Discounted Cash Flow Modelling

1. What factors can affect the composition of a company's current assets vs long-term assets?

The composition of a company's current vs. long-term assets depends on several factors:

1. **Industry:** Capital-intensive sectors (e.g., manufacturing) lean toward long-term assets, while service industries prioritize current assets.
2. **Strategy:** Asset-light models favor current assets; growth strategies often drive long-term asset investments.
3. **Economy:** Low interest rates encourage long-term investments, while downturns increase liquidity focus.
4. **Operating Cycle:** High-turnover industries like retail emphasize current assets, whereas long-cycle firms like construction hold more long-term assets.
5. **Finance:** Debt structure and cash flow volatility impact asset allocation between liquidity and investment.
6. **Regulations:** Compliance needs and tax incentives can dictate asset preferences.
7. **Technology:** Fast-changing industries prefer flexibility, limiting long-term commitments.
8. **Competition:** Market dynamics and agility needs shape asset strategies.
9. **Geography:** Global firms hold more liquid current assets for currency management.
10. **Lifecycle:** Startups favor liquidity; mature firms balance current and long-term assets.

This balance reflects operational priorities, market conditions, and strategic goals.

2. How can a company's debt-to-equity ratio impact its creditworthiness and access to capital?

A company's **debt-to-equity (D/E) ratio** directly affects its creditworthiness and access to capital:

1. **Creditworthiness:**
    - **High D/E:** Signals higher risk, potential for default, and reduced credit ratings, leading to stricter terms and higher borrowing costs.
    - **Low D/E:** Indicates stability, stronger credit ratings, and greater lender confidence.
2. **Access to Capital:**
    - **High D/E:** Limits borrowing capacity, raises capital costs, and may force equity dilution.
    - **Low D/E:** Facilitates borrowing with better terms and offers flexibility between debt and equity options.
3. **Strategic Factors:**
    - Balanced D/E enhances creditworthiness, with norms varying by industry and economic cycles impacting leverage tolerance.

Maintaining an optimal D/E ratio ensures financial flexibility, better credit terms, and growth potential.

3. Debt-to-Equity Ratio: How has the debt-to-equity ratio changed over the four years? (take into consideration total liabilities and total equity)Is the company relying more on debt financing or equity financing?

1. Trend Analysis

- **2018:** 2.11
- **2019:** 1.91 (Decrease)
- **2020:** 1.97 (Slight Increase)
- **2021:** 2.27 (Significant Increase)

The D/E ratio shows some fluctuations:

- A **decline in 2019** suggests reduced reliance on debt financing or increased equity.
- A **slight rise in 2020** indicates a small increase in debt relative to equity.
- A **notable increase in 2021** reflects a significant shift toward debt financing.

2. Financing Preference

- The consistently **high D/E ratio** (>1.9) over the four years indicates a strong reliance on **debt financing**.
- The increase in 2021 (2.27) suggests the company has intensified its use of debt to fund operations, growth, or manage challenges.

3. Implications

- **Debt-Focused Strategy:** The company prefers leveraging debt, possibly to benefit from lower financing costs or to avoid diluting equity.
- **Potential Risk:** A rising D/E ratio in 2021 could indicate higher financial risk, particularly if profitability or cash flows are insufficient to service the debt.

Based on the consistently high Debt-to-Equity (D/E) ratios (ranging from 1.91 to 2.27 over four years), the company is clearly **relying more on debt financing** than equity financing. A D/E ratio above 1 indicates that the company uses more debt than equity to fund its operations or growth. The upward trend in the ratio, particularly the significant rise to 2.27 in 2021, further reinforces its preference for debt financing. This reliance could be a strategic choice to leverage cheaper debt costs but also indicates higher financial risk due to increased obligations to creditors.

4. Revenue Growth: How has the company's total revenue grown over the three years? What segments are driving this growth (merchandise sales, membership fees)?

The company’s total revenue **grew 9.2% in 2020** and **accelerated to 17.5% in 2021.**

This indicates robust revenue expansion, with growth momentum increasing year over year.

Contribution to Total Revenue

- **Merchandise Sales Contribution:**
  - **2019:** 149,351/152,703×100=97.8%
  - **2020:** 163,220/166,761×100=97.9%
  - **2021:** 192,052/195,929×100=98.0%
- **Membership Fee Contribution:**
  - **2019:** 3,352/152,703×100=2.2%
  - **2020:** 3,541/166,761×100=2.1%
  - **2021:** 3,877/195,929×100=2.0%

1. **Merchandise Sales:**
   - Strong growth of **9.3% in 2020** and **17.7% in 2021**, closely mirroring total revenue trends.
   - This segment remains the primary driver, consistently contributing over **97% of total revenue.**
2. **Membership Fees:**
   - Moderate growth of **5.6% in 2020** and **9.5% in 2021.**
   - Although its contribution is small (~2%), the consistent growth reflects increasing customer retention or expansion of membership programs.

