

Qualitative Solutions AFM 274 Mid-Term 2

Question 1 Initial Public Offerings (IPO) (8 marks)

What are the main advantages and disadvantages of undertaking an Initial Public Offering? **(4 marks)**

The advantages to going public include (2 marks):

Access to large amounts of Capital (1 mark), plus .5 each for any two of:

- Ability for venture capital, PE and/or entrepreneur to 'harvest' their investment.
- Ability to reward managers through options that will now have a market value.
- Creating a "currency" for Acquisitions
- Greater public visibility (perhaps increasing the sales of firm's products and services).

The disadvantages to going public include (.5 each to a maximum of 2 Marks)

- **Expensive process -Underwriting Fees, Legal Fees, Accounting Fees – typically totaling 7-10%**
- **Potential under pricing costs of the IPO**
- **Listing fees**
- **On-going expense of continuous disclosure**
- **Very High Audit Fees**
- **Enhanced Corporate Governance Expense, under either SOX (USA) or C-198 in Canada**

What is the total estimated cost (fees and expenses) of completing a Canadian IPO, as a percentage of the total amount raised? **(1 mark)**

- **typically totaling 7-10%**

How many securities commissions are there in Canada? **(1 mark)**

- **Thirteen**
- **Alibaba has filed a preliminary prospectus to go public on the NYSE. What is unusual about Alibaba's ownership structure, and why is it controversial? (2 marks)**

Alibaba's ownership structure is unusual in that

- it allows a partnership of founders (Jack Ma et al) who own ~22% to control company **(1 mark)**
- said to be "more democratic" since a vote of 95% of shareholders can overrule the partnership **(.5)**
- Yahoo (22%) and SoftBank (34%), the two largest shareholders have agreed to this arrangement. **(.5 mark)**

Question 3 – Short Term Debt (7 Marks)

What are Bankers' Acceptances, and how are they issued? **(2 marks)**

Bankers Acceptances are short term debt issued by corporations, with the obligations accepted (guaranteed) by a Chartered Bank. (1 mark)

As a result, the debt trades on the credit of the Bank. (.5 mark)

The Bank charges an acceptance (or “stamping”) fee to the Co. for the issuance. (.5 mark)

Why would a Canadian corporation issue BA's? **(2 marks)**

A Corporation would issue BA's primarily because (1 each):

- **They can obtain a rate less than Prime on short term debt**
- **They don't need a rating agency rating to issue them**

What is Commercial Paper, and how is it issued? **(2 marks)**

Commercial Paper is short term debt issued by corporations with an agency credit rating (1 mark), supported a standby credit line (Liquidity support line) of a Chartered Bank (1 mark).

Why would a Canadian corporation issue Commercial Paper? **(1 marks)**

It is usually cheaper than other short term debt, such as BA's.

Question 4 – Long Term Debt

**(A) Bombardier has just issued callable five year, 4% coupon bond with annual coupon payments
The Bond can be called at 104% of par value at any coupon payment date after one year.
It has a price of \$102 per \$100 of face value.
What is the Bond's yield to call? (2 marks)**

Yield to
Call = $((\text{Call Price} + \text{1st Interest payment}) / \text{Current Market price}) - 1$

Yield to
Call = 5.9%

**(b) You own a convertible bond with a face value of \$10,000 and a conversion ratio of 411.
What is the conversion price? (1 mark)**

Conversion
Ratio = $+10000/411$
= **\$24.33**

(c)

Generally anything below BBB is rated as "Junk"

It is important to stay rated at BBB or above because most Pension Funds, Endowments, and Corporate Treasuries exclude or limit investment in Junk Bonds

Question 7 – Short Answer Questions (4 marks)

1. PK Inc. wants to raise \$50 million in an IPO. The offer price in the IPO is \$ 24 per share, and the underwriting fee is 6%. How many shares must the firm issue? (1 mark; no part marks)

Shares Issued = $\$50 \text{ MM} / (\$24 \times .94)$ **\$22.56 net per share**
= **2,216,312 shares**

2. What is a "Bought Deal", and what are its advantages and disadvantages? (3 marks)

A Bought Deal (Confirmed issuance) is a securities issuance where the underwriter or dealer group (syndicate) buys the whole issue, at an agreed price and issue size from a company before it is issued. (.5 mark)

