

The Business Case for Product Philanthropy*

Justin M. Ross

Assistant Professor of Public Finance & Economics

&

Kellie L. McGiverin-Bohan

Doctoral Candidate

School of Public & Environmental Affairs

Indiana University

Bloomington, IN 47405

justross@indiana.edu

kmcgiver@indiana.edu



**SCHOOL OF PUBLIC AND
ENVIRONMENTAL AFFAIRS**

INDIANA UNIVERSITY

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Executive Summary

Product donation programs are becoming an increasingly popular component of inventory management systems. Product donations out of inventory often come from undamaged returns, customer-cancelled orders, slow-selling merchandise, discontinued models, and mislabeled items. Traditionally, businesses have managed these inventories by making a choice between transporting them to a landfill (disposal) or otherwise liquidating them at heavy discounts (also known as “salvaging”). More recently, product donation programs have emerged as a cost effective alternative to disposal and liquidation. The purpose of this document is to present the business case for product donation and provide a framework for understanding in-kind product donations from this perspective. Specifically, this report may assist for-profit business managers in:

1. Identifying what factors they should consider and how to measure their impacts in a cost-benefit analysis of liquidating, disposing, or donating inventory.
2. Providing a framework for choosing between a comparable charitable donation of cash or inventory.
3. Demonstrating the socioeconomic impact of gift-in-kind donations to understand product donation’s potential in corporate philanthropy.

The first part of the report – a cost-benefit analysis of whether to “liquidate, dispose, or donate?” – begins with the assumption that the manager has already decided to quickly remove the items from the existing inventory. Worksheets for comparing these alternatives are provided to assist in an internal profitability analysis. Based on financials alone, product donation is superior to disposal in most circumstances. While reselling inventory through liquidation or salvage markets often results in keeping just 10-30% of the value of the product, the special tax deduction can be as much as twice the cost basis, making it very likely that product donation will be more attractive than liquidation. In addition to the worksheets, a simple formula for comparing product donation to liquidation is presented for general guidance. In a case of a corporation with a 35% federal and 8% state marginal income tax rate (approximately the national average), product donation is more advantageous than liquidation whenever the value of the extended tax deduction from product donation is 1.49 times the amount of revenue retained from the liquidation process.

This part of the report also reviews other benefits that have been discovered in product philanthropy:

- Product donations provide image enhancements similar to marketing and advertising programs because they produce benefits for businesses through image and brand building. In fact, some firms have used strategic philanthropy programs in lieu of advertising and marketing, while others have executed brand campaigns around product donations.
- Surveys have demonstrated that consumers are more swayed by a company’s social purpose than brand loyalty, and are even willing to pay a premium for items that come from “socially responsible” businesses.
- Research repeatedly shows that employees demonstrate greater commitment to employers they view as socially responsible. Research has shown that employees which identify with their employers have higher attendance, lower turnover, and higher workplace performance.
- Studies have demonstrated that job seekers have demonstrated a greater willingness to accept offers from companies which are socially responsible and commitment to environmental causes.

- Governments have been shown to support socially responsible businesses with the faster tracking of zoning and building plans, as well as reduced EPA and OSHA citations.
- There exist pools of investors with a preference for social and environmentally conscious businesses.

The report provides a worksheet which can be employed for conducting the financial analysis of the liquidate, dispose, or donate decision, as well as a list of important discussion points to assist in considering product philanthropy as a strategic device. This section also provides information for estimating logistical costs of product philanthropy, though it is sometimes the case that this will be paid for by recipients when the product is in high demand. The report also describes administrative and accounting requirements involved in product philanthropy.

The second section considers a business that has already budgeted for a charitable contribution, but has yet to determine if this gift will be either cash or product. On strictly financial grounds, product philanthropy is at a considerable advantage over cash because it carries an extended tax deduction. The magnitude of the difference depends on whether or not the donating company considers a comparable cash gift to be on the basis of the acquisition cost of the inventory or its fair market value. Since transportation costs accompany product donations, the financial return of choosing product over cash philanthropy will be greatest when the value-to-weight ratio of the product is high.¹ In addition to their financial return, product donations can be more effective than cash in other aspects of strategic philanthropy:

- Product donations are more visible than cash donations. Product donations have an end user, whereas cash can be employed for covering nonprofit administration costs or other operational expenses.
- During recessions, cash is often a more pressing constraint as businesses look for the next viable investment, whereas inventory tends to be in surplus due to lower sales.
- Since product costs are below market value, product donations can be more valuable to the nonprofits than cash equivalent gifts for purchasing these same products.
- Deciding how much product to donate can be simpler than determining the amount of a cash gift, freeing management to focus on other problems.
- Donating cash is akin to donating profitable inventory, so donations of product that would otherwise be liquidated or disposed allow for enlarged strategic philanthropy programs.

The last section of the paper illustrates how product philanthropy can ultimately benefit specific socio-economic groups, providing insight into how these programs might assist in strategic philanthropy or other brand building campaigns. This study identifies categories of household consumption and selected socio-economic groups which are targeted by charitable programs for assistance. Data from the Consumer Expenditure Survey reveals that even small donations make a substantive impact on the budgets of households in need. Households are compared by income level, educational attainment, race and ethnicity, and family composition. These comparisons reveal that product donation contributes to a

¹ A product's value-to-weight ratio is the measure of its monetary value per pound. This measure is important when making supply chain management decisions regarding product warehousing and shipping.

relatively inflexible portion of the family budget for these groups, suggesting that these donations fit the classical definition of a “necessary good.”

Introduction

Product donation programs are becoming an increasingly popular component of inventory management systems. Product donations out of inventory often come from undamaged returns, customer-cancelled orders, slow-selling merchandise, discontinued models, and mislabeled items. Traditionally, businesses have managed these inventories by making a choice between transporting them to a landfill (disposal) or otherwise liquidating them at heavy discounts (also known as “salvaging”). More recently, product donation programs have emerged as a cost effective alternative to disposal and liquidation.

Product donations are a form of non-monetary philanthropic contributions more popularly known as gifts-in-kind (GIK).² Scholars and nonprofit practitioners alike generally agree that product donation has increasingly become both a popular form of corporate philanthropy and a source of support for nonprofit organizations. By one estimate corporations donated \$15.29 billion to charity in 2010; more than 60 percent of these contributions were GIK.³ Four trends motivate the growing interest in product donations. First, some firms replace cash donations with product philanthropy because recessions tend to generate excess inventory and lower cash balances. Second, product donations are more visible for longer periods than one-off cash giving; this is because product donations raise greater awareness of firm because of the durability of the gift’s image. Third, additional image benefits over donating or liquidating arise because product donation is an environmentally sustainable practice by reducing the demand for landfill space. Finally, qualifying inventory carries the financial advantage of special tax treatment not experienced with other means of product disposal or cash gifts. These potential advantages to companies merit a more rigorous examination of product donation and the development of a framework for internal cost-benefit analysis.

The purpose of this document is to present the business case for product donation and provide a framework for understanding in-kind product donations from this perspective. Specifically, this report assists for-profit business managers in:

1. Identifying what factors they should consider and how to measure their impacts in a cost-benefit analysis of liquidating, disposing, or donating inventory.
2. Providing a framework for choosing between a comparable charitable donation of cash or inventory.
3. Demonstrating the socioeconomic impact of gift-in-kind donations to understand product donation’s potential in corporate philanthropy.

The first part of the report – a cost-benefit analysis of whether to “liquidate, dispose, or donate?” – begins with the assumption that the manager has already decided to quickly remove the items from the existing inventory. The report highlights the advantages, disadvantages, and risks to undertaking product donation in-lieu of disposing or liquidating the inventory. These include tax implications, the logistical costs, and risks associated with each option. That section also illustrates how product donations influence the

² While GIK can include redirection of labor time or giving nonprofits access to company facilities, product philanthropy is perhaps the most synonymous with the term.

³ AAFRC Trust for Philanthropy. (2011). *Giving USA 2011*. AAFRC Trust, Indianapolis, IN.
Rose, A. P. (2011) *Giving in Numbers: 2011 Edition*. New York: Committee Encouraging Corporate Philanthropy. Available at http://www.corporatephilanthropy.org/pdfs/giving_in_numbers/GivinginNumbers2011.pdf.

behaviors and attitudes of corporate stakeholders (shareholders, employees, customers, etc.). The conclusion is that based on financials alone, product donation is superior to disposal in most circumstances. When comparing to the possibility of salvaging inventory through liquidation, the analysis derives a simple rule of thumb for quick comparisons in addition to a detailed worksheet for internal analysis. The rule of thumb suggests that, in the case of a corporation with a 35% federal and 8% state income tax rate, product donation is more advantageous than liquidation whenever the value of the special 170(e)(3) deduction for product donation is 1.49 times the amount of revenue retained from the liquidation process. While reselling inventory through liquidation or salvage markets often results in keeping just 10-30% of the value of the product, special deduction can be as much as twice the cost basis, making it very likely that product donation will be more attractive than liquidation.

The second section considers a business that has already budgeted for a charitable contribution, but has yet to determine if this gift will be either cash or product. Both methods are compared in terms of their impact on corporate image, tax treatment, charity identification costs, and employee engagement. Among these dimensions, product donations can provide a superior return on investment than comparable cash gifts. On strictly financial grounds, the special deduction for product donation creates a big incentive to choose product philanthropy. The financial return of choosing product over cash philanthropy will be greatest when the value-to-weight ratio⁴ of the product is high, as well as when the value of the gift to the charity is high relative to its cost to the company.

Many corporations have philanthropic endeavors, sometimes as part of image and brand building. The last section of the paper illustrates how product philanthropy can ultimately benefit specific socio-economic groups. This study identifies categories of household consumption and selected socio-economic groups which are targeted by charitable programs for assistance. These groups are compared by income level, educational attainment, race and ethnicity, and family composition. Product donation contributes to a relatively inflexible portion of the family budget for these groups, suggesting that these donations fit the classical definition of a “necessary good.” In addition, the section provides a demonstration of the household savings these groups can experience from donations of energy-saving appliances.

Before addressing these issues, we will review the history and philosophy underlying corporate strategic philanthropy. We will also discuss the role and services of GIK intermediaries – nonprofits that specialize in reducing the costs inherent in the product donation process – and summarize why their role is presumed in certain parts of this analysis.

Why do Businesses Give?

Many companies engage in extensive product philanthropy; often these product donations are their largest component of philanthropic activity. Medical companies dominate with donations of pharmaceuticals and other items, but other large corporate donors also make substantial charitable contributions. In 2010, major companies that gave over half their charitable contributions in the form of product included Microsoft, Kraft Foods, Google, Marriott International and Pfizer. In 2009, donations of products and services increased by more than 20 percent over the previous year, in part due to corporations using in-

⁴ A product’s value-to-weight ratio is the measure of its monetary value per pound. This measure is important when making supply chain management decisions regarding product warehousing and shipping.

kind donations to compensate for decreases in cash philanthropy. In fact, some reports attribute a 7 percent increase in overall corporate contributions due to an increase in non-cash giving.⁵

Businesses donate to charity for a variety of reasons that are both instrumental (purely in the best interest of the company) and altruistic (for purely for the benefit of the charity).⁶ For example, a business might donate lumber to help construct a job training center for a variety of reasons: helping the unemployed in the community, fostering a better trained applicant pool for the future, generating positive publicity, building their brand, and/or clearing unwanted inventory. In such instances, advantages for the charity have reciprocating benefits to the company.⁷

The presence of multiple stakeholders can complicate corporate philanthropy. The philanthropic decision-maker in a business must weigh the preferences of management, the board, shareholders, employees, as well as current and future customers. For over a century, businessmen, economists, scholars and the legal system have debated how to balance the interests of these diverse stakeholders.

