SocioEconomic Challenges, Volume 6, Issue 1, 2022
ISSN (print) – 2520-6621, ISSN (online) – 2520-6214

# Looking a Gift Horse in the Mouth: A Reassessment of the Impact of the Hershey Trust

https://doi.org/10.21272/sec.6(1).87-99.

**Masaaki Yoshimori, ORCID ID:** https://orcid.org/0000-0002-1839-5448

Mendoza College of Business, University of Notre Dame, Notre Dame, IN, USA

**Abstract**

This paper summarizes arguments and counterarguments driving academic discussion about the Milton Hershey School (MHS) and the Hershey Company's control mechanism, enacted by the Hershey Trust (HT). It then studies the Hershey Trust's governance with respect to ethics, budget sources, and management, focusing on how the Hershey Company exercises corporate control over MHS.

My main tool of analysis is an event study, which estimates a particularly abnormal response of the Hershey Company's stock price to potentially disruptive developments. Empirical results indicate that the Hershey Company has not been greatly influenced by the Hershey Trust. Abnormal return of the Hershey Company's stock price is skewed, and it has an asymmetric probability distribution after June 2016. However, the Hershey Trust continues to indirectly manage and control the Hershey Company.

The Hershey Trust, accordingly, is a *de facto* "industrial foundation." Thus, charitable trustees of the Hershey Trust affect the Hershey Company's stock price and management. The HT and the MHS had mistaken a governance because the diversification lies with beneficiations of the trust per se, not shareholders of the Hershey Company. The HT and MHS should end their puppet dominance of the Hershey Company because the HT's and MHS's future 501(c)(3) status will be jeopardized.

Overall, this paper presents analysis and empirical results, aimed at building a more charitable organization. The audience for this paper includes policymakers, regulators, and academics.

**Keywords:** Non-For-Profitable (NFP) Governance and Ethic, Cy press, NFP Accounting, Event Study.

**JEL Classification:** L310, K20, M4, C1.

**Cite as:** Yoshimori, M. (2022). Looking a Gift Horse in the Mouth: A Reassessment of the Impact of the Hershey Trust. *SocioEconomic Challenges*, *6*(1), 87-99. https://doi.org/10.21272/sec.6(1).87-99.

**Received:** 20.01.2022 **Accepted:** 11.03.2022 **Published:** 29.03.2022

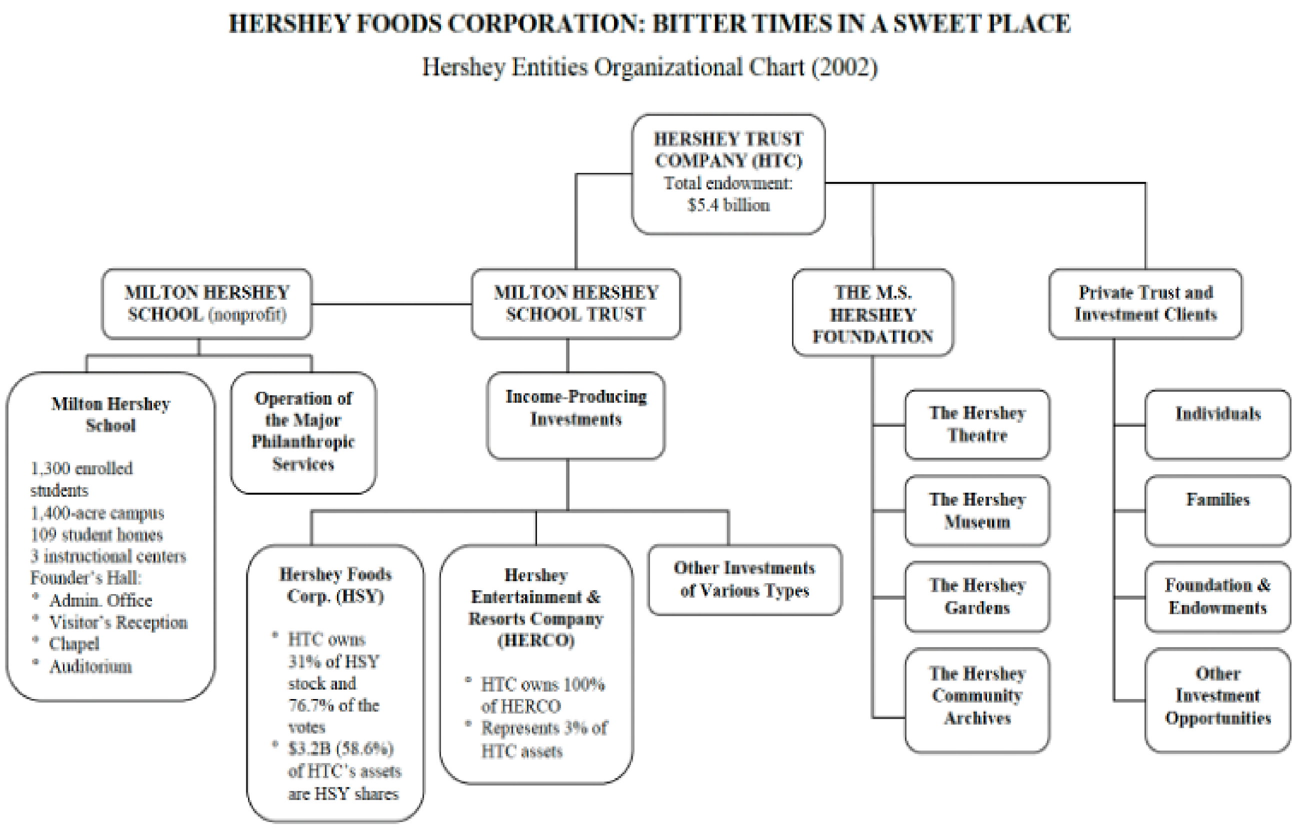


## 1. Introduction

*"All you need is love. But a little chocolate now and then doesn't hurt." – Charles M. Schulz*

