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# **The 45 Ultimate Investment Banking Interview Q&A Guide**

By Financial Edge

<https://www.fe.training/>

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# Interview Guide

## Introduction

Welcome to your comprehensive guide to preparing for investment banking analyst interviews. This guide is designed to provide you with a clear understanding of what to expect, how to prepare effectively, and what it takes to succeed.

Within this guide, you'll find a collection of frequently asked interview questions, example answers, access to valuable resources such as videos and detailed blogs, and a step-by-step framework to help you develop your own tailored responses.

This handbook has been reviewed by ex-bankers and finance professionals who have worked at and taught at top investment banks. You'll learn from Alastair Matchett, Ex-J.P. Morgan; Gerard Kelly, Ex-Ernst & Young; Andrew Jones, Ex-KPMG; and Maria Weber, Ex-HSBC about what they feel is the best way to prepare for investment banking interviews.

### Other Resources:

There are other resources available through [Felix](#) which can help improve interview techniques:

### Investment Banking Interview Skills Completion Certificate:

<https://www.fe.training/product/online-finance-courses/business-skills/investment-banking-interview-skills/>

If you would like more real-life experience in interview conditions, Financial Edge offers an Interview Skills Course, two hours of bespoke interview preparation with a financial professional. Including an **Interactive Interview Simulator**, this online simulator allows you to practice real interview questions and provides you with answers and examples throughout your session.

**Investment Banking Superday Interview:** <https://www.fe.training/product/online-finance-courses/investment-banking/free-course-investment-banking-superday-interviews/>

An opportunity to master the investment banking 'Superday', watching three interviewees successfully answer a range of technical, behavioral and problem-solving questions. Learn how to excel at this critical stage of the recruitment process.

**The Investment Banker:** <https://www.fe.training/product/online-finance-courses/corporate-finance/the-investment-banker/>

Get the same training as new hires at the top investment banks. The course covers accounting, financial modeling, valuation, M&A and LBO analysis.

**Free blogs:** <https://www.fe.training/free-resources/>

Finally, Financial Edge offers a wide range of free investment banking blogs, which explain financial topics, terms, and situations in more detail.

## What You'll Learn in This Guide

Investment banking interviews typically follow a structured format designed to evaluate your skills, knowledge, and potential. It can vary depending on the company and the interviewers, but if candidates prepare for this structural format, they will be well prepared for any type of interview.

Here's a breakdown of the key sections:

### The Interview Structure

1. **Your Story** – this is an opportunity to introduce yourself, share your motivations, and create a strong impression. This is an opportunity to answer the question 'why me?' and showcase how your background and experience drove you to seek an investment banking role.
2. **Your Knowledge** – in this part of the interview, you'll be tested on your knowledge of financial markets and economies. Well-prepared candidates will know of the deals relevant to the firm, as well as deals currently playing out and written up in the press.
3. **Technical Questions** – technical questions in investment banking interviews are designed to test a candidate's understanding of financial terms, methodologies, and concepts. Careful preparation for this is essential to securing a role.
4. **Behavioral Questions** – these are designed to assess how an individual will handle various situations based on past experiences. These questions help interviewers understand a candidate's problem-solving skills, leadership abilities, and how actions are reflected on.

### What Are Recruiters Looking For?

Recruiters evaluate candidates against a combination of technical expertise and soft skills. The role of a recruiter is to find candidates who match the specific requirements of the firm making the hires. Throughout this guide, we'll delve into how you can demonstrate the following attributes:

1. **Strong Financial Knowledge:** display your understanding of key concepts like valuation, accounting, and financial analysis.
2. **Analytical and Problem-Solving Skills:** showcase your ability to think critically and solve complex problems.
3. **Resilience Under Pressure:** convey your capacity to perform effectively in high-stress, fast-paced environments.
4. **Teamwork and Leadership:** highlight your ability to collaborate, contribute, and lead in a team setting.
5. **Adaptability and Cultural Fit:** demonstrate your flexibility and alignment with the firm's values and culture.

6. **Excellent Communication Skills:** present your thoughts clearly, whether explaining technical concepts or engaging with clients.

## Interview Techniques

### How To Structure Your Answer

A well-structured response is essential to make a lasting impression during an investment banking interview. Recruiters value candidates who can convey their ideas clearly and concisely while demonstrating their analytical and problem-solving skills.

Here are a few effective methods to structure your answers, tailored for different types of questions:

### STAR Technique

For non-technical questions, a structured approach like the STAR technique is most suitable. STAR stands for Situation, Task, Action, and Result and should help candidates to focus on delivering a succinct and compelling response to a question.

**Example Question:** *What made you consider an investment banking career?*

- **Situation:** in my sophomore year, I led a finance competition team tasked with developing a financial strategy for a tech startup's international expansion.
- **Task:** we needed to evaluate the startup's financial status, identify potential markets for expansion, and create a strategy encompassing fundraising, budgeting, and risk management.
- **Action:** my team focused on market research, financial analysis, and strategic planning. We identified promising locations for expansion, assessed their financial viability, and developed a phased strategy that included regular brainstorming sessions for innovation and strategy refinement.
- **Result:** our strategy won the competition, receiving praise for its comprehensive analysis, realism, and practicality from a panel of academic and industry experts. This experience honed my leadership skills, deepened my understanding of global finance, and affirmed my interest in investment banking.

Using this technique can help candidates condense what could have been a long-winded and sometimes unclear answer, into a thoughtful response which quickly conveys the candidate's skills and what they could bring to the firm.

### PREP Framework

The PREP framework (Point, Reason, Example, Point) is ideal for concise answers to questions that require you to explain your reasoning or provide a perspective.

**Example Question:** *Why investment banking?*

- **Point:** I am drawn to investment banking because of the dynamic environment and opportunities to work on impactful transactions.
- **Reason:** I thrive in fast-paced settings that demand analytical rigor, collaboration, and strategic thinking, all of which are central to investment banking.
- **Example:** during my internship, I worked on a financial model for a company exploring an acquisition. Analyzing the numbers, presenting findings, and witnessing the decision-making process solidified my interest.
- **Point:** investment banking offers the perfect platform to combine my skills and passion for solving complex financial challenges.

The PREP framework is helpful as it delivers the first 'point' and then backs it up with logic and an example before closing with a second compelling point.

## Pyramid Principle

This method is best for answering case studies or giving structured explanations. Start with the conclusion, followed by supporting arguments and details.

**Example Question:** *Should a company expand into a new market?*

- **Conclusion:** The company should proceed with expansion into the European market.
- **Supporting Points:**
  - High market demand for the company's products.
  - Favorable economic and regulatory conditions.
  - Financial analysis indicates positive ROI within three years.
- **Details:** Provide examples or data that support each argument, focusing on conciseness and clarity.

This can be the most helpful framework for presenting solutions to financial questions. Using the conclusion as the opening gambit, it allows the candidate to reinforce their view with a series of supporting points. The interviewer will immediately know the standpoint that they are taking and be able to put all evidence into that context.

## How to Choose the Right Framework

It might seem tricky to decide which framework is right for a question, but here is the best strategy to help select the most useful one:

- Use **STAR** for behavioral and situational questions
- Apply **PREP** for opinion-based or motivational questions

- Leverage the **Pyramid Principle** for technical and case-based questions

By mastering these methods, candidates will be able to quickly tailor responses to meet the expectations of investment banking recruiters. This will showcase an ability to think critically and communicate effectively.

## Interview Questions

Let's look a little closer at specific interview questions to home in on what the recruiter may be looking to find out.

### Your Personal Story

Investment banking recruiters often start interviews by asking about your personal story. This is partly to break the ice and secondly to learn more about how the candidate came to be in the interview room. These questions aim to understand background, motivations, and alignment with the role. While the phrasing may vary, they're essentially asking the same thing: *Who are you, and why are you here?*

Let's look at each element of this in more detail:

#### 1. Tell me about yourself.

Whilst this question sounds rather open-ended, the interviewer will be keenly listening to see if any of these following points are factored into the answer.

##### What the Recruiter is Looking For:

- A concise, engaging summary of your professional background
- Clear motivations for pursuing investment banking
- A strong link between your experiences and the role available

##### Framework: PREP

- **Point:** provide a summary of who you are
- **Reason:** highlight your motivations
- **Example:** share a key experience that supports your narrative
- **Point:** conclude with enthusiasm for the role

##### Example Answer:

I'm currently a finance student at [University], where I've developed a strong foundation in financial analysis and problem-solving through my coursework and extracurricular activities. My passion for investment banking grew during a university finance case competition, where my team analyzed a company's financials and presented a valuation

strategy for an acquisition. The collaborative nature of solving complex financial challenges reinforced my desire to pursue a career in investment banking.

Additionally, leading the university finance club has sharpened my leadership and teamwork skills. I'm eager to apply these skills and contribute to impactful projects in this dynamic industry.

#### Guide to Crafting Your Answer:

1. **Start with a Professional Summary:** briefly state your background (e.g., education and key roles)
2. **Highlight Motivations:** explain why you're passionate about investment banking
3. **Provide an Example:** choose one impactful experience that aligns with the role
4. **End with Enthusiasm:** tie your story back to the firm and role

## 2. Why are you interested in joining our firm?

Again, this question sounds very open-ended, but the interviewer will want to hear a robust argument why a candidate feels like this is the role that will suit them better than any other candidate.

#### Framework: Pyramid Principle

- **Conclusion:** express a keen interest in the firm and role
- **Key Arguments:** highlight specific aspects of the firm that resonate well with you, such as its reputation, culture, or expertise
- **Details:** provide concrete examples or research to support your reasoning

#### Example Answer:

I'm excited about the opportunity to join [Firm] because of its strong reputation in [specific area, e.g., M&A or capital markets] and its commitment to delivering innovative financial solutions. During my research, I was impressed by your recent [specific deal or initiative], which demonstrates the firm's leadership and client focus.

Additionally, I admire your collaborative and high-performance culture, which aligns with my own values and work style. With my background in [specific experience], I'm eager to contribute to your team and make a meaningful impact.

#### Guide to Crafting Your Answer:

1. **Start with Research:** identify what stands out about the firm, such as notable deals, culture, or training programs
2. **Link Your Skills:** highlight how your background and experiences align with the firm's strengths or focus areas.
3. **Be Specific:** mention a particular deal, initiative, or value that resonates with you

4. **Show Enthusiasm:** convey genuine excitement about the opportunity to join the firm

One of the reasons why this example answer works well is that it shows good knowledge of the firm and its culture. The candidate has been careful not to place their own ambitions ahead of the firm, preferring to compliment the firm on its success and values.

### 3. Why are you interested in investment banking?

There are some very simple answers to explain what attracts candidates to a well-paid and challenging career in investment banking. Successful candidates will have to go beyond this to show what truly motivates them.

#### What the Recruiter is Looking For:

- A genuine interest in investment banking as a career
- An understanding of what the role entails and why it appeals
- Evidence of commitment and motivation to succeed in the field

#### Framework: PREP

- **Point:** explain your interest in the field
- **Reason:** highlight the aspects of investment banking that appeal to you
- **Example:** share a specific experience that reinforced your interest
- **Point:** conclude with your commitment to the career path

#### Example Answer:

I'm interested in investment banking because it offers the chance to work on challenging financial problems and play a role in shaping key business decisions. During a university case competition, I had the opportunity to analyze financial data and develop a valuation strategy for a mock acquisition. The experience was both challenging and exciting, and it gave me a glimpse into the strategic and detail-oriented work involved in this field. I'm drawn to the fast-paced and collaborative nature of investment banking, and I'm excited about the opportunity to contribute my skills while learning and growing in such a dynamic environment.

#### Guide to Crafting Your Answer:

1. **Identify Key Motivations:** discuss what excites you about the role (e.g., challenges, impact, growth)
2. **Use Examples:** reference specific experiences that confirmed your interest
3. **Show Long-Term Commitment:** tie your passion to a broader career vision
4. **Be Authentic:** avoid generic statements or clichés

#### Other resources:

To see a mock interview example watch this video on [what attracts you to banking](#).

#### 4. What makes you a good fit for this role?

Again, the recruiter will want to see a candidate aligning themselves to the company's ethos and providing robust evidence to support their skillset and enthusiasm.

##### What the Recruiter is Looking For:

- Evidence of skills and qualities relevant to investment banking
- Specific examples that demonstrate these skills in action
- Confidence and enthusiasm for the role

##### Framework: PREP

- **Point:** state why you're a strong candidate
- **Reason:** highlight your relevant skills and experiences
- **Example:** share specific instances where you've demonstrated these qualities
- **Point:** reinforce your readiness to succeed in the role

##### Example Answer:

I believe I'm a strong fit for this role because of my strong analytical abilities, resilience under pressure, and ability to collaborate effectively. In my economics course, I led a team project analyzing the impact of macroeconomic policies on the technology sector. I conducted detailed data analysis, synthesized findings into actionable insights, and delivered a presentation that was well-received by my peers and professor. This experience honed my ability to tackle complex problems and communicate results clearly, skills I'm eager to apply to high-impact projects in investment banking.

##### Guide to Crafting Your Answer:

1. **Focus on Strengths:** highlight qualities and skills relevant to the role, such as analytical ability, teamwork, or attention to detail.
2. **Use Examples:** provide concrete evidence of your abilities from academic, extracurricular, or personal experiences.
3. **Tailor to the Role:** align your response with the skills and qualities mentioned in the job description.
4. **Be Confident:** show conviction in your ability to excel and show enthusiasm for contributing to the firm.

#### 5. What are your greatest strengths?

This is a good question to prep for ahead of any interviews to ensure that a candidate can present individual strengths without appearing arrogant.

##### What the Recruiter is Looking For:

- Self-awareness and confidence in articulating your strengths

- Skills and traits that align with the demands of investment banking (e.g., analytical ability, teamwork, resilience)
- Specific examples that demonstrate these strengths in action

**Framework: PREP**

- **Point:** identify your top strength
- **Reason:** explain why it's valuable
- **Example:** provide a specific instance demonstrating the strength
- **Point:** tie it back to the role

**Example Answer:**

One of my greatest strengths is my ability to learn quickly and adapt to new challenges. In my economics class, we were tasked with analyzing macroeconomic trends and presenting their impact on specific industries. Initially, I found it challenging to interpret large datasets, but I invested time in improving my quantitative skills through extra practice and discussions with my professor. By the end of the semester, I successfully presented an analysis of how interest rate changes influenced the energy sector, receiving positive feedback for my insights. This adaptability and willingness to learn new concepts are essential for thriving in the fast-paced environment of investment banking.

**Guide to Crafting Your Answer:**

1. **Pick a Relevant Strength:** choose a skill that is essential for investment banking, such as problem-solving, resilience, or attention to detail
2. **Provide Evidence:** use a specific example from your academic, extracurricular, or personal experiences to demonstrate the strength
3. **Tie to the Role:** explain how this strength will help you succeed in investment banking

This answer is helpful as the candidate has identified a personal weakness in finding it hard to interpret new datasets and then displayed the strength to fix it.