The underwriter is taking both the price risk and the issue size risk. (.5 mark)

The main advantages are: (.5 each to a maximum of 1 mark)

- Speed of issuance;
- Certainty of funding & amount;
- Less executive time required
- Forces investors to make quick decision

The main disadvantages are: (.5 each to a maximum of 1 mark)

- Usually sold at a discount to market price
- company does not get market publicity
- little retail investor involvement
- if issue is not well sold by Underwriters, it will create overhang and depress stock price

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Question 2 - Grand River Industries (15 marks)

Part (A) What is Acme's WACC? (6 marks)

	0.5	1	
<u>Cost of Equity</u>	<u>Rf +</u>	<u>+ (Rm * Beta)</u>	<u>Marks</u>
Ke =	2.50%	5.75%	1.5
Ke =	<u>8.25%</u>		0.5
	Subtotal Marks		<u>2.0</u>

MV of Equity

# Shares O/S	10,000,000
Mkt Price / share	\$13.35
Market Cap.	\$133,500,000

Cost of Debt

Trading at Par 100		
Market Value	\$100,000,000	
Coupon =	4.50%	
Yield =	4.50%	
Tax Rate =	33.3%	
After Tax Kd	3.00%	1

WAAC is calculated as :

	<u>Market Value</u>	<u>% Capital</u>	<u>After Tax Cost</u>	<u>WACC</u>	<u>Market Marks</u>	<u>% Capital Marks</u>
Common Shares	\$133,500,000	57.2%	8.25%	4.72%	1	0.5
LTD	<u>\$100,000,000</u>	42.8%	3.00%	1.29%	<u>0.5</u>	<u>0.5</u>
	<u>\$233,500,000</u>	<u>100.0%</u>		<u>6.00%</u>	<u>1.5</u>	<u>1.0</u>
				Correct WACC		0.5
				Total Marks		<u>3</u>

(B) Using the WACC method, determine the NPV of GRI's plant expansion, showing all of your associated calculations. (9 Marks)

	(\$000's)						
	<u>Time 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Marks</u>
Cap Ex.	-\$50,000						1
Working Capital	-\$5,000					\$5,000	2
FCF from Expansion		<u>\$10,000</u>	<u>\$20,000</u>	<u>\$30,000</u>	<u>\$30,000</u>	<u>\$30,000</u>	
Total Cash Flow	<u>-\$55,000</u>	<u>\$10,000</u>	<u>\$20,000</u>	<u>\$30,000</u>	<u>\$30,000</u>	<u>\$35,000</u>	<u>2.5</u>
PV Factor	1.0000	0.9434	0.8900	0.8396	0.7921	0.7473	
Present Value	-\$55,000	\$9,434	\$17,800	\$25,189	\$23,763	\$26,154	3.0
Net Present Value	<u>\$47,339</u>						0.5

Question 5

Hamilton Steel Co.

(\$000's as at June 30, 2014)

Balance Sheet

Cash	\$3,500	Accounts Payable	\$48,500
A/R	\$111,800	Bank Operating Line	\$6,650
Inventory	<u>\$103,500</u>	Current LTD	<u>\$10,000</u>
Current assets	\$218,800	Current Liabilities	\$65,150
Land & Building	\$57,350	Long Term debt	\$80,000
Equipment	\$28,490	Common stock	\$144,000
Goodwill	<u>\$19,890</u>	Retained Earnings	<u>\$35,380</u>
Total Assets	<u>\$324,530</u>	Total Liab & Equity	<u>\$324,530</u>

Income Statement

(\$000's Y/E June 30, 2014)

Sales	\$850,000
COGS	<u>\$615,000</u>
Gross Profit	\$235,000
Expenses	\$105,000
Depreciation	\$24,000
Interest	<u>\$7,500</u>
E.B.T.	\$98,500
Taxes	<u>\$29,550</u>
Net Income	<u>\$68,950</u>

Additional Facts

Sales, last 3 Months = \$275,000

Solutions

A/R DSO =	A/R	\$111,800	
Divided by Avg Daily Sales		\$3,056	
Equals		37 DSO	2.0

(N.B. 2 marks if used 90 day sales; 1 if annual sales)