The early part of the debate centered charitable giving within the traditional framework of maximizing shareholder value, commonly called the “neoclassical” or “corporate productivity model” of corporate giving.⁸ The neoclassical approach emphasizes charity work which results in greater product awareness, demonstrating company ethics, motivating employees, polishing corporate image, and building relationships with company stakeholders. This model dominated corporate philanthropy from the 1800s and into the early 1900s.⁹ Even American law of the time stipulated that philanthropy must be profitable, or else would be viewed as defrauding investors; Corporate philanthropy was only acceptable when the gift explicitly had a relationship with corporate profits (e.g., *Dodge v. Ford* 1919).¹⁰

⁵ Rose, A. P. (2010) *Giving in Numbers: 2010 Edition*. New York: Committee Encouraging Corporate Philanthropy. Available at http://www.corporatephilanthropy.org/pdfs/giving_in_numbers/GivinginNumbers2010.pdf.

⁶ Illingworth, P. M. L., Pogge, T. W. M. and Wenar, L. (2011). *Giving well : The ethics of philanthropy*. Oxford; New York, Oxford University Press

⁷ Such mixtures of altruistic and instrumental reasons for giving should be familiar to most readers, since the same motivations underlie most personal philanthropy. For example, consider someone who decides to make a donation to her alma mater. She might be giving to this college to altruistically support its educational mission. Instrumentally, she might also use the donation as a personal tax deduction.

⁸ Young, D. R. and Burlingame, D. E. (1996). Paradigm lost - research toward a new understanding of corporate philanthropy. *Corporate philanthropy at the crossroads*. D. E. Burlingame and D. R. Young. Bloomington and Indianapolis, Indiana University Process.

⁹ Porter, M. E., & Kramer, M. R. (2002). The Competitive Advantage of Corporate Philanthropy. *Harvard Business Review*, 80, 12, 56-68. Hood, J. M. (1996). *The Heroic Enterprise: Business and the Common Good*. New York: The Free Press.

¹⁰ “A business corporation is organized and carried on primarily for the profit of the stockholders. The powers of the directors are to be employed for that end. The discretion of directors is to be exercised in the choice of means to attain that end and does not extend to a change in the end itself, to the reduction of profits or to the nondistribution of profits among stockholders in order to devote them to other purposes.” 204 Mich. 459; 170 N.W. 668 (1919).

To avoid confusion, Dodge in this case refers to the family name of John Francis Dodge and Horace Elgin Dodge, who were two of the largest shareholders in the Ford Motor Company. Dodge in this case does not refer to the car company of the same name.

This strict shareholder-only perspective became more nuanced over the following decades. Some states enacted statutes that expressly allowed corporate directors to collaborate with any charity as long as their activities protected corporate interests. Furthermore, society began to believe corporations had a moral obligation to society. In 1953 Howard Bowen published *Social Responsibilities of the Businessman*, in which he argued that business had responsibilities beyond just maximizing shareholder value and should accordingly take actions in line with larger societal objectives and values.¹¹ That same year in *AP Smith Manufacturing Company v. Barlow* (1953), the courts echoed the new perspective of corporate giving. In their words, stockholders “ought not be permitted to close their eyes to present-day realities and thwart the long-visioned corporate action in recognizing and voluntarily discharging its high obligations as a constituent of our modern social structure.”¹² A couple of years later, Keith Davis (1960) agreed when he explained corporations had social responsibilities commensurate with their social power.¹³

In harmony with these new perspectives, businesses operationalized these concepts under the umbrella of Corporate Social Responsibility (CSR) – a self-regulatory business practice that emphasizes business activities which have a positive impact on a variety of business stakeholders including owners, employees, customers, and the wider community. Carroll (1979, p 500) explained that, “The social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time.”¹⁴ Therefore CSR can be expressed through a variety of activities such as: market-based “fair trade” approaches, environmentally sustainable methods of harvesting raw materials, educational programs for local community residents, and corporate philanthropy programs.

This conceptualization of CSR entailed a distinction between corporate profitability and philanthropic activity. Many CSR definitions emphasized that firms must look beyond their fundamental economic interests to consider the impact of their decisions on greater societal welfare.¹⁵ Additionally, scholars sought distinctions between truly charitable business activities, versus actions only “window-dressed” to look philanthropic or that did not go beyond fundamental legal requirements.¹⁶ Overall, the gold standard of CSR implied that altruism should primarily motivate a business’s philanthropic activities, relegating any instrumental benefits to an inconsequential secondary perk.¹⁷

Not everyone, however, agreed that corporate philanthropy was an ethical practice. In his classic piece, *The Social Responsibility of Business is to Increase Its Profits* (1970),¹⁸ Milton Friedman reaffirmed the

¹¹ Bowen, H. R. (1953). *Social responsibilities of the businessman*. New York, Harper.

¹² 13 N.J. 145, 98 A. 2d 581 1953

¹³ Davis, K. (1960). Can business afford to ignore social responsibilities? *California Management Review* 2(3): 70-76.

¹⁴ Carroll, A. B. (1979). A three-dimensional conceptual model of corporate performance. *The Academy of Management Review* 4(4): 497-505.

¹⁵ Carroll, A. B. (1999). Corporate social responsibility. *Business & Society* 38(3): 268-295.

¹⁶ Manne, H. G. and Wallich, H. C. (1973). *The modern corporation and social responsibility*. Washington, American Enterprise Institute for Public Policy Research.

¹⁷ Cochran, P. L. (2007). The evolution of corporate social responsibility. *Business Horizons* 50(6): 449-454.

¹⁸ Friedman, M. (1970). “The social responsibility of business is to increase its profits.” *New York Times Magazine*, 13, 32.

principle that a corporate manager has direct responsibilities to owners and serves as custodian for their funds. Corporate philanthropy threatens this commitment since managers might give according to their own personal preferences rather than in accordance with the shareholders' preferences or for the purpose of furthering profits. Furthermore, Friedman argued that managers lack the necessary knowledge and background to make effective charitable investments since they are employed on their record of success in business. Instead, Friedman advocated distributing profits to owners so they could better make their own individual charitable investments.

Over recent decades however, companies have developed specific programs focusing on effective and strategic charitable giving that are in line with shareholder approval. Implicit in this change is that shareholders increasingly find it advantageous to delegate these decisions to corporate management rather than to make individual contributions.¹⁹ Furthermore, this change indicates shareholders recognize the potential profitability inherent in CSR programs. By strategically using CSR activities to achieve larger corporate goals, businesses can increase their visibility, distinguish their brand, attract new customers, enhance employee engagement and "corporate citizenship" behaviors, attract investors, and manage risk by polishing their corporate image. This view of CSR emphasizes instrumental motivations: businesses should maximize the potential benefits of philanthropy to the corporate bottom line.

Today CSR has evolved beyond this dichotomous view that pits altruistic and instrumental motivations against one another. Modern corporate strategic philanthropy approaches charitable giving as an investment activity that serves the interests of internal and external stakeholders – the shareholders, employees, as well as current and potential customers in the community.²⁰ For example, some businesses have adopted a "triple bottom line" approach that measures corporate success in terms of combined economic, ecological, and social criteria. This mindset harmonizes with the "do good in order to do well" business philosophy of Peter Drucker.²¹ It dismisses the shareholder/social responsibility dichotomy associated with the "either/or" view of corporate mission; instead, strategic corporate philanthropy operates from a "both/and" approach in that it retains the characteristics of a mutual gain for all parties involved.²²

Some real examples of corporate philanthropy that illustrate combined instrumental and altruistic motivations include:

- An IT company donates its brand of software to high schools and helps set up computer labs. The donation helps students receive a better education, thus better preparing them for college and future careers. The donation also helps the company by cultivating future customers. When these

¹⁹ Mackey, A., Mackey, T., & Barney, J. (2007). "Corporate Social Responsibility and Firm Performance: Investor Preferences and Corporate Strategies." *The Academy of Management Review*, 32(3), 817-835.

²⁰ Freeman, E. (1984). *Strategic management: A stakeholder approach*. Cambridge: Cambridge University Press.

²¹ Drucker, P. (1989). *The New Pluralisms*. New York: Harper & Row.

Drucker also once said, "Every single social and global issue of our day is a business opportunity in disguise," as documented by David Cooperrider.

²² Dienhart, J. W. (1988). Charitable investments: A strategy for improving the business environment. *Journal of Business Ethics*, 7(1), 63-71.

students graduate and join the workforce, they will likely choose to use familiar software over learning a new system.

- A toy store wants to express its commitment to making kids smile and decides to donate items to a regional children's hospital. The store opts to give away a stock of teddy bears, so it can reallocate storage and retail space to market another product like video games. The teddy bear donation brings comfort and happiness to the child patients. Parents, hospital staff, and toy store employees appreciate the donation's beneficial effect.
- A corporation maintains a program to provide food, clothing, building materials and other supplies to disaster victims. After a disaster strikes, they are usually one of the first groups on the scene and have helped thousands of families in need. But at some point a highly publicized scandal over human resource practices rocks this business and calls into question its corporate ethics. In defense of this organization, a prominent and influential international aid nonprofit comes forward and attests to the company's good works and community commitments. Their affirmation helps mitigate the controversy.

All of these cases illustrate that strategic in-kind philanthropic giving can benefit both the corporation and civil society without sacrificing the business's commitment to either. ***In short, the business decision to give is part of a rational process that can get a return on the charitable investment to both the firm and the recipient nonprofit organization.***

The Role of GIK Intermediaries

The advantages of a GIK intermediary are identified throughout this white paper because such intermediaries often lower the costs of GIK donations through efficiencies of distribution. This section describes GIK intermediaries and their role in the supply chain.

A GIK intermediary nonprofit matches the needs of the nonprofits to the donated goods of the company. The reason for growth of GIK intermediaries has been, in part, due to their ability to lower the costs of donation. By specializing in GIK donation, these intermediaries allow companies to tap into larger networks and therefore share in the economies of scale that companies would be unlikely to realize individually. In short, working with an intermediary can lower the transaction costs of product donation programs. The areas where intermediaries provide cost advantages to businesses include:

- **Matching companies and charities:** Intermediaries usually have an established relationship with a network of potential donation recipients. In addition to identifying needs of the charity, intermediaries usually aid in monitoring and screening how these donations are employed so that the company will be able to report the eligibility. Additionally, an intermediary can reduce internal conflicts when different company stakeholders have strong preferences for different nonprofit recipients.
- **Administrative costs:** Intermediaries can assist in providing administrative assistance which can be necessary in arranging the pick-ups and drop-offs of product, determining fair market value of the product, and ensuring that appropriate documentation required for tax reporting is maintained.