## 6. What are your greatest weaknesses?

This is also a good question to be well-prepared for ahead of interviews, so candidates are not caught off-guard.

**What the Recruiter is Looking For:**

- Honesty and self-awareness
- Evidence of efforts to improve
- A weakness that doesn't severely impact your ability to succeed in investment banking

**Framework: PREP**

- **Point:** identify a genuine weakness.
- **Reason:** explain its context
- **Example:** share an instance where the weakness was evident
- **Point:** highlight your efforts to improve and the progress you've made

**Example Answer:**

I've sometimes struggled with overanalyzing details, which slowed me down during group projects. For example, during a finance competition, I spent too much time perfecting our presentation slides. After receiving feedback, I learned to prioritize key tasks and set deadlines. This experience taught me how to balance thoroughness with efficiency; a skill I know is crucial in investment banking.

**Guide to Crafting Your Answer:**

1. **Choose a Manageable Weakness:** pick something genuine but not a deal-breaker
2. **Explain the Context:** provide an example where this weakness affected you
3. **Show Improvement:** highlight specific steps you've taken to address it
4. **Emphasize Growth:** end by showing how you've turned the weakness into a learning experience

This answer is effective as it presents a relatively minor weakness (but one that is relevant to investment banking) and been able to identify and correct it. Being self-aware of the potential weakness will show the interviewer that it has been recognized and the candidate is consciously improving in this area.

## 7. Describe a challenge you faced and how you overcame it.

This is a great question to prepare for, and it can highlight a series of character strengths.

**What the Recruiter is Looking For:**

- Problem-solving skills and resilience
- Ability to stay composed under pressure
- A structured response showing initiative and results

**Framework: STAR**

- **Situation:** set the context for the challenge
- **Task:** describe your objective or responsibility
- **Action:** explain the steps you took to address the challenge
- **Result:** highlight the positive outcome

**Example Answer:**

During a student finance competition, my team was tasked with creating a valuation model for a company. Halfway through the project, we realized we lacked critical data. I took the initiative to contact the competition organizers and explore alternative data sources. We adjusted our model and delivered a strong presentation, earning a top three spot.

**Guide to Crafting Your Answer:**

1. **Choose a Relevant Challenge:** pick an example that showcases problem-solving and initiative
2. **Focus on Your Actions:** highlight your specific contributions to overcoming the challenge
3. **Quantify Results:** show measurable outcomes where possible
4. **Relate It to Investment Banking:** conclude by explaining how this experience prepared you for the role

## 8. What motivates you?

This is an interesting question as the interviewer will be hoping to find out how passionate a candidate is about investment banking. This career path is known for being well-paid and challenging but also requires dedication and the willingness to put in long hours to complete projects and tasks.

**What the Recruiter is Looking For:**

- A genuine, thoughtful response
- Evidence of a passion for investment banking
- Alignment between motivations and the demands of the job

**Framework: PREP**

- **Point:** state your motivation
- **Reason:** explain why it drives you
- **Example:** provide an experience (academic, extracurricular, or personal) that illustrates your motivation
- **Point:** connect it to the investment banking role

**Example Answer:**

I'm motivated by the chance to tackle challenging problems and work on projects that have real-world significance. In a case competition through my university's finance club, my team developed a valuation strategy for a hypothetical company acquisition. Collaborating to analyze financial data, create a detailed plan, and present our findings to a panel of judges was an incredibly rewarding experience. It strengthened my passion for

investment banking, where I can apply these problem-solving skills to real client situations and contribute to impactful financial decisions.

**Guide to Crafting Your Answer:**

1. **Identify Clear Motivation:** focus on something that aligns with the core aspects of investment banking, such as problem-solving, collaboration, or creating impact
2. **Use Academic or Extracurricular Example:**
  - If you participated in competitions, group projects, or finance-related clubs, reference those experiences
  - If not, consider using coursework, such as analyzing financial statements or working on team assignments in finance classes
3. **Tie to Investment Banking:**
  - Highlight how these experiences reflect your readiness for the demands of the role
  - Emphasize your excitement to take these skills to the next level in a professional setting

**Dos and Don'ts for Personal Story Questions****Do's:**

- Keep your answers concise and structured (1–2 minutes maximum)
- Focus on professional achievements and skills
- Tailor your responses to the firm's values and needs
- Use specific examples to support your points whilst staying on topic

**Don'ts:**

- Recite your resume verbatim as the interviewer will have this already
- Include irrelevant personal details or hobbies
- Be vague or overly generic in your responses
- Use jargon without context or explanation

## Corporate Finance

9. What are the three key financial statements? How do depreciation and tax affect each of these?

**What the Recruiter is Looking For:**

- Evidence of technical skill in the subject of accounting
- The ability to see links across the financial statements

**Framework: PREP**

- **Point:** clearly state the three key financial statements
- **Reason:** explain their purpose in understanding a company's financial health
- **Example:** describe how depreciation and tax impact all three statements
- **Point:** reinforce your understanding of how integrated financial statements support financial analysis

**Example Answer:**

The three financial statements are the income statement (sometimes called the profit and loss, or P&L), the balance sheet and the cash flow statement (CFS).

Depreciation relates to non-current assets on the balance sheet, such as property, plant and equipment. As these assets produce products, the assets are gradually used up and they reduce in value. This is depreciation. So, property, plant and equipment in the balance sheet reduces by depreciation each period.

The income statement records revenue from selling the products and the costs involved in making that revenue, including the depreciation expense. The bottom line of the income statement is net income, and as this is the first line of the CFS it means that all items from the income statement end up in the CFS including depreciation. Depreciation is a non-cash expense so should not be in the CFS. So, the second line on the cash flow statement is an add back of the depreciation expense, effectively cancelling depreciation from the CFS. This means depreciation is in all three financial statements.

Similarly, tax is found in all three financial statements. On the income statement, tax is an expense calculated as a percentage of profit before tax. The tax that is owed but not yet paid is on the balance sheet as tax payable. And tax actually paid is captured on the CFS.

**Guide to Crafting Your Answer:**

**Start with What You Know:** you likely know how tax and depreciation appear on the income statement, begin there

**Think Through the Connections:** move logically to how these items appear on the balance sheet and the cash flow statement

**Stay Structured and Confident:** use a clear, step-by-step explanation

If unsure, ask for clarification in a live interview rather than guessing

**Dos and Don'ts for Technical Questions:****Do's:**

- Stay structured and concise
- Use logical links between statements
- Focus on clear explanation of known concepts

**Don'ts:**

- Don't recite memorized definitions without understanding
- Don't be vague or overcomplicate the answer
- Don't guess, communicate what you know confidently

**Other resources:**

<https://www.fe.training/free-resources/financial-modeling/linking-three-financial-statements/>

<https://www.fe.training/free-resources/accounting/depreciation/>

### 10. As an investor, would you consider EBITDA or net profit to judge a potential investment?

**What the Recruiter is Looking For:**

- Awareness that there's no single "correct" answer
- The ability to compare and contrast financial metrics
- Evidence of technical skills in accounting and financial analysis
- A thoughtful, balanced response that shows commercial awareness

**Framework: PREP**

- **Point:** acknowledge that the choice depends on the type of business and investor
- **Reason:** explain what each metric captures and why that matters
- **Example:** compare the use of EBITDA vs. net income in different contexts
- **Point:** reiterate how this decision aligns with investment goals and business models

**Example Answer:**

This depends. When judging a non-financial business such as a manufacturer, EBITDA is often better. It looks at the operating profit and includes sales of the product, costs of the product, selling, general and admin expenses (SG&A), and adds back depreciation and amortization (D&A). This focuses on the profit that a company makes from its products, rather than profit after interest and after tax. Net income includes these, and while they are important, the profit from selling the core products is the best way to judge a company. This is particularly the case for a larger investor or acquirer thinking about the success of selling this product.

However, EBITDA does ignore D&A, interest and tax. In the long run these are legitimate expenses for a business, and as a small shareholder who only receives dividends, these expenses affect those dividends. So net income is useful for those interested in dividends.

Net income can be a better way to judge an investment in financial businesses such as banks. Banks don't have revenue and costs of goods sold in the way manufacturers do. In fact, interest income and interest expense are the revenue and expense of a bank. EBITDA would be less suited for a bank.

**Guide to Crafting Your Answer:****Start with Flexibility:**

- Begin your answers by keeping your options open
- This shows you understand that different metrics suit different business models and investor goals

**Compare Strengths and Weaknesses:**

- Highlight how EBITDA isolates operational performance by excluding non-cash and non-operating items
- Contrast that with net profit, which captures the bottom-line impact of financing and taxes

**Tailor to Business Type and Investor Perspective:**

- Emphasize EBITDA for analyzing operating efficiency in non-financial businesses
- Emphasize net income for financial firms or dividend-focused investors

**Engage the Interviewer:**

- Leave room for follow-up by presenting pros and cons clearly
- Be ready to explain or defend your choice with examples or further detail

**Dos and Don'ts for Technical Judgement Questions:****Do's:**

- Be flexible and analytical in your response
- Explain what each metric measures
- Match your answer to the business model and investor perspective

**Don'ts:**

- Don't assume one-size-fits-all answers
- Don't focus only on definitions, explain practical implications
- Don't ignore context, such as industry or investment goals

**Other resources:**

<https://www.fe.training/free-resources/accounting/earnings-before-interest-taxes-amortization-and-depreciation-ebitda/>

## 11. Calculate the present value of a \$100 annuity, where the cost of capital is 10%.

### What the Recruiter is Looking For:

- An understanding of financial math concepts, especially time value of money
- Problem-solving ability, particularly under ambiguity
- Awareness of key assumptions and ability to explain them clearly
- Comfort working through quantitative reasoning out loud

### Framework: PREP

- **Point:** define what an annuity is and what present value represents
- **Reason:** explain why discounting future cash flows is necessary
- **Example:** walk through the assumptions needed (e.g., number of years) and demonstrate a rough present value calculation
- **Point:** mention how the result or approach might differ in the case of a perpetuity

### Example Answer:

An annuity is a regular cash flow for a defined period of time. And the present value is the value to me now of receiving this regular cash flow in the future. This question does not state the number of years, so let's assume 3 years. And let's assume the first cash flow of \$100 is in a year's time. This needs to be discounted by 10% by dividing the cash flow by "1+10%" to the power of the number of years i.e. 1. The second and third cash flows need to be discounted similarly using the discount factors for years 2 and 3. The answer is too difficult to calculate exactly in my head but will be approximately  $\$91 + \$82 + \$73 = \$246$ .

Alternatively, if the annuity had no defined period of time it becomes a perpetuity and the formula for the present value of a perpetuity is the cash flow divided by the discount rate i.e.  $\$100 / 10\% = \$1,000$ .

### Guide to Crafting Your Answer:

#### Start with Definitions:

- Define what an annuity is and why present value matters in investment decisions
- Explain that present value discounts future cash flows to reflect their value today

#### Acknowledge the Missing Information:

- Recognize that the question does not specify the duration of the annuity
- Choose to assume a reasonable number of years (e.g., 2 or 3) or ask for clarification

#### Demonstrate Calculations Clearly:

- Estimate discount factors for each year using the cost of capital

- Be transparent if mental math limits exact calculation, showing your logic is more important

**Consider the Edge Case (Perpetuity):**

- Mention the perpetuity formula and explain when it would be used instead

**Other resources:**

<https://www.fe.training/free-resources/financial-markets/present-value/>

## 12. In the choice between higher NPV or higher IRR, which is preferable?

**What the Recruiter is Looking For:**

- Familiarity with investment return techniques
- Clear understanding of the definitions of NPV and IRR
- Ability to critically compare both metrics
- Logical reasoning under ambiguity or incomplete information

**Framework: PREP**

- **Point:** state your preference (NPV or IRR)
- **Reason:** explain the rationale behind why that metric is more appropriate
- **Example:** use a scenario to contrast the two and illustrate your reasoning
- **Point:** reinforce why NPV is generally preferable for project selection

**Example Answer:**

While an NPV number (an absolute dollar amount) cannot be compared to an IRR number (a percentage return), if I had the choice between two projects, one with a higher NPV and the other with a higher IRR, the higher NPV project would be preferable to the higher IRR project. As NPV gives an absolute \$ amount, earning more money is better than earning a higher percentage return...all else being equal. This does mean it depends. If two projects involve the same investment amount and the same investment period, then the higher NPV project will often be the higher IRR project, so I would not have to choose. But when the investment amounts differ or the time period differs, then choosing the higher NPV will usually be best.

**Guide to Crafting Your Answer:****Start with Definitions:**

- NPV (Net Present Value) is the dollar value created by a project after discounting future cash flows
- IRR (Internal Rate of Return) is the discount rate that makes the NPV of cash flows equal to zero

**Acknowledge Complexity:**

- Begin by stating “it depends” to allow flexibility and lead into explanation
- Clarify that context, such as investment size and duration matters

**Support Your Preference:**

- Emphasize that NPV reflects absolute financial gain
- Discuss the limitations of IRR, such as its sensitivity to timing and reinvestment assumptions

**Demonstrate Strategic Thinking:**

- Show understanding that investors aim to maximize dollar returns (NPV), not just efficiency (IRR)
- Mention that IRR can be misleading when projects differ significantly in scale or time horizon

**Dos and Don'ts for Comparison Questions:****Do's:**

- Define both NPV and IRR accurately
- Use a structured explanation to compare them
- Justify your preference with examples or assumptions

**Don'ts:**

- Don't assume IRR is better just because it's a higher percentage
- Don't ignore context like scale or time
- Don't backtrack without offering a clear rationale

**Other resources:**

<https://www.fe.training/free-resources/valuation/net-present-value-vs-internal-rate-of-return/>

13. What happens to earnings per share (EPS) when a company buys back its shares? What happens if the company funds this buyback using debt?

**What the Recruiter is Looking For:**

- Strong understanding of accounting (EPS calculation) and financing concepts
- Ability to analyze how debt and equity interact in real-world corporate finance decisions
- Application of technical knowledge to scenarios involving capital structure changes
- Clear, logical explanation of potentially ambiguous outcomes

**Framework: PREP**

- **Point:** buying back shares generally increases EPS
- **Reason:**  $EPS = \text{Net Income} / \text{Number of Shares}$ ; fewer shares lead to higher EPS
- **Example:** walk through the effect of introducing debt to fund the buyback
- **Point:** highlight that the overall impact on EPS depends on the relative effect of reduced shares vs. increased interest expense

**Example Answer:**

Earnings per share is calculated as net income (numerator) divided by number of shares (denominator). If shares are bought back, the denominator decreases, making the overall EPS figure increase. Debt funding itself will not directly affect the EPS calculation, but the debt leads to extra interest expense. Interest expense is on the income statement and will cause the net income (the numerator in EPS) to decrease.

