

**Piper Duke, Joshua McCarroll, Reshma Sawant, Shikhar Shrestha**

**Financial Statement Analysis Project Phase 3**

**Part I: Introduction**

Hershey is a major player in the U.S. confectionery industry, with a diverse portfolio that includes candy bars, cereals, and even protein-based snacks. As a market leader, Hershey commands over one-third of the U.S. chocolate market, accounting for 11.2 billion dollars in 2024 sales, and is widely recognized through flagship brands like Hershey's and Reese's. Its products are readily available in major retailers, convenience stores, and gas stations across the country, making it a household name. While the industry is highly competitive, Hershey's strong brand presence and broad product offerings position it well to meet evolving consumer tastes.

**SWOT Analysis**

Strengths:

Brand Recognition – Iconic names like Hershey's and Reese's offer a competitive edge in consumer loyalty and awareness.

Product Diversity – A wide product mix, from indulgent sweets to protein snacks, allows Hershey to cater to different consumer segments.

Market Leadership – With control over more than a third of the U.S. chocolate market, Hershey has significant influence and distribution power.

Weaknesses:

Supply Chain Dependence – Reliance on West African cocoa (accounts for 70% of the World's supply) creates vulnerability to supply disruptions or climate-related issues.

Domestic Market Focus – Heavy dependence on U.S. sales (only 12.8% of sales was done outside of the US) limits global growth potential and increases risk if domestic demand shifts.

Raw Material Sensitivity – Though costs can be passed to suppliers, rising sugar and cocoa prices can still impact margins.

Opportunities:

Global Expansion – Untapped markets in Asia-Pacific and South America offer room for substantial growth.

Health-Oriented Products – Increasing demand for better-for-you snacks like protein bars aligns well with evolving consumer habits.

Digital Marketing & social media – Brand engagement could quickly increase, younger generations could be converted to customers

Threats:

Intense Competition – The confectionery space is crowded with strong rivals like Nestle and Cadbury engaging in aggressive pricing and promotions.

Negative Publicity – Brand image could be harmed by controversies, especially related to sourcing and health concerns.

Climate Change – Environmental issues threaten cocoa supply and create long-term operational risks.

**Part II: Analysis of Financial Performance**

Overall, Hershey has demonstrated solid financial performance consistently having a disaggregated return on equity (ROE) of over 50% and a stable return on equity. This indicates that Hershey adequately uses its equity to make a profit each year.

To better understand the drivers of Hershey's performance, we can look at revenue growth and profitability metrics including an increase in NOPM, an increase in RNOA, and a flexible FLEV ratio. Hershey's NOPM has steadily increased year over year, indicating pricing strength as well as appropriate cost management, turning sales into profit. RNOA has also increased over the past three years to 29.05, indicating that there has been an improvement in the ability to generate operational returns. When looking at the decreasing FLEV (from 1.63 to 1), we understand that Hershey is using less financial leverage to fund their operating costs, essentially lowering their financial risk.

The implications of capital structure for shareholder returns are seen when looking at FLEV. The concern would be financing with additional risk, which shareholders may not like. Ultimately, a decreasing ROE for Hershey's is not concerning when it reflects their motivation to decrease financial risk (FLEV) while maintaining strong operational performance.

When compared to Mondelez, Hershey's lack of volatility in their ratios shows steady growth, strength in the company's operations, and lower risk involved with investing. Hershey outperforms Mondelez with significantly higher ROE, RNOA, and margins. Mondelez saw decreases in their ROE (from 17.97% to 16.71%) and increased their leverage (from .46 to .50). While both have shown revenue growth, Hershey's strong financial indicators provide a positive investment for shareholders.

As the confectionary industry increases in popularity and performance, we can estimate continuous growth for these companies. While loyalty to certain confectionary products is a driver of high performance, innovation is also at the forefront of operations. From this analysis, we see Hershey's as a popular, continuous leader in this industry with no indication of faltering.

**Part III: Forecasts**

As we look to forecast HSY's balances and WACC, we first need to make assumptions about HSY's future growth:

**Assumption 1: Sales Growth Rate = 2.00%**

At first, we used this calculation for the sales growth rate,  $\text{Sales Growth Rate} = (\text{2024 Net Sales} - \text{2023 Net Sales}) / \text{2023 Net Sales} * 100 = 0.33\%$ . However, when looking historically, Hershey's has had a much higher growth rate in previous years. This led us to review [Hershey's 2024 fiscal year financial results](#). Based on HSY's guidance, we are using 2.00% as the net sales growth rate for the forecasted horizon period (2025-2029) and we are assuming 1.00% as the base growth rate for the terminal period. We assume these rates are maintained during the forecast period due to the mature nature of the business and consistent performance.

