The Finance Director of Triple X plc is currently reviewing the capital structure of the company. He is convinced that the company is not financing itself in a way that minimises its cost of capital (WACC). The company’s balance sheet as at 1 January 2020 is as follows:

 £000

Ordinary shares, £1 each 15,000

Reserves 10,000

10% bonds (redeemable after 5 years at £100 par) 15,000

 40,000

Other information (as at 1 January 2020):

Ordinary share price (ex-div) £3

Bond price for 10% bonds £95

Corporate tax 30%

The company’s beta is 1.4, yield on a domestic ten year government bond is 3%, and the average return of the biggest domestic index is 8.4%

1. Calculate the *current* cost of capital (WACC) for Triple X plc.

*Further information*

The finance director believes by issuing more debt the company will be able to reduce its relatively high cost of capital. He proposes to issue £20m of 8 per cent bonds. Given current uncertainty over Brexit negotiations, these bonds will be sold at a heavy 10 per cent discount to their par value of £100 and will mature after two years. The coupon payments of the newly issued bonds will be made quarterly to address investor anxieties. The funds raised will be used to repurchase ordinary shares which the company will then cancel. He expects the repurchase will cause the company’s share price to rise to £3.20. The finance director expects the price of the originally issued 10 per cent bonds to be unaffected.

1. Given the proposed changes to Triple X’s capital structure*, recalculate* the company’s cost of capital.
2. Discuss theoretical concepts that describe the relationship between debt to equity ratio and the effect on the WACC. Relate your discussion to the results obtained in (a) and (b).