Top Equity Research Analyst Interview Questions and Answers

1. What are the sections of an equity research report?

Equity reports are written by analysts who work for asset management firms or brokerage houses.

An equity report generally includes sections such as:

Investment Thesis – This is generally the first page of the report where the analyst provides a summary of the research (mostly qualitative) and why he believes that the stock should be a "Buy", "Hold" or a "Sell".

Financials Projections and Ratio Analysis – This section is mostly quantitative and has projections of all three financial statements, key performance metrics (KPIs), valuation multiples, and growth forecasts

Free Cash Flows / Dividends and Valuation - This section provides free cash flows or dividends, cost of capital, growth rates, and cost of equity components and further calculates the intrinsic value of the company which helps in understanding possible intrinsic valuation.

Company updates – This section provides recent news, earning results analysis, major events, management changes, among others

Disclosures: Provides disclosures, descriptions of terms used, analyst's name, and risk associated with stock investments, among others.

2. What is the earning season?

The time of year when businesses release their financial results is known as earnings season. Analysts are mostly busy at this time analyzing the company's performance and updating model and equity reports. This happens every first month of the next quarter.

3. What distinguishes enterprise value from equity value?

When utilizing valuations to determine the fair value of stocks, equity value, and enterprise value are crucial.

To determine equity value, we shall multiply by:
a) **Equity value** - The equity value of a firm is typically its equity shares' entire market value. And can be calculated as **Share outstanding * Share Price**
b) **Enterprise Value** is equal to **Equity Value + Net Debt**

Net Debt includes **Short** plus **Long-term debt** plus **minority** and **capital leases** minus **Cash & Cash Equivalents**

4. What are the some of the standard ratios used for company analysis?

Liquidity Ratios

- Current Ratio
- Quick Ratio
- Cash Ratio

Turnover Ratios

- Payable Turnover
- Receivables Turnover
- Inventory Turnover
- Days of Payable Outstanding (DPO)
- Days of Receivables Outstanding (DSO)
- Days of Inventory Outstanding (DIH)
- Cash Conversion Cycle (CCC)

Profitability / Margin Ratios

- Gross Margin
- EBITDA Margin
- Operating (EBIT) Margin
- Net Profit Margin
- Return on Equity
- Return on Assets
- Return on Capital Employed

Leverage / Coverage Ratio

- Debt Service Coverage Ratio
- Interest Coverage Ratio
- Debt to Equity Ratio
- Debt to EBITDA Ratio

5. What is financial modeling?

To determine future projections and understand the current worth of stock, we need to build financial models using historical company financials. Further, we used these financial models in performing valuation analysis.

Comparable companies' models and discounted cash flow models are two of the most popular methods for valuing a firm.

The financial model also helps in drawing conclusions. If the stock price is less than the intrinsic value of the stock (derived by financial model), then it is anticipated that the share prices will increase to intrinsic value in the future, and hence a "Buy" recommendation may be suggested.

If the stock price is more than the intrinsic value of a stock (derived by financial model), then it is anticipated that the share prices would decrease to intrinsic value in the future, and hence a "Sell" recommendation may be suggested.

6. How is a discounted cash flow valuation performed?

A corporation is valued using its discounted future cash flow approach. The Discounted Cash Flows Model (FCFF) is typically completed in six steps:

1. Firstly, Free Cash Flow to Firm (FCFF) is calculated using the below formula. Typically, a 5-year future period can be considered for this calculation.

 a.EBIT*(1-Tax) + D&A – Capex – Change in Working Capital

2. A discount rate, or a weighted average cost of capital, is calculated in case of firm-based future cash flows (i.e. FCFF)

3. Terminal Value, which is the discounted cash flows that would have occurred outside the anticipated period, is calculated.

4. Then a 5-year FCFF and Terminal value is discounted using WACC and the present value is calculated

5. The addition of the present value of 5-year FCFF and Terminal value forms Enterprise Value.

6. Post that, Enterprise Value is converted to Equity Value by subtracting Net Debt

7. Further Equity value is divided by outstanding shares to arrive at Intrinsic Value Per Shar

7. How is a Comparable Companies Analysis performed?

Comparable company analysis is comparing valuation multiples/ratios within competitors' landscape. It is also known as relative valuation or market-based approach to valuation.
Typically, there are six phases involved in this approach.