The company's revenue growth is overwhelmingly driven by **merchandise sales**, supported by a steady rise in **membership fees**, which, while small, demonstrates solid customer loyalty or engagement. Would you like to explore how these trends compare to industry benchmarks or suggest strategic recommendations.

5. Gross Margin: Calculate and compare the gross margin (consider total revenue and total operating expense) across the three years. Is the company able to maintain or improve its margins?

2019:

- **Total Revenue:** $152,703
- **COGS:** $132,886

Gross Margin (2019)= (152,703−132,886)/152,703×100=13.0%

2020:

- **Total Revenue:** $166,761
- **COGS:** $144,939

Gross Margin (2020)=(166,761−144,939)/166,761×10013.1%

2021:

- **Total Revenue:** $195,929
- **COGS:** $170,684

Gross Margin (2021)=(195,929−170,684)/195,929×10012.9%

- The **gross margin remained stable** from 2019 to 2020, with a slight increase to 13.1%.
- In 2021, the margin **declined marginally to 12.9%**, indicating a slight increase in COGS relative to revenue.

- This slight decline in 2021 might suggest **higher input costs or reduced pricing power**, which warrants attention if the trend persists.

The operating margin has **remained stable** over the years, with a slight improvement in 2021. Despite an increase in operating expenses, the company has been able to maintain high efficiency in managing its operating costs relative to revenue.

The company has been able to **maintain and slightly improve its operating margin** over the three years, suggesting efficient cost management despite rising expenses.

6. How can investors utilize free cash flow analysis to compare different companies in the same industry?

Free Cash Flow (FCF) is a critical metric for evaluating a company's financial health, efficiency, and growth potential. Here's how investors can leverage FCF to compare companies within the same industry:

1. Profitability and Cash Generation

- **Higher FCF:** Indicates efficient operations and better cash generation after accounting for capital expenditures (CapEx), which is essential for sustainability and expansion.
- **Comparative Insight:** Companies with consistently higher FCF may have better profitability, stronger cost control, or superior pricing power relative to peers.

2. Growth Potential

- **Reinvestment Capability:** A high FCF allows companies to reinvest in R&D, new projects, or market expansion without relying on external funding.
- **Industry Context:** Compare how companies allocate FCF for growth. For instance, in capital-intensive industries, lower FCF may indicate aggressive reinvestment strategies.

3. Debt Management and Financial Stability

- **Debt Servicing:** FCF indicates the ability to service debt and meet financial obligations.
- **Risk Assessment:** A company with higher FCF relative to peers is typically in a stronger position to handle economic downturns or rising interest rates.

4. Dividend and Buyback Potential

- **Shareholder Returns:** Companies with strong FCF can distribute dividends or buy back shares, enhancing shareholder value.
- **Comparison:** Investors can compare the proportion of FCF allocated to shareholder returns across companies.

5. Efficiency Ratios

- **FCF-to-Revenue Ratio:** Measures the proportion of revenue converted into free cash flow. A higher ratio signals superior operational efficiency.
- **FCF-to-Assets/Equity:** Provides insight into how effectively a company utilizes its assets or equity to generate cash flow.

6. Valuation Metrics

- **FCF Yield:**

FCF Yield=FCF per ShareShare Price\text{FCF Yield} = \frac{\text{FCF per Share}}{\text{Share Price}}FCF Yield=Share PriceFCF per Share

- Higher FCF yield indicates a better return for investors relative to the stock price.
- **Price-to-FCF Ratio:** Similar to price-to-earnings, this measures how much investors pay for each dollar of free cash flow. Lower ratios may signal undervaluation.

7. Peer Benchmarking

- **Trends Over Time:** Compare FCF growth trends across companies to identify which ones are consistently improving operational efficiency or scaling effectively.
- **Industry Norms:** Consider capital intensity, cyclicality, and typical cash flow patterns in the industry to make fair comparisons.

Example: Capital-Intensive Industry

- In industries like manufacturing, telecom, or energy, higher CapEx often reduces FCF. Investors should assess whether lower FCF reflects necessary growth investments or inefficiencies.

- Compare companies' FCF margins, CapEx trends, and resulting return on investment (ROI).

  By analyzing FCF, investors can identify companies with stronger operational efficiency, financial health, and growth prospects within the same industry. This insight helps make informed decisions on which companies offer the best risk-reward balance.
