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IAMC and IPC Present:

Finance Technical Interview Workshop

Learn how to best prepare for questions on technical interviews:

Accounting
Walkthroughs

Valuation

M&A

LBO

Stock Pitches

Market
Questions



IVEY
Business School

WESTERN UNIVERSITY • CANADA

Asset Management
STUDENT CLUB

- General Tips
- What to Expect (Canada vs. US vs. Buyside)
- Question Walkthroughs:
 - Case Study
 - Discounted Cash Flow
 - Accounting
 - M&A
 - Equity vs. EV
 - Valuation
 - LBO
- Responding to Challenges
- Resources

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Panelists



Sophia Ge

Scotiabank, TO - IBD
CIBC, TO - S&T



Roy Zhang

Evercore, NY - IBD
Reorg, NY - Credit Research



Raymond Shi

Macquarie Group, LA - IBD
Scotiabank, TO - S&T

Why We Are Doing This

- Technical questions are often viewed by junior students as an intimidating aspect of the recruiting process
- Good technical skills are crucial to succeeding in interviews
- Do not just memorize the interview guides
- Know what to do when:
 - You make a mistake
 - The same question or questions gets asked in different ways
 - You are asked to speak about an unfamiliar topic
- Preparation needs to start months in advance of interviews
- Present our opinions on best practices and clear up misconceptions

Before the Interview

- Be wary of timelines
 - Give yourself at least 1-2 months to prepare
 - Know what opportunities you need to be prepared for
 - Actively keep up with the news
- Practice with interview guides and question lists
- Practice with friends and mock with older students
- Keep records of mock / interview questions
- Coffee chat former interviewees for advice

During the Interview

- Understand the purpose of technicals
- *Your interviewers know what the answer is!!!*
- Don't be cocky
- Be cautious, especially with hard questions
- Listen to the question very carefully
- **Getting a question wrong is not the end**
- Read the interviewer

Think of technicals as an extension of behavioural - it's important for you to get the questions right, but it's more important for them to observe how you tackle these problems

What to Expect

US Banks

- **Bulge Brackets:** less technical-heavy
- **Boutiques:** technical-heavy and may ask group-specific questions
- First round screens are through Ivey (100% technical)

Canadian Globals / Boutiques

- Similar to US boutiques with *possibly even harder questions* depending on the bank
- All topics are fair game

Canadian Big 6

- Weigh behavioural and fit more heavily
- Technicals are usually from the guides
- Conceptual questions
- Focus on accounting, valuation, and M&A

US / Canadian Buyside

- Generally no questions on M&A, LBO, and equity value vs. EV (unless it's a PE-specific role)
- Markets/business case study-related technicals

Types of Case Study Questions

- **“Fake” case studies:** framed as a case, but really just a different way of asking guide questions
 - “A private equity firm acquires a manufacturing company in an LBO. The firm is looking for ways to increase returns from this investment. How can they do that?”
- **“Real” case studies:** test your knowledge of what’s going on in the news/your general business knowledge
 - “Why would a bike-sharing business struggle in Toronto?”

Advice

- Generally case studies will feature a hybrid of both
- Stay up-to-date with business news
- Learn to *think about businesses*
- Newsletters, podcasts, etc.
- Ask for past case studies upper years have received in interviews

“Walk me through a DCF...”

- Seen as one of the easiest questions in interviews, **but realistically requires the most work to answer well**
- *They know you know the answer to this question!*
- Communicate the answer in a way that is concise, logical, and organized
- Follow-ups can include: Perpetuity Growth VS Exit Multiple? What makes WACC go up and down? How does mid-year convention affect things?
 - CRITICAL THINKING DURING PREP IS VERY IMPORTANT

Roy's Answer

“There are 3 parts to a DCF: the projection period, the perpetuity value, and tying everything to find the implied share price. In the projection period, you forecast the company’s performance over the next 5-10 years to obtain its free cash flow every single year; then, you come up with the perpetuity value of the company, either through PGM or EMM. After both parts are done, you then discount all the cash flows back to the present using the WACC to find your enterprise value, take out net debt and divide by total diluted shares outstanding to find your implied share price.”

How to Prep

- **Accounting Flowthroughs and Conceptuals**
- Flowthroughs: use the master sheet exercise to prep
- Conceptuals: BIWS/M&I has some really great in-depth videos/articles on some of the most complex accounting concepts. Some of the most important ones we think are:
 - IFRS-16 impact
 - LIFO vs FIFO
 - Deferred tax liabilities/assets
- Easiest places to mess up:
 - Cash vs non-cash
 - Doing taxes wrong
 - Not knowing what goes on/off the I/S

Master Sheet Example

Item Name	Cash?	I/S Impact	CFS Impact	B/S Impact
Prepaid Expense				
Cash Revenue				
COGS				
Cash OpEx				
D&A				
Bought Asset				
Sold Asset at Gain/Loss				
Change in AR/AP/Inventory				
Issue debt/equity, change in tax, unearned revenue, etc etc...				

