

The following statement of financial position information relates to Tufa Co, a company listed on a large stock market which pays corporation tax at a rate of 30%.

| | \$m | \$m |
|------------------------------|------------|------------|
| Equity and liabilities | | |
| Share capital | 17 | |
| Retained earnings | 15 | |
| Total equity | | 32 |
| Non-current liabilities | | |
| Long-term borrowings | 13 | |
| Current liabilities | 21 | |
| Total liabilities | | 34 |
| Total equity and liabilities | | 66 |

The share capital of Tufa Co consists of \$12m of ordinary shares and \$5m of irredeemable preference shares.

The ordinary shares of Tufa Co have a nominal value of \$0.50 per share, an ex dividend market price of \$7.07 per share and a cum dividend market price of \$7.52 per share. The dividend for 20X7 will be paid in the near future.

Dividends paid in recent years have been as follows:

| Year | 20X6 | 20X5 | 20X4 | 20X3 |
|---------------------|-------------|-------------|-------------|-------------|
| Dividend (\$/share) | 0.43 | 0.41 | 0.39 | 0.37 |

The 5% preference shares of Tufa Co have a nominal value of \$0.50 per share and an ex dividend market price of \$0.31 per share.

The long-term borrowings of Tufa Co consist of \$10m of loan notes and a \$3m bank loan. The bank loan has a variable interest rate.

The 7% loan notes have a nominal value of \$100 per loan note and a market price of \$102.34 per loan note. Annual interest has just been paid and the loan notes are redeemable in four years' time at a 5% premium to nominal value.

Required:

(a) Calculate the after-tax weighted average cost of capital of Tufa Co on a market value basis. (11 marks)