The Hershey Company is the legacy of Milton Hershey, of Pennsylvania Dutch origin. Apprenticed in 1872 at age 15 to a candy maker, Hershey started Lancaster Caramel Company at age 30. He saw a new chocolate-making machine at the Chicago Exposition in 1893. In Lancaster, Pennsylvania, Hershey established the Hershey Chocolate Company, which produced a bar of sweet chocolate. Today, Americans are familiar with Hershey's Milk Chocolate, Kisses, and other candy products. To start a chocolate factory, Milton Hershey sold the caramel operations for $1 million in 1900 (about $33 million in 2022 US dollars). The factory was completed in Derry Church, Pennsylvania, in 1905. The company was renamed Hershey Foods the following year. Chocolate Kisses, individually hand-wrapped in silver foil, were introduced in 1907. The company's principal products include chocolate and sugar confectionery products; gum and mint refreshment products; and pantry items, such as baking ingredients, toppings, and beverages. Hershey's North America segment accounts for some 90% of revenue (mainly from the US), and it caters to the traditional chocolate and non-chocolate confectionery market and grocery and growing snacks markets in the US and Canada. International and Other (about 10% of revenue) includes operations in China, Mexico, Brazil, India, and Malaysia, primarily for consumers in these regions.

In 1909, Milton and Catherine Hershey established the Milton Hershey School (MHS) to educate poor male orphans. To support the school, they created the charitable Hershey Trust, a not-for-profit organization (NFP). The trust was governed by nine trustees, who oversaw the school's management. Three years after Catherine died in 1918, Milton Hershey transferred the bulk of his assets, including his stock, to the Hershey Trust. At the time, it was worth $60 million (about $930 million in 2022 US dollars). The Hershey Trust, a state-chartered trust company, was founded in this way. The Hershey Trust, NFP, consists of the Hershey Cemetery Trust, the Milton Hershey School Trust, and the M.S. Hershey Foundation Trust (Fig. 1).




Source: Hershey Foods Corporation: Bitter Times in a Sweet Place by Carr, S., Rodriguez, G., Eades, K., Muscarella, C., and Weaver, S, (2008).

**Figure 1. Milton Hershey School Trust, The M.S. Hershey Foundation Trust, and the Hershey Cemetery Trust**

Today, MHS enrols a diverse student body of about 2,000 low-income men and women students on a residential campus. According to the school's homepage, the college participation rates for low-income students are 33% nationally and 40% in Pennsylvania. In comparison, 88% of MHS graduates attend college. Nationally, six-year college completion rates for low-income and first-generation college students are 26% percent; MHS graduates complete college at twice that rate.

MHS continues to expand its activities. For example, MHS started to provide career development for middle-school students. High-school students benefit from college-level courses and credits, a robust career program, a technical-education program, internships, co-ops, pre-apprenticeships, career fairs, and industry certifications. Additionally, MHS and the Hershey Trust received approval from the Orphans' Court Division of the Dauphin County Court of Common Pleas to advance a holistic early childhood education initiative[3].

MHS offers all students the opportunity to accrue up to $95,000 in scholarship[4]. MHS covers 100% of the cost of medical, dental, and psychological care; housing, clothing, and food; extracurricular activities; and social and emotional learning. Currently, MHS spends about $139,000 per child each year in total costs, including a $95,000 scholarship.

How did MHS build its financial sources? According to Hoffman (2017), MHS began with a $60 million endowment in 1918. This had grown to $5.4 billion by 2002. The endowment became the 6th-largest school endowment by selling the Hershey Company's stock. By 2016, the endowment was valued at more than $12 billion. The endowment reached more than $17 billion in 2020[5] (Fig.2). Despite solid economic performance, critics worry about a lack of diversification.

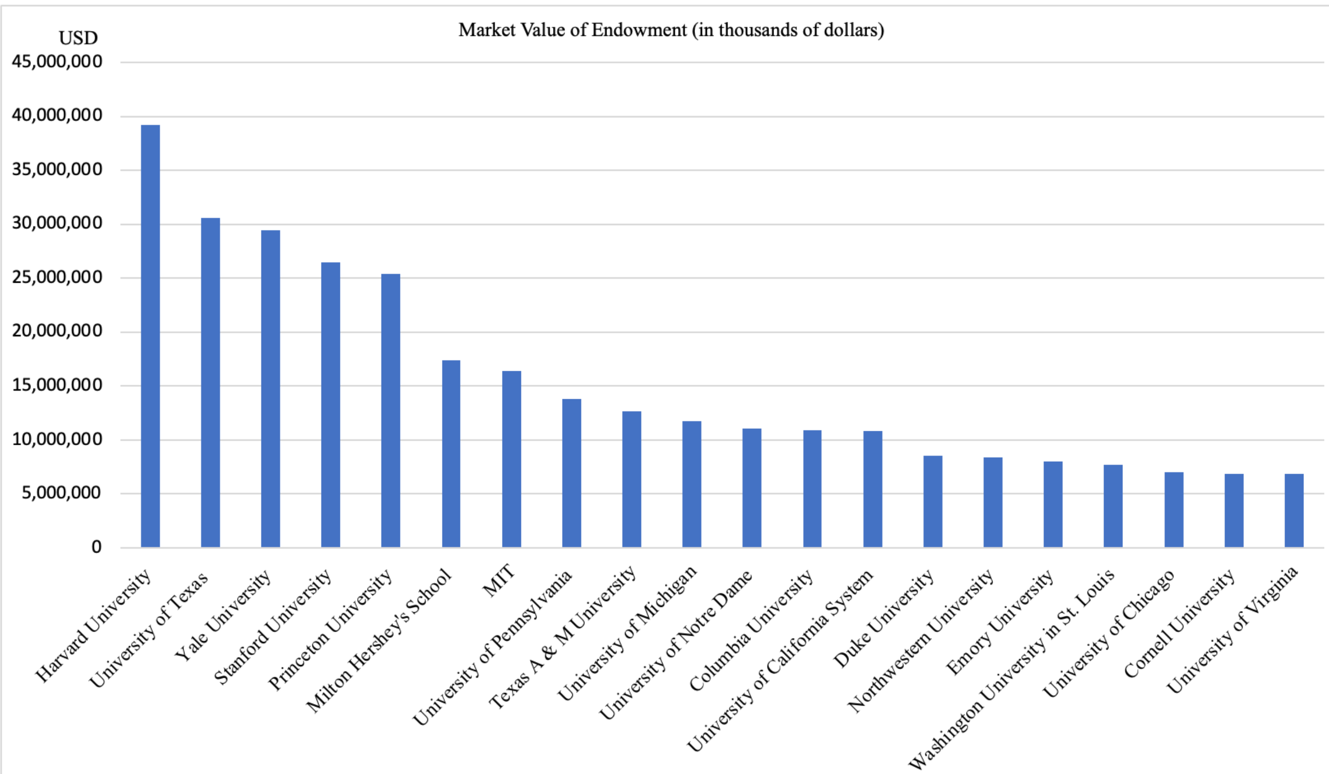



**Figure 2. Market Value of Endowment**

Sources: Milton Hershey's School's Form 990 (Appendix A) and National Center for Education Statistics: https://nces.ed.gov/fastfacts/display.asp?id=73.

