Company M is trying to decide on a project which is a much different risk than the average project of the company. Company M found two companies in the same business and gathered the following information:

Company	Beta	Debt to Equity	Tax Rate
A	2.2	1.5	.25
B	1.7	1.0	.25
	b_u = 1.95	D/E = 1.25	T = .25

Company M plans to use $5 million on debt and $10 million in retained earnings to finance the project (initial investment of $15 million). They expect net operating cash flows of $5 million per year for 5 years with no terminal cash flows from the project.

Assume a return on the market of 14% and a risk free rate of 7%. In addition, assume Company M has a r_d = 10% and a tax rate of 25%.

a. Calculate the levered beta for the Company M's project.

$b_u = \frac{1.95}{1+(1-.25)1.25} = 1.01$ $\quad b_L = 1.01(1+(1-.25)5/15$

$b_L = 1.26$

b. Calculate r_s with the CAPM model and then calculate the WACC for Company M's proposed project.

$r_s = 7\% + (14\%-7\%)1.26 = 15.82$

$WACC = 5/15 * 10\%(1-.25) + \frac{10}{15} 15.82$

$2.5 \quad + \quad 10.55 = 13.05$

0	1	2	3	4	5
-15	5	5	5	5	5

c. Find the NPV for the project and indicate if they should take the project.

$NPV_{13.05} = \$2.56m$