- **Logistics:** Arranging for the most cost efficient route and method for product donation can be a distraction from the regular duties of employees. Intermediaries have established relationships and can make arrangements for soliciting bids from shipping companies. In some cases, intermediaries may find recipients willing to cover the shipping costs.
- **Warehousing:** One of the principal benefits of product donation is freeing floor space, both at the retail and warehousing level. Intermediaries around the country establish warehouses for the storage, reconfiguration, and (if necessary) delabeling of goods until they can be distributed to the charity.
- **Brand security:** Intermediaries can ensure nonprofits appropriately use donated items for charitable works. Through contracts and follow-up monitoring, intermediaries safeguard against the resale and other potential misuse (based on the company's specifications) of product donations.
- **Media assistance:** Intermediaries can serve as a neutral third party capable of testifying to a corporation's history of socially responsible actions. Intermediaries also often find it in their own interest to popularize a successful match between a company and charity, allowing stakeholders to be notified of the action from a source other than the company. Public relations can also include image building, and some intermediaries are willing partners in developing strategic plans in this venture.

As product donations have increased since the 1970s, so have the founding of nonprofits specializing in gifts-in-kind transactions. These organizations vary greatly in scope. Some smaller charities focus only on distributing a particular product or concentrate on serving a particular geographic area, which can result in close relationships among partners in the network. Other in-kind donation clearinghouses maintain an international presence and cultivate partnerships with numerous businesses. These large organizations have the expertise to form sustained programs with multinational retailers. They also have a greater capacity to get donations (even very unusual donations) so they can meet the greatest need.

Two of these major gifts-in-kind intermediaries are Good360 (formerly Gifts In Kind International) and the National Association for the Exchange of Industrial Resources (NAEIR).²³

- Founded in 1977, NAEIR was one of the first nonprofits founded to aid corporations to clear their excess inventory in a manner that would maximize the, then new, tax incentive in §170(e)(3). Since its founding, NAEIR has collected and redistributed over \$2.8 billion worth of corporate product donations by working with several thousand companies like Microsoft, Sauder Furniture, and General Electric. NAEIR uses a computerized allocation and catalogue system to place donated products with over 9,500 qualified nonprofits and public schools nationwide. While the products themselves are free, nonprofits pay membership fees to access the NAEIR catalog system and have to cover some shipping costs. Currently member nonprofits gain \$18,000 worth

²³ There are several other smaller and more specialized intermediaries focused on product philanthropy. Additionally, several multiservice nonprofits offer intermediary services as a project in their larger operations. For example, Tech Soup focuses on IT donations and Medical Bridges has expertise in the area of medical donations. While these groups play a significant role in the product giving landscapes, the limits of this paper preclude listing them all.

of free products annually on average. Additionally, companies donating to NAEIR must cover the shipping costs of getting inventory to the redistribution.

- Six years later in 1983, Good360 (formerly Gifts In Kind International) emerged and has substantially grown the field of product philanthropy by donating almost three times as much as NAEIR. Since its creation, Good360 has donated more than \$7 billion in products and grown its nonprofit network to more than 23,000 prequalified charities. Good360 does not charge membership fees, but does require charities to undergo a vetting process to ensure that products are used in compliance with their intended charitable purposes. Good360 services all size charities and does fulfillment at the truckload, pallet, and small package level. Additionally, Good360 has worked with hundreds of Fortune 500 companies as well as smaller companies.

Good360's extensive logistics and charitable network can manage product donations to any location, nationally and internationally. To serve a variety of businesses, Good360 tailors the giving process depending on the circumstances. Local nonprofits can access donations from Good360 by ordering product directly from the Good360 online catalogue or may choose to be partnered with a national retail store in their local community where they regularly pick-up donations. In an effort to assist corporations with their expanding interest in philanthropy, CSR, and sustainability programs, Good360 also offer corporations the services of its philanthropy engineering team which will custom design ongoing product giving strategies and employee giving programs. These services can include identifying donation opportunities and assisting corporations with the maximization of their financial, social, or operational goals of their business's strategic philanthropy plan. Like NAEIR, Good360 covers its administrative expenses by charging recipient nonprofits shipping and handling fees, although it actively seeks cash donations from corporate partners, foundations, and individuals to help defray these fees.

Businesses should research a gifts-in-kind intermediary before establishing a relationship. Of course all such intermediaries offer basic information, FAQs, and testimonials on their websites and many will offer consultations in order to design a giving strategy that best fits corporate goals and needs. For more objective information, businesses should also consult nonprofit information services, like GuideStar USA (www.guidestar.org) or the local Better Business Bureau, which can provide advice on evaluating charities as well as financial and other organizational information.²⁴ Businesses seeking to enhance their public image or increase their visibility should also consider reviewing press coverage of various intermediaries and their partners.

Cost-Benefit Analysis of Liquidate, Dispose, or Donate (LDD)

As a business practice, it makes little sense to acquire product for any purpose other than generating positive net income. Therefore, the starting point for the cost-benefit analysis in this section is based on unsold inventory with a disappointing turnover rate, at which point three options are being considered. One option is to mark down the inventory from the original expected sale price in an attempt to clear the excess inventory, or otherwise sell it to a third party liquidator. In some industries, this is known as the

²⁴ While monitoring agencies like Charity Watch and Charity Navigator offer succinct evaluations, businesses should be aware that without contextual information there is a risk their measurements can misrepresent an intermediary's efficiency and effectiveness.

“salvage” option. The greater the discount applied to the inventory, the faster it would presumably turnover, and this consideration is referred to here as the decision to *liquidate*. The next option is to forgo attempts at selling the inventory altogether, but rather remove it from the current stock of inventory. In this case, the decision is based on whether to *dispose* of the inventory as waste, or to *donate* the product as a form of charitable gift-in-kind.

The remainder of this section will deal in greater detail with the various considerations which should enter into the “liquidate, dispose, or donate” (LDD) decision. These topics include:

- Tax implications
- Logistics
- Accounting
- Customer/Investor relations
- Employee engagement and recruitment
- Risks

Each topic includes sample demonstrations and examples to add clarity to the method of calculation. This overview helps us build a conceptual framework for undertaking the financial analysis.

Tax Benefit of Donating Product

Note: The tax information in this document is general in nature and should not be construed as professional advice. Please consult a tax advisor in determining your specific situation.

Disposing and liquidating have no special exemptions, so we begin by describing the special tax exemption for donated inventory. IRS Tax Code §170(e)(3) provides the legal basis for identifying GIK product donation from non-S corporations as a tax-deductible charitable contribution. This code provides a special allowance for qualified contributions of inventory and other property up to 10 percent of taxable income. The application of the rule can be more controversial when donating previously-owned property or materials subject to the Food and Drug Administration’s review, but these situations are outside the LDD analysis that is the focus of this report. This provision is the most visible and immediate return on the choice to donate.

A Brief History of §170(e)(3)

IRC §170(e)(1)(A) was added as part of the 1969 Tax Reform Act. It was realized relatively quickly that, in some cases, firms were producing inventory for the purpose of using the tax code without any attention to whether or not the product could sell. The 1969 Senate Finance Committee had said in the process of developing IRC §170(3)(1)(A) that it did not believe the charitable contributions deduction was intended for this end (i.e., donating purely to increase profits through the tax benefit, rather than for charitable reasons).

As a result, the Tax Reform Act of 1976 added IRC §170(e)(3), effective for contributions made after October 4, 1976.

A qualified contribution of inventory must satisfy several conditions to qualify for the deduction. The IRS considers eligible property donations to be those physical goods included under paragraphs (1) and (2) of §1221's capital asset definition (see text box below). The intent of the donation's use and the nature of the recipient are also important. The donation must be made to a 501(c)(3) organization or to a private operating foundation described in 4942(j)(3). The use of the property must pertain to the purpose or function of the recipient under the conditions of its exemption under section 501, and the property is to be used exclusively by the entity for the sole purpose of "caring for the ill, the needy, or infants."²⁵

Inventory donations eligible for §170(e)(3) charitable deductions are found in §1221(a)(1-2):

(1) stock in trade of the taxpayer or other property of a kind which would properly be included in the inventory of the taxpayer if on hand at the close of the taxable year, or property held by the taxpayer primarily for sale to customers in the ordinary course of his trade or business;

(2) property, used in his trade or business, of a character which is subject to the allowance for depreciation provided in section 167, or real property used in his trade or business;

Source: IRS Tax Code

As previously described, GIK intermediaries often advertise their specialization in managing the appropriate accounting and records required by the Internal Revenue Service. Historically, the IRS has been most concerned with fraudulent claims of fair market value and the eligibility of the charity's final use of the inventory.²⁶ The fraudulent claims of value have been mostly derived from donations of food and pharmaceuticals near or past their expiration date, as well as previously-used product which has depreciated from market value. This history explains the nature of the record-keeping requirements, and understanding this can assist firms in steering clear of raising red flags with the IRS.

As already discussed, any non-S corporation can donate §170(e)(3)-qualifying products for a special deduction to 501(c)(3) organizations whose charitable programs involve assisting in "the care of the ill, needy, or infants." The donation must not be subsequently resold by the recipient or otherwise exchanged for money, other property, or services (§170(3)(3)(A)(i-iv)). Upon donation, it is the responsibility of the charity to provide the company with a written statement which indicates the following:

1. A description of the contributed property;
2. Date of property receipt;
3. A statement that the property will be used in compliance with §170(e)(3);
4. A statement that the charity is an organization recognized as exempt from federal income tax under §501(c)(3);

²⁵ IRS interpretations of the "ill, needy, and infants" will be provided later in this section.

²⁶ Fowler, R., & Henchy, A. (1994). *In-Kind Contributions*. Retrieved from <http://www.irs.gov/pub/irs-tege/eotopice94.pdf>.

5. A statement that adequate books and records will be maintained and made available to the IRS upon request.

The books and records requirement for the charity, item number 5, does not need to trace the receipt and disposition of specific items if they disclose compliance with the requirements by aggregate quantities of donated property. The books and records are considered adequate if “they reflect total amounts received and distributed (or used), and outline the procedure used for determining that the ultimate recipient of the property is an ill or needy individual or infant” (Reg. 1.170A-4A(b)(4)(i)). It is not necessary, however, for the records to link individual items with individual recipients to whom the property was ultimately distributed. The specifics of the level of detail necessary will depend on the particular case of the public charity, but again, this is the responsibility of the *charity*.

Reg. 1.170A-4A(b)(2)(ii) provides the requirements and definitions that constitute the “ill,” “needy,” and “infants” groups, as well as what constitutes “care.” The “ill” generally constitutes a person who requires medical care as described in §1.213-1(e), and is comprehensive enough to include those incapacitated by age or mental illness, even in cases where the health impairments do not result in hospitalization or institutionalization. The “needy” includes persons “who lack the necessities of life, involving physical, mental, or emotional well-being, as a result of poverty or temporary distress” (Reg. 1.170A-4A(b)(2)(ii)(D)). Finally, what it means to be an “infant” is determined by *local* law for identifying a minor child, which is a nearly-universal 18 years of age or younger. This is not to be confused with alternative age definitions for “juveniles” or other definitions applied to criminal cases.

