Questions: Discounted Cash flow Model

Q1. What factors can affect the composition of a company's current assets vs. long-term assets?

Consolidated Balance Sheets - USD ($) $ in Millions	Sep. 02, 2018	Sep. 01, 2019	Aug. 30, 2020	Aug. 29, 2021
CURRENT ASSETS				
Cash and cash equivalents	6,055	8,384	12,277	11,258
Short-term investments	1,204	1,060	1,028	917
Receivables, net	1,669	1,535	1,550	1,803
Merchandise inventories	11,040	11,395	12,242	14,215
Other current assets	321	1,111	1,023	1,312
Total current assets	20,289	23,485	28,120	29,505
OTHER ASSETS				
Property and Equipment, net	19,681	20,890	21,807	23,492
Operating lease right-of-use assets		0	2,788	2,890
Other long-term assets	860	1,025	2,841	3,381
TOTAL ASSETS	40,830	45,400	55,556	59,268

Current Assets:

1. **Cash Management and Liquidity:**
   - The significant increase in "Cash and cash equivalents" over the years (from $6.055 billion in 2018 to $12.277 billion in 2020) indicates a focus on maintaining liquidity.
2. **Inventory Management:**
   - The consistent growth in "Merchandise inventories" (from $11.040 billion in 2018 to $14.215 billion in 2021) suggests a robust inventory management strategy, possibly aligned with the company's business model.
3. **Receivables and Other Current Assets:**
   - "Receivables, net" and "Other current assets" have also seen growth, indicating active management of receivables and potential strategic investments or prepayments.

Long-Term Assets:

1. **Investments in Property and Equipment:**
    - "Property and Equipment, net" have increased over the years (from $19.681 billion in 2018 to $23.492 billion in 2021), suggesting ongoing investments in the company's infrastructure.
2. **Operating Lease Right-of-Use Assets:**
    - The introduction of "Operating lease right-of-use assets" in 2019 indicates a shift in the company's approach to leasing, possibly due to changes in accounting standards or strategic considerations.
3. **Other Long-Term Assets:**
    - "Other long-term assets" have also seen growth, reflecting investments in assets with longer-term benefits.

Factors Influencing Composition:

1. **Retail Industry Dynamics:**
    - The nature of the retail industry, where Costco operates, involves managing a large inventory of merchandise, which contributes to the substantial current assets.
2. **Capital Expenditure Plans:**
    - The continuous investment in "Property and Equipment" suggests ongoing capital expenditure plans, possibly to support expansion or enhance operational efficiency.
3. **Leasing Strategy:**
    - The introduction and growth of "Operating lease right-of-use assets" indicate a strategic approach to leasing, which can impact the composition of long-term assets.
4. **Cash Management and Debt Levels:**
    - The company maintains a significant amount of cash, which reflects a prudent cash management strategy. The moderate levels of long-term debt also suggest a balanced approach to financing.
5. **Stability and Growth:**
    - The overall growth in both current and long-term assets reflects Costco's stability and growth over the specified periods.
6. **Understanding Competitive Edge:**
    - A comparison with industry benchmarks would provide context for understanding Costco's asset composition relative to its peers.

Q2. How can investors utilize free cash flow analysis to compare different companies in the same industry?

Unlevered Free Cash Flow (mm)								
Fiscal Year	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
Revenue	1,52,703	1,66,761	1,95,929	2,15,522	2,37,074	2,58,411	2,76,500	2,90,324
COGS	1,32,886	1,44,939	1,70,684	1,87,541	2,06,296	2,24,862	2,40,602	2,52,633
Gross Profit	**19,817**	**21,822**	**25,245**	**27,981**	**30,779**	**33,549**	**35,897**	**37,692**
Operating Expenses								
Selling, General, Administrative	13,588	14,742	16,756	18,887	20,776	22,646	24,231	25,443
Total Operating Expenses	13,588	14,742	16,756	18,887	20,776	22,646	24,231	25,443
EBITDA	**6,229**	**7,080**	**8,489**	**9,093**	**10,003**	**10,903**	**11,666**	**12,249**
Depreciation & Amortization	1,492	1,645	1,781	1,996	2,144	2,304	2,475	2,659
Operating Profit (EBIT)	**4,737**	**5,435**	**6,708**	**7,097**	**7,858**	**8,599**	**9,191**	**9,590**
Operating Taxes	1,061	1,308	1,601	1,490	1,650	1,806	1,930	2,014
NOPAT (Net Operating Profit After Taxes)	**3,676**	**4,127**	**5,107**	**5,607**	**6,208**	**6,793**	**7,261**	**7,576**
(+) Depreciation & Amortization	1,492	1,645	1,781	1,996	2,144	2,304	2,475	2,659
(-) Capital Expenditures	2,701	5,350	3,568	3,957	4,252	4,568	4,907	5,272
(-) Change in NWC	(691)	(2,437)	(1,378)	(244)	(1,156)	(1,144)	(970)	(741)
NWC	(7,497)	(9,934)	(11,312)	(11,556)	(12,712)	(13,856)	(14,826)	(15,567)
Unlevered Free Cash Flow	**3,158**	**2,859**	**4,698**	**3,889**	**5,257**	**5,673**	**5,799**	**5,704**

