

Assessment criteria:

A detailed marking rubric sheet is available in this subject's iLearn site.

Task description:

Question 1. Bond Valuation (30 marks)

Wesfarmers Limited (Australian listed company: ASX WES) is a key operator in the Australian retail space and with diverse operations including industrial manufacture, fertilisers and chemicals and LPG distribution, with a market capitalization of around AUD50bn. Due to the recent market instability surrounding the COVID19 pandemic, WES intends to recapitalize through the issuance of \$1 billion in corporate bonds into the Australian market. The bonds will have a term to maturity of 7 years and a coupon rate of 6% p.a., with coupons paid semi-annually.

Required: As a financial analyst of WES, you are asked to;

- a) *Demonstrate* graphically the current term structure for the Australian corporate bond market. Describe the observed relationship.
- b) Based on the term structure from part (a), *discuss* which of the term structure theories best describes what you observe.
- c) *Calculate* the costs (in %) to WES of the debt issue. *Show all working.*
- d) *Calculate* the reduction in costs that could be achieved if the credit rating of WES for the bond issue was improved by one level. Compare your answer with that from part (c) and explain why the costs are reduced. *Show all working.*
- e) *Suppose* WES issued the bond at yield as in part (c), and that immediately after yields then change to those in part (d). What impact would this have on the price of the bond? (Hint: use duration). How accurate is this estimate?

Additional information:

You will need to collect data from **Bloomberg** to answer this question. This data includes (but is not necessarily limited to) the current credit rating for WES (use the credit rating from Standard & Poor's) and the Australian corporate yield curve spreads for the various bond ratings. Ensure you take screenshots of the yield curve data and include this in your Excel file with your other data.