Product donations may also be eligible if the 501(c)(3) organization can demonstrate that the gift constitutes “indirect assistance” to the needy, elderly, and infants (Reg. 1.170A-4(b)(2)(ii)). For instance, copy machines and printers which assist organizations with these purposes remain 170(e)(3) eligible. Any other use outside caring for these groups must be incidental in nature. Furthermore, Reg. 1.170A-4(b)(2)(ii) allows these donations to be subsequently donated to another organization for qualified purposes, provided that appropriate documentation is maintained. It should be noted, however, that multiple transfers can draw the attention of the IRS, particularly if the organizations lack either physical possession or control over donated goods.²⁷

The valuation of the in-kind contribution determines the amount of the enhanced deduction. For this, the cost basis of the inventory and the inventory’s “fair market value” must be recorded. The cost basis is simply a matter of accounting, but the fair market value standard can be more subjective. Regulations 1.170A-1(c)(2) and (3) states:

The fair market value is the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of the relevant facts. If the contribution is made in property of a type which the taxpayer sells in the course of his business, the fair market value is the price which the taxpayer would have received if he had sold the contributed property and, in the case of a contribution of goods in quantity, in the quantity contributed. The usual market of a manufacturer or other producer consists of the

²⁷ Fowler, R., & Henchy, A. (1994). *In-Kind Contributions*. Retrieved from <http://www.irs.gov/pub/irs-tege/eotopice94.pdf>.

wholesalers or other distributors to or through whom he customarily sells, but if he sells only at retail, the usual market consists of his retail customers.

If a donor makes a charitable contribution of property, such as stock in trade, at a time when he could not reasonably have been expected to realize its usual selling price, the value of the gift is not the usual selling price but is the amount that the quantity of property contributed would have been sold by the donor at the time of the contribution.

A few key terms emerging from these statements are important for determining fair market value:

1. “...if he had sold the contributed property in the usual market...”
As described in the regulation, wholesalers would not claim fair market value in the retail market, nor vice versa. The IRS historically has treated published prices from catalogues, brochures, and other list prices of items which the company sells in the ordinary course of business, and in most cases these are considered more persuasive than an independent appraisal.²⁸
2. “...at the time and place of the contribution...”
This clause is most applicable to perishable goods with expiration dates, most notably pharmaceuticals and food products. Items which have surpassed an expiration date are typically not expected to sell at their previous market value. Non-perishable items with similar limitations, such as calendars, could also raise this concern.
3. “...in the quantity contributed.”
If the donation were large enough so as to affect the market value of the product, it is conceivable that the valuation of the product should be lowered. Furthermore, if the donation is in amounts which exceed normal retail consumption levels, such as the case when buying in bulk, a lower fair market value might be appropriate.

Corporations making noncash contributions are required to file Form 8283 (Noncash Charitable Contributions) along with their Form 1120 when deductions total over \$5,000 (Reg. 1.170A-13(c)(1)(i)). Furthermore, non-cash donations generally require a qualified appraisal when the item in question is said to be \$5,000 or more. These requirements are relaxed in the case of product donation under §170(e)(3). First, inventory donated under §170(e)(3) does not add to the \$5,000 standard by the full amount of the deduction, but only in the amount of the *enhanced* deduction (Reg. 1.170A-13(c)(1)(ii)). For instance, if a donation with a cost basis of \$5,000 carried a deductible value of \$8,000 by virtue of §170(e)(3), then only (\$8,000-\$5,000=) \$3,000 is applied to the total deductions for which the \$5,000 standard applies under Reg. 1.170A-13(c)(1)(i). Secondly, inventory property donations over \$5,000 under §170(e)(3) are exempt from the qualified appraisal requirement (IRS Publication 561).

Tax Saving: Calculating and Comparing to Dispose/Donate

The amount of the deduction is determined by two concepts of value recognized by the IRS: “fair market value” and “tax basis.” Fair market value is an estimated value of the donated property at the time of the donation. Typically, it will suffice to identify the selling price of comparable property near the time of the donation in a fair market transaction (i.e., the transaction is made voluntarily between unrelated strangers). Disputes over fair market value arise most often in cases of used items (particularly

²⁸ Fowler, R., & Henchy, A. (1994). *In-Kind Contributions*. Retrieved from <http://www.irs.gov/pub/irs-tege/eotopice94.pdf>.

automobiles) or infrequently sold items (like houses). Tax basis, also sometimes referred to as “cost basis,” is related to the original value of the inventory, usually the purchase price of the inventory. The tax basis will be provided under the company’s current accounting method for computing income tax liability.²⁹

Once the fair market value (FMV) and tax basis (TB) are known, the value of the special §170(e)(3) deduction for qualified property is the lesser of:

1. The tax basis plus one-half the difference between fair market value and tax basis:
Deduction = $\frac{1}{2}(\text{FMV}-\text{TB})+\text{TB}$
2. Two times the tax basis:
Deduction = 2TB

Inventory which fails to meet the requirement for the special deduction of §170(e)(3) will instead be considered a charitable contribution under §170(e)(1), and the deduction will simply be the tax basis. The following text box provides two examples to illustrate the computations above for §170(e)(3):

Example 1: A company donates assorted lighting fixtures with a fair market value of \$22,000 to a 501(c)(3) organization that provides housing revitalization support for low income families. The company has a tax basis of \$18,000 in the products. The deduction will be \$20,000, which is the smaller of the following two calculations:

1. $\frac{1}{2}(22,000-18,000)+18,000 = \$20,000$
2. $2(18,000) = \$36,000$

Example 2: A company donates yellow highlighters with a fair market value of \$5,000 to a 501(c)(3) organization that provides them to children from low-income families. If the company has a tax basis of \$1,000, the deduction will be \$2,000 because it is the smaller of the two calculations:

1. $\frac{1}{2}(5,000-1,000)+1,000 = \$3,000$
2. $2(1,000) = \$2,000$

The ultimate payoff of the deduction will be in the form of a reduced tax liability. The tax liability will be jointly determined by the amount of taxable income and the applicable corporate income tax rates (CITR) at the federal, state, and local level. States mostly, but not exclusively, reference federal law for tax deductible expenses. Again, tax professionals should be consulted for determining the tax consequences for any specific case. It can be stated unequivocally, however, that the tax savings of the donation rises with the cumulative income tax burden. A reasonable first approximation for identifying the tax effect of product donation as a rate of return is $(\text{Local CITR} + \text{State CITR} + \text{Federal CITR} - (\text{State CITR} + \text{Local CITR}) \times (\text{Federal CITR}))$. This approximation is complicated by the tiered marginal CITR across income groups at the federal (and sometimes state) level. Furthermore, the state portion of the income tax burden is determined by an apportionment formula when the corporation conducts business in multiple states. It

²⁹ Inventory valuation may differ from the historical cost basis by virtue of the “Lower of Cost or Market Rule.”

would therefore be more correct to identify the state and local CITR's as "apportionment-weighted" marginal rates, but for simplicity much of this study will simply refer to the "state marginal tax rate." One helpful source that may be of assistance is the annual *Multistate Corporate Tax Guide* published by Commerce Clearing House.

To illustrate the tax effect of product donation, consider a case of a firm whose taxable net income level places it in the 35% federal tax bracket, and a combined state/local marginal income tax rate of 8% (which does not change as a result of the product donation).³⁰ Using the \$20,000 product donation of Example 1 in the previous text box, the tax effect on net income would be the following:

Example: Tax Savings from GIK Product Donation			
A.	Deductible Value of Product Donation		\$ 20,000
B.	Effect on Adjusted Gross Income	[-A]	\$ (20,000)
C.	Effect on State Income Tax Liability @ 8%	[B x 8%]	\$ (1,600)
D.	Effect on Federal Taxable Income	[B-C]	\$ (18,400)
E.	Effect on Federal Income Tax Liability @35%	[D x 35%]	\$ (6,440)
F.	Donation Effect on Net Income	[-(C+E)]	\$ 8,040

Item F is \$8,040 and represents the value of the \$20,000 product donation in terms of its effect on net income. Notice this could have been similarly found as the result of $(0.08+0.35-(0.08 \times 0.35)) = 0.402$, which when multiplied by \$20,000 yields \$8,040. The third term in the equation, $-(0.08 \times 0.35)$, reflects the interaction in the tax code between state/local and federal income taxes.³¹ State and local taxes are deducted from federal income taxation; consequently the federal income tax burden rises as state and income taxes increase.

The tax treatment of qualified product donation is unambiguously superior to product disposal. Disposal of products carries its own tax treatment because the income statement will necessarily be adjusted to reflect the cost of lost inventory. The framework in the above text box would differ only by the amount of deductible value, which would be just \$18,000 in the example (cost basis). This disposal effect on net income would likewise be $(\$18,000 \times 0.402 =)$ \$7,236 in accumulated tax savings. In this simple example, before any other costs are considered, the financial value of product donation would carry an \$804 advantage over disposal. Note that this advantage **does not** include a double counting of inventory loss, but rather the inventory loss is given additional deductible value because it was an eligible §170(e)(3) donation. Furthermore, additional costs associated with product donation or disposal would have the familiar tax consequences to normal business expenses.

³⁰ The 35% federal rate was the marginal corporate income tax rate on taxable income over \$18.3 million in 2010. The lowest rate in 2010, for a corporation with less than \$50 thousand in taxable income, was 15%.

³¹ In the United States, the average combined federal and state top marginal rate in 2010 was 39.2 percent. Source: The Tax Foundation. (2011). *National and State Corporate Income Tax Rates, U.S. States and OECD Countries*.

Treatment of Special GIK Items

There are other forms of contributions eligible under §170(e)(3) which are eligible for the enhanced deduction, but have special rules. For instance, “apparently wholesome food” inventory may be contributed without regard to whether or not the company is a C-corporation (§170(e)(3)(C)).³² Contributions of book inventory can also be made to a qualified K-12 public school, despite its lack of 501(c)(3) status.³³

Under §170(e)(4), scientific property used for research can also receive the same special deduction under §170(e)(3) when the property is donated to an institution of higher education or a research organization exempt from taxes under 501(c)(3). These items must be used for research, experimentation, or research training in the biological or physical sciences. Similarly, §170(e)(6) allows for the donation of computer technology and equipment for educational purposes, if the contribution serves the charity’s overall education plan, and likewise qualifies for the special deduction of §170(e)(3).³⁴

Additional Tax Considerations

A few points merit special attention, and in some cases repetition. The tax implications of any deduction demonstrated in this report apply only if the organization has not exceeded the limit on deductions, which is 10% of taxable income. Any organization beyond that limit effectively receives zero tax benefit from additional deductions, including those under §170(e)(3). Furthermore, the extended deduction under §170(e)(3) applies only to non-S corporations, thereby excluding S corporations and individuals. Finally, donated inventory should not be double-counted in Cost of Goods Sold when claiming §170(e)(3) deductions.

Usually a corporation takes the deduction for its charitable contribution at the time of the gift. If the corporation reports taxable income using an accrual method of accounting, however, it can opt to deduct the contribution within 2 ½ months after the close of the year.³⁵

As discussed from the outset of this report, the intention is to provide an analysis from the point at which the relevant question is whether to liquidate, dispose, or donate unsold inventory. The case is not being made that a successful business can or should be built for the purpose of acquiring inventory which can be discarded in these manners. Nevertheless, there has been research demonstrating cases in which donation was more profitable than selling. These cases arise when the costs of selling are high, and the costs of production are very low.³⁶ One general indicator of such cases might exist when the marginal cost (i.e., the cost of producing one additional unit) as a percentage of the selling price is less than the marginal tax

³² For “wholesome food” definition, see section 22(b)(2) of the Bill Emerson Good Samaritan Food Donation Act. This allowance for wholesome food definition is currently set to expire after December 31, 2011, but this is a date that has been revised several times as expiration has neared.