[3] Hershey Trust (2020) "Court Approval Allows Milton Hershey School, Hershey Trust Company to Serve Even More Children from Economically Disadvantaged and At-Risk Backgrounds with $350 Million Investment." https://www.hersheytrust.com/press-releases/ECE_Initiative_ Hearing Communication_102320.pdf

[4] Most scholarship programs only support students who fall within the top 10% of their class in the US.

[5] US tax-exempt charitable organizations hold roughly $2 trillion in assets, and their assets are growing, like those of the Hershey Trust and MHS.

To ensure the financial soundness of MHS, charitable trustees in the Hershey Trust have long rejected the sale of the Hershey Company stock. On July 25, 2002, the Wall Street Journal (WSJ) reported news of the trustees' plan to sell the Hershey Trust's controlling interest in the Hershey Company. On June 30, 2016, the New York Times (NYT) reported that the Hershey Company had rebuffed a $23 billion offer from Mondelez International, whose company produces Oreo cookies and Cadbury chocolate. In both cases, these charitable trustees effectively controlled and managed the Hershey Company because Hershey Company's revenue directly affected the Hershey Trust Company's budget[6]. Furthermore, a voting agreement with the Trust's top management position and a pyramid structure enabled Hershey's families to engage in control of the Hershey Company. As a result, the rights of public shareholders in Hershey Company were limited by these governance provisions. The Hershey Trust, therefore, is a *de facto* "industrial foundation."

Using the event-study method, one can identify movements in Hershey's stock price after controlling for movements in a baseline (I use the S&P 500). Focusing on Hershey's stock price movement in 2002, news of the Hershey Trust control to the Hershey Company, Klick and Sitkoff (2008) found that news of the proposed stock sale was associated with a statistically and economically significant increase in the Company's value (in event study jargon, a "positive abnormal return") of over 25 percent. News of the sale's cancellation was associated with an economically and statistically significant decrease in the Company's value (a "negative abnormal return") of nearly 12 percent from this higher price. The magnitude of these abnormal returns is remarkable: "positive abnormal returns of even 1 percent are considerable for competitive capital markets. Blocking the sale destroyed roughly $2.7 billion in shareholder value." Abnormal return on the Hershey Company's stock price did not show a skew, asymmetry in its probability distribution. Klick and Sitkoff concluded that the Hershey Trust creates an agency cost, which is an internal cost incurred due to the competing interests of shareholders (principals) and the management team, that leads to inefficient management of the Hershey Company. On the other hand, abnormal returns on The Hershey Company's stock price have a negative skew after June 2016. This suggests that, after Mondelez's buyout offer in 2016[7], the Hershey Company did not have such significant agency costs. One can ask whether the Hershey Trust's governance with their dominated management system affects the Hershey Company's stock price.

There are agency problems in the behaviour of Hershey Corporation stock. The voting rights distribution is clear to all outside stockholders, and the expected self-interested influence of Hershey's management on trustee votes influenced, influences, and will influence the Hershey Trust's earnings and the Corporation's price negatively. Hershey Corporation's stock should still be priced fairly by the stock market over time. Outside shareholders are not harmed *ex ante*, but they could earn positive abnormal returns if they could eliminate the trust. It is the Hershey Trust that destroys value. The problem is that the trust is under-diversified by construction. This lack of diversification is known by all and confirmed indirectly by the surge in price and subsequent fallback in the merger-offer events studied below. Replacing Trust beneficiaries with outside shareholders would eliminate under-diversification in the shareholder universe.

The remainder of the paper is organized as follows. Section 2 describes the data collection. Section 3 explains the methods. Section 4 outlines the results. Section 5 discusses the findings. The last section contains concluding remarks.

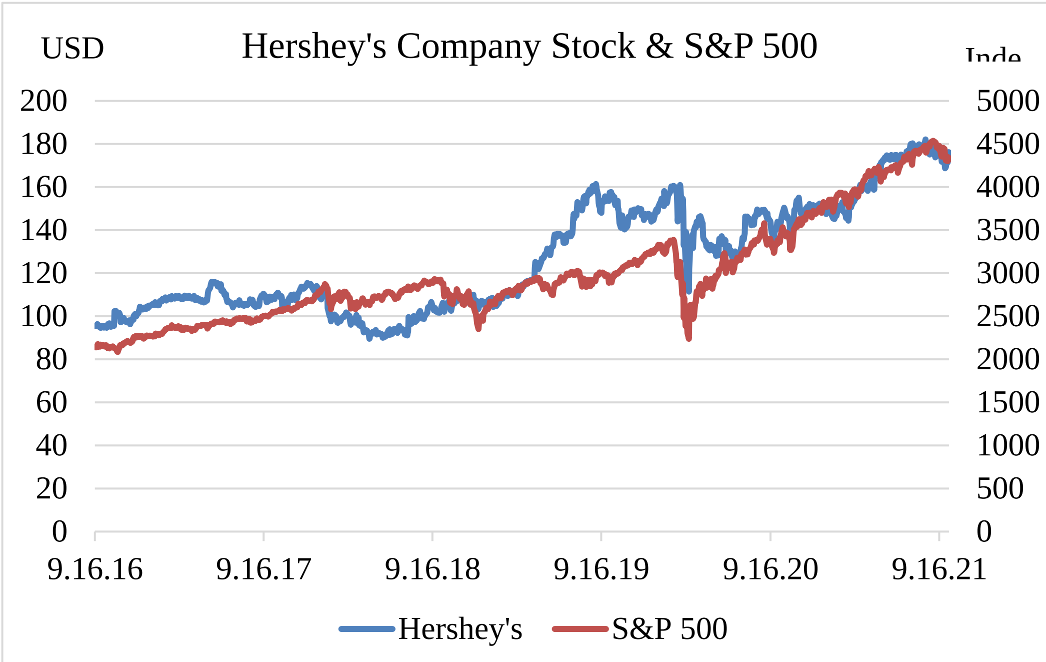
## 2. Data Collection and Hershey's Stock Performance

