A), (B), and (C), above.

18. The process through which a bank issues liabilities with one set of characteristics and uses the proceeds to acquire assets with a different set of characteristics is called _____ transformation.

19. Whenever a bank gains an additional $100 in deposits it:

    A) Loses an additional $100 in reserves.
    B) Gains an additional $100 in reserves.

20. Consider an example in which Fleet Bank initially holds no excess reserves and then gains $100 in additional deposits. If the required reserve ratio is 10%, as it is in the US today, what is the maximum amount that Fleet can use to make new loans, while still satisfying its reserve requirement?

A) $0.
B) $10.
C) $90.
D) $100.

21. Banks hold excess reserves:

A) Because excess reserves help the bank cope more easily with deposit outflows.
B) Because excess reserves earn interest at a higher rate than required reserves.
C) Because excess reserves earn interest at a higher rate than the bank's checkable deposits.
D) Both (A) and (B) above.
E) All three, (A), (B), and (C), above.

22. Consider an example in which Fleet Bank initially holds no excess reserves and experiences a deposit outflow. To cope with this deposit outflow, Fleet's options include:

A) Borrowing funds from another bank.
B) Borrowing funds from a non-bank corporation.
C) Borrowing funds from the Federal Reserve.
D) Both (A) and (B) above.
E) All three, (A), (B), and (C), above.