2025 Full-Year Outlook	Total Company
Net sales growth <sup>4</sup>	At least 2%
Reported earnings per share growth	Down high-40% range
Adjusted earnings per share growth	Down mid-30% range

<sup>4</sup> The impact of the Sour Strips acquisition is anticipated to be an approximate 30 basis point benefit to net sales growth for the full-year 2025. Additionally, the impact of foreign currency exchange rates is anticipated to be an approximate 30 basis point headwind to net sales growth for the full-year 2025.

Source: Q4 2024 Hershey Financial Results ([Hershey Reports Fourth-Quarter and Full-Year 2024 Financial Results; Provides 2025 Outlook](#) )

To determine NOPM and NOAT, we are using current (2024) financial statement ratios and multiplying by forecasted sales for the horizon and terminal period. For example, to forecast Balance Sheet, we use  $\text{2024 Cash \& cash equivalents Ratio} = \text{2024 Cash \& cash equivalents} / \text{2024 Sales} = 6.52\%$  and so on. Similarly, to forecast Income Statement, we use  $\text{2024 Cost of Sales Ratio} = \text{2024 Net Sales} / \text{2024 Cost of Sales} = 52.68\%$  and so on.

Then, we use the 2024 ratios as base ratios to determine horizon period (2025-2029) and terminal period sales growth, NOPM, and NOAT. That is,  $\text{2025 Cash \& cash equivalents} = 6.52\% * 11,426,308$  (2025 forecasted sales) = 733,157 and so on. Since ratios are held constant as a percentage of sales, NOPM and NOAT remain unchanged during the forecast horizon and terminal period. Below you can find our values when calculating NOPM and NOAT, as well as NOPAT and NOA to use for our ROPI calculation.

	2024	2025	2026	2027	2028	2029	Terminal
Alternative Interpretation of Interest and Other Income							
Sales	11,202,263	11,426,308	11,654,834	11,887,931	12,125,690	12,368,204	12,491,886
NOPAT	2,610,747	2,662,962	2,716,222	2,770,546	2,825,957	2,882,476	2,911,301
Avg SE	4,406,870	4,761,801	4,857,037	4,954,177	5,053,261	5,154,326	5,231,386
NI	2,221,239	2,265,664	2,310,977	2,357,197	2,404,341	2,452,427	2,476,952

	2024	2025	2026	2027	2028	2029	Terminal
NOPAT	2,556,433	2,607,561	2,659,713	2,712,907	2,767,165	2,822,508	2,850,734
NOA	9,086,059	9,267,780	9,453,136	9,642,198	9,835,042	10,031,743	10,132,061
NOPM	22.82%	22.82%	22.82%	22.82%	22.82%	22.82%	22.82%
NOAT	1.27	1.25	1.25	1.25	1.25	1.25	1.24

**Assumption 2: WACC = 5.61%**

Hershey's WACC is the average rate of return a Hershey's earns on its existing assets to satisfy its shareholders, creditors, and other capital providers.

After using Hershey's 10 K and a few legitimate websites we calculated below values, and we have added **Golden Slide** in appendix for reference:

Moody's rating	A1	<a href="https://www.moodys.com/entity/369000/overview">https://www.moodys.com/entity/369000/overview</a>
Default spread	0.77	Got this from Golden slides from our finance class. Attached in Appendix.
Risk free rate	4.43%	<a href="#">10 Year Treasury Rate - Real-Time &amp; Historical Yield Trends</a>
Statutory Tax rate	21%	The corporate tax rate (Tc) used in WACC calculations in the US for 2025 is primarily influenced by the federal corporate income tax rate, which is a flat rate of 21%.
Beta	0.28	<a href="https://finance.yahoo.com/quote/HSY">https://finance.yahoo.com/quote/HSY</a>
Market Risk Premium (MRP)	5%	Assumption: Based on Finance class, we always assumed MRP to be 5%

**Hershey's Re, Rd and V calculations explained below:**

**1. Cost of Equity (Re):**

The return required by equity investors, often estimated using the Capital Asset Pricing Model (CAPM).

$$Re = R_f + \beta \times MRP$$

Where (Rf is the risk-free rate,  $\beta$  is the beta coefficient, and MRP is the Market Risk Premium.)

$$\underline{Re = 4.43\% + 0.28 \times 5\% = 5.83\%}$$

**2. Cost of Debt (Rd):**

The effective rate that a company pays on its borrowed funds.