### 2.1 Data Collection

This empirical study analyzes the daily time series of closing-price data for the Hershey Company's stock (ticker symbol HSY, on the New York Stock Exchange). The Standard and Poor's 500 (S&P 500) index is used to establish a baseline model for Hershey stock. Data are obtained from Bloomberg (Fig.2). Hershey's stock is

[6] The ups and downs of the Hershey Company's stock price affects its dividend.
[7] The Hershey Co. board rejected Deerfield-based Mondelez International Inc.'s $23 billion bid Thursday to put together the biggest candy maker in the world by buying the ailing chocolate company. https://www.chicagotribune.com/business/ct-hershey-trust-mondelez-deal-20160701-story.html.

included in a variety of market indexes such as the S&P 500 and the Dow Jones Industrial Average (DJIA). The data sample is the 5 years between September 16, 2016, and October 6, 2021, after the Hershey Company's board rejected Deerfield-based Mondelez International's merger proposal.




Source: Bloomberg.

**Figure 3. Hershey Company's Stock and S&P 500**

### 2.2 Financial Performance

Hershey's sales have grown for the last five years, adding $710 million in net revenue from 2016 to 2020. The company recorded steady net income during this period. Net sales increased 2% year-over-year in 2020 to about $8.1 billion. This reflects a favorable price realization of 2.3% due to higher prices and a 0.5% benefit from net acquisitions and divestitures: Krave, the Scharffen Berger, and Dagoba brands. COVID-19 decreased sales in international markets by 0.3%. The EPS-diluted, a performance metric used to assess a company's earnings per share (EPS)[8], increased by $0.65 from 2016 to 2020.

## 3. Methodology

During the buy-or-sell window, HSY and the S&P 500 give a market a pause in attribution. To untangle the effect of general market trends from sell- or buy-related news, it is essential to net out market-related variations in the Hershey Company's stock price.

The idea of the event study was published firstly by Dolley (1933). Campbell, Lo and MacKinlay (1997) states the stock price impact against emerging announcements (*e.g.*, a merger such as Modelez's buyout offer). The purpose of the event study is to measure the abnormal response of an asset price. The model assumes a stable linear relation between the market return and the security return. The abnormal return is the actual ex post return of the security over the event window minus the normal return of the firm over the event window. The normal return is defined as the expected return without conditioning on the event taking place.

To estimate the normal the Hershey Company's stock price, I use a standard market model (Yoshimori (2019)) where the stock price is related linearly to the S&P 500. Brown and Warner (1985) show 1) simple risk-

[8] Earnings per share (EPS) is a company's net profit divided by the number of outstanding common shares.

adjustment approaches perform well in conducting short-run event-window studies and 2) an effective way to detect abnormal performance.

The model for the Hershey Company's stock price can be expressed as

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \tag{1}$$

where $R_{it}$ , $R_{mt}$ represent the period $t$ price change for the Hershey Company's stock price and the S&P 500, respectively, and $\varepsilon_{it}$ is the residual term with $E(\varepsilon_{it}) = 0$ and $E(\varepsilon_{it}) = \sigma_\varepsilon^2$. The coefficients and are estimated by running an ordinary least-square regression over the estimation window.

My choice of estimation windows captures periods with events such as mergers and acquisitions (M&A), additional revenue, COVID-19, etc. As its name implies, the baseline model uses a larger window to estimate a model of the Hershey Company's stock price in the absence of the event. In this paper, the size of the event window varies. According to the market model (Eq. (3)), the Hershey Company's stock price results from the difference between the Hershey Company's stock price observed during the event period and the baseline model of the Hershey Company's stock price:

$$\widehat{AR_{\iota,t}} = R_{i,t} - E(\varepsilon_{i,t}) \tag{2}$$

where $\widehat{AR_{\iota,t}}$ and $E(\varepsilon_{i,t})$ represent the abnormal and expected stockholder return, respectively, over period $t$ for the exchange rate $i$.

The average abnormal return (AAR) for different measure of event periods:

$$AAR_t = \frac{1}{N}\sum_{i=1}^{N}\left|\widehat{AR_{\iota,t}}\right| \tag{3}$$

This assumes that the event is exogenous with respect to the change in the official exchange rate. An important characteristic of a successful event study is the ability to precisely identify the data of the event.

The testing procedure this study employs is a t-test:

$$\mathrm{t-test} = \frac{1}{N}\sum_{t=1}^{N}\left|\widehat{AR_{\iota,t}}\right| / |AR\_SD| \tag{4}$$

where number of days refers to the number of days in the event window, and AR_SD is the abnormal return standard deviation. The null hypothesis for this analysis is not influenced by random return for the stock price. That is $H_0: \varepsilon_{i,t} = 0 \ or \ \sum_{t=t_1}^{t_2} \varepsilon_{i,t} = 0$. According to Kwok and Brooks (1990), using a parametric test is robust enough to detect the presence or absence of abnormal performance.

## 4. Empirical Results

### 4.1 Evaluation of Abnormal Return Computation

According to Bhagat and Romano[9] (2002), the event study applies conventional econometric techniques because the study can measure the effect of specific events, such as actions by firms, legislatures, and government agencies, on the stock price of affected firms. Additionally, their recent survey of empirical analysis of corporate law plays an essential role for an anchor to determine value, which makes judgments about the impact of specific events on stock prices. The 1273 observations yield statistically significant results.

