

# **Olin Finance Club Interview Questions & Answers**

*Ongoing Initiative on Behalf of:  
Olin Finance Club  
Professor Todd Milbourn  
Weston Career Center*

### *Overview*

This document is meant to serve as a consolidated source of finance interview questions for Olin MBA Students.

This document is not meant to act as a primer on finance functions or as a database on company specific material.

The questions are outlined as follows:

- 1) General / Behavioral Questions
- 2) Accounting Questions
- 3) Specific Questions for Job Functions
  - a. Investment Banking
  - b. Industry Corporate Finance
  - c. Equity / Fixed Income Research
  - d. Sales & Trading

### *Responsibility*

The OFC – VP of Education will be responsible for updating and distributing this document to those Olin MBA students who are seeking or are curious about a career in finance.

### **GENERAL & BEHAVIORAL QUESTIONS**

Expect the following questions on any finance interview:

- 1) Walk me through your resume?
- 2) Why did you choose to pursue an MBA?
- 3) Why Olin?
- 4) Where do you see yourself in five years?
- 5) Why you?

Other questions to expect:

- 1) Tell me about a failure you had.
- 2) What are your strengths / weaknesses?
- 3) Tell me about a time when you were working in a team and the project wasn't going as planned. Describe the measures your team took to finish the project and specifically your role.
- 4) What is the greatest obstacle you had to overcome?
- 5) Tell me about a time when you felt that you were lacking the knowledge, skills, or abilities to achieve an objective. How did you come to this realization? What did you do about it?
- 6) Please give me an example of a time you saw an opportunity to expand the scope of a project, assignment or business dealing beyond what was initially intended. What processes did you use and what was the outcome?

Most questions are geared towards key areas that companies use to evaluate potential employees. Most of these criteria are on company websites. These include the following areas:

- Innovation
- Change mentality
- Leadership
- Integrity and Ethics
- Demonstrating key Communication Techniques
- Conflict Resolution
- Teamwork

Keys to success in behavioral interviews is to answer questions addressing more than just one aspect of the companies criteria.

## ACCOUNTING QUESTIONS

### 1) Briefly describe each of the 4 financial statements and tell me which one is most critical/beneficial?

First, a quick review of the four financial statements:

Financial statements seek to measure the success of a firm's business activities by providing information about a firm's:

- Financial position (Balance Sheet)
- Profitability (Income Statement)
- Cash-generating ability (Statement of Cash Flows)
- Changes in shareholder's accounts (Statement of Stockholder's Equity)

**Balance Sheet-** Answers the question, "What is the financial position, or financial health, of a firm?" Offers a snapshot of the results of the firm's investing and financing activities at a moment in time. Firms typically present B/S as of the beginning and end of the year or period. The B/S presents a listing of a firm's assets, liabilities and SE. In the B/S, assets equal liabilities plus SE. A firm invests, somewhere, every dollar of resources it obtains from financing. The asset mix reflects a firm's investment decision, each measured at a moment in time. The B/S classifies assets and liabilities as being either current or noncurrent. Assets, liabilities, and SE items appear on the balance sheet as monetary amounts.

Firms typically finance current assets with current liabilities and finance noncurrent assets with noncurrent liabilities and SE. Firms generally should not finance noncurrent assets with current liabilities because noncurrent assets do not generate cash quickly enough to repay debt within one year.

**Income Statement-** Answers the question, "How profitable is a firm?" The I/S indicates the net income or earnings for a time period. Net income is revenues minus expenses. The B/S reports amounts at a moment in time, while the I/S reports amounts over a period of time. The term NI and earnings are synonyms used interchangeably in corporate annual reports. Most business firms aim to generate earnings from operating activities. The I/S reports the sources and amounts of a firm's revenues and the nature and amount of a firm's expenses. The excess of revenues over expenses equals the earnings for the period. Revenues measure the inflows of assets (or reductions in liabilities) from selling goods and providing services to customers. Expenses measure the outflow of assets (or increases in liabilities) used in generating revenues. Net income indicates a firm's accomplishments (revenues) relative to the efforts required (expenses) in pursuing its operating activities. When expenses for a period exceed revenues, a firm incurs a net loss. Firms classify revenues and expenses in their I/S in different ways. The I/S links the B/S at the beginning of the period with the B/S at the end of the period. A percentage comparison of NI to revenues indicates how much of each dollar of revenues remains to benefit the common shareholders after the firm covers all expenses.