So, the net income is decreasing (due to interest), and the number of shares is decreasing (due to the buyback) which means the net effect on EPS is uncertain. It depends on whether the earnings or shares decrease the most. But, given that interest is a low-cost source of funding, and it being used to replace shares which are a high-cost source of funding, it is likely that the EPS will increase overall if the cost of debt is less than the earnings yield.

**Guide to Crafting Your Answer:****Start with Core Concepts:**

- $EPS = \text{Net Income} / \text{Number of Shares}$   
$$EPS = \text{Net Income} / \text{Number of Shares}$$
- A share buyback reduces the number of outstanding shares

**Address Each Part of the Question Separately:**

- First, explain what happens when shares are bought back (EPS increases due to fewer shares)
- Second, discuss the impact of debt (increased interest expense reduces net income)

**Discuss the Net Effect:**

- Acknowledge that EPS could go up or down, depending on how much interest reduces net income compared to how much the share count drops
- Introduce the idea of earnings yield vs. cost of debt to evaluate which effect dominates

**Demonstrate Business Judgment:**

- Show that you understand real-world financing decisions, where companies often take on low-cost debt to buy back higher-cost equity
- Reflect on how this tactic can enhance shareholder value when used strategically

**Dos and Don'ts for Scenario-Based Technical Questions:****Do's:**

- Clearly define the key terms (EPS, share buyback, interest expense)
- Walk through the impact step-by-step
- Consider both numerator and denominator in EPS
- Use logic to reason through an uncertain outcome

**Don'ts:**

- Don't assume EPS always increases, acknowledge uncertainty
- Don't ignore the impact of interest on net income
- Don't rush to a conclusion without explaining your reasoning

**Other resources:**

<https://www.fe.training/free-resources/accounting/share-buybacks/>

## 14. Will acquiring fixed assets affect working capital?

**What the Recruiter is Looking For:**

- Solid technical accounting knowledge
- Understanding of the definitions and distinctions between working capital and operating working capital
- Ability to apply concepts in different funding scenarios
- Broader thinking around financial statement interactions

**Framework: PREP**

- **Point:** acquiring fixed assets *can* affect working capital, depending on how the acquisition is funded
- **Reason:** changes in current assets or current liabilities affect the working capital calculation
- **Example:** explore the different funding methods (cash, short-term debt, long-term debt) and their impact
- **Point:** distinguish between total working capital and operating working capital to provide a more complete answer

**Example Answer:**

Fixed assets are long term or non-current assets such as property, plant and equipment. Working capital can be broadly defined as current assets less current liabilities. Using this definition of working capital, the first way that acquiring fixed assets will affect working capital is if the acquisition is paid for using cash. Cash will go down, reducing current

assets and reducing working capital. Alternatively, if short-term debt is used to fund the acquisition, then working capital will again decrease due to current liabilities increasing. But in a third scenario, if long-term debt is used for the funding, then working capital will not be impacted by the acquisition.

However, if working capital refers to operating working capital, which is operating current assets less operating current liabilities (so it does not include any financial current assets or liabilities like cash or debt), then the use of cash or short-term debt will not have an impact on operating working capital.

### **Guide to Crafting Your Answer:**

#### **Define the Terms Clearly:**

- Fixed assets = long-term assets like property, plant, and equipment
- Working capital = current assets – current liabilities
- Operating working capital = excludes cash and debt

#### **Consider Funding Mechanisms:**

- **Cash-funded acquisition** → reduces current assets → reduces working capital
- **Short-term debt funding** → increases current liabilities → reduces working capital
- **Long-term debt funding** → no change in current assets/liabilities → no impact on working capital

#### **Add Depth with Operating Working Capital:**

- Clarify that in the operating working capital view, cash and debt are excluded, so changes in them won't affect the metric

#### **Show Strategic Thinking:**

- Demonstrating your ability to consider alternative financing methods shows real commercial awareness and technical agility

#### **Dos and Don'ts for Technical Scenario Questions:**

##### **Do's:**

- Start by defining key terms to build a foundation
- Explore multiple funding scenarios to show breadth of understanding
- Clearly explain the difference between total and operating working capital

##### **Don'ts:**

- Don't ignore the impact of funding method, it's central to the answer
- Don't conflate working capital with cash flow or ignore definitions
- Don't stop after one scenario if you can explain more

#### **Other resources:**

<https://www.fe.training/free-resources/accounting/working-capital/>

## 15. What is negative working capital?

### What the Recruiter is Looking For:

- Technical understanding of accounting and finance terms
- Ability to define and interpret working capital clearly
- Awareness of scenarios where negative working capital can be a risk or a competitive advantage
- Willingness to explore exceptions and expand the conversation

### Framework: PREP

- **Point:** negative working capital can indicate a liquidity issue, but not always
- **Reason:** it occurs when current liabilities exceed current assets
- **Example:** used strategically by some market-leading firms to manage cash flow
- **Point:** the key insight is not just the number itself, but how it behaves over time

### Example Answer:

Working capital is defined as current assets less current liabilities. It is often used to determine if a company can afford to pay its bills. Positive working capital means that a company's current assets are greater than their current liabilities, and hence bills (current liabilities) can be paid for using the proceeds from current assets.

Negative working capital can mean a company does not have the immediate ability to pay its bills and may be in trouble (i.e. it has a liquidity problem). But some companies can operate in this way. While it may look like they do not have enough current assets at the moment to pay their bills, it may just mean that this company or this industry normally has a lot of accounts payable (or creditors). This often happens for the market leader in an industry. Their market power means they can demand to pay suppliers after a long credit period e.g. 30 days, but they sell their products with a low credit period e.g. 0 days. This would result in low current assets (due to having no accounts receivables or debtors) and high current liabilities, hence negative working capital.

What is more interesting when looking at negative working capital is what happens to the level of working capital over time. Does working capital naturally grow at the same rate as revenue grows (which would be normal) or does the working capital become more negative at an accelerating rate, which can be a sign of financial distress and a company being unable to pay its suppliers.

### Guide to Crafting Your Answer:

#### 1. Define the Term

Working Capital = Current Assets – Current Liabilities

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

Negative Working Capital = Liabilities > Assets → potential liquidity issue

#### 2. Explore the Risks

- May indicate a company can't meet short-term obligations
- Could point to poor financial management or unsustainable growth

### 3. Highlight the Exceptions

- Strong companies with bargaining power (e.g. supermarkets, tech giants) can manage negative working capital
- They delay payments to suppliers but collect cash from customers upfront

### 4. Consider the Trend

- Ask: is negative working capital growing steadily with revenue?
- Or: is it deteriorating rapidly, suggesting distress?

### Dos and Don'ts for Technical Scenario Questions:

#### Do's:

- Start with a definition to ground your answer
- Show both the conventional interpretation and the strategic exception
- Think like a consultant: trends over time matter more than a single number

#### Don'ts:

- Don't stop at "it's bad", show that you understand the nuance
- Don't assume the recruiter wants only textbook answers—real-world application matters
- Don't forget to mention the importance of how negative working capital evolves

### Other resources:

<https://www.fe.training/free-resources/accounting/working-capital/>

## 16. What are the key leverage ratios?

### What the Recruiter is Looking For:

- Strong technical finance and accounting knowledge
- Ability to define, compare, and contextualize ratios
- Depth of thinking: Can you go beyond listing and explain *why* each ratio matters?
- Perspective: Can you assess these from both the lender's and the company's point of view?

### Framework: PREP

- **Point:** there are several leverage ratios that assess a company's use of debt
- **Reason:** these ratios help determine risk, creditworthiness, and financial structure
- **Example:** Debt/Equity, Debt/EBITDA, and Interest Coverage

- **Point:** understanding these ratios is crucial for investors, lenders, and acquirers

**Example Answer:**

There are many ratios that can be used here. A few key ones that come to mind are debt divided by equity (debt / equity), debt divided by EBITDA (debt / EBITDA), and interest coverage.

Debt / equity looks at the level of debt funding a company has vs the level of equity funding. The higher the ratio the higher the level of debt and lower the equity. This would indicate higher risk for the company. More debt means more interest which must be paid and missing a payment can lead to the company going into default and liquidation. This is also risky for both debt holders and equity holders, although riskier for equity holders, as debt holders are senior creditors and get their money back prior to equity holders. Additionally, debt repayments must be made on time, again risking default. Banks will not lend to a company if this ratio is high.

The debt / equity ratio has a number of variations including "debt / (debt + equity)" and "net debt / equity" or "net debt / (net debt + equity)". Net debt is debt, less cash and cash equivalents. Net debt shows the true indebtedness of a company assuming all cash is used to pay off debt. However, ultimately these ratios test the same principle as debt / equity.

The debt / EBITDA ratio looks at the level of debt compared to the EBITDA generated by the company. It is a way to compare debt to a crude calculation of cash flow that can be used to repay that debt (and the interest on the debt). If the ratio is very high, the EBITDA will not be high enough to pay off the debt. Banks will not like lending to a company with a high ratio. Again, net debt can be used instead of debt, but the principle is the same.

Interest coverage is another good leverage-related ratio. It is EBIT divided by interest expense (EBIT / interest) and looks at how many times the EBIT can pay the interest. Banks will sometimes stipulate that companies must keep this ratio above a certain level to give the bank comfort that their interest (and debt) is going to be paid.

**Guide to Crafting Your Answer:****1. Start with Definitions**

- Mention at least two or three ratios clearly
- Define each and explain the components (e.g. net debt, EBIT, EBITDA)

**2. Explain Use Cases**

- **Banks and lenders:** assess risk and lending limits
- **Companies:** monitor capital structure and financial health
- **Private equity:** optimize deal financing with high leverage

**3. Don't Repeat Similar Ratios**

- Group variations (e.g. debt/equity and net debt/equity) under one umbrella
- Show you understand the nuance, but avoid filler

#### 4. Provide Perspective

- From lender's side: look for minimum standards (e.g. interest coverage > 2x)
- From company's side: debt can be a cheap funding source
- From investor's side: ratios help evaluate sustainability of growth and returns

#### Dos and Don'ts for Ratio-Based Questions:

##### Do's:

- Define each ratio simply and clearly
- Explain why the ratio matters to different stakeholders
- Use examples of companies or industries where relevant

##### Don'ts:

- Don't list too many minor variations that say the same thing
- Don't forget the context (why does this ratio matter?)
- Don't ignore the impact of debt risk on equity holders

#### Other resources:

<https://www.fe.training/free-resources/accounting/leverage-ratios/>

## 17. Why do mergers and acquisitions (M&A) generally happen?

#### What the Recruiter is Looking For:

- A solid grasp of strategic motivations behind M&A
- Awareness that M&A is central to many financial products/services
- Demonstrated interest in deal-making, even if you're not applying for an M&A-specific role
- Ideally, the ability to mention current or recent M&A deals as real-world illustrations

#### Framework: PREP

- **Point:** M&A happens because companies want to grow more quickly or strategically
- **Reason:** organic growth can be slow, whereas acquisitions can deliver scale, efficiency, or new capabilities faster
- **Example:** a company might acquire a competitor, enter new markets, or unlock synergies
- **Point:** understanding M&A is key for roles in investment banking, corporate finance, and related fields

**Example Answer:**

M&A generally happens because companies seek to grow through external means. This acquisitional growth is usually faster than relying on internal growth.

The reasons for this growth can be varied, such as:

- Seeking to expand a current product by buying a competitor, and gain market share
- Buying a supplier for security of supply and lowering of costs
- Expanding into new geographies
- Expanding into new products, to a new target audience, or acquiring new technology
- Seeking cost saving synergies or revenue synergies
- Wanting greater earning accretion (EPS increase) for shareholders
- An opportunity for M&A appears which could benefit the company by stopping any other parties engaging in a deal

After stating the rather academic answer above, this is where it would be great to mention M&A deals that happened just prior to your interview and use them as real-world examples of the reasons above. So, mention as many as you can. We have neglected to give you a list so that you do not use outdated examples.

**Guide to Crafting Your Answer:****1. Open With the Academic Reasons**

- Think of these as your baseline: explain the upside of M&A such as faster growth, synergies, new markets, EPS accretion, etc.
- A shortlist for this is fine – it is better to be concise and accurate than long and vague

**2. Show Industry Awareness**

- Research recent M&A deals before your interview
- Pick one or two examples that align with your interests or with the group/industry you're applying to and learn the key points and financials associated with it

**3. Make It Personal**

- If you have a genuine interest in a sector (tech, gaming, healthcare, luxury, etc.), choose a deal from that space, it can help you speak with energy and credibility
- If you're interviewing for a group that covers a specific sector (e.g., TMT, FIG), try to mention a deal within that space

**4. Avoid Obvious Examples**

- Everyone will mention mega-deals (Amazon/Whole Foods, Microsoft/Activision, etc.), so try to go a level deeper with mid-market or under-the-radar deals

- Bonus points are generally given for deals your target bank advised on!

**Other resources:**

<https://www.fe.training/free-resources/ma/ma-explained/>

<https://www.fe.training/product/online-finance-courses/accounting/mergers-and-acquisitions-accounting/>

## 18. What are the pros and cons of using different standalone valuation methods?

**What the Recruiter is Looking For:**

- A solid understanding of valuation fundamentals
- Ability to analyze methods critically, not just apply them
- Evidence that you've had technical training and can think conceptually
- Bonus: confidence to discuss limitations, comparisons, or extensions (such as takeover valuation)

**Framework: PREP**

- **Point:** different standalone valuation methods are used to value companies staying independent, and each has its strengths and weaknesses
- **Reason:** some methods are market-based, others are intrinsic, and depending on the scenario, one may be more appropriate.
- **Example:** trading comparables vs. DCF, both commonly used, both with pros and cons.
- **Point:** understanding not just how, but why and when to use these methods is what sets strong candidates apart

**Example Answer:**

Standalone valuation techniques are useful if a company is to remain standalone, i.e. investors are only buying small amounts of shares in it, certainly below 50% ownership.

The two valuation methods often used here are:

- **Trading Comparables** –sometimes called common stock comparison, or comparable company analysis
- **Discounted Cash Flow (DCF)**

**Trading comps** value a company by comparing it to similar companies. If we can work out a valuation multiple such as EV / EBIT for similar companies, we can then apply that same multiple to the EBIT of the company under consideration and come to its valuation. It is similar to valuing a house – you look at what the neighbors' houses are selling for.

**Pros of Trading Comparables:**

- Uses real-time, market-tested data
- Comparables reflect current investor sentiment as typically publicly listed companies
- Useful benchmarking tool for a company both within a sector and also geography, size or region as well

**Cons of Trading Comparables:**

- The downside of comparables is that it requires a strong set of similar companies with accurate data
- It doesn't capture company-specific advantages (or disadvantages) as it simply compares to the peer group
- It can be misleading if the market is over/undervalued

**Discounted Cash Flow** is a different technique. It looks at the future cash flows of the company and finds the present value of the cash flows. This benefits from focusing on the company itself rather than other companies (which trading comps does).