³³ Like the food inventory donation, this special exemption is set to expire on December 31, 2011, but has a history of being extended rather than being permitted to sunset.

³⁴ The computer equipment must be less than three years old in order to qualify for the special deduction.

³⁵ IRC 170(a)(2)

³⁶ Johnson, O. (1966). Corporate Philanthropy: An Analysis of Corporate Contributions. *The Journal of Business*, 39(4), 489-504.

rate. Cases where these situations might apply are likely a rare exception to the general rule that inventory should be built on the expectation of successful sales.

Comparing the Numbers: The Tax Treatment of Donate, Dispose, and Liquidate

The tax savings comparison between donation and disposal, as demonstrated before, is straightforward since the tax deduction was created for the purpose of making product donations more financially attractive. The value of the deduction will generally rise with the difference between fair market value and cost basis, as well as the relevant state and federal income tax rates. The comparison to liquidation, however, is more complicated and will depend on more parameters.

In addition to the relevant factors between donate and dispose, the liquidation option will provide revenue. The additional revenue collected will depend on the magnitude of the discount applied to quickly clear the inventory, as well as the state and local *sales* tax rates. For concreteness, consider a retailer with “trendy” jeans that carry against an acquisition value of \$20,000, but recently had the established fair market value of \$50,000. Suppose that this inventory has unexpectedly fallen out of trend, and cumulatively they would bring in \$5,000 in revenue as liquidated product (i.e., a 90% discount). For our purposes here, this would allow us to ignore multi-year carrying costs. Assuming a 5% sales tax rate, 8% state income tax rate, and 35% federal income tax rate, the net income effect after taxes would be:

Example: Net Income After Tax Treatment

Liquidate

A.	Liquidated Value/Sales Receipts		\$ 5,000
B.	Sales Tax Remittance	[A x 5%]	\$ 250
C.	Effect on Adjusted Gross Income	[A-B-\$20,000]	\$ (15,250)
D.	Effect on State Income Tax Liability @ 8%	[C x 8%]	\$ (1,204.75)
E.	Effect on Federal Taxable Income	[C-D]	\$ (14,045.25)
F.	Effect on Federal Income Tax Liability @35%	[E x 35%]	\$ (4,915.84)
G.	Net Income Effect of Liquidating Jeans	[A-B-D-F]	\$ 10,870.59

Donate

A.	Deductible Value of Product Donation	[20K+.5(50K-20K)]	\$ 35,000
B.	Effect on Adjusted Gross Income	[-A]	\$ (35,000)
C.	Effect on State Income Tax Liability @ 8%	[B x 8%]	\$ (2,800)
D.	Effect on Federal Taxable Income	[B-C]	\$ (32,200)
E.	Effect on Federal Income Tax Liability @35%	[D x 35%]	\$ (11,270)
F.	Donation Effect on Net Income	[-(C+E)]	\$ 14,070

Dispose

A.	Expensed Inventory	[20K]	\$ 20,000
B.	Effect on Adjusted Gross Income	[-A]	\$ (20,000)
C.	Effect on State Income Tax Liability @ 8%	[B x 8%]	\$ (1,600)
D.	Effect on Federal Taxable Income	[B-C]	\$ (18,400)
E.	Effect on Federal Income Tax Liability @35%	[D x 35%]	\$ (6,440)
F.	Disposal Effect on Net Income	[-(C+E)]	\$ 8,040

Under the conditions described, the donation approach carried a \$3,199 tax advantage over liquidation, and a \$6,030 advantage over disposal. In addition to the relevant tax rates, the most critical difference between donation and liquidation is the amount of the discount required to liquidate the good. The liquidation discount will determine the speed at which the inventory is sold, and so a discount rate high enough to make a comparable time for inventory clearance is employed. Smaller discount rates may require the framework to be modified to include the carrying costs of inventory in this tax treatment, but an accountant should be consulted on the approach consistent with internal practices.

To take a case example from The Home Depot's Framing Hope Program, a convenience sample of product donations in October 2011 carried a cost basis of \$65,829.60 with expected tax savings of \$39,497.76.³⁷ The estimated salvage value of selling it to third party liquidators was \$13,165.92 (10% of its fair market value), which based on their expected tax rate implied that liquidation would have yielded

³⁷ The authors appreciate Lori Cook for collecting and sharing the data on cost basis, expected tax benefit, and estimated salvage value.

a total of \$28,965.02 in combined revenue and tax savings. Clearly, The Home Depot’s program was successful in finding product donations which increased their profits by over \$10,500 beyond what could have been achieved with liquidating their inventory in the salvage market. In this particular case, the break-even point between liquidation and donation would have occurred at a salvage value of \$16,927.61.

A simpler rule of thumb can be devised for comparing liquidation and product donation, the derivation of which is included in the Appendix 1. Define L as the amount of revenue that would be received if the inventory was liquidated (e.g., Line A in the “Liquidate” option above), and D is the amount which can be claimed for special exemption beyond cost basis under 170(e)(3) (Line A in the “Donate” option above, minus the \$20,000 cost basis). If τ is defined as $(\text{Local CITR} + \text{State CITR} + \text{Federal CITR} - (\text{State CITR} + \text{Local CITR}) \times (\text{Federal CITR}))$, then donation is financially advantageous to liquidation when:

$$L \frac{(1 - \tau)}{\tau} \leq D$$

Since this formula neglects sales taxes, it will be more accurate when the liquidation process is selling the inventory to a 3rd party liquidator who resells it on the salvage market. If the firm faces a 35% federal income tax, and a state income tax rate of 8%, then $\tau = (0.08 + 0.35 - (0.08 \times 0.35)) = 0.402$ and the rule would become:

$$1.49 L \leq D$$

As a concrete example, consider again our trendy jeans with fair market value of \$50,000 and cost-basis of \$20,000, in which case $D = \$15,000$. In this case, donation will be the more financially advantageous option for liquidation values less than \$10,067. In this example, this level of liquidation value is a little over 20% of the original fair market value, a level comparable to the 10-30% rates of return frequently experienced by retailers salvaging their inventory through third market liquidators.

Logistics

Liquidation, disposal, and donation each require a different set of executed actions for implementation. Unlike the tax implications, there is considerable flexibility in logistical options. Managerial discretion will ultimately determine the final logistical costs for any of these choices. In some of these cases, there is considerable room for choice available to managerial discretion. The subject of this section will be to provide a menu of options available and information as to what expenses are reasonable to expect with each of these three choices.

Broadly, donation raises the most new logistical issues, but there exists means of defraying these costs and they are somewhat predictable. Disposal is likely to be the least logistically expensive option for most products and is likely already a familiar expense to the management. All of these considerations will also depend on factors external to the firm’s control, such as fuel prices and waste fees. This section does provide a framework where ballpark estimates can be garnered by providing information specific to the case.

Liquidation

Liquidation costs can be framed in terms of the opportunity costs between managing current versus unprofitable inventory. Items scheduled for liquidation can occupy valuable warehouse and retail floor space that otherwise could be devoted to selling more profitable merchandise. A business generally

would not use valuable floor space to sell slow-moving winter coats in early summer when their customers would be more interested in swimwear.

A useful approximation for the value of floor space foregone to the use of liquidated inventory is the rental price per square foot, multiplied by the square footage the inventory will occupy.³⁸ The following textbox serves as an example:

Suppose a retailer with an annual lease of \$120,000 for 1,000 square feet, which translates into a cost per foot of ($\$120,000/1,000=$) \$120 per year. If there are 312 work days (an average of six days a week for 52 weeks) in the year for this retailer, so the cost of floor space is ($\$120/312=$) \$0.38 per day.

Liquidated inventory occupying 100 square feet for six days would then be ($\$0.38 \times 100 \times 6$) = \$228.

This analysis would be unchanged if the discussion were switched from a retailer to a warehouse, with the substitutions being the annual floor price of the warehouse space in lieu of the retail space.

Donation

The logistical costs associated with donation that are addressed in this section – shipping, identifying a charity, and accounting adjustments – might be new to some business managers who have not previously engaged in product donation programs. While new, many of these costs can be approximated prior to implementation and mitigated with the result that donation can be quite a cost-effective alternative.

Shipping Costs for Product Donations

The most prominent logistical cost of donation – not necessarily shared by disposal or liquidation – is the cost of reverse logistics. Most businesses have some reverse logistics established to handle customer and manufacturer returns, but product donations may require an additional shipping relationship. Some businesses establish a relationship with an eligible charity, which regularly pick-up donated inventory at the business establishment, effectively creating \$0 in financial costs. In more complex cases where there may not be such an arrangement, or at least not one proximal enough for product pick-up, costs may be incurred for delivery of the product. These costs might be borne by the business, nonprofit, or an intermediary.

Once again, intermediaries may be of substantial assistance in this respect. In addition to connecting companies and charities, intermediaries can extend an existing logistical network to realize greater economies of scale. If the distribution of the inventory is prolonged, intermediaries can store items in

³⁸ For the cost of devoting floor space to liquidated inventory, it is probably more intuitive for many to think that it would be the foregone profit margin on the inventory you would substitute. The idea behind using the rental price of the floor is that it approximates exactly that profit margin, at least in cases where the land was purchased in a competitive market by managers considering the profit-maximizing floor size. Intuitively, each square foot of space is rented/purchased because it was able to hold inventory with a value greater than its addition to cost. The last square foot rented, in this analysis, has a value close to that of the item(s) that would be the next to come onto the floor.

independent warehouses to distribute across nonprofits at a later date. Furthermore, charities may actually pay the shipping costs of some donations when the products are highly demanded. In other cases, a product donation could be matched with a cash donor who wishes to assist by paying the delivery costs. In short, demand from nonprofits can result in cases where the reverse logistics costs are reduced or eliminated altogether from the company's expenses.³⁹

Recognizing that these costs can potentially be eliminated altogether, the remainder of this section provides some information on developing an estimate of shipping costs based on actual historical data of shipping invoices of GIK product donations. This dataset, provided by Good360, contains the logs of 4,453 shipping invoices from across the nation between March of 2010 and June of 2011. The median invoice cost was \$213.15, and the average was \$548. Only 15 percent of the invoices exceeded \$1,000.

The use of a statistical technique known as multivariate regression (MVR) analysis generates a mathematical expression to serve as a cost function, and with it, a basic understanding of the relationships between the characteristics of the donated product and its shipping cost (C). Generically, the estimated relationship is

$$C = \beta_0 + \beta_1 \text{Miles} + \beta_2 \text{Miles}^2 + \beta_3 \text{Weight} + \beta_4 \text{Weight}^2 + \beta_5 \text{Class} + \beta_6 \text{ClassID} + \beta_7 \text{Oil} + \text{Type } \delta + \text{Month } \alpha + \varepsilon.$$

Summary statistics and other detailed information about the regression can be found in Appendix 2. The MVR analysis reveals, not surprisingly, that oil prices (*Oil*), miles of delivery (*Miles*), the weight of the delivery (*Weight*), type of delivery method (*Type*), the density class of the delivery (*Class* and *ClassID*), and the month of the year (*Month*) are the primary determinants of the total invoice. The results also reveal the presence of economies of scale in distance, as average costs per mile delivered actually decreases when the delivery is less than 80 miles. Historically, after eliminating the cost differences derived from the shipping details, invoices have been highest in February and September. A form is provided on page 25 and can be used to estimate shipping costs for a GIK donation, and an Excel based calculator can be found at <https://sites.google.com/site/jross08/CostFunction.xlsx>. The textbox below uses a hypothetical shipment, where the inputs are identified in green and the resulting cost appears in yellow:

³⁹ Expenses associated with shipping donated goods are not eligible for the special extended tax deduction under §170(e)(3), but are rather treated as any other cost of doing business.