**Statement of Cash Flows-** Answers the question, “Is the firm generating sufficient cash flows from its customers to finance operations and to acquire buildings and equipment or must it seek new funds from lenders or owners?” This statement reports the net cash flows derived from (or used by) operating, investing, and financing activities for periods of time. The SCF reports cash inflows and outflows for a period of time. Classification of items in the SCF include: Cash Flow from Operations, Cash Flow from Investing, and Cash Flow from Financing. Operations- most firms expect their primary source of cash to result from the excess of cash they receive from customers over the amount of cash they pay to suppliers, employees, and other in carrying out the firms’ operating activities. Investing- firms that expect either to maintain current operating levels or to grow must continually acquire buildings, equipment, and other noncurrent assets. Financing- firms obtain additional financing to support operating and investing activities by issuing bonds or common stock. The firms use cash to pay dividends or to retire old financing, such as repaying long-term debt when it comes due. The SCF helps explain changes in various items on the comparative balance sheet.

**Consolidated Statement of Shareholders’ Equity-** The final statement of importance is the SSE. This report identifies the changes in all shareholders’ equity accounts. This statement normally shows columns for common stock at par, retained earnings, accumulated other comprehensive income, treasury shares, and total shareholders’ equity. The statement shows opening balances, net income, cash dividends, stock issued under employee option plans, common stock retired, and common stock issued on conversion of convertible bonds.

The most important/critical financial statement depends upon the target audience. Considering the following users, each may find one financial statement more important than the other two:

1. An investor in a firm’s common stock (SCF)
2. A bank that lends, either short term or long term, to a firm (BS)
3. A customer to whom a firm provides a critical raw material (BS)
4. A labor union that represents a firm’s employees in compensation negotiations (SCF)
5. An antitrust regulator interested in the market share and profitability of a firm relative to its competitors (IS)
6. A competitor interested in the market share and profitability of a firm’s products (IS)
7. A court of law attempting to measure profits that one firm lost because another firm wrongfully injured it (IS)
8. An income tax agency assessing taxes on the income of a firm (IS)

## **2) How do financial statements interact? (Discuss what feeds what and when)**

Financial statements interact to form the conceptual framework of the objectives of financial reporting. Specifically, these statements attempt to:

1. Provide useful information to reasonably informed individuals for the purposes of making investment, credit, and similar decisions.
2. Provide information that is useful in predicting amounts, timing, and uncertainty of future cash flows

**3) Provide information that is useful in describing the economic resources of a company, the claims on those resources, and changes in the resources and claims.**

The three main financial statements that provide this information are the Income Statement (I/S), Balance Sheet (B/S), and the Statement of Cash Flows (SCF). The I/S reports the sources and amounts of a firm's revenues and the nature and amount of a firm's expenses. Net income indicates a firm's accomplishments (revenues) relative to the efforts required (expenses) in pursuing its operating activities. The I/S links the B/S at the beginning of the period with the B/S at the end of the reporting period.

The B/S presents a firm's investments and financing on a particular date. Specifically, it presents a listing of a firm's assets, liabilities, and shareholder's equity, in hopes of providing the financial health of a firm.

The SCF explains the change in cash between the beginning and the end of the period. The SCF also sets forth the major investing and financing activities of the period. Thus, the SCF helps explain changes in various items on the comparative B/S. The SCF parallels the I/S by showing the relation between net income and cash flow from operations in an attempt to decide if the firm is generating sufficient cash flows from its customers to finance operation, investing, and financing activities.

**4) Out of the four main financial statements, which one is least important?**

Financial statement information has value either because it reduces uncertainty about a company's future profitability or economic health or because it provides evidence about the quality of its management, about its ability to fulfill its obligations under supply agreements or labor contracts, or about other facets of the company's business activities. Financial statements are demanded because they provide information that helps improve decision-making or makes it possible to monitor manager's activities. Shareholders, investors, managers, employees, lenders, suppliers, customers, and government and regulatory agencies all demand financial statements—each of these users uses financial statements in different capacities. Therefore, it is difficult to assess which statement is least important unless we know which type of user is using the statements. Refer to Question 1 to form an argument about why one statement would be less important than the other two. For example, one could argue that a bank would regard the Balance Sheet and Statement of Cash Flows as more important than the Income Statement when deciding whether or not to offer a long-term loan to a company. The argument may be that the bank is not really focused on a company's performance for a particular time period (as indicated by the Income Statement), but instead is more focused on the long-term implications that the Balance Sheet and the Statement of Cash Flows provide. Another argument can be made that the SCF is not as important as the other two because its values can be derived from both the B/S and the I/S, of course this would require a great deal of work and would be timely and could contain inaccuracies.

### **5) How do accountants value inventory assets?**

Accountants use lower of cost or market (LOCOM) as a basis for valuation of inventory. This basis sets inventory value at the lower of acquisition costs or current replacement cost (market), subject to the following constraints. First, the market value of an item used in the computation cannot exceed its net realizable value- an amount equal to selling price less reasonable costs to complete production and to sell the item. Second, the market value of an item used in the computation cannot be less than the net realizable value minus the normal profit ordinarily realized on disposition of completed items of this type. The basis chooses the lower-of-cost-or-market valuation as the lower of acquisition cost or replacement cost (market) subject to the upper and lower bounds on replacement cost established in the first two steps.

