

**Quiz 1: Valuation**

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

1. You are reviewing the valuation of Ramos Inc., a publicly traded Chilean company. The analyst claims to have done the valuation in US dollar terms, discounting the expected cash flows in US dollars at a US dollar cost of capital of 12% to arrive at a value of \$1.2 billion. As you review the valuation, though, you believe that the analyst has estimated the expected cash flow and cost of capital correctly in US dollars but she has assumed a constant US dollar price (no inflation) after that and a real growth rate of 2%. The ten-year US T.Bond rate is 2.75% and the US TIPs (Inflation indexed bond) rate is 1.25%. Estimate the correct value for Ramos Inc. today. (3 points)

2. Nexus Inc., a US-based corporation, is in the steel and technology businesses, with US and Latin American operations (composed of Brazil and Argentina). The company has provided you information on the revenues (in millions of US dollars) in the most recent year from different businesses and regions (with the unlevered beta of the businesses in the last column):

	US	Brazil	Argentina	Unlevered Beta
Steel	\$500	\$400	\$200	0.90
Technology	\$2,000	\$600	\$300	1.50

You have collected information on government bond rates in US, Argentina and Brazil and they are reported below:

	US	Brazil	Argentina
In US\$	2.75%	4.00%	8.75%
In local currency	2.75%	11.00%	20.00%

You can also assume that equities are 1.5 times more risky than government bonds in both Brazil and Argentina and that their local currency ratings match their foreign currency ratings. You can assume an equity risk premium for mature markets (like the US) of 5.75% and that Nexus is all equity funded.

- a. Assume that Nexus plans to sell its Latin American operations and wants a US dollar cost of equity for just these operations. What total equity risk premium would you use in this computation? (2 points)

b. What beta would you use in your US dollar cost of equity computation for just the Latin American operations? ( 1 point)

c. What is your estimate of the US\$ cost of equity for the Latin American operations of Nexus? ( 1 point)

3. You are trying to estimate the free cash flow to the firm for Wadhwa Inc. and are looking at its most recent financial filings: the annual report for the last fiscal year and its most recent quarterly report for the first three quarters of the current year.

	Last fiscal year (2012)	3rd Qtr, 2013	3rd Qtr, 2012	First 3 Qtrs, 2013	First 3 Qtrs, 2012
Revenues	\$1,200	\$400	\$325	\$1,100	\$850
EBITDA	\$400	\$120	\$95	\$350	\$300
Depr & Amort (DA)	\$100	\$30	\$25	\$90	\$75
EBIT	\$300	\$90	\$70	\$260	\$225
Interest expenses	\$75	\$25	\$15	\$70	\$55
Taxable Income	\$225	\$65	\$55	\$190	\$170
Taxes	\$68	\$26	\$22	\$57	\$51
Net Income	\$158	\$39	\$33	\$133	\$119
Cap Ex	\$150	\$45	\$35	\$130	\$110
Non-cash WC (End of period)	\$70	\$80	\$100	\$80	\$100

Estimate the free cash flow to the firm over the most recent twelve months. (3 points)