CAREER CLUSTER
Finance

CAREER PATHWAY
Corporate Finance

INSTRUCTIONAL AREA
Financial Analysis

CORPORATE FINANCE EVENT

PARTICIPANT INSTRUCTIONS

- The event will be presented to you through your reading of the General Performance Indicators, Specific Performance Indicators and Case Study Situation. You will have up to 30 minutes to review this information and prepare your presentation. You may make notes to use during your presentation.
- You will have up to 15 minutes to make your presentation to the judge (you may have more than one judge).
- Turn in all of your notes and event materials when you have completed the event.

GENERAL PERFORMANCE INDICATORS

- Communications skills – the ability to exchange information and ideas with others through writing, speaking, reading or listening
- Analytical skills – the ability to derive facts from data, findings from facts, conclusions from findings and recommendations from conclusions
- Production skills – the ability to take a concept from an idea and make it real
- Priorities/time management – the ability to determine priorities and manage time commitments
- Economic competencies

SPECIFIC PERFORMANCE INDICATORS

- Explain valuation models used in finance.
- Describe the financial needs of a business at different stages of its development.
- Calculate stock-related values.
- Describe types of financial statement analysis (e.g., ratio analysis, trend analysis, etc.)
- Discuss limitations of using financial statements to assess business performance.
CASE STUDY SITUATION

A friend has opened a new business named SMALL POTATO based on an invention of a potato chip that tastes like a french fry. There has been a phenomenal market response to this product. Earnings were $2 per share this past year and are expected to grow at a rate of 20% per year until the end of year 4. At that point, other companies are likely to be launching competitive products. Some analysts have projected that at the end of year 4, SMALL POTATO will cut investment and begin paying 60% of its earnings as dividends and its growth rate will slow to a long run rate of about 4%.

YOUR CHALLENGE

Your friend has many questions and is slightly overwhelmed with the analysts’ predictions. Your friend has asked you to determine what the share price of the stock is today, assuming an equity cost of capital of 8%.

Your friend would also like a prediction of what the share price will be in year 3, just before the dividend payout.

You will also provide an analysis of some of the valuation models used in business, as well as a brief overview of the financial needs of a business at different stages of its development. You will also mention some of the limitations of using financial statements to assess business performance.
Putting together a spreadsheet may be the best way to show the effects of the growth rates and payout rates:

<table>
<thead>
<tr>
<th>Year</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Earnings</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 EPS Growth Rate (vs PY)</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>4%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>2 EPS</td>
<td>$2.00</td>
<td>$2.40</td>
<td>$2.88</td>
<td>$3.46</td>
<td>$4.15</td>
<td>$4.31</td>
<td>$4.49</td>
</tr>
<tr>
<td><strong>Dividends</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Dividend Payout Rate</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>4 Dividend</td>
<td>$--</td>
<td>$--</td>
<td>$--</td>
<td>$2.49</td>
<td>$2.59</td>
<td>$2.69</td>
<td></td>
</tr>
</tbody>
</table>

Starting from $2.00 in year 0, EPS grows by 20% per year until year 4, after which growth slows to 4%. SMALL POTATO’S dividend payout is zero until year 4, when competition reduces investment opportunities, and its payout rate rises to 60%. Multiplying EPS by the dividend payout ratio, we can project Small Potato’s future dividends on Line 4.

From year 4 onward, SMALL POTATO’S dividends will grow at the expected long-term rate of 4% per year. This we can use the constant dividend growth model to project SMALL POTATO’S share price at the end of year 3; given that its equity cost of capital is 8%.

\[ P_3 = \frac{\text{Div}_4}{r_E - g} = \frac{2.49}{0.08 - 0.04} = \$62.25 \]

When we apply the same model with this terminal value, we determine the initial share price to be:

\[ P_0 = \frac{\text{Div}_1}{1 + r_E} + \frac{\text{Div}_2}{(1 + r_E)^2} + \frac{\text{Div}_3}{(1 + r_E)^3} + \frac{P_3}{(1 + r_E)^3} = \frac{\$62.25}{(1.08)^3} = \$49.42 \]

Several startup valuation methods are available for use by financial analysts. Startups, in the most general sense, are new business ventures started up by an entrepreneur. They usually tend to focus on developing unique ideas or technologies and introducing them into the market in the form of a new product or service. Two of the more popular (and relevant to this case) are:

**Future Valuation Multiple Approach**

The Future Valuation Multiple Approach solely focuses on estimating the return on investment that the investors can expect soon. Several projections are carried out for the said purpose, including sales projections over five years, growth projections, cost and expenditure projections, etc., and the startup is valued based on these future projections.

**Discounted Cash Flow Approach**
The Discounted Cash Flow (DCF) Method focuses on projecting the startup’s future cash flow movements. A rate of return on investment, called the “discount rate,” is then estimated based on which it is determined how much the projected cash flow is worth. Since startups are just starting out and there is a high risk associated with investing in them, a high discount rate is generally applied.

Access to sufficient capital is always a business issue, from the startup stage right through to the exit stage. But the reasons for the financing need – product research and development, market validation, operations, growth – and the typical sources of that financing vary depending on where the business is in its financing lifecycle.

**Stage 1 Concept Financing**

In this beginning stage, the founder is developing and completing an initial validation of a business concept. Financial resources will be minimal, often consisting of self-funding or loans from friends and family members.