### **6) How would you measure firm profitability of projects? Are certain measures better than others? What kind of information would you need to do this?**

Of course it depends on what industry we are talking about, but generally all long-term projects frequently satisfy early revenue recognition when expenses are also measurable with a reasonable degree of assurance. GAAP allows income to be recognized before the sale is completed in some long-term project cases. The two main methods are percentage-of-completion method and completed-contract method. Both measures are accurate, but each measurement is used under different circumstances.

The percentage-of-completion method recognizes a portion of the contract price as revenue during each accounting period of construction. It bases the amount of revenue, expense, and income on the proportion of total work carried out during the accounting period. It measures the proportion of total work carried out during the accounting period either from estimates of the degree of completion or from the ratio of costs incurred to date to the total costs expected for the entire contract. The actual schedule of cash collections does not affect the revenue recognition process. Even if the contract specifies that the contractor will receive the entire contract price only on completing the project, the contractor may use the percentage-of-completion method so long as it can reasonably estimate the amount of cash it will receive and the remaining costs it expects to incur in completing the job. As the contractor recognizes portions of the contract prices as revenue, it recognizes equal portions of the total estimated contract costs as expenses.

Some firms involved with projects postpone revenue recognition until they complete the project and its sale. This method is known as completed-contract method. Firms use this method because some projects take such a short time to complete (such as a few months) that earnings reported with the percentage-of-completion method and the completed-contract method do not differ significantly. In these cases, firms use the completed-contract method because they find it generally easier to implement. Firms also use the completed-contract method in situations when they have not found a specific buyer while the project progresses or in situations in which there is a substantial amount of uncertainty that exists regarding the price that the project will ultimately be worth at completion. If uncertainty obscures the total costs the firm will incur in carrying out the project, it will not use the percentage-of-completion method- even when it has a

contract with a specific price. If a firm cannot reasonably estimate total costs, it cannot estimate the total income for the contract, a GAAP requirement for recognizing revenue earlier than completion of the contract. Furthermore, a firm that uses the proportion of total costs incurred each period to measure that degree of completion will not have the necessary information to allocate this total income to each period of project activity.

## **7) How do expenses and write-offs affect the financial statements.**

Write-offs affect the A/R account and Inventory values on the B/S. Smaller, less significant write-offs are used for accounts determined to be uncollectible, sales returns and allowances, and customers that take advantage of sales discounts by paying off their account balance within a discount period.

Expenses require adjusting entries on the B/S for a wide range of reasons that accrue over the reporting period. Accrual accounting recognizes expenses as the underlying real economic event occurs, not necessarily when the cash flows out. Consequently, adjusting entries for accrued expenses must be made not only for accrued wages payable, but also for items like heat, light, and power that were used during the reporting period and interest that has accumulated during the period but has not been paid. Normally, expenses similar to these are relatively predictable and have minimal impact on any financial statements.

On the other hand, long-lived assets have a significant impact to the B/S when issues of expensing are introduced. In some industries, like oil exploration and refining, long-lived assets represent a significant percentage of total assets. Long-lived assets are governed by two rules:

1. All costs necessary to acquire the asset and make it ready for use are included in the asset account. Costs included in the asset account are called capitalized costs. Expenditures excluded from asset categories are “charged-off” to income- that is, expensed.
2. Joint costs incurred in acquiring more than one asset are apportioned amount the acquired assets.

GAAP capitalization criteria for long-lived assets are sometimes ambiguous. Managers have an incentive to exploit this ambiguity in order to derive benefits for themselves and the firm in various contractual arrangements. Because big, lump-sum expense write-offs can occur using certain approaches, year-to-year reported profits are more volatile, especially for small firms that do not have a large portfolio of large projects.

Sometimes, write-offs are necessary in the form of asset impairment. Asset impairment occurs when a firm acquires an asset with the expectation that the future benefits generated exceed the total costs of that asset. However, if the remaining expected future benefits fall below its net book value, that asset is considered to have become impaired.

Measuring impairment encompasses two stages. First, some threshold loss level must be established to determine when a write-off must be made. Second, once the threshold is triggered, the amount of the write-off must be determined and recorded. The FASB defines the fair value of an asset as “the amount at which that asset could be bought or sold in a current transaction between willing parties.” (Excerpt from SFAS No. 144). When market prices are not available,

fair value must be estimated using techniques such as discounted present values, the price of similar assets, and other information. Impairment write-offs present managers with another set of potential earnings management opportunities. For example, in a very good earnings year, managers might be tempted to take an impairment write-off and then write the asset back up (through earnings) in some subsequent year when earnings are down. The FASB attempts to prohibit firms from “restoration of a previously recognized impairment loss,” however, sometimes reversals are necessary.