Example: Estimated Cost of Shipping Donated Product	
Delivery miles	736
Product Weight (lbs.)	2,780
Direction	To/From Warehouse
Mode	Less than truck load
Month	January
Oil Price (WTI \$/barrel)	80.00
NMFC Class Code (-1 if None)	50
Estimated Cost (\$)	\$723.64

The inputs chosen for the example above were influenced by the average delivery characteristics in the Good360 data on observed donations. The calculator is only based on historical data of shipping cost invoices. Unforeseeable industry changes could impact the accuracy of these estimates and the calculator will work most accurately for deliveries which have characteristics close to the average values of the data set. The calculator may give less accurate estimates for deliveries that have extreme characteristics or other unusual features.

Shipping Cost Estimate Worksheet

<i>Variable</i>	<i>Adjustment</i>		<i>Total</i>
Number of miles	_____ x 0.015636	=	- _____
Miles ² (squared)	_____ x 0.0000949	=	+ _____
Weight in lbs	_____ x 0.209793	=	+ _____
Weight ² in lbs (squared)	_____ x 0.00000546	=	- _____
Delivery method, if:			
Indirect delivery	42.19889	→	- _____
Direct delivery (to/from warehouse)	0.0000	→	+ _____
Mode			
Partial truckload	352.1991	→	- _____
Full truckload	0.0000	→	+ _____
Has a NMFC Classification			
Yes	110.5969	→	- _____
No	0.0000	→	+ _____
NMFC Class	_____ x 0.356904	=	+ _____
Month of delivery			
January	0.0000	→	+ _____
February	415.8649	→	+ _____
March	188.6503	→	+ _____
April	95.20474	→	+ _____
May	198.9304	→	+ _____
June	282.5277	→	+ _____
July	270.3393	→	+ _____
August	307.9553	→	+ _____
September	370.7122	→	+ _____
October	207.6000	→	+ _____
November	136.7688	→	+ _____
December	197.9937	→	+ _____
Spot Price of WTI Oil (\$/barrel)	_____ x 7.847000	=	+ _____
Intercept adjustment		=	- 392.2994
Total Shipping Estimate			\$ _____

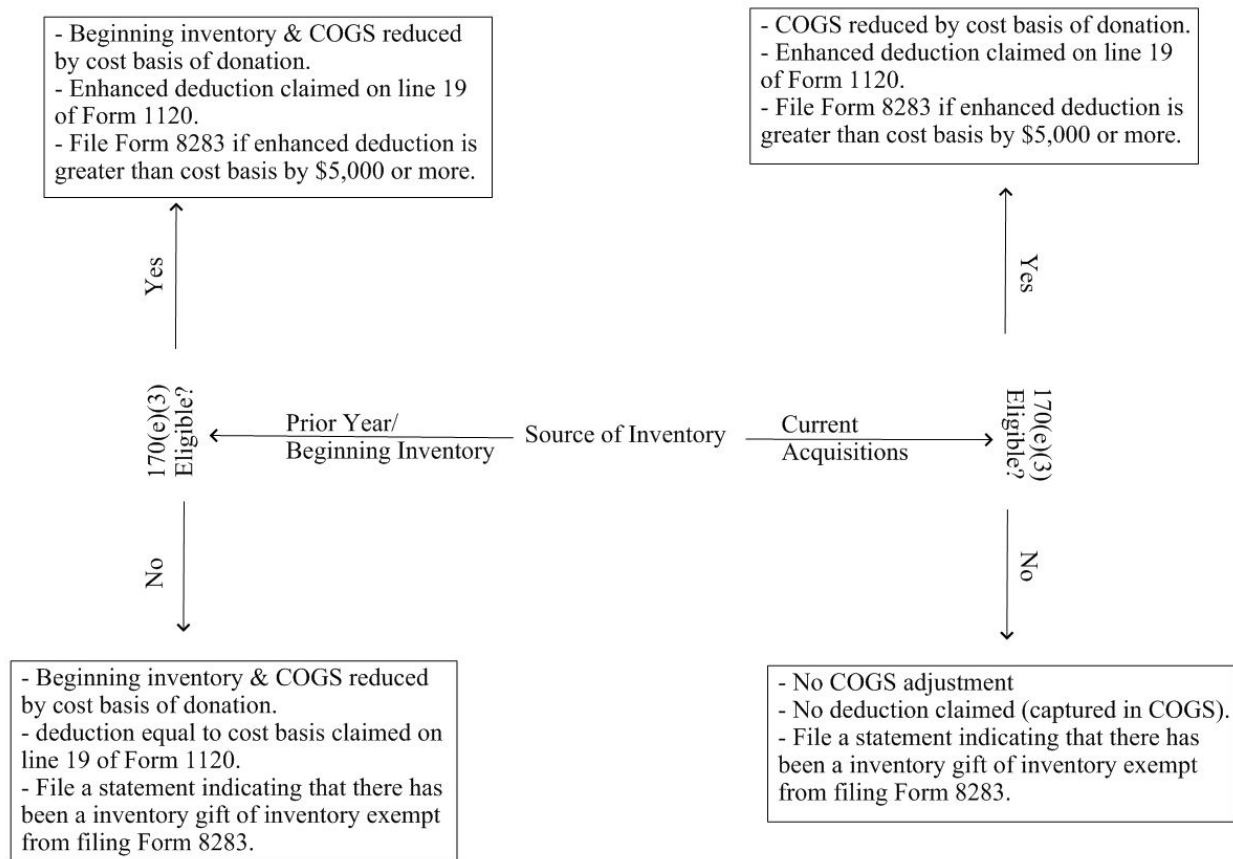
Abbreviations: WTI – West Texas Intermediate; NMFC – National Motor Freight Classification

Cost of Goods Sold and Inventory Accounting

Note: The accounting information in this document is general in nature and should not be construed as professional advice. Please consult an accountant in determining your specific situation.

Though accounting does not represent a new cost, it does represent a nuance for accountants to track. The proper accounting of product donation between cost of goods sold (COGS) and inventory reduction is important in both tax accounting and in reporting under Generally Accepted Accounting Principles (GAAP). For tax treatment accounting, it is important that inventory donations reported for deduction are not double-counted by maintaining them as a COGS expense. If the inventory was added in the current fiscal year, then the annual report requires no inventory adjustments. If, however, the inventory donated was counted among the beginning inventory, then it must be deducted from this balance by the basis of the donation. The flow chart below illustrates these choices and associated paperwork.

Inventory and Cost of Goods Sold Tax Accounting of Charitable Inventory Contributions



Source: Adapted from Figure 1 in Reiner, McKenzie, and Hoffman (1991).

For reporting the inventory donation under GAAP, it is important for the contribution to not be buried into the cost of goods sold because it would understate gross profit, and potentially distort perceptions of anticipated future cash flows. This difference in treatment does not change the bottom line of the gross

profit position, but rather clarifies that some costs were philanthropic rather than the result of underlying fundamentals. The textbox below provides a demonstration.

Determination of Cost of Goods Sold (COGS) With Charitable Contribution of Inventory for GAAP

A. Cost of Goods Available for Sale

→ Beginning Inventory + Production and Acquisition Costs from Accounting Records

B. Determination of Ending Inventory

→ Allocation of cost according to inventory method used (e.g., LIFO or FIFO)

Cost of Goods Sold WITHOUT inventory donation = Cost of Goods Available for Sale (A) – Ending Inventory (B)

Cost of Goods Sold WITH inventory donation = Cost of Goods Available for Sale (A) – Ending Inventory (B) – Cost of Inventory Contributed to Charity

Example: A corporation with \$20 million in beginning inventory, acquires or produces \$10 million, and incurs \$8 million in inventory cost. If they make no inventory donations, then COGS is $\$20 + \$10 - \$8 = \22 million. If they donate \$1 million in inventory, their ending inventory is reduced to \$7 million, and therefore COGS is $\$20 + \$10 - \$7 - \$1 = \$22$ million.

Source: Adapted from Figure 2 in Reiner, S. T., McKenzie, K., & Hoffman, J. R. (1991). In Kind Giving: Tax and Accounting Aspects of Giving Inventory Property to Charity. *Taxes*, 558.

Identifying a charity and transferring the gift

The logistical costs of identifying a charity and transferring the donated product vary widely based on the circumstances. The two main factors are:

- The interest the company has in the future returns on their charitable investment: Strategic businesses might have to devote significant time and resources to identify a philanthropic investment that best benefits both the business and the charitable cause. This process might entail designing a grant and maintaining an application/selection process, or it could require the company to monitor “impact reports” from recipient nonprofits. Depending on the complexity of the grant, such administrative tasks could divert significant company resources.
- The product(s) being donated: The more specialized the product, the more difficulty the company might have in locating a charity. For example, many types of nonprofits can use pens and paper to advance their mission, while only a few could effectively employ a donation of sewing machines or lemon zesters. Because of this, more idiosyncratic gifts can entail spending more resources to both identify the recipient and ship the gift.

A company can avoid these identification costs by partnering with a GIK intermediary. Some specialized nonprofit intermediaries maintain an online marketplace where goods are posted to a catalog and nonprofits select what items fit their needs (e.g., www.good360.org). Alternatively, some intermediaries help cultivate sustained relationships between certain corporate donors and nonprofit recipients. Through these and other methods, intermediaries focus on lowering the philanthropic transaction costs for all parties involved.

Disposal

Since access to waste service is often determined by local government, the financial cost of waste-disposal is dependent on the locations of the disposal point and the landfill. There exists a diverse array of waste pricing schemes and rates as a result, and an internal evaluation of the waste disposal services is required. In general, your waste collection service has either a flat fee, or is charged on the basis of weight, volume, or “pull.”⁴⁰ For a careful analysis of waste service costs, as well as suggestions for reducing these costs, we would recommend the *Business Guide for Reducing Solid Waste* produced by the U.S. Environmental Protection Agency (EPA).⁴¹ A simpler framework is presented here, and is comparable to the Estimating Waste Removal Costs worksheet provided by the EPA.⁴² The relevant consideration in all cases is to determine how much product could be saved from waste by donation or liquidation, and subsequently how this cost is computed for removal. Certain items, such as e-waste, can have special fees or tax refunds which apply when disposed.

In a fixed fee system where the quantity of waste is irrelevant to the charges, then the cost is zero. If the quantity of waste is enough to change the amount of regularly scheduled service, by changing the expected pick-up load, then those calculations will be dependent on the rate. For example, Appendix 2 provides the pick-up rates and bin size for commercial bin customers drawn from webquotes for Livermore Sanitation.⁴³ If product donation were to allow a business to reduce their weekly loose materials pick-up from 6 to 5 cubic yards once a week, the annual implied cost of disposal would be \$1,265.76.⁴⁴ If product donation would not change the subscription to this service, then the implied cost of disposal would be \$0.