**Pros of DCF:**

- Tailored to the specific company
- Captures intrinsic value based on fundamentals of the company
- Can model different scenarios and sensitivities within the valuation

**Cons of DCF:**

- Highly sensitive to assumptions (e.g., growth rates, discount rates)
- Hard to validate without market comparisons
- Easy to manipulate if the modeler is biased or overly optimistic

That said, DCF and trading comps are often used together, one can act as a check on the other.

**Guide to Crafting Your Answer:****1. Start With Definitions**

- Explain what standalone valuation means
- Briefly define DCF and trading comparables

**2. Lay Out Pros and Cons Clearly**

- Stick to big-picture pros/cons, don't get lost in technical calculation details
- Try not to say the same thing in different words (e.g., don't repeat "market-based" and "publicly available" as separate pros if they mean the same thing)

**3. Be Ready to Expand**

- If you're confident, offer to go beyond standalone valuations and talk about:

- **Transaction comps** (deal comps)
- **DCF with synergies** (more relevant for acquisitions or control valuations)

#### 4. Be Honest if You Don't Know

- If you've only learned the mechanics of DCF or comps but not why they're used, say so, and then ask if the interviewer could explain the practical side

#### Other resources:

<https://www.fe.training/free-resources/valuation/trading-comparables/>

<https://www.fe.training/free-resources/valuation/discounted-cash-flow-dcf-valuation/>

## WACC

### 19. What is WACC?

#### What the Recruiter is Looking For:

- Technical valuation and finance knowledge
- Ability to walk through the explanation swiftly and comprehensively

#### Framework: Definition + Components + Application

- Define what WACC is and what it represents
- Explain the individual components: cost of equity and cost of debt
- Apply WACC in the context of valuation, capital structure, and project appraisal

#### Example Answer:

WACC stands for Weighted Average Cost of Capital. It is the average return expected by all those that have provided finance to a firm, i.e. shareholders and debt providers. It is weighted by the relevant proportions of debt and equity within the firm.

The WACC is calculated as the weighted average of the cost of equity ( $k_e$ ) and the tax-effected cost of debt ( $k_d \times (1-T)$ ) using the company's capital structure to calculate the weighting for each:

$$WACC = \left( \frac{E}{E + D} \right) \times k_e + \left( \frac{D}{E + D} \right) \times k_d \times (1 - T)$$

Debt providers are deemed to be at a lower risk than equity providers as debt generally has contractual interest and repayment terms and will rank above equity in the event of liquidation. Therefore, the return expected by lenders (known as the cost of debt,  $k_d$ ) is likely to be lower than that required by shareholders (known as the cost of equity,  $k_e$ ). A firm with a greater proportion of debt funding is likely to have a lower WACC than one with mainly equity as the calculation is weighted.

The WACC of a firm provides a minimum level of return that any investment or project must generate to create value for the firm's finance providers. It is therefore a key component of a discounted cash flow approach to either project appraisal or business valuations. Furthermore, the WACC reflects the risks of the cash flows of the company. A company with more uncertain future cash flows should have a higher WACC.

Managing the capital structure and cost components of WACC is critical to optimizing firm value. If the WACC can be lowered then that reduces returns that must be made from any business activity or investment and therefore increases the residual value, in turn increasing the value of the firm.

### **Guide to Crafting Your Answer:**

#### **Start With the Definition**

- Clearly define what WACC stands for and what it measures
- Emphasize that it represents the average cost of financing from both debt and equity

#### **Explain the Components**

- Show understanding of both cost of equity ( $K_e$ ) and cost of debt ( $K_d$ )
- Mention tax-shielding on debt and how the capital structure influences weighting

#### **Connect to Valuation and Decision-Making**

- Explain WACC's role as a discount rate in DCF analysis
- Point out that it acts as a hurdle rate for investment appraisal

#### **Show Conceptual Understanding**

- Explain why companies with more risk have a higher WACC
- Link lower WACC to increased firm value through lower required returns

#### **Be Ready to Go Deeper**

- You can offer to discuss how to estimate WACC in different scenarios (e.g. for a private firm or in emerging markets)
- You might be asked to explain how capital structure impacts WACC or how WACC changes across industries

#### **Other resources:**

<https://www.fe.training/free-resources/valuation/weighted-average-cost-of-capital-wacc-2/>

<https://www.fe.training/product/online-finance-courses/valuation/wacc-analysis/>

## 20. How would you calculate the WACC for a private firm?

### What the Recruiter is Looking For:

- Technical valuation skills and finance knowledge
- Clear understanding of how capital structure impacts valuation
- Ability to apply concepts like discount rates and project evaluation
- Ability to make assumptions for elements which may not be provided

### Framework: Definition + Application + Impact

- **Define:** what WACC means
- **Application:** explain how it is calculated
- **Impact:** show why it's important in valuation and capital structure decisions regarding a company which may not provide all the information required

### Example answer:

Calculating WACC for a private firm can be difficult as there is significantly less published information for this type of firm. If shares are not actively traded so there is generally no readily available market value for its equity. There may also be very little detail regarding the company's debt position.

Therefore, a number of estimates will need to be made largely based on comparable listed companies and their sectors.

The CAPM formula can be used to calculate the cost of equity for the firm, the formula is  $k_e = R_f + \text{Beta} \times (R_m - R_f)$ .

$$k_e = R_f + \text{Beta} \times (R_m - R_f)$$

Going through the elements:

**Risk-free rate:**  $R_f$  is the risk-free rate and would generally be the 10-year yield on government bonds in the firm's home territory

**Beta:** to calculate levered Beta, take an average of unlevered Betas for comparable listed companies (which would be published). Then re-lever this average beta using the target capital structure for comparable firms. Finally, this would then be multiplied by the equity market risk premium for the territory where the company is based

**Cost of Debt:** the cost of debt,  $K_d$ , would be estimated based on the credit ratings of comparable companies, as it's unlikely a private company will have a published credit rating or any publicly traded debt. This would enable the yield of corporate bonds with similar credit ratings to be found. Applying the marginal tax rate in the home territory results in the post tax cost of debt.

**Cost of Equity:** this would then provide an assumption for the cost of equity.

The WACC could then be calculated as the weighted average of the cost of equity ( $k_e$ ) and the tax-effected cost of debt ( $K_d \times (1-T)$ ) using the company's target capital structure to calculate the weights:

$$WACC = \left( \frac{E}{E+D} \right) \times k_e + \left( \frac{D}{E+D} \right) \times k_d \times (1-T)$$

Note however that it is likely that a private firm would have a higher WACC than a comparable listed firm, for two main reasons:

**Small-sized company:** in general, private companies are smaller than listed firms and therefore have less diversification, and are therefore likely to be more exposed to certain customers, sectors, geography etc. This increases risk.

**Firm specific factors:** private firms may have less well-developed processes and management practices than listed ones. They may lack the discipline imposed by reporting requirements such as corporate governance codes.

It is therefore likely that an additional premium may be applied to the private firm WACC to take account of these factors.

### Guide to Crafting Your Answer:

#### Start with a clear definition

- Mention both debt and equity and how they are weighted according to the company capital (or an estimate of)

#### Show how WACC is used

- In valuation models, such as DCF
- As a hurdle rate for investment decisions when looking at opportunities

#### Highlight practical insights

- Why lowering the WACC adds value
- The impact of capital structure (more debt = lower WACC, but higher risk)

#### Include the formula if confident

- Explain each component briefly

#### Other resources:

<https://www.fe.training/free-resources/valuation/weighted-average-cost-of-capital-wacc-2/>

<https://www.fe.training/product/online-finance-courses/valuation/wacc-analysis/>

## 21. Between two identical companies, one with zero debt and another with 50% debt, which will have higher WACC?

### What the Recruiter is Looking For:

- Genuine interest in finance and valuation demonstrated by tackling a technical question
- Ability to apply technical knowledge to practical capital structure scenarios
- Understanding of how debt impacts cost of capital and financial risk
- Awareness of trade-offs involved in balancing debt and equity

### Framework: Pyramid Principle

- **Conclusion:** start with the main conclusion upfront
- **Key Arguments:** support it with logical reasoning and definitions
- **Details:** integrate detailed explanations and examples to clarify concepts
- Maintain a clear, natural flow without rigid segmentation

### Example Answer:

WACC stands for Weighted Average Cost of Capital and is the average return expected by all those that have provided finance to a firm, i.e. shareholders and debt providers. As debt providers are at lower risk than equity their required return (known as  $K_d$ ) is generally lower than that required by shareholders (known as  $K_e$ ).

As the WACC is weighted by the proportion of debt and equity, and the cost of debt ( $K_d$ ) is less than the cost of equity ( $K_e$ ), it may seem logical that a firm with a greater proportion of debt will have lower overall WACC. It's worth also noting that interest on debt is generally tax deductible which reduces the after-tax cost of debt, often making it significantly lower than the cost of equity, again suggesting that a higher proportion of debt leads to lower WACC.

However, as a firm increases its debt, equity holders perceive greater financial risk due to the fixed obligation to service interest payments, which take priority over returns to shareholders. This increased risk raises the cost of equity, as investors demand higher returns to compensate for the heightened possibility of financial distress. In addition, if a business is liquidated debt holders rank above equity holders for the distribution of any remaining assets, especially if that debt is secured on assets. Therefore, as debt increases the cost of equity rises, which will drag up WACC. The capital structure that achieves the lowest WACC is therefore a balance of these two factors.

In this scenario, with 50% of debt it is likely that the lower cost of debt will outweigh any increase in the cost of equity due to the higher debt, however that depends on factors such as the profitability and stability of the underlying business and its ability to cover the interest charges, as well as how that capital structure compares to other comparable firms.

### Guide to Crafting Your Answer

Start with a clear position: answer the question upfront and don't hide the conclusion until the end

Define key terms briefly: explain what WACC is and why cost of debt is typically lower than cost of equity

Use cause-effect reasoning: show how increased debt affects financial risk and therefore the cost of equity

Balance theory with judgment: acknowledge the trade-off and explain it's not a one-size-fits-all – context matters

Add flexibility: mention that WACC can vary depending on firm-specific factors and industry benchmarks

**Other resources:**

<https://www.fe.training/free-resources/valuation/weighted-average-cost-of-capital-wacc-2/>

<https://www.fe.training/product/online-finance-courses/valuation/wacc-analysis/>

**22. Which asset carries a higher level of risk: one with a beta of -2.0 or one with a beta of 1.2? Why?**

**What the Recruiter is Looking For:**

- Genuine interest in finance and valuation through answering a technical question
- Ability to apply knowledge of risk metrics like beta to real scenarios
- An understanding of how beta measures market sensitivity and risk
- Awareness of how positive and negative beta values relate to volatility and correlation with the market

**Framework: Pyramid Principle**

- **Conclusion:** begin with a clear definition of beta and its relevance to risk
- **Key Arguments:** explain how beta values indicate different risk and return behaviors
- **Details:** provide detailed reasoning and examples illustrating the implications of positive and negative beta
- Present a natural flow of explanation without rigid segmentation

**Example Answer:**

Beta measures the sensitivity of an asset's returns to movements in the overall market, indicating how much the asset's returns are expected to change in response to market fluctuations. It is a measure of the 'riskiness' or 'volatility' of a firm or asset.

If a stock is trading on a beta of 1 it moves in perfect correlation to the underlying market. If the beta is positive, e.g. 1.2 then the asset is moving in the same direction as the market moves and is a positive correlation. 1.2 is considered a low beta and implies that a business generates steady returns regardless of the peaks and troughs in the overall market.

The firm with a beta of -2.0 is more volatile than that with 1.2. Its performance and therefore its value will experience greater rises and falls in response to market movements.

However, in this case the negative sign means that the firm is inversely correlated to the market as a whole. If market sentiment declines and overall earnings fall, then this firm will do well, its share price may increase. With a beta of -2.0 the magnitude of this movement will be much greater than the decline in the market. It could be that this product produces an inferior good, something that is perhaps perceived as good value, so in times of economic uncertainty consumers 'trade down'. When the economy rebounds customers move back to higher price products.

It is worth noting that risk relates to both upside and downside risk, i.e. steep improvements are an indication of volatility and risk, even if they generate a better-than-expected return.

### **Guide to Crafting Your Answer**

Start with a clear definition

- Explain what beta is and why it's important in measuring risk

Clarify how beta values reflect risk levels

- Positive beta shows correlation with the market; negative beta shows inverse correlation

Use examples to illustrate impact

- Discuss what a negative beta implies practically, such as inverse market movement

Balance technical and intuitive explanations

- Show understanding of both volatility magnitude and directional risk

Address both upside and downside risk

- Acknowledge that risk involves variability in all directions, not just losses

### **Other resources:**

<https://www.fe.training/free-resources/valuation/beta/>

## 23. Can you provide an example of a sector or company with a negative Beta?

### What the Recruiter is Looking For:

- Demonstrates genuine interest in finance and valuation
- Shows knowledge of markets and asset behavior
- Understands the concept and rarity of negative beta
- Able to provide real-world examples illustrating negative correlation with the market

### Framework: Pyramid Principle

- **Conclusion:** begin with a clear definition of negative beta and its meaning
- **Supporting Points:** explain why it's rare and what types of assets or sectors exhibit this behavior
- **Details:** provide specific examples to illustrate the concept
- Maintain a smooth, logical narrative flow rather than segmented points

### Example Answer:

A company with a negative beta has returns that tend to move in the opposite direction of the overall market. It is an inverse relationship with market performance. This is rare but can be observed in assets like gold mining companies, which may perform well during market downturns as investors seek safety.

If a firm has a negative Beta, it means that there is a negative correlation between the returns for the market as a whole and the returns for the firm. i.e. if the overall market is rising in a buoyant economy, then the returns for the firm itself will be falling; alternatively, the firm will prosper when the market as a whole is falling.

A firm in a "value sector" may exhibit this sort of behavior, where customers trade down in times of economic uncertainty and buy cheaper alternatives; however, when times are good those customers return to higher priced alternatives. Retail would be a good example of this.

Another example of a business with a negative beta is Zoom, the video communications business. During the early days of the Covid pandemic zoom experienced very rapid growth as workers used it to communicate from home. As people returned to the office and competitions for video communications increased Zoom share price declined in contrast to the rise in USA stock markets.

### Guide to Crafting Your Answer

Start with a clear definition

- Explain what negative beta means in terms of market correlations

Discuss rarity and why it occurs

- Highlight that negative beta assets are uncommon and explain typical reasons

Use real-world examples

- Provide examples like gold miners, value sectors, or specific companies (e.g., Zoom)

Explain practical implications

- Show how market conditions affect companies with negative beta

Maintain clear, logical flow

- Avoid segmented points, make the explanation easy to follow and cohesive

**Other resources:**

<https://www.fe.training/free-resources/valuation/beta/>

## 24. What is a levered Beta?

**What the Recruiter is Looking For:**

- Demonstrates technical knowledge of valuation and finance
- Understands the concept and components of levered beta
- Can explain the relationship between business risk, capital structure, and equity risk

**Framework: Pyramid Principle**

- **Conclusion:** start with a clear definition of levered beta and what it measures
- **Supporting Points:** explain its two components: unlevered beta (business risk) and the effect of debt (financial risk)
- **Details:** describe how capital structure influences equity risk and volatility
- Present a coherent, flowing explanation without rigid segmentation

**Example Answer:**

Levered Beta measures the volatility of a company's equity returns relative to the overall market, reflecting both the risk of its underlying business and its capital structure. A levered beta of 1 means that the stock moves in line with the market. A low beta, such as 0.2, suggests the company's equity is relatively insensitive to market movements, while a high beta, such as 1.9, indicates that the equity is more volatile and amplifies the market's ups and downs.