We have used the debt rating of Hershey's to determine its cost of debt by using below Formula:

$$R_D = R_f + \text{Default Spread determined by company's debt rating}$$

$$\underline{R_d = 4.43\% + 0.77 = 5.20\%}$$

### 3. Proportion of Equity and Debt:

The weights of equity (E) and debt (D) in the company's capital structure.

$$\text{Total Value (V)} = \text{Equity (E)} + \text{Debt(D)}$$

$$\underline{V = \$5,102,151,000 + \$34,253,559,200 = \$39,355,710,200}$$

$$\underline{D/V = \$34,253,559,200 / \$39,355,710,200 = 12.96\%}$$

$$\underline{E/V = \$5,102,151,000 / \$39,355,710,200 = 87.04\%}$$

The values of E and D were obtained from Hershey's 2024 Balance Sheet. The Calculation is displayed with the screenshot below.

By using all the above values and we got our Calculation for WACC as below:

$$\text{WACC} = (E/V) * R_e + (D/V) * R_d * (1 - T_c)$$

$$\text{WACC} = 87.04\% * 5.83\% + 12.96\% * 5.20\% * (1 - 21\%)$$

$$\text{WACC} = 5.61\%$$

#### Assumption 3: Statutory Tax Rate = 21%

We are using the statutory tax rate of 21% for our forecast. Although companies such as Hershey's search for tax credits to utilize, we decided to continue using this statutory rate to eliminate any fluctuations in the tax credits and have a bearish outlook on our forecast.

#### Other Assumptions:

- We are using Alternative Interpretation data from BS and IS to calculate ROPI
- Market risk premium (WACC calculation) = 5%
- We assume that other nonoperating items may recur (normalized as a percentage of sales)
- As mentioned before, we utilized 2024 financial statement ratios to forecast the balance sheet and income statement (Appendix 2 and 3)

### Part IV: Valuation and Recommendation:

#### Primary Estimate – ROPI Model

Using the ROPI model below, we were able to estimate Hershey's stock value.

Period	Reported	1	2	3	4	5	
	2024	2025	2026	2027	2028	2029	Terminal
Sales	\$ 11,202,263	\$ 11,426,308	\$ 11,654,834	\$ 11,887,931	\$ 12,125,690	\$ 12,368,204	\$ 12,491,886
NOPAT	\$ 2,610,747	\$ 2,662,962	\$ 2,716,222	\$ 2,770,546	\$ 2,825,957	\$ 2,882,476	\$ 2,911,301
NOA	\$ 9,086,059	\$ 9,267,780	\$ 9,453,136	\$ 9,642,198	\$ 9,835,042	\$ 10,031,743	\$ 10,132,061
ROPI		\$ 2,153,234	\$ 2,196,299	\$ 2,240,225	\$ 2,285,030	\$ 2,330,730	\$ 2,348,520
Discount Value		0.95	0.90	0.85	0.80	0.76	
Present Value		\$ 2,038,855	\$ 1,969,162	\$ 1,901,851	\$ 1,836,841	\$ 1,774,054	
Cum present value of horizon ROPI	\$ 9,520,763						
Present Value of Terminal ROPI	\$ 46,887,473						
NOA 2024	\$ 9,086,059						
Total Firm Value	\$ 65,494,295						
Less NNO 2024	\$ 4,371,405						
Less Preferred Stock	0						
Less Noncontrolling Interest	0						
Firm Equity Value (in thousands)	\$ 61,122,890						
Firm Equity Value	\$ 61,122,890,000	millions					
Shares O/S March 26, 2025	202,960,000	millions					
Stock Value Per Share	\$ 301.16						

**Estimate the per share value of HSY's stock as of March 26, 2025**  
We are using Alternative Interpretation data from BS and IS to calculate ROPI. All numbers are IN THOUSANDS except Shares O/S and Firm Equity Value.