1. **Positive and Growing Free Cash Flow:**
    - Costco has consistently generated positive Unlevered Free Cash Flow over the years, indicating its ability to generate cash from its operations after accounting for capital expenditures.
2. **Trend Analysis:**
    - The trend in Unlevered Free Cash Flow shows growth from 2019A to 2021A, followed by a slight dip in 2022E. Investors would want to understand the reasons behind this dip and assess whether it is a temporary fluctuation or indicative of a broader issue.
3. **Assumptions for Future Years:**
    - The provided analysis includes assumptions for revenue growth, cost of goods sold (COGS) as a percentage of revenue, SG&A as a percentage of revenue, and tax as a percentage of EBIT for future years (2022E to 2026E). Investors should evaluate the reasonableness of these assumptions and compare them to industry standards.
4. **Efficiency Metrics:**
    - The analysis includes efficiency metrics such as capital expenditures as a percentage of revenue and changes in net working capital (NWC). Comparing these metrics with industry peers can provide insights into how efficiently Costco is managing its capital.
5. **Current Assets and Liabilities:**
    - The data includes information on current assets and liabilities. Investors can assess the company's liquidity position by comparing these figures and evaluating the company's ability to meet short-term obligations.

6. **Use of Free Cash Flow:**
    - Investors may inquire about how Costco plans to use its free cash flow. For example, is the company planning to reinvest in growth, pay down debt, return value to shareholders through dividends or buybacks, or pursue other strategic initiatives?
7. **Comparison with Peers:**
    - Investors can compare Costco's Unlevered Free Cash Flow metrics with those of other companies in the retail or similar industries. This comparative analysis can highlight relative strengths or weaknesses.
8. **Risk Factors:**
    - Consideration of risk factors is crucial. Factors such as economic conditions, industry-specific challenges, and global events can impact a company's ability to generate free cash flow. Investors should assess these risks in the context of their investment strategy.

Q3. Gross Margin: Calculate and compare the gross margin (consider total revenue and total expense) across the three years. Is the company able to maintain or improve its margins?

PARAMETERS	Sep. 01, 2019	Aug. 30, 2020	Aug. 29, 2021
Total revenue	$1,52,703	$1,66,761	$1,95,929
Merchandise costs	1,32,886	1,44,939	1,70,684
Gross Profit Margin	13.0	13.1	12.9

A general analysis of the Gross Margin for Costco Wholesale Corporation over the three years:

1. **Consistency in Gross Margin:**
    - Costco's Gross Margin has shown a relatively consistent pattern over the three years, hovering around 13.0%. This indicates stability in the company's ability to manage its cost of goods sold (COGS) relative to its total revenue.
2. **Stability Amid Revenue Growth:**
    - Despite an increase in total revenue from $152.7 billion in 2019 to $195.9 billion in 2021, Costco has maintained a stable Gross Margin. This suggests that the company has been effective in managing the costs associated with its merchandise sales.
3. **Slight Decline in 2021:**
    - There is a marginal decrease in Gross Margin from 13.1% in 2020 to 12.9% in 2021. While the decline is relatively small, it prompts further exploration into the specific factors influencing the cost structure during that period.

4. **Consideration of Operating Expenses:**
    - While Gross Margin focuses on the relationship between revenue and COGS, a more comprehensive analysis would involve considering operating expenses, including selling, general and administrative costs, depreciation, and preopening expenses.
5. **Industry Comparison:**
    - It's beneficial to compare Costco's Gross Margin with industry benchmarks and similar companies to assess its competitiveness and efficiency in managing costs within the industry context.
6. **Potential Cost Pressures:**
    - A declining Gross Margin could indicate potential cost pressures, changes in input costs, or shifts in the competitive landscape. Investigating these factors can provide insights into the company's overall cost management strategy.
7. **Future Considerations:**
    - While Gross Margin stability is generally positive, it's essential for Costco to continue monitoring and adapting to changes in the business environment. Assessing the company's plans for cost management, efficiency improvements, and potential factors affecting input costs is crucial.

Q4.Revenue Growth: How has the company total revenue grown over the three years? What segments are driving this growth (merchandise sales, membership fees)?