To allow for dividends, "holding-period return" ought to be defined somewhere. The result of the Hershey Company's stock price about which I estimate Eq. (5) can be expressed as

$$R_{it} = 423.56 + 20.27R_{mt} + \varepsilon_{it} \tag{5}$$

$R^2$= 0.73, Error =13.13

[9] Bhagat and Romano concluded that the event study was a reliable econometric approach because event study results had been used in several hundred scholarly articles in leading academic finance journals to analyze corporate finance issues.

SocioEconomic Challenges, Volume 6, Issue 1, 2022
ISSN (print) – 2520-6621, ISSN (online) – 2520-6214

Table 1 and Table 2 show a testing of the overall significance of the regression model.

Table 1. Testing the Overall Significance of the Regression Model

| | Degree of Freedom | Regression Sum of Squares | Mean Square | F Statistic | Significance F (P-Value) |
|---|---|---|---|---|---|
| Regression | 1 | 612047.49 | 612047.49 | 3549.30 | 0 |
| Residual | 1271 | 219173.277 | 172.441 | | |
| Total | 1272 | 831220.762 | | | |

Source: compiled by author.

Table 2. Testing the Overall Significance of the Regression Model

| | Coefficients | Standard Error | T Statistics | P-Value | Lower 95% | Upper 95% | Lower 95% | Upper 95% |
|---|---|---|---|---|---|---|---|---|
| Intercept | 18.06 | 1.86 | 9.70 | 1.66E-21 | 14.41 | 21.71 | 14.41 | 21.72 |
| X Variable | 0.04 | 0.00 | 59.58 | 0 | 0.035 | 0.037 | 0.04 | 0.04 |

Source: compiled by author.

The model fit by these data — 1273 observations spanning 44 days — does not pass the AR t-test with significance of 95%. Table 3 shows the average abnormal return (AAR), and the t-test of AAR. Assuming that the regression residuals are normally distributed, the event window is significant at 95%.

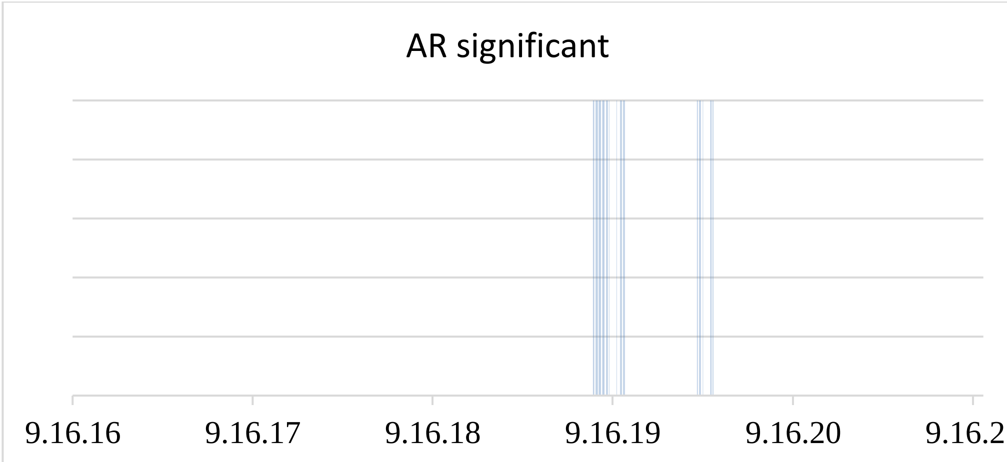
Table 3. Result

| Stock | Number of Days | AAR | T-test % |
|---|---|---|---|
| Hershey Company | 44 | -684.92 | -2.21 |

Source: compiled by author.

The event study shows that abnormal movement in the Hershey Company's stock price was attributable to event-related news, not market trends. Hershey's stock price was driven by the significant abnormal return on the events. During the estimation period, the standardized abnormal return is the ratio between the abnormal return and the standard deviation of the abnormal returns. The range of standardized abnormal returns, which are less than -1.96 or more than 1.96, shows less than a 5 percent opportunity that the observed abnormal return reflects random variation. Fig. 4 shows the abnormal returns were less than -1.96 or exceeded 1.96. There are two periods: August and September 2019, and March and April 2020. In August and September 2019, the abnormal returns that were less than -1.96 or exceeded 1.96 increased the Hershey Company's revenue (Fig. 5). Changing revenue beyond market expectations raised the Hershey Company's stock price compared to the S&P 500 (Fig. 6). During this period, a JP Morgan analyst report, which changed its recommendation from "hold" to "buy," supported the rising stock price. The case of March 2020 was caused by COVID-19. These results show that the Hershey Company was not grateful affected by the Hershey Trust.

Accordingly, outside shareholders are not harmed *ex ante*. However, they could earn positive abnormal returns if they could eliminate the trust. The implication is that it is the Hershey Trust that destroys value. The true problem is that the trust is under-diversified by construction.

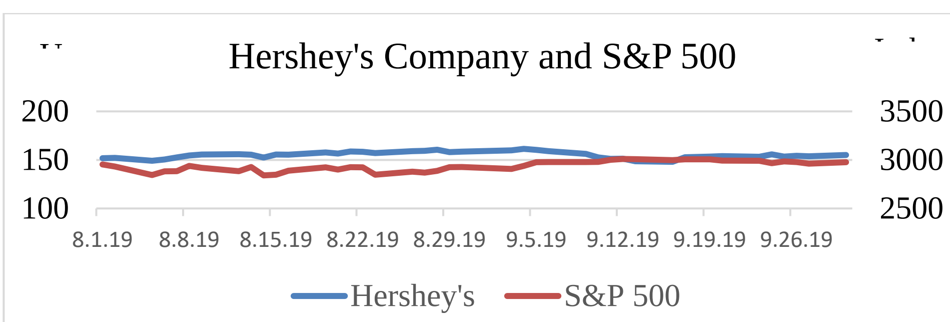



Source: compiled by author.

**Figure 4. AR Significant**


Source: Bloomberg.

**Figure 5. Hershey's Food Corporation's Revenue and Basic Earnings per Share**




Source: Bloomberg.