WACC = 5.61%  
Growth Rate = 2%  
Terminal Growth Rate = 1%

The estimated per share value of HSY's stock as of March 26, 2025, using our residual operating income (ROPI) model, is \$301.16.

### Sensitivity Analysis

Sensitivity Analysis with an **upper and lower range (assumptions)** for the estimate of the per share value of HSY's stock as of March 26, 2025:

	Base Value	Lower	Upper
<b>Sales Growth</b>	2.00%	1.00%	3.00%
<b>WACC</b>	5.61%	4.61%	6.61%
<b>Terminal Growth</b>	1.00%	0.50%	1.50%
<b>Stock Price</b>	\$ 301.16	\$ 313.33	\$ 289.18

If we compare the actual closing stock price of HSY on March 26, 2025, \$168.52 (Yahoo Finance) to our ROPI estimation, \$301.16, we can see that Hershey's stock is significantly undervalued. Even through sensitivity analysis, we can see that Hershey's stock is significantly undervalued. Thus, based on this analysis we suggest **BUY** the stock at a lower price to benefit from when the stock price increases.

### Issue That Caused Concern

One incentive issue our group found that warranted consideration was although HSY experienced numerous operational challenges such as rising cocoa costs and commodity inflation, and several categories signaling volume softness, Executives such as CEO Michel Buck saw their pay increase. This was due to a number of executive incentives being tied to free cash flow. As such, short-term financial goals were targeted over long-term shareholder value. To investigate this issue our group will focus on the Pay vs. Performance disclosure, specifically scrutinizing the metrics related to executive compensation and equity grants, to determine if those metrics aligned appropriately with returning shareholder value and brand strength in the long term.

**Appendix:**

1. See attached spreadsheet
2. 2024 Income Statement Ratios

<b>Income Statement 2024 Ratios</b>	
Cost of sales	52.68%
Selling, marketing & administrative expense	21.19%
Business realignment costs	0.26%
Interest income (expense), net	-1.48%
Other income (expense), net	-2.31%
Provision (benefit) for income taxes	2.26%

3. 2024 Balance Sheet Ratios

<b>Balance Sheet 2024 Ratios</b>	
Cash & cash equivalents	6.52%
Accounts receivable - trade, net	7.15%
Inventories	11.20%
Prepaid expenses & other current assets	8.70%
<b>Total current assets</b>	
Property, plant & equipment, net	30.88%
Goodwill	24.15%
Other intangibles	16.73%
Other non-current assets	9.93%
Deferred income taxes	0.33%
<b>Total assets</b>	
Accounts payable	10.35%
Accrued liabilities	7.21%
Accrued income taxes	0.46%
Short-term debt	11.67%
Current portion of long-term debt	5.40%
<b>Total current liabilities</b>	
Long-term debt	28.48%
Other long-term liabilities	6.14%
Deferred income taxes	3.79%
<b>Total liabilities</b>	
Common stock	
Class B common stock	
Additional paid-in capital	12.29%
Retained earnings (accumulated deficit)	50.87%
Treasury - common stock shares, at cost	-20.34%
Accumulated other comprehensive income	-2.71%
<b>Total - The Hershey Company stockholders' equity</b>	
Noncontrolling interest in subsidiary	0.00%
<b>Total stockholders' equity</b>	

4. **Total stockholders' equity**
5. Golden Slide:

**Default spreads\* (10-year corporate bonds) for US companies, 2025**

Rating is	Spread 2025
AAA	0.45%
AA+	0.52%
AA	0.60%
AA-	0.70%
<b>A+</b>	<b>0.77%</b>
A	0.85%
A-	0.95%
BBB+	1.06%
BBB	1.20%
BBB-	1.40%
BB+	1.55%
BB	1.83%
BB-	2.22%
B+	2.61%
B	3.00%
B-	4.42%
CCC+	5.84%
CCC	7.28%
CCC-	8.68%
CC+	9.50%
CC	10.10%
CC-	12.00%
C+	14.00%
C	15.50%
C-	17.00%
D	19.00%

\* Default spread = "typical bond yield" minus yield on T-bond of the same maturity

Source: damodaran.com 1

### 5. WACC calculation

Below is the estimate of Hershey Company's (HSY) weighted average cost of capital (WACC),

