

## MN20211: Mergers and Acquisitions Exercise

Firm X is considering each of the following all-equity takeover targets (assume that we are currently at December 31<sup>st</sup> 2012). If a takeover occurs, it will occur immediately.

Target:	Total Earnings during 2012	Expected Growth Rate of earnings %	Beta Coefficient.
A	£10m	8	1.5
B	£15m	10	2.2
C	£20m	8	2.5

Firm X is all-equity. It has a beta of 2.0. During 2012, its total earnings were £5m. If firm X does not succeed in taking over any of the targets, then its investors expect a growth rate in its earnings of 5%.

The expected return on the market is 10%, and the risk-free rate is 5%.

- Calculate the cost of capital for each of the takeover targets, and for Firm X.
- Calculate the pre-merger value of firm X and each of these merger targets.
- Firm X has estimated the following post-merger earnings for each merger candidate (that is, the combined earnings of firm X with each candidate);

Firm X plus;	Immediate (at 31/12/12) Combined Post-merger Earnings (£ millions).
A	20
B	30
C	25

Assume that, for any of these mergers, the combined beta will be 2.0. Further, assume that the growth rate of earnings following merger with any candidate is 10%. Calculate the post-merger total values, and the synergy values.

- Recommend a merger target for firm X.