The Beta of a firm, referred to as Levered Beta, is composed of two elements:

- 1) **The unlevered or asset Beta**, which is a measure of the volatility of the underlying business itself, i.e. the sector that the firm operates in and the ability of management to drive the profitability of that firm. The unlevered beta is independent from the way the business is financed.

- 2) **The amount of debt.** The levered Beta is a function of this unlevered beta and also the mix of debt and equity in the financing of the firm. A company with a very high proportion of debt finance is perceived by equity holders as riskier than one with little or no debt. Interest on a high level of debt is a fixed cost that must be paid regardless of the profitability of the business, so those post-interest profits will be more volatile than for a firm with low debt. In addition, if the firm is liquidated, then equity holders rank below debt holders in that liquidation.

Therefore, a firm with high debt will have a significantly higher Levered Beta than one with low debt.

### Guide to Crafting Your Answer

Start with a clear definition

- Define levered beta and its purpose in measuring equity volatility

Explain components

- Break down into unlevered beta (business risk) and effect of debt (financial risk)

Describe relationship with capital structure

- Explain how leverage increases equity risk and volatility

Use examples or comparisons

- Illustrate with examples of firms with high vs low debt

Keep explanation flowing

- Avoid segmented points, aim for a natural and logical progression

### Other resources:

<https://www.fe.training/free-resources/valuation/beta/>

25. When taking peer group Beta, how would you account for the impact of the capital structure of the peer group? How would you go about finding the cost of equity?

### What the Recruiter is Looking For:

- Tests your knowledge and application of key financial concepts
- Assesses technical calculation skills related to Beta and cost of equity
- Evaluates your understanding of how capital structure impacts Beta and cost of equity estimation

### Framework: Pyramid Principle

- **Conclusion:** define Beta and its components clearly
- **Supporting Points:** explain the concept of unlevered and levered Beta and their relationship

- **Details:** describe the process of un-levering and re-levering Beta to isolate sector risk and adjust for capital structure
- Conclude with how to calculate cost of equity using the Capital Asset Pricing Model (CAPM) with the re-levered Beta
- Present the explanation in a logical, cohesive flow without breaking it into rigid steps

**Example Answer:**

Beta is a measure of the riskiness or volatility of a firm and particularly the relationship between the returns from the market as a whole and from that one firm. The published Beta for a firm is known as the levered or equity beta. It is made up of two elements (i) the unlevered or asset beta, which measures the riskiness of the underlying business, its sector and management and (ii) the amount of debt the business is carrying. The higher the debt, the greater the risk and volatility of earnings to the shareholders.

It is possible to calculate the unlevered beta from the levered beta using the formula:

Unlevered beta = Levered beta / (1 + (1 - T) D/E)

$$\text{Unlevered beta} = \frac{\text{Levered beta}}{(1 + (1 - T) D/E)}$$

Where T is the Tax rate, D is the amount of Debt and E is the amount of Equity.

Therefore, to calculate levered beta for a firm, the above formula can be used to un-lever a comparable company, removing the impact of its capital structure and giving the beta of a sector only. The formula would then be reversed (re-levering) to give the levered beta for one company with a particular mix of debt and equity.

Finally, having calculated the levered beta, the cost of equity, Ke could be calculated using this levered beta in the Capital Asset Pricing Model formula.

**Guide to Crafting Your Answer**

- Start by defining beta and its two components: unlevered (business risk) and levered (equity risk affected by debt)
- Explain how to remove capital structure impact by un-levering beta using the formula
- Describe re-levering beta to adjust for the target firm's capital structure
- Demonstrate how to use the re-levered beta to calculate cost of equity via CAPM
- Maintain a smooth, logical flow that connects each step naturally

**Other resources:**

<https://www.fe.training/free-resources/valuation/beta/>

<https://www.fe.training/free-resources/financial-markets/unlevered-beta/>

## Valuation

### 26. What is enterprise value?

#### What the Recruiter is Looking For:

- Demonstrates technical valuation and finance knowledge
- Shows understanding of how enterprise value (EV) reflects total company value beyond just equity
- Ability to explain capital structure neutrality and valuation multiples usage

#### Framework: Pyramid Principle

- **Conclusion:** define enterprise value clearly and its significance
- **Supporting Arguments:** explain the formula and components of EV, including simplified calculation
- Illustrate why EV is important in valuation and comparisons
- **Details:** provide a numerical example to solidify understanding
- Present information logically and cohesively without artificial segmentation

**Example answer:** enterprise value (EV) represents the total value of a business, and it is a measure of a company's theoretical takeover price. It reflects both the value of the company's core operations available to all providers of capital (i.e., equity holders, debt holders, and others) and is thus considered capital structure neutral.

The core formula to calculate enterprise value is:

$$EV = \text{Equity Value} + \text{Net Debt} + \text{Preferred Equity} + \text{Minority Interest} - \text{Non-Operating Assets}$$

*EV = Equity Value + Net Debt + Preferred Equity + Minority Interest - Non - Operating Assets*

In practice, this is often simplified to:

$$EV = \text{Equity Value} + \text{Net Debt}$$

*EV = Equity Value + Net Debt*

Here, equity value (also known as market capitalization) is the company's share price multiplied by the number of diluted shares outstanding. Net debt accounts for the company's total debt minus its cash balance, recognizing that a buyer would assume the debt but also gain access to the cash.

Enterprise value is essential in valuation because it reflects the value of the firm's operations, regardless of how those operations are financed. It is the denominator in valuation multiples like EV/EBITDA, EV/EBIT, and EV/Revenue, which allow for comparisons across companies with different capital structures.

For example, if a company has a market capitalization of \$500 million, total debt of \$200 million, and \$50 million in cash, its EV would be \$650 million. This measure would then be used to assess how expensive or cheap the company is relative to its peers, independent of its financing decisions.

**Guide to Crafting Your Answer**

- Start by clearly defining enterprise value and its role as a total company valuation metric
- Explain the detailed formula including all components, then introduce the simplified formula for practical use
- Discuss why EV is capital structure neutral and how it aids in valuation comparisons across companies
- Use a numerical example to illustrate calculation and application of EV
- Keep the explanation flowing logically, linking each part naturally without artificial breaks

**Other resources:**

<https://www.fe.training/free-resources/valuation/enterprise-value/>

## 27. What is diluted market capitalization?

**What the Recruiter is Looking For:**

- Demonstrates technical valuation and finance knowledge
- Understands dilution concepts and how they affect equity value
- Ability to clearly explain complex share count adjustments and their impact on valuation

**Framework: Pyramid Principle**

- **Conclusion:** define diluted market capitalization and its purpose
  - Present the formula clearly
- **Supporting Points:** explain the components of fully diluted shares outstanding
- **Details:** walk through a detailed example with numbers
- Highlight the practical implication of dilution on market capitalization

**Example answer:** diluted market capitalization refers to the total market value of a company's equity, assuming that all potential sources of dilution, such as stock options, convertible securities, and restricted stock units (RSUs), are exercised or converted into common shares. It provides a more conservative view of a company's valuation by accounting for the maximum possible number of shares that could be outstanding in the future.

The formula for diluted market capitalization is:

Diluted Market Cap = Share Price × Fully Diluted Shares Outstanding

$$\text{Diluted Market Cap} = \text{Share Price} \times \text{Fully Diluted Shares Outstanding}$$

To calculate the fully diluted shares outstanding, you start with the basic shares outstanding and add:

- In-the-money stock options (using the treasury stock method)
- Convertible preferred shares and bonds (using the if-converted method)
- Restricted stock units (RSUs) and performance shares
- Any other contingently issuable shares likely to vest.

For example, suppose a company has:

- 100 million basic shares outstanding
- 5 million in-the-money options with a strike price of \$10 and a share price of \$20
- 10 million RSUs
- 15 million shares from convertible bonds

Using the treasury stock method, we can calculate the potential dilution from the stock options. The company would receive \$50 million from the exercise of options (5 million x \$10), which would allow it to repurchase 2.5 million shares at \$20 each. So, the net dilution from options is 2.5 million (5 million – 2.5 million).

Fully diluted shares = 100 + 2.5 (options) + 10 (RSUs) + 15 (convertibles) = 127.5 million shares

If the current share price is \$20, then:

Diluted market capitalization = 127.5 million shares × \$20 = \$2.55 billion

This figure is higher than the basic market capitalization (\$20 × 100 million = \$2.0 billion), and it reflects the dilution impact on ownership and valuation.

### Guide to Crafting Your Answer

- Begin with a clear definition of diluted market capitalization and why it's used
- Present the key formula explicitly for clarity
- Explain the components included in fully diluted shares and the methods (treasury stock, if-converted) used for adjustments
- Walk through a numerical example to demonstrate how dilution affects share count and market cap – keep the numbers simple to avoid making any mis-steps and overcomplicating the explanation
- Emphasize the practical implication: dilution increases the share count, lowering ownership percentages and raising the effective market cap
- Maintain a logical, coherent explanation linking concepts naturally without rigid section breaks

## 28. What are the different methods of valuation?

### What the Recruiter is Looking For:

- Demonstrates technical valuation and finance knowledge
- Understands and can clearly explain key valuation methodologies
- Can relate theory to practical applications in banking, PE, and M&A contexts

### Framework: Pyramid Principle

- **Conclusion:** introduce the main valuation methodologies and their purpose
- **Supporting Points:** describe each core method with definition and example
- **Details:** highlight when each method is most applicable
- Mention additional methods relevant in specific sectors

**Example answer:** There are many valuation methodologies, but in real-life interviews, bankers tend to focus on three core approaches: Comparable Company Analysis, Precedent Transactions, and Discounted Cash Flow (DCF) Analysis. A fourth approach, the Leveraged Buyout (LBO) Analysis, is frequently used in the context of private equity. These methods balance the use of market-based metrics with intrinsic valuation techniques to triangulate a robust valuation range.

**Comparable Company Analysis (Trading Comps)** involves evaluating a company relative to publicly traded peers by comparing trading multiples such as EV/EBITDA, EV/Revenue, or P/E. This method assumes similar businesses should trade at similar multiples.

For example, if peer companies trade at a median EV/EBITDA multiple of 10x and the target has EBITDA of \$100m, the implied Enterprise Value would be \$1B. A premium or discount to this multiple could also be advocated to differentiate the company from the peer group.

This method is widely used in equity research, IPO pricing, and as a quick market-based benchmark in almost all M&A and capital raising contexts.

**Precedent Transactions Analysis (Transaction Comps)** looks at multiples paid in similar historical M&A transactions. This often produces higher valuation ranges due to premiums being paid to close M&A deals.

For example, if recent deals in the same sector occurred at an average EV/EBITDA multiple of 12x and the target's EBITDA is \$80m, this method would imply a valuation of \$960m.

This method is particularly relevant in M&A advisory to assess what strategic or financial buyers have historically paid for comparable businesses in control transactions.

**Discounted Cash Flow (DCF) Analysis** estimates a company's intrinsic value by projecting unlevered free cash flows and discounting them to present value using the Weighted average cost of capital (WACC). The forecast period typically covers 5 to 10 years, followed by a terminal value that captures the value beyond the forecast. The terminal value is calculated using either a perpetuity growth model or an exit multiple.

For example, if a company generates \$50m in terminal year FCF, grows at 3%, and has a 10% WACC, the terminal value using the perpetuity method is  $\$50m \times (1.03)/(0.10 - 0.03) = \sim\$736M$ . Adding the present values of the forecast and terminal cash flows gives the enterprise value.

This method is most useful when reliable cash flow forecasts are available and is commonly applied to mature businesses or those with stable and predictable financials.

**Leveraged Buyout (LBO) Analysis** is used by financial sponsors to determine the maximum price they can pay for a business while achieving a target internal rate of return (IRR).

For example, if a PE firm acquires a business for \$500M using \$300M of debt and exits after five years for \$800M, reducing debt to \$100M, the resulting \$700M in equity would reflect a strong IRR on the original \$200M equity investment. Investors will usually have a hurdle rate for IRR before they will undertake an investment such as this.

This method is used in private equity to assess buyout opportunities and is also a common tool for valuation floor-setting based on financial sponsor economics.

**Conclusion** – while these four methods are most common, some sectors require additional valuation techniques. For example, asset-based valuation may be relevant for industries where the value of physical or financial assets is critical, such as in real estate, natural resources (e.g., oil & gas, mining), or financial institutions. In such cases, the book value or net asset value can offer a better picture of intrinsic worth than earnings-based approaches.

### Guide to Crafting Your Answer

- Start with a clear overview of the main valuation methodologies and why multiple approaches are used
- Define each core method clearly and provide a concise example illustrating how it works
- Explain the typical contexts where each method is preferred or most applicable
- Mention other relevant valuation methods in specific industries to show breadth of knowledge
- Keep the explanation smooth and logical, linking methods to their practical uses in banking, PE, and M&A
- Avoid breaking the answer into rigid bullet points; instead, flow naturally from general to specific

### Other resources:

<https://www.fe.training/free-resources/valuation/trading-comparables/>

<https://www.fe.training/free-resources/valuation/discounted-cash-flow-dcf-valuation/>

<https://www.fe.training/free-resources/lbo/lbo-valuation/>

<https://www.fe.training/product/online-finance-courses/valuation/the-valuer/>

## 29. Explain DCF valuation method. Why would you use mid-year convention in DCF?

### What the Recruiter is Looking For:

- Demonstrates technical valuation and finance knowledge
- Understands the mechanics and rationale of DCF valuation
- Can explain adjustments like the mid-year convention to improve accuracy

### Framework: Pyramid Principle

- **Conclusion:** define DCF valuation method and its components
- **Supporting Points:** explain how free cash flows and terminal value are forecasted and discounted
- **Details:** provide a simple example illustrating the calculation
  - Describe when DCF is most appropriate
  - Explain the mid-year convention and its impact

**Example answer:** The discounted cash flow (DCF) valuation method estimates the intrinsic value of a company by projecting its future free cash flows and discounting them back to their present value using an appropriate discount rate, typically the weighted average cost of capital (WACC). The rationale is that a business's worth is fundamentally linked to the cash it can generate over time.