**Stage 2 Seed Financing**

At the seed stage, the startup will have increased costs as the founder incorporates the business and devotes more time to validating the concept, defining the market and developing the product.

**Stage 3 Launch Financing**

When the business is ready to officially launch its product to market, it will need to ramp up spending to hire personnel and create relationships with partners, suppliers and customers – with little or no incoming revenue. At this stage, the business might begin looking for early-stage venture capital funding (typically from venture capital funds or other institutional investors as opposed to individual investors) or financing through strategic investors while continuing to raise money from established angel investors.

**Stage 4 Growth Financing**

Once a product has been successfully accepted by the market, the business will be looking to grow and expand its reach. If the business’s revenue stream isn’t enough to support the targeted growth, it will need to raise more money.

**Stage 5 Maturity/Exit Financing**

Once the business has matured, additional financing options will become available for growth and expansion opportunities.

Some of the more important limitations of ratio analysis include:
Historical Information: Information used in the analysis is based on real past results that are released by the company. Therefore, ratio analysis metrics do not necessarily represent future company performance.

Inflationary effects: Financial statements are released periodically and, therefore, there are time differences between each release. If inflation has occurred in between periods, then real prices are not reflected in the financial statements. Thus, the numbers across different periods are not comparable until they are adjusted for inflation.

Changes in accounting policies: If the company has changed its accounting policies and procedures, this may significantly affect financial reporting.

Seasonal effects: An analyst should be aware of seasonal factors that could potentially result in limitations of ratio analysis. The inability to adjust the ratio analysis to the seasonality effects may lead to false interpretations of the results from the analysis.
### EVALUATION INSTRUCTIONS

The participants are to be evaluated on their ability to perform the specific performance indicators stated on the cover sheet of this event and restated on the Judge’s Evaluation Form. Although you may see other performance indicators demonstrated by the participants, those listed in the Performance Indicators section are the critical ones you are measuring for this particular event.

### Evaluation Form Interpretation

The evaluation levels listed below and the evaluation rating procedures should be discussed thoroughly with your event director and the other judges to ensure complete and common understanding for judging consistency.

<table>
<thead>
<tr>
<th>Level of Evaluation</th>
<th>Interpretation Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceeds Expectations</td>
<td>Participant demonstrated the performance indicator in an extremely professional manner; greatly exceeds business standards; would rank in the top 10% of business personnel performing this performance indicator.</td>
</tr>
<tr>
<td>Meets Expectations</td>
<td>Participant demonstrated the performance indicator in an acceptable and effective manner; meets at least minimal business standards; there would be no need for additional formalized training at this time; would rank in the 70-89th percentile of business personnel performing this performance indicator.</td>
</tr>
<tr>
<td>Below Expectations</td>
<td>Participant demonstrated the performance indicator with limited effectiveness; performance generally fell below minimal business standards; additional training would be required to improve knowledge, attitude and/or skills; would rank in the 50-69th percentile of business personnel performing this performance indicator.</td>
</tr>
<tr>
<td>Little/No Value</td>
<td>Participant demonstrated the performance indicator with little or no effectiveness; a great deal of formal training would be needed immediately; perhaps this person should seek other employment; would rank in the 0-49th percentile of business personnel performing this performance indicator.</td>
</tr>
</tbody>
</table>
## JUDGE’S EVALUATION FORM

**Association Event 1**

**INSTRUCTIONAL AREA**

Financial Analysis

Did the participant:  

<table>
<thead>
<tr>
<th>PERFORMANCE INDICATORS</th>
<th>Little/No Value</th>
<th>Below Expectations</th>
<th>Meets Expectations</th>
<th>Exceeds Expectations</th>
<th>Judged Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explain valuation models used in finance?</td>
<td>0-1-2-3</td>
<td>4-5-6-7-8</td>
<td>9-10-11-12</td>
<td>13-14-15</td>
<td></td>
</tr>
<tr>
<td>2. Describe the financial needs of a business at different stages of its development?</td>
<td>0-1-2-3</td>
<td>4-5-6-7-8</td>
<td>9-10-11-12</td>
<td>13-14-15</td>
<td></td>
</tr>
<tr>
<td>3. Calculate stock-related values?</td>
<td>0-1-2-3</td>
<td>4-5-6-7-8</td>
<td>9-10-11-12</td>
<td>13-14-15</td>
<td></td>
</tr>
<tr>
<td>4. Describe types of financial statement analysis?</td>
<td>0-1-2-3</td>
<td>4-5-6-7-8</td>
<td>9-10-11-12</td>
<td>13-14-15</td>
<td></td>
</tr>
<tr>
<td>5. Discuss limitations of using financial statements to assess business performance?</td>
<td>0-1-2-3</td>
<td>4-5-6-7-8</td>
<td>9-10-11-12</td>
<td>13-14-15</td>
<td></td>
</tr>
</tbody>
</table>

| PRESENTATION                                                                           |                 |                    |                    |                      |              |
| 6. Demonstrate clarity of expression?                                                   | 0-1             | 2-3                | 4                  | 5                     |              |
| 7. Organize ideas?                                                                     | 0-1             | 2-3                | 4                  | 5                     |              |
| 8. Show evidence of mature judgment?                                                    | 0-1             | 2-3                | 4                  | 5                     |              |
| 9. Overall performance: appropriate appearance, poise, confidence, presentation, technique and response to judge’s questions | 0-1-2 | 3-4-5 | 6-7-8 | 9-10 |              |

**TOTAL SCORE**