**8) Explain ROCE (Return on Common Equity) and how a company might use this financial indicator. What is the difference between ROCE and Return on Net Book Value?**

ROCE is a measure of a company’s performance in using capital provided by common shareholders to generate earnings. It explicitly considers how the company’s assets are financed. Interest charged on loans and dividends on preferred stock are both subtracted in arriving at net income available to common shareholders. The capital provided by common shareholders during the period can be computed by averaging the aggregate par value of common stock-capital contributed in excess of par, and retained earnings at the beginning and end of the period. ROCE equals net income available to common shareholders divided by the average common shareholders’ equity.

Two rate of return measures for evaluating operating efficiency and profitability of an enterprise are ROA and ROCE. By comparing these two measures, statement users can see whether debt financing is being used to enhance the return earned by shareholders. ROCE is used to help determine financial leverage of a firm. Financial leverage is important, because shareholders benefit from this leverage only when the company earns more than the incremental after-tax cost of debt.

On the other hand, Net Book Value is the amount shown in the books or in the accounts for an asset, liability, or owner’s equity item. The term is generally used to refer to the net amount of an asset or group of assets shown in the account that records the asset and reductions, such as for amortization, in its costs. In the context of Net Book Value of a firm, the term refers to the excess of total assets over total liabilities; net assets.

**9) Have you ever been misled by financial reports? If not, give me an example of a company who has misled shareholders in the past.**

This is a conceptual questions designed to demonstrate knowledge of how management sometimes deals with accounting issues that negatively affect a company’s reporting period.

First, describe management’s role, which is to ensure that the firm’s accounting system properly records business transactions in accordance with prescribed measurement standards and that the financial statements prepared from this accounting system follow prescribed reporting, or disclosure, standards. Management must also institute appropriate internal controls to ensure the integrity of the recording and reporting process.

Second, describe the conflict that arises with management in regards to shareholder responsibility and self-interest issues. From a legal perspective, management is an agent of the shareholders and responsible to these owners to safeguard and properly use the firm's resources. Management also has a self-interest in promoting job security, high salaries, and bonuses as well as professional career enhancement. The self-interest of management and management's responsibility to shareholders sometimes conflict. For example, a firm might experience a period of weak profitability that could negatively affect stock prices and the shareholder's assessment of management. In an effort to improve reported results in the short term, management might sell strategically important assets at a gain or accelerate the recording of sales of a subsequent period in order to turn a weak profitability record into a seemingly stronger one in an attempt to keep shareholders happy. Shareholders need to know quickly, however, if management does not perform well.

The above is a conceptual example. However, be prepared to cite a recent accounting scandal that came to light as a result of the SEC taking action. Understand the scandals at Enron or Worldcom, as these both illustrate an example of misleading shareholders. Use any example involving the "Big Bath Account" theory, as well as how some companies create reserves to "smooth" earnings, or how Off-Balance Sheet financing can benefit a company. These are common forms of financial accounting abuse.

#### **10) Explain the financial statement ramifications and implications of leasing property vs. buying?**

The main difference between leasing and buying property is the PV of payments, because this is how you compare purchase versus leasing. However, this question needs clarification. First, we must determine if we are talking about Operating Lease or Capital Lease Method. The operating lease method and capital lease method differ in the timing, but not in the total amount, of cash flows. The capital lease method recognizes both the leased asset and the lease liability on the Balance Sheet, whereas the operating lease recognizes neither.

**Operating Lease-** The owner, or lessor, enjoys the rewards and bears most of the risks of ownership. The lease may require the lessee (user) to make fixed periodic payments. The lessor in this case benefits from decreases in interest rates (the lessor receives the fixed periodic amount), but bears the risk of interest rate increases (the lessor cannot increase the fixed periodic payment). The lessor must then re-lease the asset to some other firm to obtain a portion of its return. The lessor, as a result, bears the risk of technological change and other factors that would affect its ability to lease the asset to others. If the lessor, and not the lessee, bears most of the risks of ownership, accounting considers the lease to be an executory contract and treats it as an operating lease.

**Capital Lease-** The user of leasing property, or lessee, enjoys the rewards and bears most of the risks of ownership. If the periodic rental payments vary with changes in interest rates, then the lessee bears interest rate risk. If the lease period approximately equals the useful life of the leased asset, then the lessee bears the risk of technological changes and other factors that affect the market value of the asset. If the lessee and not the lessor, bears most of the risks of ownership, accounting views the arrangement as an executed contract- a form of borrowing to

purchase the leased PP&E. Therefore, the lessee must account for it as a capital lease. Specifically, if any one of the four following criteria are met, the lease is considered a capital lease:

- 1) PV (Minimum payments)  $\geq$  90% of fair value of the asset
- 2) The asset is a bargain purchase option
- 3) Lease period  $\geq$  75% of the asset life or,
- 4) The title is transferred

Buying PP&E, a company places the asset on the balance sheet and expenses the asset appropriately, therefore, assuming all risks associated with owning the asset. Of course, there is no interest risk in this case, but there is complete ownership risk associated with owning instead of leasing PP&E.