Inventory Turnover =	COGS	\$615,000	
Divided by Ending Inventory		\$103,500	
Equals		5.9 X	1.0

Cash Conversion Cycle =	Days in A/R	37		A/R/ Avg. Daily Sales
Plus	Days in Inv.	61		Inventory/ Avg. Daily COGS
Minus	Days in A/P	<u>-29</u>	1.0	A/P / Avg. Daily COGS
Cash Conversion Cycle in Days		<u>69</u>	1.0	

Question 6 - Version 1 - Co. Sells Treasury Shares to Angel

You founded your own software firm, SAFCO, two years ago, at which time you injected \$50,000 in return for 2 Million shares of Common Equity.

Last Year, the Company sold an Angel investor 8% of the Firm's equity for \$500,000.

Last week, a Venture Capitalist invested \$ 5 Million in common equity at a post-money valuation of \$ 25 Million.

Both you and the Angel have kept all of the shares originally purchased.

How many shares, and percentage of the Equity, do you and the Angel now each own?
(4 marks)

What's the current market value of each of your and the Angel's shares? (2 marks)

Question 6 - Original Version

	Round 1- 2012				Round 2- 2013				Round 3- 2014				Marks
	No. Shares	%	Value	Share Value	No. Shares	%	Value	Share Value	No. Shares	%	Value	Share Value	
Founder	2,000,000	100.0%	\$50,000	\$0.025	2,000,000	92.0%	\$5,750,001	\$2.875	2,000,000	##	\$18,400,000	\$9.200	1.0
Angel Round					\$173,913	8.0%	\$500,000	\$2.875	173,913	##	\$1,600,000	\$9.200	1.0
VC Round									543,478	##	\$5,000,000	\$9.200	1.0
Total	<u>2,000,000</u>				<u>2,173,913</u>	100.0%	\$6,250,001		<u>2,717,391</u>	##	<u>\$25,000,000</u>		1.0
											Total		4.0

How many shares, and percentage of the Equity, do you and the Angel now each own?
You own 2 MM shares, which is 73.6% of Equity
The Angel owns 173,913 shares, which is 6.4% of Equity

2,717,391

What's the current market value of each of your and the Angel's shares? (2 marks)

Your 2 MM shares are worth \$9.20 each, totalling \$18.4 MM.

The Angel's 173,913 shares are worth \$9.20 each, totalling \$1.6 MM.

Question 6 - Version 2 - Founder Sells Shares to Angel

You founded your own software firm, SAFCO, two years ago, at which time you injected \$50,000 in return for 2 Million shares of Common Equity.

Last Year, you sold an Angel investor 8% of the Firm's equity for \$500,000.

Last week, a Venture Capitalist invested \$ 5 Million in common equity at a post-money valuation of \$ 25 Million.

Both you and the Angel have kept all of the shares originally purchased.

How many shares, and percentage of the Equity, do you and the Angel now each own?
(4 marks)

What's the current market value of each of your and the Angel's shares? (2 marks)

	Round 1- 2012				Round 2- 2013				Round 3- 2014				Marks
	No. shares	%	Value	Share Value	No. shares	%	Value	Share Value	No. shares	%	Value	Share Value	
Founder	2,000,000	100.0%	\$50,000	\$50,000,000	1,840,000	92.0%	\$5,750,000	\$3.125	1,840,000	73.6%	\$18,400,000	\$10.000	1.0
Angel Round					160,000	8.0%	\$500,000	\$3.125	160,000	6.4%	\$0	\$10.000	1.0
VC Round									500,000	20.0%	\$5,000,000	\$10.000	1.0
Total	<u>2,000,000</u>				<u>2,000,000</u>	8.0%	\$6,250,000		<u>2,500,000</u>	100.0%	<u>\$25,000,000</u>		1.0
											Total		4.0

How many shares, and percentage of the Equity, do you and the Angel now each own?
You own 1.84 MM shares, which is 73.6% of Equity
The Angel owns 160,000 shares, which is 6.4% of Equity

What's the current market value of each of your and the Angel's shares? (2 marks)

Your 1.84 MM shares are worth \$10.00 each, totalling \$18.4 MM.

The Angel's 160,000 shares are worth \$10.00 each, totalling \$1.6 MM.