Spring 2019 Name:

Quiz 2: Corporate Finance

Answer all questions and show necessary work. Please be brief. This is an open books, open notes exam.

1. Londell Inc. is a US company that operates in two businesses and in two countries and you have been provided the following information (with all dollar values in $ millions):

	Hotels	Movies		US	Mexico
Revenues	$ 100.00	$ 150.00	Riskfree rate	2.50% ($)	4.00% (Pesos)
Unlevered Beta	0.80	1.20	ERP	5.00%	8.00%
MV of equity	$ 400.00	$ 800.00	Tax rate	25%	25%
MV of debt	$ 600.00	$ 200.00			

The company is rated BBB by S&P, and BBB rated bonds have a default spread of 2% over the riskfree rate. If Londell is planning to expand its movie business into Mexico, **estimate the US$ cost of capital** that you would use in assessing this investment, assuming it preserves its existing business-specific debt ratios. (3 points)

2. Calico Restaurants is planning to create a new online meals-to-order service and has estimated that creating it will have the following effects on its operations:
    a. Annual revenues will increase from $800,000/year to $1,300,000/year, for the next 3 years.
    b. While the restaurant earns an EBITDA margin (EBITDA as percent of sales) of 30% currently, it expects to earn an EBITDA margin of 40% on just its incremental online sales.
    c. The tax rate is 20% and the appropriate cost of capital for online restaurant businesses is 12%.

    Assuming that there will be an initial cost of $450,000 for creating the service, which will be depreciated straight line over 3 years to a salvage value of zero, **estimate the NPV for the investment**. (4 points)

3. You have been asked to review the NPV calculation for an investment analysis done for a movie theater company on a new subscription plan model, where subscribers will be allowed to watch up to 10 movies a month for $25/month.
    a. The analyst who did the analysis forecast the expected revenues and costs from introducing a subscription model, using a 5-year life for the plan and using a cost of capital of 9%. Her estimate of the NPV is $10 million.
    - While you are in agreement with the numbers that the analyst has used, you believe that she has missed a key element, which is that 10,000 of the subscribers to the plan are existing customers, who currently see four movies a month, on average, paying $10/movie.

    Assuming that these 10,000 subscribers will stay on the subscription plan for all five years, and that neither the monthly subscription rate nor the price per movie ticket will change over time, estimate the corrected NPV. (You can ignore taxes and assume that there are no variable costs/subscriber.) (3 points)