Measure	Value	Reference
Moody's rating	A1	<a href="https://www.moodys.com/entity/369000/overview">https://www.moodys.com/entity/369000/overview</a>
Default spread	0.77	Got this from Golden slides from our finance class
Risk free rate	4.43%	<a href="#">10 Year Treasury Rate - Real-Time &amp; Historical Yield Trends</a>
Statutory Tax rate	21%	The corporate tax rate (Tc) used in WACC calculations in the US for 2025 is primarily influenced by the federal corporate income tax rate, which is a flat rate of 21%.
Beta	0.28	<a href="https://finance.yahoo.com/quote/HSY">https://finance.yahoo.com/quote/HSY</a>
Market Risk Premium(MRP)	5%	Assumption: Based on Finance class, we always assumed MRP to be 5%
Return on Equity (Re)	5.83%	Cost of equity (Re)= Risk free rate+beta*Market risk premium
Return on Debt(Rd)	5.20%	Cost of Debt = Default Spread +Risk free rate
<b>Equity Calculation</b>		
	2024	
Basic Shares Outstanding	202960000	<a href="#">HSY   Hershey Co. Annual Income Statement   MarketWatch</a>
Share price	168.77	<a href="https://finance.yahoo.com/quote/HSY/history">https://finance.yahoo.com/quote/HSY/history</a> / <a href="https://finance.yahoo.com/quote/HSY/history">https://finance.yahoo.com/quote/HSY/history</a> (Share Price as of Dec 31 2024).
Total E	34253559200	Equity= (Basic Shares Outstanding*Share price)
<b>2024 WACC Calculation</b>		
	2024	
D	\$5,102,151,000.00	Debt (Got These Values from Hershey's 2024 Balance Sheet) = LT Debt Notes Payable/ST Debt Current Portion Of LT Debt
E	\$34,253,559,200.00	Equity= (Basic Shares Outstanding*Share price)
V	\$39,355,710,200.00	V= D+ E
D/V	12.96%	
E/V	87.04%	
Rd	5.20%	
Re	5.83%	
Tc	21%	
WACC	5.61%	WACC Formula: $(E/V)*Re+(D/V)*Rd*(1-Tc)$

**Below is the estimate of Hershey Company's (HSY) weighted average cost of capital (WACC),**

Measure	Value	Reference
Moody's rating	A1	<a href="https://www.moodyys.com/entity/369000/overview">https://www.moodyys.com/entity/369000/overview</a>
Default spread	0.77	Got this from Golden slides from our finance class
Risk free rate	4.43%	10 Year Treasury Rate - Real-Time & Historical Yield Trends
Statutory Tax rate	21%	The corporate tax rate (Tc) used in WACC calculations in the US for 2025 is primarily influenced by the federal corporate income tax rate, which is a flat rate of 21%.
Beta	0.28	<a href="https://finance.yahoo.com/quote/HSY">https://finance.yahoo.com/quote/HSY</a>
Market Risk Premium(MRP)	5%	Assumption: Based on Finance class, we always assumed MRP to be 5%
Return on Equity (Re)	5.83%	Cost of equity (Re)= Risk free rate+beta*Market risk premium
Return on Debt(Rd)	5.20%	Cost of Debt = Default Spread +Risk free rate
<b>Equity Calculation 2024</b>		
Basic Shares Outstanding	202960000	<a href="https://finance.yahoo.com/quote/HSY/history">HSY   Hershey Co. Annual Income Statement   MarketWatch</a>
Share price	168.77	<a href="https://finance.yahoo.com/quote/HSY/history">https://finance.yahoo.com/quote/HSY/history</a> <a href="https://finance.yahoo.com/quote/HSY/history">https://finance.yahoo.com/quote/HSY/history</a> (Share Price as of Dec 31 2024).
Total E	34253559200	Equity= (Basic Shares Outstanding*Share price)
<b>2024 WACC Calculation</b>		
<b>WACC 2024</b>		
D	\$5,102,151,000.00	Debt (Got These Values from Hershey's 2024 Balance Sheet) = LT Debt Notes Payable/ST Debt Current Portion Of LT Debt
E	\$34,253,559,200.00	Equity= (Basic Shares Outstanding*Share price)
V	\$39,355,710,200.00	V= D+ E
D/V	12.96%	
E/V	87.04%	
Rd	5.20%	
Re	5.83%	
Tc	21%	
<b>WACC Formula:</b>		
WACC	5.61%	$(E/V)*Re+(D/V)*Rd*(1-Tc)$