**11) If a company is involved with a joint venture, how does debt on the joint venture's balance sheet effect the company that is part of this venture? Does this show up on the company's financial statements if there is only a 5% interest, 20% interest, or 51% interest?**

When one company owns more than 50% of the stock of another affiliated company, the owner (or parent) is deemed to control the other company (subsidiary). The financial statements of subsidiaries that are under the control of a parent must be consolidated. But when one company owns 50% or less of another company, consolidation is not required (except under special circumstances not in the scope of this question). Instead, the owner's net investment in the subsidiary is reported as an asset in the owner's balance sheet using what is called the equity method of accounting.

Consolidation essentially means that the separate financial statements of the parent and subsidiary are added together line-by-line to form a single combined set of financial statements. As such, for those parent's will over 50% interest, the consolidated B/S would report as "Cash" the sum of the parent's cash plus the subsidiary's cash. Similarly, total consolidated liabilities would consist of the sum of the parent's liabilities plus those of the subsidiary.

In those company's who own 50% or less, debt is not carried over to the parent's B/S. However, the debt of the joint venture entity is often guaranteed by the parent company because the joint venture is usually thinly capitalized and lenders accordingly look to the parent for added assurance that particular debt will be repaid.

**12) Explain what "minority interest" means.**

First, understand that common usage refers to the majority investor as the parent and to the majority-owned company as the subsidiary. GAAP require the parent to combine the financial statements of majority-owned companies with those of the parent, in consolidated financial statements. For a variety of reasons, a single economic entity may exist in the form of a parent and several legally separate subsidiaries (GE is an example- the General Electric Company comprises about 30 large legally separate companies).

Often, the parent does not own 100 percent of the voting stock of a consolidated subsidiary. The parent refers to the owners of the remaining shares of voting stock as the external minority shareholders, or the minority interest. These shareholders have provided a portion or fraction of the subsidiary's financing and have a claim to this same fraction of its net assets shown on the subsidiary's separate corporate records. They also have a claim to the same fraction of the earnings of the subsidiary. The minority interest represents ownership by others outside the parent and its economic entity. The parent, with its controlling voting interest, can direct the use of all the subsidiary's assets and liabilities, not merely the percentage that it owns claim to. The GAAP, therefore, shows all of the assets and liabilities of the subsidiary in the parent's consolidated statements. The consolidated B/S and I/S will disclose the interest of the minority shareholders in the consolidated (usually shown net of taxes), but less-than-wholly-owned subsidiary.

The amount of the minority interest appearing in the B/S generally results from multiplying the common shareholders' equity of the subsidiary by the minority's percentage of ownership. For example, if the common shareholders' equity of a consolidated subsidiary totals \$100,000, and the minority owns 30 percent of the common stock, the minority interest will appear on the consolidated B/S as \$30,000. The minority interest typically appears among the equities on the consolidated B/S, between the liabilities and shareholders' equity.

**13) If you had one company, with one product and selling price went up 10% while unit sales went down 5%, what is the impact to the I/S and B/S.**

Holding the cost for the product constant, the B/S may change with regards to Inventory and Accounts Receivable (A/R). For example, if production stays the same, the Inventory account would increase because of less sales (due to the higher price). The increased value of inventory would increase the value of Retained Earnings. Additionally, A/R would also increase because of more Revenue gained as a result of the higher prices. If the cost for the product had changed, then the Inventory amount on the B/S would have either increased or decreased (although this is not true for most commodities- but think of diamonds, for example, in which a small drop in price will lead to decreased inventory). Finally, Accounts Payable will ultimately decrease because less money is being spent on production going forward.

The I/S, however, would show an increase in Sales Revenue and a decrease in Cost of Goods Sold (because less units are being sold). The Total Expenses would also decrease, and the result would be an overall increase in Net Income.

**14) What is negative goodwill?**

Goodwill is the excess of a purchase price, placed on a target firm, over the fair market value of an asset. Negative Goodwill occurs when the price paid for an acquisition is less than the fair value of its net assets.

## SPECIFIC QUESTIONS FOR JOB FUNCTIONS

### *Investment Banking*

#### General:

- 1) Why Investment Banking? (Know you're story!!!!)
- 2) Why our firm?
- 3) Tell me about an article you read in the Wall Street Journal today.
- 4) Why should we hire you?

#### Technical

**1) How do I value a company?**

Answer: Three main methods are discounted cash flow analysis (WACC & APV), public comparable analysis and comparable transaction analysis.