Before performing the comps valuation analysis, it is important to check and confirm that comparable peers are close competitors and are with the same industry.

1. Assemble the company's financial data. Typically, this consists of the three main financial statements.
2. Fetch market data including current price and current shares outstanding
3. Calculate the **enterprise value** and **equity value**
4. Calculate key financials such as **Revenue, EBITDA, and EBIT**
5. Perform multiple calculations i.e **EV/Sales, EV/EBITDA, and EV/EBIT**
7. Calculated average multiples for all competitors to see the industry average

8. How do free cash flows to the firm (FCFF) work?

After subtracting the change in working capital and capital expenditures (Capex), free cash flows are the funds made available to holders of debt and equity securities.
How to calculate free cash flow

1. Commence with the **Net income** after taxes.
2. **Add** all non-cash expenditures (because they reduced income but not cash, e.g. depreciation)
3. **Add** Post tax interest as this is money attributable to debt holders
4. **Subtract** change in working capital as this is blocking your cash. If a change in working capital is negative, then we need to Add it as this will facilitate your cash
5. **Subtract** capital expenditure as this will reduce your cash balance

9. Free Cash Flow to Equity: What Is It?

The amount of free cash flow that equity shareholders have access to. This can be calculated using below formula:
Net Income +D&A - change in working capital – Capex – Net Borrowing

10. Sensitivity analysis: what is it?

The method used to ascertain how one independent variable affects other dependent variables is known as sensitivity analysis.
We use sensitivity analysis to check how the final valuation changes by changing a few independent variables.

11. Sensitivity analysis in equity research: What is its purpose?

Equity research employs sensitivity in a number of different ways. An array of scenarios or single variable changes are studied.

Discount rates, and growth rates, are examples of independent variables that are tweaked to check how valuation is changing Through the Data table in Excel, a sensitivity analysis table is used to present the results of the analysis.

12. Which valuation multiples are frequently employed in equity research?

- Price-Earnings Ratio
- Price/Book Value
- Price-Earnings Growth Ratio
- EV/EBITDA
- EV/Sales
- EV/EBIT

13. What distinguishes a Trailing P/E from a Forward P/E?

Using the financial data from the previous period, the trailing PE ratio is calculated (usually a year). A forward PE, on the other hand, is a ratio derived using anticipated data (usually one year ahead).

14. Describe BETA.

The sensitivity of a stock price to fluctuations in the stock market is gauged by the term "beta." This was arrived at utilizing regression analysis on historical data.

A beta of 1 indicates that it fluctuates in a manner that is comparable to the stock market's movement.

- It is less volatile or has less fluctuation than the stock market when the beta value is less than one.
- If the beta value is more than 1, the price is more volatile than the market.

15. Which of EBIT and EBITDA is superior?

The sole distinction between the two is that, in contrast to EBIT, EBITDA is calculated after depreciation and amortization.

Decision-makers are inclined to use EBITDA if depreciation and amortization are quite significant, and comparability becomes an issue (due to different D&A methods used).

16. What drawbacks are there to utilizing the Price-Earnings Ratio?

- To be meaningful, price-earnings should be seen along with other valuation multiples as well
- Growth is not taken into consideration by the P / E Ratio
- The recommended P / E ratio range is different for growth and value stocks

17. How do variations in the price of oil impact our economy?

One of the primary inputs in the majority of industries is oil and other energy products.

The cost of producing goods and services will rise as oil prices rise, notably in the industrial and manufacturing sectors. This leads to higher product costs which are passed onto consumers.

Moreover, higher oil price leads to higher transportation cost for consumers.

Hence, an increase in oil prices typically leads to higher inflation and a decrease in purchasing power.

18. How do you value a stock?

There are a lot of ways to value a stock. The most common is to use Discounted Cash Flows.

Discounted cash flows use the future cash flows of a company to determine the current fair value of a stock.
We can also use relative valuation methods such as Comparable companies' analysis and the Precedent transaction valuation method.