**Figure 6. Stock Prices of the Hersey Company and S&P 500**

### 4.2 Statistics Test and Implication

The D'Agostino-Pearson test is a statistical test that quantifies how far the distribution is from Gaussian in terms of asymmetry and shape. It first computes the skewness and kurtosis. The estimated skewness is derived from the value of the abnormal return. The normal distribution has a skewness of 0. A positive value indicates that the distribution has a heavy right tail. A negative value indicates that the distribution has a heavy left tail. Kurtosis can either be expressed as absolute kurtosis, which has a value of 3 for a normal distribution, or excess kurtosis, calculated by subtracting 3 from the absolute kurtosis. A kurtosis of less than 3 means that the distribution is broader than normal and is termed *platykurtic*, and kurtosis of greater than 3 means that the distribution is narrower than normal and is termed *leptokurtic*.

As shown in Eq. 6,

$$\boldsymbol{S_k} = \frac{\frac{\sum_{i=1}^{N}(k_i-\bar{k})^3}{N}}{\sigma_{\bar{k}^3}} \tag{6}$$

As shown in Eq. 7,

$$\boldsymbol{S_k} = \frac{\frac{\sum_{i=1}^{N}(k_i-\bar{k})^4}{N}}{\sigma_{\bar{k}^4}} \tag{7}$$

In the following, denotes a sample of  observations, Eq. 6 and Eq. 7 are the sample skewness and kurtosis, and is the sample mean.

The result of the D'Agostino-Pearson test during September 16, 2016, to October 16, 2021, shows a negative skewness: skew = -0.17, z = -2.53, p-value = 0.01. The result of the D'Agostino-Pearson test during September 16, 2016, to August 16, 2019, shows positive skewness: skew = 0.35, z = 3.79916, p-value = 0.001. The result of the D'Agostino-Pearson test during October 2,2019 to March 4, 2020, after the Hershey Company's board rejected Mondelez International's merger proposal, indicates a strong skewness: skew = -0.98, z = -3.81, p-value = 0.00013. The result of the D'Agostino-Pearson test during April 8, 2020, to October 6, 2021, after the COVID-19 crisis, also shows a negative skewness: skew = -0.86, z = -6.10, p-value = 1.094e-09.

Rather than governance and management being dominated by the Hershey Trust, this skew resulted from fundamentals such as modifying the company's revenue and COVID-19. Hershey Corporation's stock should still be priced fairly by the stock market over time. However, there is still dominated a governance and a management system by the Hershey Trust. *I.e.*, there are agency cost problems in the behaviour of Hershey Corporation stock. The voting rights distribution is clear to all outside shareholders, and the expected self-interested influence of Hershey's management on trustee votes influenced, influences, and will influence the Hershey Trust's earnings and the Corporation's price. However, agent costs by the Hershey Trust cannot be perfectly excluded. *I.e.*, there are agency problems such as the expected self-interested influence of Hershey's management on trustee votes in the behaviour of Hershey Corporation stock. This not only leads to high volatility to Hershey Company's stock price but also jeopardizes the Hershey Company's and the Hershey Trust's revenue.

In section 5, we discuss how the Hershey Trust and MHS will be able to enhance their governance and improve their management.

## 5. Discussion

### 5.1 Governance

Inadequate Not-For-Profit (NFP) governance with ethical and corporate governance could be produced by a lack of transparency for the organization's activities. NFP governance leads to decisions being duplicated by the NFP and its governing board, including agendas, annual elections of directors, minutes of a meeting, director's access to books and records, delegation of responsibility of board committees (executive, audit[10], finance, and development), or deregulation in appropriate situations to outside experts (investment management, legal affairs). Due to NFP governance[11] and mandates of state nonprofit law. In this sense, MHS did not have any governance issues.

Of course, MHS has to consider minimizing agency costs due to the school's comprehensive coverage of student costs, discussed above. The $17 billion endowment would have little effect on the trust's ability to fund the day-to-day operation of the school due to the excess endowment by the Hershey Trust. As a result, there is little pressure on the trustees to maximize value for community benefits.

Additionally, there is a possibility that changed circumstances will render the trust's original purpose obsolete. Indeed, today the school provides educational opportunities for orphans from across the country, not just locally. To use the trust's excess endowment to fund similar schools in other communities, the charitable trusts could modify their purpose by the *cy pres*[12] doctrine. *Cy pres* affords an excellent opportunity for needy children across the country to receive education in their own hometown. Also, cy pres shows the trustees could not permissibly maintain the trust's controlling interest in the company for the purpose of promoting the interests of the town and the company's workers only.

However, the most serious issue is their governance with ethics attributed to "Fiducia[13]." According to the Duty of Loyalty ("benefits") Model Nonprofit Corp. Act (3d ed.), directors have to avoid using their position to obtain improperly a personal benefit or advantage, which might more properly belong to the corporation. Kurie (2018) describes that Hershey crafted a vision of how businesses could serve the public interest as well as massive foundations created by Carnegie, Rockefeller, and others. However, the purpose of the Hershey Trust is to obtain improperly a personal benefit or advantage by the trustees of the Hershey Trust through voting control.

Villalonga and Amit (2009) state that indirect ownership through trusts, foundations, limited partnerships, and other corporations is prevalent but rarely creates a wedge. However, the Hershey Trust has an unusual ownership structure, whereby the Trust owns 9% of shares and 79% of voting rights[14]. A voting agreement, a pyramid structure, and a top management position by the Hershey Trust[15] (Hershey's families) exert influence on the Hershey Company. For example, Heist[16] took over as a chairman of the school's board and president of the Hershey Trust in 2018. The Hershey Trust, therefore, is a de facto "industrial foundation." This special

---

[10] In 2002, the Sarbanes-Oxley (SOX) Act to enhance a strict financial report and auditing requirement was passed. NFPs are required to implement processes that report compliance to the U.S. Securities and Exchange Commission (SEC). The Act, which establishes criminal penalties, can lead to increased transparency and trustworthiness and bring lower risks of fraud and financial scandals. The accuracy and integrity of reports also contribute to the independence of accountants and auditors. Accordingly, the Act will be able to be expanded and developed for the Hershey Trust because of complicated interrelationships with the Hershey Company, the for-profit entities.

[11] The good governance mandate is to (1) effectively enhance the charity's performance and (2) assist in the attainment of the organization's mission.

