Corporate Finance, Spring, 2013
Final Exam
Wednesday, June 12th, 2013

Writing time: 4 hours
Use of calculators is allowed

Points per each question as indicated. Maximum score is 80 points. 50% of the available points are required for a passing grade. In your answers to the essay questions, **avoid going beyond one page.** Make sure your answers are legible – **if I cannot read it, I cannot grade it.** A collection of financial formulas is provided on the last page for your convenience. Students in Hanken's Corporate Governance program can elect not to answer question 5.

1. For each question in this section, choose the one most correct option. Use your answer sheet to provide your answers to this section, and make sure that your choices are clear. **Unclearly marked choices do not score points.** (each of the 5 sub-questions below is worth 2 points)

1.1. Existence of stock markets adds value to a corporation by

a) Allowing insiders to manipulate the stock.
(b) Providing information about the value of the firm.
c) Allowing bankrupt firms to continue listing their stock.
d) Reducing liquidity of the firm.

1.2. Which of the following is a problem with the NPV method of capital budgeting?

a) NPV is a measure related to shareholder wealth.
b) NPV considers all cash flows during the life of the project.
c) Correct calculation of NPV requires a lot of computing power.
(d) Long-term cash flows are difficult to estimate.

1.3. If the CAPM holds,

(a) All assets lie on the Security Market Line.
b) Risk and return are unrelated.
c) Only firm-specific risk is relevant.
d) Beta is equal to one for all assets.

1.4. When an all-equity firm takes on debt,

a) Its equity volatility decreases.
(b) The expected return for equity-holders increases.
c) Leverage decreases.
d) The expected bankruptcy costs decrease.

1.5. According to Modigliani & Miller proposition 2,

a) Value of levered firm = value of the firm's assets
b) Return of levered firm = return of unlevered firm
c) Debt does not affect firm's expected return
(d) Return of levered firm = asset return + risk of leverage

2. Consider the figure from a study by Graham and Harvey, in Appendix 1. Discuss the top 5 reasons indicated as motivations for debt issuance. Which capital structure theories receive the strongest support? Among all responses, which theories receive relatively weak support? (15 points)

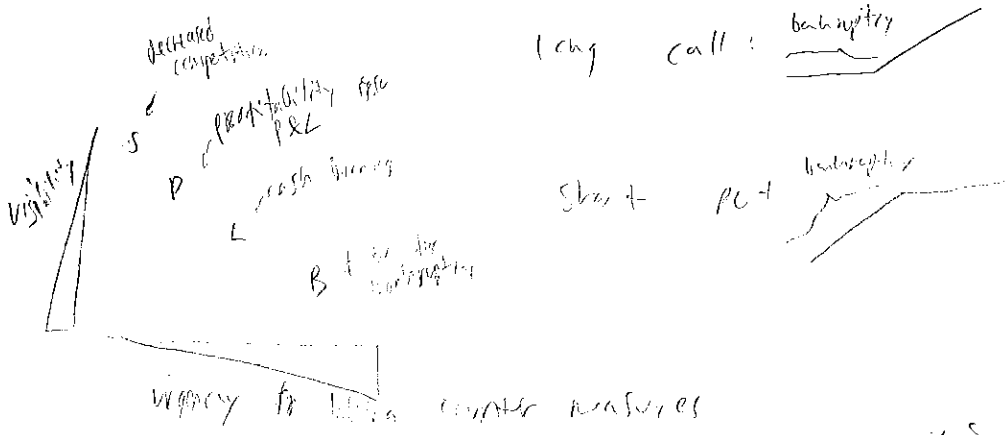
3. Consider the information on ABC, Co. below:

Cost of equity:	9%
Pre-tax cost of debt:	7%
Target D/E ratio:	1/4
Tax rate:	26%

Assume that the firm has FCF of 5 million, which is expected to grow at 3% to infinity. Use the WACC to calculate the value of debt tax shield for the firm, provided that it maintains its target leverage SHOW YOUR WORK FOR FULL CREDIT (15 points).

4. During the guest lecture by Tuukka Seppä of Boston Consulting, a model with four stages along continuum of distress was discussed. Discuss the stages of strategy crisis, profit crisis, liquidity crisis, and bankruptcy. What are the factors that affect initiation of corporate turnaround efforts? Please: Limit your answer to one page max! (15 points)

5. Discuss the corporate underinvestment and overinvestment issues in light of the option pricing theory. Be specific as to the type of options held by corporate claimants. What are the drivers of the value of those options? Note: This question is not mandatory for students in Hanken's Corporate Governance program. (15 points)



initiation: internal efforts → crisis management
CFO
external (bankruptcy, monitoring lenders etc)

turnaround can happen early and late in the process. (earlier → too late

$$FV_n = PV(1+i)^n = PV(FVIF_{i,n})$$

$$FV_n = PV\left(1+\frac{i}{m}\right)^{mn}$$

$$PV = FV_n\left[\frac{1}{(1+i)^n}\right] = FV_n(PVIF_{i,n})$$

$$FV_n = PMT\left[\frac{(1+i)^n - 1}{i}\right] = PMT\,(FVIFA_{i,n})$$

$$PV = PMT\left[\frac{1-[1/(1+i)^n]}{i}\right] = PMT\,(PVIFA_{i,n})$$

$$PV = \frac{PP}{i}$$

$$k_j = k_{rf} + \beta_j(k_m - k_{rf})$$

$$P_b = \sum_{t=1}^{n} \frac{Coup_t}{(1+k_d)^t} + \frac{Mat}{(1+k_d)^n}$$

$$YTM = \frac{Coup + \frac{Par - Market}{n}}{\frac{Par + 2(Market)}{3}}$$

$$P_p = \frac{Div}{k_p}$$

$$V_{cs} = \frac{D_1}{k_{cs} - g}$$

$$g = ROE * r$$

$$WACC = w_d k_d (1-t) + w_{ps} k_{ps} + w_{cs} k_{cs}$$

$$r = \frac{(1+n)}{(1+i)} - 1$$