A typical DCF analysis consists of two components:

1. The free cash flows (FCF) during the explicit forecast period (often 5 to 10 years)
2. The terminal value

**Free cash flows** (usually unlevered, i.e., cash available before debt payments) are forecasted based on assumptions around revenue growth, profit margins, taxes, capital expenditures, and changes in working capital. These are then discounted using WACC, which represents the average return required by both debt and equity holders, weighted by their proportion in the capital structure.

**The terminal value** accounts for the value of the company beyond the explicit forecast period and it is usually estimated using either the perpetuity growth method or an exit multiple. The terminal value is also discounted to present value using the WACC.

For example, suppose a company is expected to generate \$10 million in unlevered free cash flow next year, growing 5% annually over 5 years. Using a WACC of 10% and a perpetuity growth rate of 3%, you would compute each year's present value of cash flow and add it to the present value of the terminal value calculated as:

Terminal value = Year 5 FCF × (1 + g) / (WACC - g)

$$\text{Terminal value} = \frac{\text{Yr 5 FCF} \times (1 + g)}{(WACC - g)}$$

DCF is most useful when a company has predictable and stable cash flows, such as in utilities, infrastructure, and mature industrial sectors, or when there are limited comparable companies or precedent transactions. It is commonly used in M&A, equity research, and private equity, especially when valuing standalone businesses with detailed financial forecasts.

To improve accuracy, especially when cash flows are received continuously throughout the year rather than in a lump sum at year-end, analysts often apply the mid-year convention. This assumes cash flows are received evenly throughout the year and discounts them as if they were received at the midpoint of each year (e.g., Year 1 is discounted as 0.5, Year 2 as 1.5, and so on). The mid-year convention is used because it more accurately reflects the timing of actual cash flow generation, resulting in a slightly higher valuation compared to the standard year-end assumption.

### Guide to Crafting Your Answer

- Begin with a concise definition of the DCF method and its purpose in valuation
- Explain the two key components: forecast period free cash flows and terminal value
- Describe how free cash flows are projected and discounted using WACC
- Include a straightforward numerical example to ground the explanation
- State when DCF is most appropriate and why it is widely used
- Define the mid-year convention clearly and explain its rationale and effect on valuation
- Present the answer smoothly, linking concepts logically without overly rigid structure

### Other resources:

<https://www.fe.training/free-resources/valuation/discounted-cash-flow-dcf-valuation/>

<https://www.fe.training/free-resources/valuation/free-cash-flows-fcf-unlevered-vs-levered/>

<https://www.fe.training/free-resources/valuation/terminal-value/>

<https://www.fe.training/free-resources/valuation/weighted-average-cost-of-capital-wacc-2/>

## 30. What are trading comparables?

### What the Recruiter is Looking For:

- Technical valuation and finance knowledge
- Understanding of relative valuation techniques
- Ability to explain methodology and sector nuances

**Framework: Pyramid Principle**

- **Conclusion:** define trading comparables and its purpose
- **Supporting Points:** outline the five-step methodology
- **Details:** highlight sector-specific multiple considerations

**Example answer:** Trading comparables, also known as comparable company analysis, is a relative valuation technique that estimates a company's value based on how similar publicly traded companies are valued in the market. The underlying principle is that companies with similar operating and financial characteristics should trade at similar valuation multiples. This method is widely used for IPO pricing, fairness opinions, and M&A advisory, as it reflects real-time investor sentiment and provides market-based benchmarks.

The methodology follows five main steps:

1. **Choose comparable companies** – identify a peer group of publicly traded companies with similar business models, end markets, growth profiles, size, and geographic exposure. Tools like Felix, Capital IQ, FactSet, and company filings help screen for relevant companies and data. Analyst judgment is critical to ensure similarity in operations, size and financial structure.
2. **Calculate equity and enterprise values** – start with equity value, which is calculated as share price × diluted shares outstanding, adjusting for in-the-money options using the treasury stock method. Then calculate enterprise value by adding net debt, preferred stock, and minority interests, and subtracting non-operating assets and investments.
3. **Calculate value drivers** – use normalized financial metrics such as Last Twelve Months (LTM) or calendarized EBITDA, EBIT, and Net Income. Normalize for non-recurring items like restructuring charges or asset impairments to ensure comparability across companies. This step may also involve adjustments for seasonality, fiscal year-end differences, or accounting policy variations.
4. **Calculate multiples and other statistics** – the key valuation multiples typically used are EV/EBITDA, EV/EBIT, and P/E. These are calculated by dividing enterprise or equity value by the appropriate financial metric. Present the output using descriptive statistics (mean, median, min, max) and identify outliers or anomalous data.
5. **Interpret the output and select a valuation range** – analyze the distribution of multiples and select a range based on industry norms, historical context, and the relative positioning of the target. Apply the selected multiple to the target's metric to derive an implied valuation. For example, if the median EV/EBITDA is 10x and the target has \$80M in EBITDA, the implied EV would be \$800M.

While EV/EBITDA and P/E are the most used multiples, certain sectors rely on more industry-specific metrics. For example, banks and insurance companies often use Price to Book (P/B) or Price to Tangible Book (P/TBV), REITs are typically valued using Price to FFO or

AFFO, and internet or SaaS companies may emphasize EV/Revenue due to limited or negative profitability.

Understanding the appropriate metric for each sector is critical to producing a credible valuation.

### Guide to Craft Your Own Answers

- **Start with a clear definition:** explain what trading comparables means and its purpose as a relative valuation method based on similar public companies
- **Describe the step-by-step methodology:** cover how to select peers, calculate equity and enterprise values, normalize financials, compute multiples, and interpret results logically
- **Explain key concepts and calculations:** define terms like equity value, enterprise value, and valuation multiples; mention adjustments like dilution and normalization
- **Use simple examples:** add a brief numerical example to demonstrate how multiples translate to valuation
- **Address sector-specific considerations:** show awareness of different multiples or metrics used in various industries
- **Keep your answer structured and flowing:** follow the Pyramid Principle by starting broad, diving into details, then concluding with the main takeaway

### Other resources:

<https://www.fe.training/free-resources/valuation/trading-comparables/>

<https://www.fe.training/product/online-finance-courses/valuation/trading-comparables/>

## 31. What are transaction comparables?

### What the Recruiter is Looking For:

- Technical valuation and finance knowledge
- Understanding of precedent transaction analysis
- Ability to explain methodology and its relevance in M&A

### Framework: Pyramid Principle

- **Conclusion:** define transaction comparables and its key distinction
- **Supporting Points:** outline the step-by-step methodology
- **Details:** explain practical applications and sector-specific considerations

**Example answer:** transaction comparables, or “precedent transactions,” is a relative valuation methodology that analyzes the price paid in historical M&A transactions involving similar companies. This approach provides insight into the valuation multiples

strategic or financial buyers have paid to acquire comparable businesses and reflects the control premium, synergies, and prevailing market conditions at the time of the deal.

Unlike trading comparables, which are based on market prices of public companies, transaction comparables are based on actual acquisitions, often reflecting a premium to market price.

The process of performing a transaction comparables analysis typically involves the following steps:

- Identify a set of precedent transactions involving targets with similar operating and financial characteristics and focus on other key considerations such as
  - Type of buyer (strategic vs. financial)
  - Type of consideration (cash vs. stock)
  - Deal structure (asset vs. stock purchase)
  - Buyer and seller motivations
  - Stage of the economic cycle at the time of the deal
  - Significant deal-specific synergies
- Calculate the transaction value by determining the equity value or enterprise value paid in each deal, accounting for the consideration (cash, stock, assumed debt) and any adjustments.
- Normalize and adjust financial metrics such as LTM (Last Twelve Months) revenue, EBITDA, and EBIT to ensure comparability across transactions, removing non-recurring items or restructuring charges.
- Calculate valuation multiples like EV/EBITDA, EV/EBIT, or EV/Revenue for each transaction based on the normalized financials and the calculated transaction value.
- Interpret the results by establishing a valuation range and applying the relevant multiples to the financials of the target company to derive its implied valuation.

This methodology is particularly useful when valuing a company in the context of an M&A transaction, especially when a sale or acquisition is likely. Because it reflects actual control premiums and market sentiment, it provides a realistic benchmark for what buyers are willing to pay.

It is commonly used alongside other valuation methods such as trading comparables and DCF to triangulate a valuation range. Transaction comparables are especially valuable in sectors with active M&A activity, where reliable deal data exists. In industry-specific contexts, other metrics may be used, such as price per subscriber in telecom, offering a more tailored view of value drivers within those sectors.

**Guide to Craft Your Own Answers:**

- Start by defining transaction comparables as a valuation method using prices paid in past M&A deals for similar companies, emphasizing the difference from trading comps (deal prices vs. market prices).
- Clearly outline the key steps:
  - Identify similar past transactions
  - Calculate total transaction values including cash, stock, and debt
  - Normalize financial metrics to ensure comparability
  - Calculate valuation multiples (e.g., EV/EBITDA)
  - Apply multiples to your target's financials to estimate value
- Explain why and when this method is used, especially in M&A to capture actual prices paid and control premiums.
- Mention any sector-specific considerations or unique multiples used in some industries for more precise valuations.
- Keep the explanation clear and structured to help the recruiter follow your logic easily.

**Other resources:**

<https://www.fe.training/free-resources/valuation/transaction-comparables/>

<https://www.fe.training/product/online-finance-courses/valuation/transaction-comparables/>

## 32. What factors are taken into consideration while selecting comparable companies?

**What the Recruiter is Looking For:**

- Technical valuation and finance knowledge
- Understanding of criteria for selecting peers
- Ability to explain why each factor matters for comparability

**Framework: Pyramid Principle**

- **Conclusion:** state the importance of selecting comparable companies
- **Supporting Arguments:** list and explain key factors affecting comparability
- **Details:** highlight the iterative and qualitative nature of peer selection

**Example answer:** when selecting comparable companies for trading comparables analysis, the goal is to identify firms with similar operating, financial, and strategic characteristics to the target company. This ensures that valuation multiples reflect a relevant market benchmark.

Below is a list of the key factors:

- **Industry and subsector** – companies should operate in the same industry and ideally the same subsector. For example, comparing a specialty pharmaceutical company to a diversified healthcare conglomerate may produce misleading results due to different growth dynamics and margins.
- **Business model and revenue mix** – the nature of the products or services offered, pricing models, and customer base are crucial. A SaaS company with recurring revenue should not be compared to a traditional software vendor with one-time license fees.
- **Geographic exposure** – companies with similar geographic footprints face comparable macroeconomic, regulatory, and competitive conditions. For instance, a company heavily reliant on emerging markets may not be comparable to one focused solely on North America or Europe.
- **Size** – similar scale is important because larger firms typically trade at higher multiples due to perceived stability and market power. Size also affects growth rates, margin structures, and investor base.
- **Growth profile** – companies with comparable historical and projected revenue and earnings growth are more appropriate peers. A high-growth company will generally command a premium valuation multiple compared to a mature, low-growth peer.
- **Profitability** – EBITDA and EBIT margins should be broadly aligned. A company with structurally higher margins may justify higher valuation multiples, while one undergoing margin compression may be less attractive.
- **Capital structure and leverage** – peers should have comparable capital structures, or adjustments should be made to ensure consistency (e.g. adjusting for lease liabilities or pension deficits).
- **Trading liquidity and public listing** – publicly traded companies with sufficient float and liquidity are ideal, as their prices reflect true market sentiment. Illiquid or newly listed companies may exhibit valuation volatility.
- **Lifecycle stage** – companies should be at similar stages of development (startups, growth-stage firms, or mature enterprises). A pre-profit biotech firm, for instance, should not be compared to a large-cap, revenue-generating pharma company.

Careful peer selection is essential to producing a relevant and defensible valuation. Analysts often start with a broad list and refine it through qualitative and quantitative filters based on these factors.

#### Guide to Craft Your Own Answers:

- Begin by explaining **why selecting comparable companies matters**—to ensure valuation multiples reflect a meaningful and relevant benchmark
- List the **key factors to consider**:

- Industry and subsector alignment
- Similar business models and revenue streams
- Geographic markets and regulatory environments
- Company size and scale
- Comparable growth trajectories
- Profitability and margin profiles
- Capital structure and leverage
- Trading liquidity and listing status
- Lifecycle or development stage of the companies
- Briefly explain **why each factor influences comparability** and valuation accuracy.
- Emphasize that **peer selection is iterative and involves qualitative judgment** alongside quantitative screening
- Keep the explanation **organized and clear**, showing how each factor contributes to identifying the best comparable companies

**Other resources:**

<https://www.fe.training/free-resources/valuation/transaction-comparables/>

### 33. How would you value a conglomerate like Honeywell International? What is a conglomerate discount?

**What the Recruiter is Looking For:**

- Technical valuation / finance knowledge
- Understanding of multi-segment valuation approaches
- Explanation of conglomerate discount and its causes

**Framework:** Sum-of-the-Parts (SOTP) Valuation Approach

- **Identify Parts:** identify and value each segment separately using appropriate multiples
- **Determine Value per Segment:** aggregate segment values and adjust for corporate items
- **Cross-Check Valuation:** and run sensitivity analyses
- **Discuss:** explain the rationale and implications of conglomerate discount

**Example answer:** valuing a conglomerate like Honeywell International (HON) requires a nuanced, multi-step approach due to its diversified business operations across distinct industries. The standard method for such a situation is the Sum-of-the-Parts (SOTP) valuation. This involves valuing each business segment separately using the most appropriate valuation methodology and then aggregating the segment values to arrive at the total enterprise value of the conglomerate.

The key steps are as follows:

1. **Segment identification:** break Honeywell into its core business segments, which typically include Aerospace, Building Technologies, Performance Materials and Technologies (PMT), and Safety and Productivity Solutions (SPS). Each segment serves a unique market and has different financial drivers.
2. **Comparable company analysis (Trading Comps):** for each segment, identify a set of publicly traded peers with similar operations. Use sector-relevant trading multiples such as EV/EBITDA, EV/Revenue, or P/E.
3. **Segment valuation:** apply the appropriate multiple to each segment's financial metric (usually EBITDA). For example, if Aerospace generates \$4.5B in EBITDA at a 16x multiple, its enterprise value would be \$72.0B. Repeat this for the remaining segments.
4. **Corporate adjustments:** add the segment-level enterprise values to get the total enterprise value for Honeywell. Then subtract net debt and other liabilities (e.g., pension obligations, minority interests) and add non-operating assets (e.g., equity investments, excess cash) to determine Honeywell's total equity value.
5. **Cross-checks and sensitivity:** compare the derived equity value to Honeywell's market cap for validation. Conduct a DCF as a cross-check if detailed forecasts are available. Run sensitivity analyses on key variables such as EBITDA margins and valuation multiples to understand the valuation range.

The SOTP approach is most appropriate when segments are fundamentally different and valued differently by the market. SOTP is especially useful for Honeywell given its exposure to both cyclical and high-growth markets, enabling more precise valuation than a blended multiple. It is also helpful in strategic reviews, restructurings, or investor communications.