[12] Cy pres permits the courts to modify the charitable purpose of a charitable trust to a reasonable objective because the court takes into account using trust funds that can be better spent on some other purpose, if the original purpose becomes impossible, impracticable, or illegal. *I.e.*, the trustees of a charitable trust apply the trust property to another charitable purpose. The theory of the cy pres is that when a charitable purpose becomes an impossible, inexpedient or impracticable of fulfillment, or already accomplished, equity will permit the trustee to substitute another charitable object which reasonably approaches the designated purpose as closely as possible. *I.e.*, the trust can change the mission of its research. For example, a charitable trust may change its research focus from AIDS to COVID-19.

[13] The concept of a fiduciary is that a director does not pursue self-interest, but rather has duties of care and loyalty to the public.

[14] The board of Hershey Foods and the trustees of the Milton S. Hershey Trust sometimes held different views, as they had different interests and goals in the bid.

[15] For instance, Robert Heist graduated from Milton Hershey School in 1982, served as a chair of the alumni association, became a member of the school's board in 2011, and took over as chairman of the school's board and president of the Hershey Trust in 2018.

[16] Robert C. Heist Appointed: Director 2011, Chairman 2017-2020 Mr. Heist is the President and Chief Executive Officer of R. Connor & Associates, P.C. with offices in Boston and Chicago. His 30-year legal career encompasses a wide range of professional services, including advising and counselling corporate boards, corporate directors, and c-suite executives about a variety of corporate legal matters. As a director of the Boards, Mr. Heist is focused on driving an aligned strategy, developing leadership, and further developing high-functioning organizations. Mr. Heist brings to the Boards his extensive expertise in corporate governance, corporate legal matters, corporate risk management, corporate insurance, and fiduciary responsibilities of corporate directors. He is also recognized as a Governance Fellow by the National Association of Corporate Directors. Mr. Heist is a graduate of Milton Hershey School, the past president of Milton Hershey School's Alumni Association, and the Distinguished Alumni Service Award recipient. Passionate about the mission, Mr. Heist remains active with Milton Hershey School students and frequent campus visitors. He is committed to preserving and advancing the philanthropic legacy of Milton and Catherine Hershey (https://www.mhskids.org/about/school-leadership/board-managers/).

fiduciary arrangement is the crux of the matter, because the Hershey Trust has controlled the Hershey Company for more than one hundred years.

Accordingly, there are agency problems in Hershey Corporation stock. The voting rights distribution is clear to all outside stockholders, and the expected self-interested influence of Hershey's management on trustee votes influenced, influence, and will influence the Hershey Trust's earnings and the Corporation's price negatively. Hershey Corporation's stock should still be priced fairly by the stock market over time. Outside shareholders are not harmed *ex ante*, but they could earn positive abnormal returns if they could eliminate the trust. Accordingly, the Hershey Trust destroys value.

**5.2 Diverse Financial Sources**

A fiduciary duty is a responsibility or duty to act in the best interest for the board members. MHS board members' fiduciary duty is to the beneficiaries of their investment responsibility to ensure that 1) investment strategies and program for an endowment needs to be approved; 2) in terms of its diversification and systemic risk, whether or not that role is reasonably designed, the composition of portfolio; 3) the competence of fiduciary or the delegates selected; and 4) the reasonableness of the terms and conditions of such delegation.

Regarding fiduciary norms, it is hard to criticize MHS board, due to the endowment's performance: starting at $60 million in 1918, it grew to $5.4 billion in 2002, and reached $17 billion in 2020. However, MHS's revenue consisted of investment income, with heavy investment in the stock market. Receiving part of revenue from stock-market investments does not raise budget-source issues. However, MHS does not hold a diversified revenue portfolio from other financial sources. The risk is that their revenue is based on stock performances. In particular, a decline in Hershey Company's stock price, which Hershey Trust Company holds[17], could endanger MHS's future revenue. Indeed, both the director and the board members were concerned about Hershey Company's credit ratings and stock price[18], cost of future borrowing, and profits.

The real problem is that the trust is under-diversified by construction. Again, this lack of diversification is known by all and confirmed indirectly by the surge in price and subsequent fallback in the merger-offer events I study. Replacing Trust beneficiaries with outside shareholders would eliminate under-diversification in the shareholder universe.

The under-diversification adversely affects the risk-adjusted returns available to the trust's potential beneficiaries, but the beneficiaries' rights have no market price. They are recipients of "gifts." *I.e.*, the idea is one should pocket a gift without complaining about its value.

Hence, the costs of excessive concentration in the Hershey Trust are regulated by whatever laws limit beneficiaries to less-than-maximal risk-adjusted returns in the running of the trust. These laws are meant to protect beneficiary rights and should be able to show that any tightening of the legal restraints placed on the relation between the Hershey Trust and the Hershey Corporation affect the Corp's stock price if changes occurred in applicable Philadelphia or federal laws during this research sample period.

## 6. Conclusion

To summarize, it seems that the board members in a not-for-profit organization (NFP) should not be concerned with the interests and benefit from their assets and investments only. In Hershey's case, the most severe issue is

[17] Hershey Trust Company is a Trust with total current equity assets of $116.1million, including the Hershey Company $18.60 million on June 30, 2021, under management invested in 42 securities. By industry sector, its most significant current exposures are in the Consumer Staples (16%) and Health Care (8.5%) sectors. Its most significant five-year increase is in the Health Care sector. Its most significant five-year decrease is in the Consumer Staples sector. By geographic region, its most significant current exposures are in North America (91.9%) and Asia Pacific (Emerging) (6.1%). Its most significant five-year increase is in the Asia Pacific (Emerging). Its most significant five-year decrease is in North America. By market cap, its most significant current exposures are in Large Cap (59.5%) and Mid Cap (21.6%) stocks (Bloomberg).

[18] According to Worth (2019), Hershey Foods had suffered years of stagnating revenue and a slumping stock price, which reduced the trust's assets and thus the revenue of the school 2009.

a conflict with board members' interests: MHS board members are not likely to have public benefit on their minds. Additionally, a voting agreement, a pyramid structure, and a top management position by the Hershey Trust (Hershey's families) influences the Hershey Company. The Hershey Trust is a *de facto* "industrial foundation".