(You are expected to know the mechanics of each method from your MBA studies. Also, know CAPM and Modigliani-Miller Theory)

**2) Which valuation method would typically yield a higher value?**

- a. Comparable completed transactions reflect how the market accounts for the acquisition. Comparable analysis of a single company determines how the market currently values the company.

**3) How do you measure value?**

Answer: Look at relative stock price appreciation against S&P 500; look at EVA; look at NPV

**4) How do you value a company with NOLs (net operating losses)?**

- a. Valuation is similar to a profitable firm, project cash flows out to positive before terminal period

**5) What is more important, value or growth?**

Answer: This depends on client / investor objective and risk tolerance. If the investor is entering the workforce and is at relatively young age, then he or she has a high tolerance for risk; thereby rendering growth more important. However, if the investor is approaching or entering retirement, then risk tolerance is much lower than a growth-oriented investor. Hence, making value more important.

**6) What makes a company a takeover target?**

Answer: Too much cash on the balance sheet, underpriced stock relative to peers, higher breakup value than current market value, power struggle among management team, power struggle between management and board of directors.

**7) When should a company issue debt instead of equity?**

Answer: Debt should be utilized for companies with strong cash flows who need quick financing. The process to raise capital via debt issuance is quicker than an equity offering. Debt is also desirable for companies wishing to decrease its cost of capital and increase firm value with interest tax shields.

Equity issuances raise the cost of capital for the firm, and most importantly, diluted the ownership of preexisting stock holders. Equity issuances also signal to the investor community a lack of management's lack of faith with respect to future cash flows.

**8) Why do companies acquire / merge?**

Answer: Strategic buyers acquire / merge to acquire another entity for strategic business reasons. Financial buyers search out LBO candidates (mature companies with strong cash flows who are ailing in the public market). LBO candidates represent turnaround opportunities that offer a tremendous return in 4 to 7 years (exit strategy).

**9) Describe a recent merger and assess whether the purchase price was fair.**

Note: you should know the story behind a significant merger taking place. When the merger process begins, the acquirer is required to file an S-4 filing with the SEC. Download the S-4 filing off of the SEC website, often times the fairness opinion is copied into the document. The fairness opinion represents the work an investment bank did to evaluate the project.

**10) How can you tell when a merger / acquisition is worthwhile?**

Quantitative: Target is accretive to acquirer's earnings (based on terms of purchase); purchase price is fair based upon 1) company valuation using various valuation techniques 2) recent premiums paid

Qualitative: Synergies (revenue or costs), strategic fit with product portfolio, company culture fit, easy integration process, no outstanding legal liabilities

*Industry Corporate Finance*

**1) A company must decide whether to lease or purchase IT equipment. How should they go about deciding?**

One should note that this problem boils down to present value of cash flows. In terms of the decision, one would have to ask the terms of leasing and discount the cash flows to the present.

However, there are other things to consider, such as, the company's usage of IT. Does the company want to update its IT equipment? What is the expected lifespan of its IT equipment? Is it satisfied with its current bandwidth?

**2) What are the pros and cons of NPV and IRR?**

NPV: Compares the value of a dollar today versus the value of that same dollar in the future, after taking inflation and return into account. If the NPV of a prospective project is positive,

then it should be accepted. However, if it is negative, then the project probably should be rejected because cash flows are negative.

Pro: Discount rate represents the opportunity cost of capital; direct measure of the dollar benefit of a project.

Con: Assumes management invests now, ignore other options that might exist (wait, exit, act in another period); does not take into account the size of the project (initial outlay), only the size of the return

IRR: The interest rate that makes the NPV = 0, accept project is  $IRR > \text{Opportunity Cost of Capital}$ .

Pro: Shows management how much project could fall (in percentage terms) before the firm's capital is at risk

Con: Assumes all cash flows are reinvested at IRR; conflicting decisions with NPV when evaluating two projects at the same time; multiple IRR arise when the sign of the cash flows go from negative to positive back to negative.

### **3) A company is considering whether to open up a production facility in China or Malaysia. How should they go about deciding?**

This question requires one to go beyond the normal corporate finance theory. One must first address international issues; such as geo-political relationship with country and US / company. Which country offers favorable business environment for company? Also, how is the facility to be constructed (if usage of local labor force, what is the cost of labor). Is a sizeable workforce readily available for construction and later employment at the facility? Next, consider as to the shipping route once the product would leave the facility. Does one country offer a better passage to port for the facility? Lastly, consider any customs issues or duties that might arise from product leaving that country.

For quantitative analysis, consider the NPV and IRR for each location. Compare these figures to the company's required return on similar projects.

### **4) What is EVA? How can you use it in our firm?**

A measure of a company's financial performance based on the residual wealth calculated by deducting cost of capital from its operating profit (adjusted for taxes on a cash basis).