REVENUE	Sep. 01, 2019	Aug. 30, 2020	Aug. 29, 2021
Total revenue	$1,52,703	$1,66,761	$1,95,929

Revenue Growth % = **(Total Revenue Year N - Total Revenue Year N-1)/Total Revenue Year N-1*100**

From September 1, 2019, to August 30, 2020:

Revenue Growth % = **9.21**

From September 1, 2019, to August 30, 2020:

Revenue Growth % = **17.49**

Now, let's analyse the segments driving this growth:

- **Merchandise Sales Revenue:**
    - From 2019 to 2021, merchandise sales revenue grew from $149,351 million to $192,052 million.

    - The growth in merchandise sales is a significant contributor to the overall revenue growth.
- **Membership Fee Revenue:**
    - Membership fee revenue increased from $3,352 million in 2019 to $3,877 million in 2021.
    - While membership fee revenue is a smaller component compared to merchandise sales, it still contributes to overall revenue growth.

Analysis:

- The company has experienced substantial revenue growth over the three years, with a notable acceleration from 2020 to 2021.
- Merchandise sales play a crucial role in driving this growth, indicating strong consumer demand for the company's products.
- Membership fee revenue also contributes to the overall revenue increase, suggesting the effectiveness of the company's membership model.

Q5.How can a company's debt-to-equity ratio impact its creditworthiness and access to capital?

PARAMETERS	Sep. 02, 2018	Sep. 01, 2019	Aug. 30, 2020	Aug. 29, 2021
Equity	13,103	15,584	18,705	18,078
Total liabilities	27,727	29,816	36,851	41,190
D/E Ratio	**2.12**	**1.91**	**1.97**	**2.28**

Analysis:

- The D/E ratio has experienced fluctuations over the years.
- In 2018, the company had a relatively higher D/E ratio (around 2.12), indicating a higher proportion of debt in its capital structure compared to equity.
- In the following years (2019 and 2020), the D/E ratio decreased to approximately 1.92 and 1.97, respectively. This suggests a reduction in the relative proportion of debt, indicating a more balanced capital structure.
- However, in 2021, the D/E ratio increased to around 2.28, indicating a higher reliance on debt compared to the previous year.

Impact on Creditworthiness and Access to Capital:

- **High Debt-to-Equity Ratio:**

    - A higher debt-to-equity ratio indicates a higher proportion of debt relative to equity in the company's capital structure.
    - It may raise concerns among lenders and investors about the company's ability to meet its debt obligations, especially if economic conditions or the company's performance deteriorate.
    - High leverage can increase financial risk and negatively impact creditworthiness.
- **Low Debt-to-Equity Ratio:**
    - A lower debt-to-equity ratio suggests a more conservative capital structure with a larger proportion of equity.
    - It can be viewed positively by lenders and investors, indicating lower financial risk and a healthier balance between debt and equity.
- **Impact on Access to Capital:**
    - Companies with a high debt-to-equity ratio may face challenges accessing additional debt capital, as lenders may be hesitant to extend further credit.
    - Conversely, companies with a lower debt-to-equity ratio may find it easier to secure additional debt or equity capital.
- **Market Perception:**
    - **Investor Confidence:** Investors, both debt and equity, assess the debt-to-equity ratio to gauge a company's financial health and risk. A company with a reasonable ratio may be viewed more favourably, attracting a broader investor base.
    - **Stock Price Volatility:** High debt levels can contribute to stock price volatility. Investors may react negatively to sudden changes in a company's debt profile.
- **Industry Standards:**
    - **Comparative Analysis:** Companies are often evaluated relative to industry benchmarks. A debt-to-equity ratio significantly deviating from industry norms may raise concerns and impact creditworthiness.

Q6.Debt-to-Equity Ratio: How has the debt-to-equity ratio changed over the four years? (Take in consideration total liabilities and total equity)Is the company relying more on debt financing or equity financing?

PARAMETERS	Sep. 02, 2018	Sep. 01, 2019	Aug. 30, 2020	Aug. 29, 2021
Equity	13,103	15,584	18,705	18,078
Total liabilities	27,727	29,816	36,851	41,190
D/E Ratio	**2.12**	**1.91**	**1.97**	**2.28**

The debt-to-equity ratio is a financial metric that indicates the proportion of a company's capital structure financed by debt compared to equity.

Analysis:

- The debt-to-equity ratio has increased over the four years, from approximately 2.11 in 2018 to 2.28 in 2021.
- This indicates that the company has become more leveraged over time, relying relatively more on debt financing compared to equity financing.
- The increase in the debt-to-equity ratio suggests that the company has taken on more debt to fund its operations, investments, or other financial activities.