The **conglomerate discount** is the tendency for a diversified company's total market value to be lower than the combined value of its individual business units if valued separately. This discount can stem from complexity, limited segment-level transparency, perceived lack of synergies, or investor preference for focused, pure-play companies.

For example, if Honeywell's Aerospace segment is worth \$70B, Performance Materials and Technologies \$30B, Building Technologies \$20B, and Safety and Productivity Solutions \$15B (totaling \$135B in a sum-of-the-parts valuation) but the market values Honeywell at only \$120B, the \$15B gap represents the conglomerate discount. It reflects the valuation penalty the marketplaces on multi-industry companies relative to the sum of their parts.

**Explain that conglomerates have many different businesses**, so you need to value each one separately.

Use the **Sum-of-the-Parts (SOTP) method** to value each segment on its own.

Steps to follow:

- Identify the main business segments
- Find similar companies for each segment and pick the right valuation multiples

- Calculate the value of each segment by applying the multiples
- Add up all the segment values and adjust for things like debt and cash
- Compare your total value with the company's market value to check your work
- Say why this method is better than using one number for the whole company—it accounts for differences between segments
- Define the **conglomerate discount** as when the total market value is less than the sum of all parts
- Mention reasons for the discount, like complexity and investors liking simpler businesses
- Optionally, give a quick example showing the discount

**Other resources:**

<https://www.fe.training/free-resources/valuation/sum-of-the-parts-valuation-iac-case-study/>

<https://www.fe.training/free-resources/valuation/transaction-comparables/>

### 34. Why does Walmart, which has nearly twice the annual revenue of Apple, have 25% of its market capitalization?

**What the Recruiter is Looking For:**

- Technical valuation and finance knowledge
- Understanding of profitability, capital efficiency, and growth factors
- Ability to explain why revenue alone doesn't determine market capitalization

**Framework:** Pyramid: Comparative Analysis of Business Models and Financial Metrics

- **Conclusion:** explain the difference between revenue and market capitalization
- **Supporting Arguments:** discuss profitability differences using net income margin
- **Details:** highlight capital intensity and asset structure impacts
  - Describe growth expectations and market perception differences

**Example answer:** Walmart's market capitalization is significantly lower than Apple's despite having nearly double the revenue due to fundamental differences in their business models, profitability, capital intensity, and market perceptions of growth and risk.

Market capitalization reflects not just revenue, but how efficiently a company turns that revenue into profits and how investors perceive its future growth potential. A key measure here is the net income margin, which is much higher for Apple. For example, Apple's net income margin typically exceeds 20%, while Walmart's is usually under 3%. This means Apple converts more of each dollar of revenue into earnings, leading to much higher earnings per share (EPS). This can be due to a variety of factors such as Apple's pricing power, range of new products and by being a producer of its own goods.

Another factor is capital intensity. Walmart operates a vast physical retail footprint, requiring continual reinvestment in inventory, logistics, and stores. Apple, by contrast, relies on a more asset-light model focused on high-margin products, services, and intellectual property. This contributes to higher free cash flow generation and higher returns on invested capital (ROIC) for Apple.

Growth expectations also play a major role. Apple's market is global and includes hardware, software, and services, with recurring revenue streams and strong ecosystem lock-in. Walmart's growth is more constrained, with thinner margins in a mature, highly competitive retail sector. In summary, Apple's superior profitability, capital efficiency, and growth outlook justify its higher market capitalization, even though its revenue is lower.

**Guide to Craft Your Own Answers (Simplified):**

- Start by explaining that revenue and market capitalization are different – revenue is sales, market cap is what investors think a company is worth.
- Emphasize profitability differences. Explain that Apple makes much more profit per dollar of sales (higher net income margin) than Walmart.
- Talk about capital intensity. Walmart needs lots of stores, inventory, and equipment, which means more money tied up in assets. Apple has a lighter asset model, focusing on products and services that generate more cash.
- Mention growth expectations. Apple operates in fast-growing tech markets with recurring revenues. Walmart is in a mature retail market with tighter margins.
- Summarize by saying that investors value Apple more because it is more profitable, efficient, and has better growth prospects even though Walmart sells more overall.

**Other resources:**

<https://www.fe.training/free-resources/financial-markets/market-capitalization/>

### 35. Define FCFF. Differentiate between FCFF and FCFE.

**What the Recruiter is Looking For:**

- Technical valuation and finance knowledge
- Understanding of cash flow concepts and their relevance to valuation
- Ability to explain key differences between FCFF and FCFE

**Framework:** Definition, Formula Breakdown, Example, and Comparison

- Define FCFF and its significance in valuation
- Present the formula and explain each component
- Provide a numerical example for clarity
- Differentiate FCFF from FCFE and explain when each is used

**Example answer:** Free Cash Flow to the Firm (FCFF) is a measure of the cash generated by a company that is available to all capital providers (both equity holders and debt holders) after covering operating expenses and capital expenditures. It represents the true cash generation capacity of a business before any financing decisions (like interest payments or debt repayments) are considered. FCFF is a critical input in valuation methodologies such as the Discounted Cash Flow (DCF) analysis, where it is used to estimate the intrinsic value of a business based on its future cash-generating ability.

The standard formula for calculating FCFF is:

$$FCFF = EBIT \times (1 - \text{Tax Rate}) + D\&A - \text{CapEx} - \text{Change in Net Working Capital}$$

$$FCFF = EBIT \times (1 - \text{Tax Rate}) + D\&A - \text{CapEx} - \text{Change in Net Working Capital}$$

Where:

- EBIT is Earnings before interest and taxes, also referred to as operating profit
- $(1 - \text{Tax Rate})$  adjusts EBIT for taxes, approximating the after-tax operating income
- D&A is depreciation and amortization, which are non-cash charges added back
- CapEx (capital expenditure) reflects investment in long-term assets
- Change in net working capital accounts for short-term operational needs.

**Example:** let's assume a company reports EBIT of \$500 million with a tax rate of 25%. It also incurs \$60 million in depreciation and amortization, spends \$120 million on capital expenditures, and experiences a \$30 million increase in networking capital.

To calculate FCFF, we first compute the after-tax EBIT as \$500 million multiplied by  $(1 - 0.25)$ , which equals \$375 million. Then, add back the \$60 million in non-cash D&A, and subtract both the \$120 million in CapEx and the \$30 million increase in working capital. The resulting FCFF is \$285 million.

While FCFF is a measure of cash available to all providers of capital, including both debt and equity holders, Free Cash Flow to Equity (FCFE) represents the cash available specifically to equity shareholders after accounting for all expenses, reinvestment needs, and debt-related cash flows such as interest and principal repayments.

FCFF excludes financing costs and is discounted using the weighted average cost of capital (WACC), whereas FCFE includes the impact of net debt and is discounted using the cost of equity. The choice between FCFF and FCFE depends on the valuation perspective (i.e., firm-level or equity-level).

Guide to Craft Your **Own** Answer

- **Define FCFF:** Explain that Free Cash Flow to the Firm is the cash a company generates that is available to all capital providers (both debt and equity) after operating expenses and investments but before financing costs. Highlight its importance for valuation (especially DCF).
- **Present the FCFF formula:** Break down each component:
  - $EBIT \times (1 - \text{Tax Rate})$ : after-tax operating profit
  - Depreciation & Amortization: add back non-cash charges

- Capital Expenditures: investments in fixed assets
  - Change in Net Working Capital: cash tied up in operations
- **Give a simple numerical example:** show the calculation step-by-step with numbers for EBIT, tax rate, D&A, CapEx, and working capital change to clarify
- **Differentiate FCFF and FCFE:** explain that
  - FCFE is cash available only to equity shareholders, after debt payments, interest, and net borrowing
  - FCFF is before financing costs and is discounted at WACC
  - FCFE is discounted at cost of equity.
- **When to use each:** FCFF can be used for firm-level valuation (all capital providers), FCFE for equity-level valuation (shareholders only)

**Other resources:**

<https://www.fe.training/free-resources/financial-modeling/free-cash-flow-to-firm/>

<https://www.fe.training/free-resources/accounting/earnings-before-interest-and-taxes-ebit/>

<https://www.fe.training/free-resources/accounting/capital-expenditure/>

## M&A

### 36. What factors drive companies to pursue M&A transactions?

**What the Recruiter is Looking For:**

- Technical finance knowledge
- Understanding of strategic and financial motivations behind M&A
- Ability to explain both buyer and seller perspectives

**Framework:** Strategic Rationale, Synergies, and Seller Motivations

- Outline key strategic reasons companies pursue M&A
- Discuss synergies and efficiency gains as drivers
- Highlight seller-side motivations and less rational deal drivers

**Example answer:** M&A transactions should always be underpinned by strategic rationale, to provide some sort of gain for the company undertaking the transaction. This may be:

- **Access to New Technologies, Talent, Management, or Intellectual Property:** acquiring a company with these assets can strengthen competitive advantages, innovation capabilities, and market positioning
- **Market Share:** acquiring another company can instantly expand its market presence, allowing a business to gain a larger share of the market, reach more customers, and potentially gain pricing power

- **Diversify Offering:** M&A can diversify product or service offerings by acquiring complementary businesses, broadening the portfolio, and reducing reliance on a single product line or geography
- **Value Chain:** controlling more of the value chain through vertical M&A transactions can reduce costs or secure supply or distribution channels

M&A can also result in synergies from enhanced efficiency and cost savings through streamlined processes, elimination of duplicated functions, and economies of scale.

Less rational reasons for pursuing deals, such as ego (personal legacy or 'empire building'), may exist, but ultimately the acquirer should believe that an acquisition will create value.

From the seller's perspective, reasons for a sale include offloading underperforming operations, raising cash to invest in other areas, regulatory requirements, private equity owners wanting to exit their investment, or founders/family-run businesses with no succession plan where the owner wants to retire or cash out.

#### **Guide to Craft Your Own Answers:**

- Define the strategic reasons companies pursue M&A – explain motivations like accessing new technologies, expanding market share, diversifying products, or controlling the value chain
- Discuss synergies and efficiency gains – highlight how cost savings, streamlined operations, and economies of scale drive value creation
- Address less rational deal drivers – mention possible motivations like ego or empire building but emphasize that value creation should be the main goal
- Explain seller-side motivations and include reasons such as offloading underperforming units, raising cash, regulatory pressures, private equity exits, or succession issues in family businesses
- Use examples where possible to demonstrate understanding and add depth

#### **Other resources:**

<https://www.fe.training/free-resources/ma/ma-explained/>

<https://www.fe.training/product/online-finance-courses/accounting/mergers-and-acquisitions-accounting/>

37. What is the difference between a merger and an acquisition, and can you explain the main types of M&A transactions: horizontal, vertical, and conglomerate?

#### **What the Recruiter is looking for**

- Technical finance knowledge
- Clear understanding of merger vs acquisition distinctions

- Knowledge of the main types of M&A transactions and their strategic purposes
- Ability to use real-world examples to support explanations

**Framework: STAR**

- **Situation:** companies often combine for strategic reasons
- **Complication:** the terms "merger" and "acquisition" are often used interchangeably, but they're different. M&A types also vary in nature and purpose.
- **Action:** what's the difference between a merger and an acquisition, and what are the main types of M&A transactions?
- **Result:** definitions + breakdown into horizontal, vertical, conglomerate, with examples

**Example answer:** in simple terms, a merger involves the coming together of two or more companies forming a new entity (that may have a new name) and the companies involved are usually more or less equal in size. An acquisition involves the takeover of one company by another, usually larger, company.

Regarding types of M&A:

**Horizontal mergers** occur when companies in the same industry with similar supplier and customer bases come together, often to increase market share, gain a competitive edge, achieve economies of scale or improve pricing power.

An example of horizontal merger is AB InBev acquiring SAB Miller.

**Vertical mergers** involve companies at different stages of the supply chain, such as suppliers and distributors, and aim to enhance supply chain efficiency and achieve greater control over sources of supply or distribution.

An example of a vertical merger is Amazon acquiring Whole Foods.

**Conglomerate mergers** involve unrelated businesses uniting under one corporate umbrella, diversifying their product or service offerings.

An example of a conglomerate was GE, prior to its restructuring.

**Guide to Craft Your Own Answers:**

- Start by clearly distinguishing between a merger and an acquisition – explain that a merger typically involves two similarly sized companies forming a new entity, while an acquisition involves one company taking over another
- Define the three main types of M&A: horizontal, vertical, and conglomerate
- For horizontal M&A, explain that it involves companies in the same industry aiming for market share or scale
- For vertical M&A, describe how companies at different stages of the supply chain combine to improve efficiency and control
- For conglomerate M&A, highlight that it involves companies in unrelated industries seeking diversification

- Support each M&A type with a real-world example to demonstrate applied understanding
- Tie your answer back to strategic rationale, such as growth, efficiency, or diversification

**Other resources:**

<https://www.fe.training/free-resources/ma/merger-structures/>

<https://www.fe.training/product/online-finance-courses/accounting/mergers-and-acquisitions-accounting/>

### 38. How do synergies play a role in M&A transactions, and can you explain different sources of synergies?

**What the Recruiter is Looking For:**

- Technical finance knowledge
- Clear understanding of merger vs. acquisition distinctions
- Knowledge of the main types of M&A transactions and their strategic purposes

**Framework:** Pyramid: definition of Merger vs. Acquisition and types of M&A transactions

- **Conclusion:** define merger and acquisition with key differences
- **Explanation:** explain horizontal, vertical, and conglomerate mergers with examples
- **Details:** note rarity of true mergers ("merger of equals")

**Example answer:** synergies occur in the combined companies when they are worth more than the sum of the parts ('2+2=5'). They play an important role in M&A transactions as they influence the view of post-deal value creation. Understanding potential synergies provides key insights into negotiating the control premium.

Synergies arise from:

- **Cost savings (cost synergies):** by combining two entities, common functions and processes can be streamlined, and duplication eliminated
- **Revenue synergies:** selling more products as a combined business than as two standalone entities by leveraging customer bases, market presence and distribution channels
- There could also be **tax synergies** (resulting in lower taxes)
- **Balance sheet synergies:** adopting best practices and increased efficiency resulting in lower working capital or capex needs, as well as potential access to cheaper capital might also be possible (resulting in a lower WACC)

**Guide to Craft Your Own Answers:**

- Begin by defining what synergies are in the context of M&A: the idea that the combined company is more valuable than the two companies operating separately
- Emphasize that synergies are a key factor in justifying a control premium and driving valuation
- Break down the main types of synergies:
  - **Cost synergies:** savings from eliminating duplicated functions, streamlining operations, or improving purchasing power
  - **Revenue synergies:** increased sales from cross-selling, broader customer reach, or stronger distribution
  - **Tax synergies:** benefits from using net operating losses or optimizing the post-merger tax structure
  - **Balance sheet synergies:** improved capital efficiency, access to lower-cost financing, or enhanced borrowing capacity
- Highlight that realizing synergies is often one of the main goals of a deal, but they must be carefully estimated and realistically achievable
- End by explaining how these synergies factor into valuation modeling and negotiation strategy

**Other resources:**

<https://www.fe.training/free-resources/ma/control-premium/>

<https://www.fe.training/free-resources/ma/valuing-synergies/>

<https://www.fe.training/product/online-finance-courses/accounting/mergers-and-acquisitions-accounting/>

### 39. How do you value a company in an acquisition scenario?

**What the Recruiter is Looking For:**

- Technical finance knowledge
- Understanding of valuation adjustments specific to acquisitions, such as control premium
- Awareness of valuation techniques applicable in acquisition contexts

**Framework:** Pyramid: Valuation Techniques + Adjustments for Acquisition Context

- **Conclusion:** state that standard valuation methods (multiples, DCF) apply
- **Supporting Arguments:** explain inclusion of control premium
  - Distinguish transaction comps from trading comps due to premium
- **Details:** mention consideration of premium over unaffected share price for public targets

**Example answer:** the techniques used to value a company in an acquisition scenario are the same as on a standalone basis i.e. multiples and DCF. However, the control premium needs to be included, and so the DCF would include potential synergies and multiples would be transaction comps (i.e. precedent transactions), as opposed to trading comps, as transaction comps include the premium paid to obtain control. For public targets, the percentage premium over the unaffected traded share price also needs to be considered.