The formula for calculating EVA is as follows:

$$\begin{aligned} &= \text{Net Operating Profit After Taxes (NOPAT)} - (\text{Capital} * \text{Cost of Capital}) \\ &= \text{RONA} - \text{WACC} * (\text{Net Assets or Capital}) \end{aligned}$$

Value creation is based upon Return on Net Assets > WACC

Return on Net Assets =  $\text{NOPAT}_{(t)} / \text{Net Assets}_{(t-1)}$

EVA is a behavioral toolkit; encourages manager or employee to evaluate projects from the mindset of a stockholder. Decisions based upon profitability or pure NPV can sometimes erode value of the firm. EVA provides guidance as to how each project benefits from the firm from usage of its balance sheet.

### *Research*

For any research job interview, you will likely be asked to either provide an oral or written opinion on a stock / bond. The following outlines a structure the type of recommendation expect of you (This information is courtesy of the University of Chicago GSB):

#### **Make a distinction between the stock and the company**

The purpose of a stock pitch is to provide an investment recommendation (buy or sell) on a given stock, so a fund manager can take action! It is important to remember that the stock is not the same as the company. A very good and sound company can be a rotten investment (e.g. because it is fully priced or over priced), and a company in bad shape can be a good stock to hold (e.g. because it has been unfairly punished and they aren't really doing that badly).

Hence, a good company is not necessarily a good stock investment. Every pitch based on arguments of the type: experienced management, good competitive position, sound strategy, sophisticated products, etc, need something more to justify the investment thesis.

A company in a profitable, fast growing industry may also be a bad investment. A rising tide lifts all boats. The important thing is the differential with respect to other competitors.

From this, it follows that although you need to cover the specifics of the company and the industry in which it operates, it is not enough. You must also address the question of whether the stock is a currently good buy, it is fairly priced (you get what you pay for, i.e., a regular return), or it is too expensive and therefore should be sold.

#### **Provide a brief description of the firm**

The purpose of your introduction to the firm and the stock is to help your listener place them mentally within their knowledge and previous experiences, for instance to decide what valuation method to use, what ratios to look at or what industry to compare it with.

**Quick, one-line explanation of the firm and sector:** e.g. Family-dinner restaurant operator in the Mid Atlantic region; Manufacturer of components for the automobile industry.

**Basic info on the stock:** current price, target price, investment recommendation (BUY / HOLD / SELL), market cap, ticker

this is the type of information contained in the first page of an equity report in big bold letters this gives the PM an indication of the upside / downside, how big the stock is (large cap, small cap), a quick reference point in Bloomberg / Reuters (they might be more familiar with the topic,

perhaps because it is part of the comparables or because they see it every day in the list of stocks in the sector, than with the name itself), and where your argument is leading;

**Basic financials:** revenues, net income, PE and/or EBITDA multiples, EPS, margins, consensus estimates for next couple quarters/years.

Two or three years of historic data and two years of projections are probably enough—who really knows what’s going to happen five years out?!

Always provide forward-looking ratios. While some look at historic and current ratios, (e.g. TTM-trailing twelve months), most want to know where the stock is going!

**Articulate your investment thesis around three bullet points**

Guide the listener. Use the golden rule: tell’em what you gonna tell’em; tell’em; and then tell’em what you told’em. Lists and bullet points are very useful in that they provide the listener with milestones or signaling points they can remember, and on to which they can hang the rest of the argument. Buyside PMs receive so much research from different sources all day long—they don’t necessarily have time to read long paragraphs of information!

Start by giving three bullet points on why to invest in the company in a very summarized way and then elaborate a bit longer into a full-fledged sentence. Then, you can go on to discuss each point at length, especially if you are questioned.

It is a good idea to have one point for each of the following:

Company economics/competitive landscape; (how does it make money)

Financials / financial performance; (this is your opportunity to drop numbers in the conversation)

Catalyst (this is the most difficult point to find on a company, if you don’t find it, then drop it, if you do—that’s great!)

Valuation (P/E, EV/EBITDA, DCF)

Example: how to articulate the pitch around three bullet points

Summarized point	Full fledged sentence	Long argument
Strong Demand	Tax stimulus package creates demand for new, updated tax preparation software.	The government has introduced a range of investment incentives and tax breaks in the latest budget. These require complex calculations and a thorough update of the way in which tax returns are prepared. The issues are complex and require lots of technical assistance. Virtually every company affected by this change needs external help. This bodes well for sales of tax preparation software (+25.7% forecast in Q4 FY01 Revs, +12.7% FY01)
Higher margins	Launch of new versions shifts the product mix towards higher margin products.	The company is launching both a new asset management module and introducing extended payroll administration functionality. It is also discontinuing its basic calculator product, as Windows

