## END OF CHAPTER EXERCISES

# Chapter 12 : Equity Finance And Stock Valuation 

Investments : Spot and Derivatives Markets

(Keith Cuthbertson, Dirk Nitzsche)

1. Does the dividend discount model ignore the mass of investors who have bought their shares with the intention of selling them in say 3 years time?
2. What practical use is there in knowing the beta of your stock portfolio?
3. Why might stock prices be highly volatile even though all investors act in a perfectly rational way?
4. Why is it better to short sell an overvalued stock and to simultaneously buy a different undervalued stock, rather than simply just buying the undervalued stock?
5. The dividends of company-X are expected to grow at the constant rate of $5 \%$ p.a. The last dividend payout was $\$ 1.80$ per share. The risk adjusted (required) rate of return is $E R=11 \%$ p.a. The current market price of the share is $\$ 35$. Should you purchase the share?
6. 'Internet' plc is expected to produce earnings per share in 2001 of 20 cents and in 2002 of 26 cents. Earnings growth thereafter is expected to be $10 \%$. Past performance is indicated below.

| Cents | 1988 | 1989 | 1990 |
| :--- | :---: | :---: | :---: |
| EPS (Earnings per share) | 10 | 12 | 15 |
| Dividends per share | 4 | 4.8 | 6 |

(a) If the rate of return on 'Internet' plc required by investors is $14 \%$, what is the fair price for the share at the end of 2000?
(b.) In the past 5 years Internet shares have provided a $10 \%, 12 \%, 3 \%, 6 \%$ and $8 \%$ return. Estimate the expected return and standard deviation of Internet plc.
(c.) The expected return on the market is 7\%, the standard deviation of market risk is $6 \%$, correlation of Internet with the market is 0.7 and the risk free rate is $5 \%$. If the current market price of Internet is $P=235$, is Internet a "good buy"?
7. A firm is expected to pay dividends of $20 p$ at the end of the year $t=1$. Dividends are then expected to grow at $5 \%$. The (risk adjusted) required rate of return for this firm is
$11 \%$. What would you expect its current market price to be? If the dividend payout ratio is $60 \%$ what would you expect the price earnings ratio to be?