**Guide to Craft Your Own Answers:**

- Begin by stating that standard valuation methods such as DCF and comparable company analysis are still applicable in acquisition contexts
- Explain that acquisition valuations often include a control premium, which reflects the additional amount a buyer is willing to pay to gain control of the target company
- Point out that transaction comps (precedent transactions) are more relevant than trading comps in this context, since they include premiums actually paid in past deals
- For public targets, mention the importance of referencing the premium over the unaffected share price, meaning the share price before the acquisition became public
- Mention that expected synergies can be factored into a DCF model to reflect post-deal value creation
- Wrap up by noting that while the technical methods are the same, acquisition valuations involve strategic and contextual adjustments that reflect real-world deal dynamics

**Other resources:**

<https://www.fe.training/free-resources/valuation/transaction-multiples/>

40. What are the different ways for an acquirer to pay for an acquisition, and what might an acquirer generally prefer?

**What the Recruiter is Looking For:**

- Technical finance knowledge
- Understanding of payment methods in acquisitions
- Awareness of pros and cons of cash, debt, and equity financing
- Insight into acquirer preferences and constraints

**Framework:** Pyramid: Payment Methods + Acquirer Preferences and Limitations

- **Summary:** list the different payment methods: cash, shares, or combination
- **Key Points:** explain sources of cash and implications (cash on hand, debt, equity issuance)

- Define share-for-share exchange
- **Details:** discuss preference for cash/debt over equity, including reasons
- Mention debt capacity limits and credit rating considerations

**Example answer:** an acquisition can be paid for in cash, with shares, or a combination of both. If paying in cash, this could be cash on hand that's not earmarked for anything else, or it could be raised by issuing debt or a secondary issuance of equity (however this is usually more expensive than issuing equity as part of a share for share exchange due to underwriting by banks and discount). Issuing equity as part of a share for share exchange means that the target's shareholders receive shares in the acquirer as payment instead of cash.

Generally, an acquirer would prefer to use cash / debt rather than shares as debt is cheaper than equity and does not dilute the acquirer's ownership. However, there is a limit on the amount of debt the acquirer can raise (i.e. their debt capacity, which is normally based on a proforma EBITDA multiple). A potential drop in credit rating from taking on more debt also needs to be considered, as this is something the acquirer would likely want to avoid.

#### How to Craft Your Own Answers:

- Begin by outlining the three main payment methods for acquisitions: cash, shares, or a combination of both
- Explain that cash can come from existing reserves, new debt issuance, or an equity raise
- Define a share-for-share exchange as a method where the target receives shares in the acquirer instead of cash
- Mention that acquirers generally prefer using cash or debt because it avoids dilution and is typically cheaper than issuing equity
- Highlight the limitations of using debt, including debt capacity (usually based on pro forma EBITDA) and potential credit rating implications
- Conclude by noting that the choice of payment depends on the acquirer's capital structure, financing flexibility, and market conditions

#### Other resources:

<https://www.fe.training/free-resources/ma/cash-vs-stock-acquisition/>

## 41. Walk me through the main elements of a basic merger model.

#### What the Recruiter is Looking For:

- Technical finance knowledge
- Understanding of merger model structure and outputs
- Ability to explain key inputs, calculations, and outputs
- Awareness of deal financing, synergies, and EPS accretion/dilution

**Framework:** STAR: Overview + Key Inputs + Main Calculations + Outputs

- **Situation:** define purpose of merger model and key outputs
- **Task:** describe combining income statements and deal adjustments
- **Action:** explain key inputs: shares, dilutive securities, debt, share price, premiums, financing structure, interest, tax, fees, synergies
- Walk through sources and uses of funds and their impact
- Outline calculation of combined earnings and shares, including after-tax synergies and interest
- Define accretion vs dilution based on pro forma EPS versus standalone EPS
- Mention more complex adjustments (e.g. asset step-ups and additional D&A)
- **Result:** what does the model show

**Example answer:** a merger model is used to evaluate the metrics of a deal, for example EPS accretion or dilution. Other outputs might include additional synergies to breakeven, pro forma credit rating analysis, synergies versus premium paid, simple transaction ROIC versus WACC, ownership analysis and analysis at various prices.

A merger model can be used to assess the impact of different deal financing structures, flexing synergy or acquisition price assumptions and performing sensitivity analysis to achieve the best deal structure.

A simple merger will essentially combine the two companies' income statements together, plus any deal adjustments (such as increased interest from taking on more debt) and seeing if the combined income statement looks better or worse. Ideally more details are included and this involves capturing inputs such as both companies' number of shares, dilutive securities, share price, debt etc. and assumptions relating to the deal terms (i.e. premium paid or transaction multiple, financing structure, interest and tax rates, transaction fees, forecast synergies and associated costs). This will drive the sources and uses of funds table, which will in turn impact on the forecast income statement and EPS.

A key output of a simple merger model is forecast combined EPS, which is calculated by adding together the forecast earnings of the acquirer and target on a standalone basis, plus after-tax synergies minus after-tax interest on deal debt (or interest lost on cash used).

In a more complex model, things like additional D&A (depreciation and amortization) due to asset step-ups would also be taken into account. Once you have combined earnings, this is divided by the combined number of shares, which would be the existing outstanding shares of the acquirer plus any new shares issued as part of financing the deal. Combined (or proforma) EPS is then compared to the standalone EPS of the acquirer – accretion is where proforma EPS is higher than the standalone acquirer's EPS, and dilution is the opposite.

**How to Craft Your Own Answers:**

- Begin by stating that a merger model is used to assess the financial impact of an acquisition, particularly earnings per share (EPS) accretion or dilution
- Explain that the model combines the acquirer and target's income statements along with deal-specific adjustments
- List key inputs such as number of shares, share price, dilutive securities, debt, premiums paid, financing structure, interest rates, tax rates, fees, and synergies
- Describe the sources and uses of funds table and how it affects interest expenses and cash usage
- Walk through the calculation of combined net income, including the effect of synergies and financing costs (after tax)
- Explain how to calculate pro forma EPS by dividing combined earnings by the total number of shares (existing plus new shares issued)
- Define accretion as when pro forma EPS is higher than the acquirer's standalone EPS, and dilution as the opposite
- Optionally, mention more advanced adjustments such as asset step-ups and additional depreciation and amortization

**Other resources:**

<https://www.fe.training/free-resources/accounting/eps-accretion-and-dilution/>

<https://www.fe.training/product/online-finance-courses/accounting/mergers-and-acquisitions-accounting/>

42. Is there an easy way to tell whether a transaction will be accretive or dilutive?

**What the Recruiter is Looking For:**

- Technical finance knowledge
- Understanding of accretion/dilution concept
- Ability to explain quick assessment methods and limitations

**Framework:** Pyramid: Conceptual Overview + Relative P/E Analysis + Financing Impact

- **Conclusion:** explain use of relative P/E analysis as a high-level check
- **Supporting Points:** discuss equity-financed deals and comparison of acquirer vs acquisition P/E
  - Discuss debt-financed deals and the concept of debt P/E ( $1 / \text{after-tax cost of debt}$ )
- **Details:** note limitations of the method (ignores mixed financing and synergies)

**Example answer:** When looking to gauge whether a transaction is accretive or dilutive, we can use relative P/E analysis. However, this is only a sense check or high-level analysis as

it does not cater for a situation where both debt and equity are used to finance a deal, nor does it take synergies into account.

A deal financed with equity will be accretive if the acquirer's P/E is higher than the acquisition P/E (and dilutive if lower). A deal financed with debt will be accretive if the debt P/E (which is  $1/\text{after-tax cost of debt}$ ) is higher than the acquisition P/E. This will be dilutive if the other way round.

#### How to Craft Your Own Answers:

- Start with the high-level purpose: a quick check for accretion or dilution
- Define accretion and dilution in terms of EPS impact
- For equity deals:
  - Compare acquirer P/E vs target P/E
  - Accretive if acquirer P/E > target P/E
- For debt deals:
  - Use debt P/E =  $1 / \text{after-tax cost of debt}$
  - Accretive if debt P/E > target P/E
- State limitations clearly:
  - This method does not consider synergies or combined deal effects
  - Not suitable for mixed-financing or complex deal structures

### 43. What is goodwill?

#### What the Recruiter is Looking For:

- Technical finance knowledge
- Understanding of goodwill calculation and accounting treatment
- Awareness of impairment and negative goodwill concepts

**Framework:** Pyramid: Definition + Calculation + Accounting Treatment + Special Cases

- **Conclusion:** define goodwill as difference between purchase price and fair value of acquired equity
- **Supporting Points:** explain fair value adjustment of target's identifiable assets and liabilities
- Describe goodwill as an intangible asset that is not amortized but tested annually for impairment
- **Details:** mention negative goodwill (bargain purchase) and its treatment as income

**Example answer:** goodwill arises as a result of acquisitions and represents the difference between the equity purchase price and the fair value of the target's equity acquired.

This means that the target's identifiable assets and liabilities need to be stepped up or down from book value to fair value (any existing goodwill in the target is stepped down to zero as this is not a separately identifiable asset). This ensures that the difference between the purchase price and the value of equity is first allocated to specific assets and liabilities where possible, and then anything remaining is treated as goodwill.

Goodwill is an intangible non-current asset. It is not amortized but is instead tested for impairment annually. Negative goodwill can arise where there is a 'bargain purchase' – this is recognized as a gain on the income statement.

**How to Craft Your Own Answers:**

- Define goodwill as the difference between purchase price and fair value of acquired equity
- Explain that target's assets and liabilities are adjusted to fair value from book value
- Mention that existing goodwill in the target is removed in the purchase price allocation
- Describe goodwill as an intangible asset that is not amortized but tested annually for impairment
- Explain negative goodwill as a bargain purchase and that it is recorded as income

**Other resources:**

<https://www.fe.training/free-resources/accounting/consolidation/>

## 44. What is the difference between a strategic and financial buyer?

**What the Recruiter is Looking For:**

- Technical finance knowledge
- Understanding buyer motivations and deal dynamics
- Awareness of valuation differences driven by synergies and deal structure

**Framework:** Pyramid: Definition + Motivations + Synergies + Valuation Impact

- **Conclusion:** define strategic (trade) buyers as companies acquiring for strategic benefits and synergy realization
- **Key Points:** explain financial buyers as funds focusing on financial returns, often using leverage
  - Highlight strategic buyers usually pay higher premiums due to synergy potential
- **Details:** contrast financial buyers' lower premiums and typical exit strategy

**Example answer:** strategic buyers (also known as trade buyers) are companies that buy a target for strategic reasons including achieving economies of scale, increasing market share or expecting to realize synergies from the integration of the two businesses. Consequently, they are usually willing to pay a higher premium than financial buyers. Strategic buyers are often a competitor of the target company.

Financial buyers (or sponsors) are typically funds that are primarily interested in the financial returns of a deal. Financial buyers look to make improvements in the target and sell it after a few years, and these transactions are often funded with high levels of debt. Typically, financial buyers are willing to pay a lower acquisition premium than strategic buyers as synergies are not realized (unless the acquisition is an add-on to an operating company the fund already owns).

**How to Craft Your Own Answers:**

- Define strategic buyers as companies buying for strategic benefits and synergy realization
- Explain financial buyers as funds focused on financial returns, often using leverage
- Highlight that strategic buyers usually pay higher premiums due to expected synergies
- Contrast with financial buyers who typically pay lower premiums and aim to exit in a few years
- Mention financial buyers may pay more if acquiring an add-on to an existing portfolio company

## 45. What is the role of investment banks in M&A transactions?

**What the Recruiter is Looking For:**

- Technical finance knowledge
- Understanding of advisory and execution roles
- Awareness of the full transaction lifecycle and value-added services

**Framework:** Pyramid: Advisor role + Deal process support + Financing + Negotiation + Coordination + Outcome focus

- **Conclusion:** explain investment banks as financial advisors guiding clients through M&A
- **Supporting Points:** describe key services: valuation, marketing, buyer/seller identification, due diligence, deal structuring, negotiation
  - Include financing arrangements and fairness opinions
  - Mention support for defense tactics in hostile takeovers
  - Highlight coordination with legal, tax, regulatory issues, and handling complex deals
  - Emphasize goal of maximizing financial and strategic outcomes

**Example answer:** investment banks act as financial advisors to companies involved in M&A. They help clients assess value, prepare marketing materials (for sell-side deals), identify counterparties (potential buyers and sellers), assist with due diligence, and structure and negotiate deals.

Banks may also arrange financing, provide fair opinions to support board decisions, and advise on defense strategies in hostile takeovers. Banks' roles include coordinating with legal and tax advisors, managing complex processes like spin-offs or cross-border deals, and navigating regulatory or market challenges. Ultimately, investment banks guide clients through the transaction process, with the aim of delivering the best possible financial and strategic outcome for their clients.

**How to Craft Your Own Answers:**

- Explain that investment banks serve as financial advisors in M&A transactions
- Describe key services such as valuation, marketing, buyer/seller identification, due diligence, deal structuring, and negotiation
- Include their role in arranging financing and providing fairness opinions
- Mention advising on defense tactics in hostile takeovers
- Highlight coordination with legal, tax, regulatory teams and handling complex deals
- Emphasize the objective to maximize financial and strategic outcomes for clients
- Be ready to discuss a recent deal, including strategic rationale, valuation, financing, synergies, and advisors

**Other resources:**

<https://www.fe.training/free-resources/ma/10-largest-us-european-mergers-and-acquisitions-in-history/>

<https://www.fe.training/free-resources/ma/ma-explained/>

<https://www.fe.training/free-resources/investment-banking/ma-interview-questions/>

<https://www.fe.training/product/online-finance-courses/corporate-finance/the-investment-banker/>