Quantitative (Accretion / Dilution) Questions

- **“Rule of Thumb” Questions**
 - All stock deal → Compare inverse P/E of buyer and seller
 - Mix of stock / debt / cash → Weighted average cost to buyer vs. Yield of seller
- **Merger Model Questions**
 - Walk through how the purchase method affects net income and shares outstanding
 - Calculate EPS for buyer before and after the transaction

Qualitative Questions

- Why M&A? Strategic buyer vs. financial sponsor? Good acquisition candidates? Synergies? etc.
- **Expect as follow-up to quantitative M&A questions**
- Develop intuitive understanding rather than memorize concepts
- If interviewing for M&A group, study this section well
- Remember special cases (DTA / DTL, bargain purchases, merger of equals, etc.)

Types of Questions

- Effect on Equity Value and EV
 - A company randomly finds \$100 on the ground, what happens to Equity Value and EV?
 - A company raises \$100 in debt to buy back \$100 in shares, how does that affect its EV?
- Calculating Equity Value or EV given multiples and financial information
- Treasury Stock Method Calculations

Advice

- **Common topic for students to memorize rather than understand**
- Thinking about questions using the EV formula will only get you so far
- Develop a conceptual understanding of these two topics
 - Equity Value is the value of a company's **net assets to equity investors**
 - Enterprise Value is the value of a company's **core business operations** (net operating assets) to **all investors**
- Read *“Enterprise Value vs. Equity Value: The Complete Guide”* by M&I for more information

Approaching Valuation Questions

- Understand how a company's **value** is derived
 - DCF/DDM/NAV
 - Comparable Companies
 - Precedent Transactions
 - LBO
 - Future Share Price Analysis
 - Sum-Of-The-Parts
 - Liquidation/Replacement Value
- Understand how and why the CAPM equation works
 - $COE = RFR + \text{Beta} * (\text{Market Risk Premium})$
 - **Memorizing this equation is not sufficient**
 - Understand how this equation **drives** DCF valuation and trading multiples

Examples

- DCF
 - Would you rather have a \$10 increase in revenue, \$10 decrease in COGS, or \$10 decrease in capex?
 - How would an increased tax rate affect valuation?
 - What kind of company would have TEV as a higher % of EV?
- CAPM
 - A company earns money only through lottery tickets. What is its beta?
- Multiples
 - Two companies in the same industry get acquired at different multiples. Why?
 - A company issues a dividend. What happens to its P/E ratio?

Approaching LBO Questions/Paper LBOs

- You will be asked to calculate a certain metric (ex. IRR) using numbers provided to you
 - Sometimes you need to ask the interviewer for more information
- Other LBO-related questions:
 - How can investors return equity from an LBO?
 - 3 ways to increase IRR?
 - Is MOIC or IRR more important?
- ***Understand the relationships between LBO components and how it affects IRR***
- You can approximate IRR: Rule of 72/Rule of 114

Components of an LBO

- Entry and exit price
- Entry and exit multiple (EV/EBITDA)
- Equity cheque size
- Holding period
- EBITDA
- EBITDA growth
- Levered Free Cash Flow
 - = EBITDA - Interest - Tax - Capex - Change in NWC
 - LFCF margin
- Debt paydown
- Leverage (debt/EBITDA)
- IRR
- MOIC

- **Stock Pitch**

- 2 minutes
- Up-to-date
- Any round is fair game
- Know key stats, recent performance, main drivers, and why the company is undervalued
- Be prepared to answer questions

- **Recent Transactions**

- Have 2-3 prepared
- Preferably ones the group/office worked on
- Know the buyer/seller/target names, deal value, key terms, rationale, the bank/investor’s role, and recent developments

- **Market-related Questions**

- Be able to speak on 1-2 topics in the market
- Know the big themes
- Avoid being too general (ex. coronavirus)
- *Have an opinion!*

Recovering from a Mistake

- The interviewer might say...
 - “Are you sure?”
 - “Do you want to try again?”
 - “Let’s revisit X”
- Do not react anxiously and frantically apologize
 - You might actually be correct!
 - The interviewer may be using this to see how you respond to stress
- Take a moment to reflect on your thought process
 - If you find a mistake, apologize with composure and correct yourself
- Things to keep in mind
 - Small mistakes are usually recoverable
 - Making the same mistake or incorrectly correcting yourself is not recoverable

How to say “I don’t know”

- DO NOT MAKE UP AN ANSWER
 - Try to stay calm and do not panic
 - Take a moment to think, ask for a hint

This is an interesting question / X is a new concept to me, would it be possible for you to walk me through how you think about this question?

...

Thank you, I will read more about X after the interview.

- Come off as genuinely curious and consider addressing on a follow-up email
- Do not let one question destroy your confidence for the remainder of the interview
- *What’s the worst that can happen?*

Interview Guides

- 400 Questions - Breaking Into Wall Street
- Mergers and Inquisitions guides and videos
- WSO interview reviews
- Question banks from older students
- Mock interviews

Books and Online Resources

- *Investment Banking* by Rosenbaum and Pearl
- Sell Side Handbook
- 10X EBITDA
- Forex Factory (markets)
- S&P Capital IQ (recent transactions, stock pitch)

News Sources

- Morning Brew
- PEHub
- Wall Street Journal
- CNBC
- FT
- Bloomberg
- r/SecurityAnalysis

Other Resources

- Question A Day
- *Invest Like the Best* podcast by Patrick O'Shaughnessy
- Investor letters
- Value Investors' Club

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Thank you for attending

Questions