Summarized point	Full fledged sentence	Long argument
		<p>already provides a calculation application for free.</p> <p>The new products are considerable improvements over existing applications and save company accountants significant amounts of time and money. The company faces little competition from other software vendors. Hence, it will be able to charge double the price of what it has been charging so far. We estimate gross margin to rise to 47.5% in Q102 from 42.0% in Q301.</p>
Cheap valuation	Stock valuation has been dragged down unfairly.	<p>Siebel and SAP have published disappointing results and have suffered as a result. Investors have marked down the entire software sector (27.2x forward PE 02 versus 52.5x TTM average). However, the factors that have adversely affected Siebel and SAP do not come into play for this stock, because the company does not operate in the multinational client segment. As market realizes that fears of revenue decline are unjustified, the stock should trade up to a PE of 35x (30% premium to industry for lack of multinational exposure) instead of 20x, giving a target price of \$49 instead of \$28 (75% upside).</p>

**Why is the price going to change? How and when can we exploit this?**

New information

You CANNOT just rely on everything that has been published about the firm. If the markets are efficient, all that information will have already been incorporated into the price and nothing you do or say is going to make it move.

Therefore, you have to contribute some new piece of information. The typical objection a PM can raise to your story is: What do you know that the stock market doesn't already know? And, what implications does that have for the stock price?

This can be something that you have genuinely discovered, e.g. "In speaking with H&R Block and Quicken customers, it seems that Quicken is a better product—hence, demand will rise, as customers switch to Quicken, and hence we will see INTU beat numbers."

Alternatively, at the very least, provide a different interpretation of the known facts and the reason you are right and the rest of the Street are wrong, “The market thinks Quicken can only meet 350,000 software units. However, I know they are just-in-time delivery systems will allow them to meet demand of 500,000 units of software. Therefore, they will sell more software, beat estimates, and the stock will move up.”

### **More Examples:**

Analysts fret about exposure to poorly performing auto industry. I have spoken with distributors and estimate that 80% of new contracts are with fast-growing health care clients. This tells me that sales figures are going to be surprisingly positive, up by 12.1% sequentially on Q301. Buy. Unit sales are holding up relatively well (75,000 Q4 versus 76,500 in Q3). I have a contact at the company’s major competitor that reveals their revenues (the competitor’s) are hurting (-8.5% YTD) because company A is offering big discounts. I see margins deteriorating rapidly, falling beneath 17% by next quarter. Sell.

Electric chainsaws are being touted as the next Father’s day hit. My research indicates that 50% of US households do not have extension chords long enough to put electric chainsaws to any good use. The company has manufacturing capacity for 127m chainsaws annually, or one chainsaw for each household in the country. It won’t be able to dispose of its inventory, so a big write-off is coming. Sell.

### **Catalyst**

Not only must you add some piece of information, you also have to know when and how it will be incorporated into the stock price and thus, validate your thesis. You need a catalyst. E.g.: Competitors are reporting next week. Once everybody sees that they are doing poorly because they lack an entry-level product, it will become clear that our company (the only producer of cheap entry-level products) will be assessed differently.

The FDA is ruling on a new drug from XYZ Corp. this Thursday. If it is approved, this will be great news for our company, because its new blockbuster is based on the same compound, should be approved, and we are ready to start production in three months.

Nokia is the major cornerstone of the demand for low-consumption memory chips. Nokia publishes a quarterly forecast for the number of mobile phone handsets globally. If in its forthcoming estimates Nokia lowers its forecast, widens the range or makes any comments that it is becoming more difficult to predict what the demand will be, this highlights growing uncertainty for semiconductor manufacturers. Therefore, an upward adjustment to the discount rate for Infineon would be warranted, and lower stock price should follow.

### **Some final remarks**

It is not necessary to list the investment risks / downside of the stock (unless you are pitching a sell). It is a PM’s job to be skeptic and find objections to your recommendation. If the objective is to get them to buy the stock, you don’t want to make their task easier.

Having said this, think about the objections they can raise and try to counter them even before they are uttered. Think ahead. Moreover, do know the downside of your stock. If the stock is currently at 14x and you forecast it to go to 20x, know what the lower limit is (can it go to 10x?). You should be ready to overcome obstacles, and counter with logical arguments. Writing down the risks on your handout is a personal preference—some analysts do it, some do not.

Use numbers! Spinning a good story is great, but virtually everybody is able to spin a story. Hard facts and figures add credibility.

*Sales & Trading*

- 1) Why Sales and Trading versus Investment Banking?
- 2) Are you interested in Sales or Trading? Why?
- 3) What does a Trader do? What does a Salesperson do?
- 4) Do you want to sell or trade equity or debt instruments? Why?
- 5) How do you measure success in your life?
- 6) What makes you think you can sell? (Be prepared to sell the person on anything)
- 7) What about your personality will make you a good Trader?