In cases where waste disposal is charged on the basis of the weight or volume, then the following formulas are likely to provide a reasonable approximation of the cost:

$$\text{Waste removal charge per unit of weight or volume} \times \text{Number of units of waste disposed} = \text{Total Waste Disposal Cost}$$

⁴⁰ There is no waste industry accepted definition of a “pull,” but the common usage is to imply anytime a container is emptied or debris is picked-up.

⁴¹ Available at: <http://www.epa.gov/osw/nonhaz/municipal/pubs/bus-guid/guide.pdf> .

⁴² Available at: <http://www.epa.gov/osw/partnerships/wastewise/pubs/estimate.pdf>.

⁴³ Retrieved August 1, 2011 from <http://www.livermoresanitation.com/commercial-services-bins.html>.

⁴⁴ Calculation: Change in service rate times the number of months in a year, (\$632.87-\$527.39)×12=\$1,265.76

The *Waste Business Journal*'s "Waste Processing and Disposal Index" can provide a set of reasonable estimates of waste disposal charges.⁴⁵ The national average tipping cost was \$43.99 per ton in the *Waste Business Journal*'s 2010 report, but prices varied widely both across and within states.

The logistics cost function example of the previous section was estimated with a product weight of 2,780 pounds, which was drawn from the average weight of products shipped in the Good360 invoice data. If waste removal cost was \$44/ton, approximating the national average in the disposal index for 2010, then the disposal cost of \$61.16 would be saved by the donation.⁴⁶

Ultimately, these calculations can be viewed either as costs of choosing to dispose over donate, or equivalently as avoided costs through product donation. The liquidation option should also consider this avoided cost if it similarly eliminates waste disposal costs.

Broader Qualitative Advantages of Donation

Product donation programs offer other benefits beyond inventory management savings. This is particularly true when the product donation program is couched in a business's overall efforts in building brand image or a strategic philanthropy plan. Businesses employ charitable giving as a form of an investment activity and weigh both the benefits and cost of each gift.⁴⁷ The strongest of these corporate giving plans not only invest in charitable causes, but also focus on the charitable activities that provide the maximum return to the company.⁴⁸

This section explores the wider business benefits of strategic corporate philanthropic activities, like product donation programs. For example, businesses can use their product donation programs to signal positive corporate values. Such image enhancement can lead to a more business friendly regulatory environment. Additionally, people gravitate toward corporations with strong, positive public images. Through such programs, companies can attract new investors, customers, and employee talent. Furthermore, strong corporate philanthropy programs have been shown to strengthen a corporation internally, encouraging employee corporate citizenship, motivation, retention, and productivity.

While such benefits might be less quantifiable than inventory cost savings and tax benefits, they are not trivial. Granted, some businesses design philanthropy programs only with the goals of enhancing public and employee relationships.⁴⁹ Evidence however indicates that philanthropy programs can also enhance overall company profitability with very little risk.⁵⁰ These next sections explore these effects from philanthropy programs in greater detail.

⁴⁵ Available at: <http://www.wastebusinessjournal.com/wbjpriceindex.htm>

⁴⁶ Calculation: $\$44 \times (2780/2000) = \61.16 .

⁴⁷ Dienhart, J. W. (1988). Charitable investments: A strategy for improving the business environment. *Journal of Business Ethics*, 7(1), 63-71.

⁴⁸ Porter, M. E., & Kramer, M. R. (2002). The Competitive Advantage of Corporate Philanthropy. *Harvard Business Review*, 80, 12, 56-68.

⁴⁹ Marx, J. D. (1999). Corporate philanthropy: What is the strategy? *Nonprofit and Voluntary Sector Quarterly* 28(2): 185-198.

⁵⁰ Meng-Ling, W. (2006). Corporate social performance, corporate financial performance, and firm size: A meta-analysis. *Journal of American Academy of Business, Cambridge* 8(1): 163-171.

Signaling Positive Corporate Values

A product donation program signals a corporation's commitment to the environment, philanthropy, and social causes. Such image enhancement is similar to marketing and advertising programs because it produces benefits for businesses through image and brand building. In fact, some firms have used strategic philanthropy programs in lieu of advertising and marketing.⁵¹ It should be noted, however, that scholars have found charitable giving programs to be a complement, rather than a substitute, to advertising.⁵² When strategically planned in conjunction with other firm objectives, a strategic philanthropy can enhance a business's public image and increase its visibility. Consider the following examples:

- A home improvement store donates plants and gardening tools to a community garden project for troubled teens in urban areas.
- An upscale clothing retailer donates business attire to unemployed men and women who are trying to reenter the workforce.
- A bookstore donates large print and audiobooks to a local nonprofit nursing home.
- A department store donates toys to cheer up kids in a hospital children's ward.
- An appliance store replaces the old and inefficient ovens at a community soup kitchen.

Such donations tend to be highly photogenic events, and businesses can easily include such images in annual reports, newsletters, and advertisements to illustrate corporate values. Furthermore, a firm's public relations and marketing departments can use such stories to attract positive media attention. Such external reporting and verification can also strengthen the legitimacy of a product donation program in the eyes of various corporate stakeholders.

Business scholars use "signaling theory" to explain the impact of such highly visible philanthropic programs on corporate stakeholders. According to this theory, a firm can use its public image to "signal" its less visible internal values, ethics, and culture to its customers, investors, employees, and other stakeholders. A firm with a highly visible product donation program demonstrates its commitment to environmental and social causes. Furthermore, stakeholders might extrapolate a variety of other positive associations from this image. For example, a philanthropic company must be an "all around" good company – a business that treats its employees well, works to preserve the environment, has good management practices, cares about the community, has profit margins strong enough to support such giving, and is fair to its customers, etc.⁵³ When a business markets this positive image to various stakeholders, it can lead to a variety of benefits, such as attracting customers, increasing employee

⁵¹ Amato, L., & Amato, C. (2007). The Effects of Firm Size, & Industry on Corporate Giving. *Journal of Business Ethics*, 72(3), 229-241.

⁵² Fry, L. W., Keim, G. D., & Meiners, R. E. (1982). Corporate Contributions: Altruistic or For-Profit? *The Academy of Management Journal*, 25(1), 94-106.

⁵³ van Dick, R., Grojean, M. W., Christ, O., & Wieseke, J. (2006). Identity and the Extra Mile: Relationships between Organizational Identification and Organizational Citizenship Behaviour. *British Journal of Management*, 17(4), 283-301.

Fiol, C. M. (1991). Managing Culture as a Competitive Resource: An Identity-Based View of Sustainable Competitive Advantage. *Journal of Management*, 17(1), 191-211.

engagement, engaging investors, and recruiting talented employees.⁵⁴ This next section explores each of these benefits in turn.

Attracting Customers

A business can attract new customers and increase current customer loyalty through a product donation program. Moreover, customer demand for corporate product philanthropy programs is growing. As Marc Pritchard, Global Marketing and Brand Building Officer of The Proctor & Gamble Company, put it:⁵⁵

I believe now is the time to shift because consumers are asking us for it. Cynicism and distrust of companies, governments and brands are at their highest. People want to know more about what brands stand for and what they are doing for the world, not just for themselves. Complete transparency is the expectation, and in the next 18 months, 4.5 billion people will have access to the internet through mobile technology. Consumers can and will find out what we care about, what we value, and what we do.

There is also early evidence that programs have been successful in producing positive public perceptions. For instance, as of August 2011 Proctor & Gamble's Mean Stinks campaign has 222,000 fans on Facebook who have used their "Good Graffiti" app to pass along 32,000 positive messages. Fan engagement on the Secret deodorant main fan page increased 24 times after the campaign launch, and sales grew at an additional 1% on the year for the 26 weeks affected by the campaign.⁵⁶

The positive effects of corporate philanthropy on customer relations have been demonstrated in other business research. Edelman found that 86 percent of global consumers believe that corporations need to place equal weight on both business and societal interests; furthermore, 71 percent believe brands and consumers could do more to support social causes by working together.⁵⁷ These attitudes are also reflected in consumer preferences. One survey indicated that 88 percent of consumers would prefer shopping at a socially responsible company.⁵⁸ When choosing between two products of equal quality and price, consumers say they are swayed more by the company's social purpose, than brand loyalty or design

⁵⁴ Iniacik, U., Alniacik, E. and Genc, N. (2011). How corporate social responsibility information influences stakeholders' intentions. *Corporate Social Responsibility and Environmental Management* 18(4): 234-245.

⁵⁵ Pritchard, M. S. (2010, July 13). The Power of Purpose-Inspired Brand Building. P&G Web Log: Available at: www.pg.com/en_US/news_views/blog_posts/2010/jul/cannes_summary_2010_part2.shtml

⁵⁶ Neff, J. (2011, August 15). Secret's Anti-Bullying Campaign Appears to Get Facebook Fans Engaged. *Advertising Age*. Available at www.adage.com/article/news/secret-s-anti-bullying-push-engage-facebook-fans/229195/

⁵⁷ Edelman (2010). Citizens engage! Edelman Goodpurpose Study 2010 - 4th Annual Global Consumer Survey. http://www.edelman.com/insights/special/GoodPurpose2010globalPPT_WEBversion.pdf

⁵⁸ Smith, N. C (1996). Corporate Citizens and Their Critics, *The New York Times* (September 8), 11. Also see similar figures from Cone's (2010) *Cause Evolution Study* (<http://www.coneinc.com/2010-cone-cause-evolution-study>) for more recent (and still consistent) findings.

innovation.⁵⁹ Additionally, studies have shown that some consumers are even willing to pay a premium for items that come from “socially responsible” businesses.⁶⁰

Social identity theory helps explain this phenomenon. This theory posits that people derive some of their personal identity and perceptions of self-worth through their associations with larger organizations.⁶¹ This behavior is commonly observed among sports fans; individuals identify with a team, wear its products, and feel a personal sense of victory when the team wins. The same phenomenon repeats itself with other companies and products. For example, a customer might have brand loyalty to an “environmentally friendly” office supply company. Every time she uses her notebook, she feels that her purchase demonstrates her commitment to the environment to both herself and the people around her. In this case, corporate philanthropic activity has enhanced her brand loyalty. The bottom line is that a charitable public image can increase sales revenue.

Employee Engagement

A strong positive corporate image can be particularly influential on employee performance, because employees display greater commitment to businesses that they see as socially responsible.⁶² The Taproot Foundation found that 75 percent of business professionals say they would be proud of their company if it donated more to charity during hard economic times.⁶³ Furthermore, employees who have a positive view of their business tend to have more trust in their employer.⁶⁴ Such organizational trust can lead to employees exhibiting more “organizational citizenship” behaviors. For example, employees that strongly identify with their employer tend to have higher attendance, longer tenures, more business loyalty, and higher workplace performance.⁶⁵ These impacts are so strong that differences in management styles, reward programs, and compensation do not appear to counteract this relationship between employee

⁵⁹ Edelman (2010). *Citizens engage!* Edelman Goodpurpose Study 2010 - 4th Annual Global Consumer Survey. http://www.edelman.com/insights/special/GoodPurpose2010globalPPT_WEBversion.pdf

⁶⁰ Bhattacharya, C.B. and Sen, S. (2003). Consumer-Company Identification: A Framework for Understanding Consumers' Relationships with Companies. *Journal of Marketing*, 67(2), 76-88.