The Hershey Trust and the Milton Hershey School had mistaken a governance because the diversification lies with beneficiations of the trust per se, not shareholders of the Hershey Company. To avoid the same mistake, not only should the Hershey Trust and the Hershey School end their puppet dominance of the Hershey Company, but they also should avoid jeopardizing their future 501(c)(3) status.

**Funding:** self-funded.

**Author Contributions:** conceptualization, Masaaki Yoshimori; data curation, Masaaki Yoshimori; formal analysis, Masaaki Yoshimori; funding acquisition, Masaaki Yoshimori; investigation, Masaaki Yoshimori; methodology, Masaaki Yoshimori; project administration, Masaaki Yoshimori; resources, Masaaki Yoshimori; software, Masaaki Yoshimori; supervision, Masaaki Yoshimori; validation, Masaaki Yoshimori; visualization, Masaaki Yoshimori; writing – original draft, Masaaki Yoshimori; writing – review & editing, Masaaki Yoshimori.

## Acknowledgement

Professor Angela Logan, University of Notre Dame and Professor Edward Kane, Boston College, provided their useful comments.

## References

1. Brown, S and Warner, J. (1985) Measuring security price performance, *Journal of Financial Economics*, *14*(3-31). [Link].
2. Bhagat, S and Romano, R. (2002) Event Studies and the Law: Part I: Technique and Corporate Litigation, *American Law and Economics Review*, *4*(1), 141-168. [Link].
3. Campbell, J.Y.; Lo, A.W. and MacKinlay, A.C. (1997) The Econometrics of Financial Markets. *Princeton University Press*, 149-180. [Link].
4. Carr, S., Rodriguez, G., Eades, K., Muscarella, C., and Weaver, S, (2008) Hershey Foods Corporation: Bitter Times in a Sweet Place. [CrossRef].
5. Dolley, J.G. (1933). Characteristics and Procedure of Common Stock Split-Ups. *Harvard Business Review*, *11*, 316-326. [Link].
6. Hoffman, A. (2017) The Hershey Trust: Managing Conflicts of Interest in Corporate Governance. *WDI Publishing*, *William Davidson Institute (EDI)*, *University of Michigan*, No. W05T05. [Link].
7. Klick, J and Sitkoff R. (2008) Agency Costs, Charitable Trusts, and Corporate Control: Evidence from Hershey's Kiss-Off (November 1, 2008), *Harvard Law and Economics Discussion Paper*, No 593. [Link].
8. Kurie, P. (2018). In Chocolate We Trust. *University of Pennsylvania Press*. [Link].
9. Villalonga, Belén. and Amit, Raphael. (2009) How Are U. S. Family Firms Controlled? *The Review of Financial Studies*, 22(8), 3047-3091. [Link].
10. Worth, M. (2019) Nonprofit Management: Principles and Practice 5th edition, *SAGE*, pp.100-104. [Link].
11. Yoshimori, M. (2019). Shadow Exchange Rates – Changing the Winds with Headwinds and Tailwinds. *SocioEconomic Challenges*, *3*(2), 78-88. [CrossRef].

SocioEconomic Challenges, Volume 6, Issue 1, 2022
ISSN (print) – 2520-6621, ISSN (online) – 2520-6214

Appendix A. Form 990 The Milton Hershey School in 2018

Form 990 (2018) Page **11**

**Part X Balance Sheet**

Check if Schedule O contains a response or note to any line in this Part IX . . . . . . . . . . . . . . . . ☐

| | | | | (A) Beginning of year | | (B) End of year |
|---|---|---|---|---|---|---|
| Assets | 1 | Cash-non-interest-bearing . . . . . . . . . . | | 30,317 | 1 | 70,848 |
| | 2 | Savings and temporary cash investments . . . . . . . . . . | | 72,252,268 | 2 | 84,245,354 |
| | 3 | Pledges and grants receivable, net . . . . . . . | | 0 | 3 | 0 |
| | 4 | Accounts receivable, net . . . . . . . . . . . . . . | | 37,041,295 | 4 | 41,221,282 |
| | 5 | Loans and other receivables from current and former officers, directors, trustees, key employees, and highest compensated employees Complete Part II of Schedule L . . . . . . . . . . . . . . | | 0 | 5 | 0 |
| | 6 | Loans and other receivables from other disqualified persons (as defined under section 4958(f)(1)), persons described in section 4958(c)(3)(B), and contributing employers and sponsoring organizations of section 501(c)(9) voluntary employees' beneficiary organizations (see instructions) Complete Part II of Schedule L . . . . . . . . . . . . . . | | 0 | 6 | 0 |
| | 7 | Notes and loans receivable, net . . . . | | 0 | 7 | 0 |
| | 8 | Inventories for sale or use . . . . . . . . . | | 1,882,672 | 8 | 1,875,503 |
| | 9 | Prepaid expenses and deferred charges . . . . . . . | | 1,020,601 | 9 | 1,454,830 |
| | 10a | Land, buildings, and equipment cost or other basis Complete Part VI of Schedule D | 10a 1,333,660,967 | | | |
| | b | Less accumulated depreciation | 10b 600,434,509 | 686,911,100 | 10c | 733,226,458 |
| | 11 | Investments—publicly traded securities . | | 2,202,918,342 | 11 | 2,424,665,883 |
| | 12 | Investments—other securities See Part IV, line 11 . . . . . . | | 11,032,583,567 | 12 | 14,372,733,055 |
| | 13 | Investments—program-related See Part IV, line 11 . . | | 0 | 13 | 0 |
| | 14 | Intangible assets . . . . . . . . . . . . . . . . . . | | 0 | 14 | 0 |
| | 15 | Other assets See Part IV, line 11 . . . . . . . . . . . . . . . | | 0 | 15 | 0 |
| | 16 | **Total assets.** Add lines 1 through 15 (must equal line 34) . . . | | 14,034,640,162 | 16 | 17,659,493,213 |
| | 17 | Accounts payable and accrued expenses . . . . . . | | 234,372,149 | 17 | 266,191,685 |

Source: Bloomberg.