19. Why do we unlever a beta and then relever it?

Levered beta is also known as Equity Beta and Unlevered beta is also known as Asset Beta.

Un-levering the beta involves removing the impact of debt in beta. By doing this equity beta converts to asset beta.

Re-levering the beta involves adding back the impact of the target debt in beta. By doing this Asset Beta becomes Equity beta.
Formulas:

Un-Levered Beta = Levered Beta / (1 + ((1 − Tax Rate) x (Total Debt/Equity)))

Levered Beta = Un-levered Beta * (1 + ((1 – Tax Rate) x (Total Debt/Equity)))

The reason why we do it for a publicly listed company: When we use beta to calculate the Cost of Equity and WACC for DCF valuation, we un-lever the beta excluding the effect of current capital structure, and then re-lever it with target or future capital structure. So, a leveraged beta with a futuristic capital structure is used for discounting future cash flows. As company capital structure may change in the future, this practice is recommended for publicly listed companies.

One more reason to unlever and relever (for public company case) is when analyst believes that beta is much more volatile. In that case, peers' equity beta is taken then these are converted to asset beta; post that an average is taken of these peers' asset beta and then analysts use this average asset beta to calculate the company's beta using the company target capital structure.

For Private listed companies: In the private company case, peers' equity beta is taken then these are converted to asset beta; post that an average is taken of these peers' asset beta and then analysts use this average asset beta to calculate the company's beta using company target capital structure.

20. Is it possible for a stock to have an Equity Value that is higher than its Enterprise Value?

Yes. Based on the formula Enterprise value = total equity market value + Gross Debt less Cash, Equity value is higher when it has no interest-bearing debt but has cash.

21. What is the disadvantage of Discounted Cash Flows?

DCF cannot be used when the analyst cannot reliably forecast the cash flows of the company.

This usually happens when the company is just in the beginning, and does not have stable operations yet (e.g., Tech start-ups)

22. Why do we use 5-10 years as the projection period for Discounted Cash Flows?

The reason is that of the relevance and usability of the report. Less than five years is a relatively short measure of the future of the company, It will be hard to look in the long-term if you are looking at less than five years' projections.

On the other hand, the projection of more than ten years is already too far ahead. There are already a lot of unseen factors that could affect the company in more than ten years.

23. What is the discount rate used in Discounted Cash Flows?

The most common discount rate used in DCF is the Weighted Average Cost of Capital (WACC).

WACC is composed of the Cost of Debt, the Cost of Preferred Shares, and the Cost of Common Shares. As such, you will need to compute three items.

24. How do you compute the terminal value in a Discounted Cash Flow?

Terminal Value = FCFF (1 + stable growth rate) / (WACC − stable growth rate)
Terminal value is the present value of all cash flows beyond the projected period. It is commonly computed using the Gordon growth model or using exit multiples.

25. What is a mid-year convention in Discounted Cash Flows?

Midyear convention is DCF is used to reduce the effect of assuming cash flows are done at the end of the year.

The midyear convention assumes that cash flows are done in the middle of the year instead of at the end of the year.

As such, instead of using discount rates of 1 for the first year, 2 for the second year, etc., the analyst uses 1.5, 2.5, and so on and so forth.

26. What is the difference between Fundamental Analysis and Technical Analysis?

Both are methods to analyze and project future prices of stocks.
Fundamental analysis uses extensive analysis of financial statements, non-financial data, and external factors to determine the future price of the stock.
Technical analysis is merely analyzing the stock chart in an attempt to find trends and patterns that will determine the future value of the stock.

27. What is Free Cash Flow to a Firm (FCFF)?

FCFF is the cash flow available to debt holders and equity holders. It is generated after considering the working capital changes and the cost associated with maintaining and renewing the fixed assets.

FCFF = EBIT x (1-tax rate) + Non-Cash Charges - Changes in Working capital – Capital Expenditure

28. What is Free Cash Flow to Equity?

FCFE measures how much "cash" a firm can return to its shareholders and is calculated after taking care of the taxes, capital expenditure, and debt cash flows.

FCFE Formula = Net Income + Depreciation & Amortization - Changes in WC - Capex + Net Borrowings