⁶¹ Tajfel, H. (1982). Social Psychology of Intergroup Relations. *Annual Review of Psychology*, 33, 1-39.

⁶² Bhattacharya, C. B., Sen, S., & Korschun, D. (2008). Using Corporate Social Responsibility to Win the War for Talent. *MIT Sloan Management Review*, 49(2), 37-37-44.

⁶³ Taproot Foundation (2009). *Business professionals' attitudes toward corporate philanthropy and service during a recession*. <http://www.taprootfoundation.org/docs/Corporate-Philanthropy-and-Service-During-a-Recession.pdf>

⁶⁴ Hansen, S., Dunford, B., Boss, A., Boss, R. and Angermeier, I. (2011). Corporate social responsibility and the benefits of employee trust: A cross-disciplinary perspective. *Journal of Business Ethics* 102(1): 29-45.

⁶⁵ O'Reilly, C. A., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, 71(3), 492-499.

van Dick, R., Grojean, M. W., Christ, O., & Wieseke, J. (2006). Identity and the Extra Mile: Relationships between Organizational Identification and Organizational Citizenship Behaviour. *British Journal of Management*, 17(4), 283-301.

Riketta, M. (2005). Cognitive differentiation between self, ingroup, and outgroup: The roles of identification and perceived intergroup conflict. *European Journal of Social Psychology*, 35, 97-106.

performance and company image.⁶⁶ Such organization citizenship can have bottom line effects; research indicates that corporate social responsibility programs positively affect organizational performance by stimulating employee organizational commitment.⁶⁷

Additionally, employees display greater commitment to firms with a strong public image. It is not just how the employee views the organization, but how others judge the business.⁶⁸ Such public perceptions enable employees to carry the positive identification with the company into other areas of their lives. For example, when meeting someone new a Home Depot employee might note the Framing Hope program to “talk up” his job, considering the positive press surrounding the program.

More fundamentally, workers react positively when employers involve them directly in philanthropic programs. Philanthropic programs can serve as “team building” activities (e.g., the Eco Dream Team of Interface Carpet).⁶⁹ Such programs offer employees the opportunity to meet some of their psychosocial needs in the workplace as well as gain functional skills through taking on extra responsibility. Furthermore, employee participation demonstrates the legitimacy of the program to both internal and external stakeholders, who otherwise might suspiciously think such corporate philanthropy is mere window dressing.⁷⁰

Attracting New Talent

A strong public image can be an advantage in recruiting talent. Studies have demonstrated that job seekers see socially responsible companies as more attractive employers,⁷¹ and are more likely to apply and accept offers from these businesses. Additionally, strong “corporate social responsibility” programs have been shown to be particularly advantageous in recruiting talent in limited and highly competitive markets. In particular, one study showed applicants to be particularly swayed by strong corporate environmental programs.⁷² Such findings indicate that businesses can obtain a competitive advantage by

⁶⁶ Collier, J., & Esteban, R. (2007). Corporate social responsibility and employee commitment. *Business Ethics: A European Review*, 16(1), 19-33.

O'Reilly, C. A., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, 71(3), 492-499.

Kim, H.-R., Lee, M., Lee, H.-T., & Kim, N.-M. (2010). Corporate Social Responsibility and Employee–Company Identification. *Journal of Business Ethics*, 95(4), 557-569.

⁶⁷ Ali, I., Rehman, K., Ali, S. I., Yousaf, J., and Zia, M. (2010). Corporate social responsibility influences, employee commitment and organizational performance. *African Journal of Business Management*, 4(12), 2796.

⁶⁸ Dutton, J. E., Dukerich, J. M., & Harquail, C. V. (1994). Organizational Images and Member Identification. *Administrative Science Quarterly*, 39(2), 239-263.

⁶⁹ Laff, M. (2009). "Triple bottom line." *T+D* 63(2): 34-39.

⁷⁰ Collier, J. and R. Esteban (2007). "Corporate social responsibility and employee commitment." *Business Ethics: A European Review* 16(1): 19-33.

⁷¹ Hill & Knowlton found that 58 percent of professions believe CSR is important in assessing corporate reputation. Hill & Knowlton (2008). *Reputation and the war for talent - corporate reputation watch 2008*. http://www2.hillandknowlton.com/crw/download.asp?filename=CRW_2008_The_War_For_Talent.pdf

⁷² Turban, D. B., & Greening, D. W. (1997). Corporate Social Performance and Organizational Attractiveness to Prospective Employees. *The Academy of Management Journal*, 40(3), 658-672.,

instituting corporate philanthropy programs that demonstrate commitment to environmental causes, the local community, and employees. Product donation programs are a cost-effective option in meeting these requirements.

Cultivating a Business Friendly Environment

Image-boosting philanthropy can also enhance a business's overall public legitimacy and can nurture a more "business friendly" environment.⁷³ Legitimacy theory posits that for organizations to survive they must conform to certain socially acceptable goals and methods of operation; they must also produce "socially legitimate" products.⁷⁴ For example, society tends to frown on businesses that violate animal rights or pollute the environment. Society is more likely to patronize and support a "socially approved" business; it is likely to attract more investors, consumers, and skilled employees.⁷⁵

Therefore a philanthropic business would also be less likely to garner government regulations; in fact, governments have been known to support socially responsible businesses (e.g., fast-tracking zoning/building plans, building access roads, etc.).⁷⁶ For example, Silicon Valley companies have been known to invest philanthropically to hedge against future property tax hikes, and towns have been known to consider the corporate giving track record of businesses petitioning to build new outlets.⁷⁷ Also, researchers have found that companies with established corporate social responsibility programs receive fewer EPA and OSHA citations.⁷⁸ This suggests government inspectors might be more forgiving towards companies that have strong philanthropic track records. In a sense, these philanthropy programs have an

Gatewood, G. Gowan, M., and Lautenschlager, G. J. (1993). Corporate Image, Recruitment Image, and Initial Job Choice Decisions. *Academy of Management Journal*, 36(2), 414-427.

⁷³ Chen, J. C., Patten, D. M., & Roberts, R. W. (2008). Corporate Charitable Contributions: A Corporate Social Performance or Legitimacy Strategy? *Journal of Business Ethics*, 82(1), 131-144.

⁷⁴ Lindblom, C.K (1994), "The implications of organizational legitimacy for corporate social performance and disclosure", *Critical Perspectives on Accounting Conference*, New York, NY.

Meyer, J.W., & Rowan, B. (1977). Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology*, 83(2), 340-363.

DiMaggio, Paul J. and Walter W. Powell. 1983. The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48, 147-160.

⁷⁵ Backhaus, K.B., Stone, B.A., & Heiner, K. (2002). Exploring the relationship between corporate social performance and employer attractiveness. *Business & Society*, 41(3), 292-318.

Schultz, M., Dutton, J.E., Dukerich, J.M., & Harquail, C.V., (1994). Organizational Images and Member Identification. *Administrative Science Quarterly*, 39 (2), pp. 239–263.

Frooman, J. (1999). Stakeholder Influence Strategies. *The Academy of Management Review*, 24(2), 191-205.

⁷⁶ A recent case study and literature review can be found in Albert Solé-Olléa and Elisabet Viladecans-Marsal (2011) Lobbying, political competition, and local land supply: recent evidence from Spain forthcoming in the *Journal of Public Economics*.

⁷⁷ Malone, M. S. (2010, Nov 19). Silicon Insider: High-Tech Philanthropy. *ABC News*. Available at: <http://abcnews.go.com/Business/story?id=86862&page=1>

Walmart. (2011, Aug 9). Floresville Walmart Associates Welcome Customers to Relocated Store [Press Release]. Available at <http://walmartstores.com/pressroom/news/10653.aspx>

⁷⁸ Williams, R. J., & Barrett, J. D. (2000). Corporate Philanthropy, Criminal Activity, and Firm Reputation: Is There a Link? *Journal of Business Ethics*, 26(4), 341-350.

insurance effect against regulatory actions.⁷⁹ Overall, the evidence indicates that communities are more likely to support companies they see as socially legitimate. Businesses with positive public images have more social legitimacy. Charitable giving programs, like product donation programs, help cultivate such positive images.

Attracting Investors

A product donation program can also positively impact relationships with investors. As noted above, a well-managed philanthropy program can enhance a corporation's public image, which in turn encourages employee engagement and motivation, attracts customers, and cultivates a friendlier regulatory environment. Stockholders know such drivers can positively impact a company's bottom line and thus their returns on investments, particularly when businesses communicate the value of philanthropy programs.

Additionally, some investors have interests beyond just financial returns and gravitate toward financial opportunities that also reflect their personal values – a behavior explained through identification theory.⁸⁰ For example, environmentally and socially conscious investors would prefer to invest in businesses with product donation programs over businesses that send excess inventory to the landfill. Some investors also pay a premium to invest in such socially responsible funds,⁸¹ and stock prices react when business announce “social responsibility” programs that engage employees and help communities.⁸² Overall, the research indicates that businesses can enhance investor relationship by maintaining and marketing a well-managed product donation program.

Risks

Every “liquidate, dispose, donate” decision should include an assessment of risks or threats. Generally the risks inherent in the “liquidate or dump” alternatives seem much more imminent than those associated with donations; moreover, nearly all these risks arise only when companies wantonly disregard basic strategic philanthropy principles.

Liquidation

Some firms determine as a matter of policy whether or not and how frequently liquidation sales can occur. Naturally then, the role of liquidation in determining brand image is another factor which should be consulted. More tangible risks exist, however, and are likely familiar concerns to determining when to liquidate inventory. To maximize returns during the liquidation process, companies must make accurate predications while balancing several different internal and external variables (e.g., costs of maintaining current inventory, timing sales in tune with current and future consumer demand, calculating sufficient

⁷⁹ Arya, B. and G. Zhang (2009). Institutional Reforms and Investor Reactions to CSR Announcements: Evidence from an Emerging Economy. *Journal of Management Studies* 46(7): 1089-1112.

⁸⁰ Mackey, A., Mackey, T. and Barney, J. (2007). Corporate social responsibility and firm performance: Investor preferences and corporate strategies. *The Academy of Management Review* 32(3): 817-835.

⁸¹ Sen, S., Bhattacharya, C. B., & Korschun, D. (2006). The Role of Corporate Social Responsibility in Strengthening Multiple Stakeholder Relationships: A Field Experiment. *Journal of the Academy of Marketing Science*, 34(2), 158-166.

⁸² Arya, B. and G. Zhang (2009). Institutional Reforms and Investor Reactions to CSR Announcements: Evidence from an Emerging Economy. *Journal of Management Studies* 46(7): 1089-1112.

returns to cover advertising and other logistical costs, estimating how much discount sales detract from sales of main product lines, potential dumping fees of items that don't sell, etc.).

For example, liquidation can inadvertently cannibalize sales of more profitable inventory. Managers must carefully assess whether profits from the liquidated inventory sufficiently cover "the rent" on sale or warehouse floor space. Any space the liquidated inventory occupies is space that could be potentially occupied by more marketable products. Additionally, there is the risk that liquidated items might be resold by "bargain bin" retailers, thus cutting into business sales.

Dumping

As noted previously, throwing away excess inventory entails a series of disposal and dumping costs. Dumping excess inventory can also cost a business in terms of image damage or the market impact of salvaged items.⁸³ In both cases, these risks can only be avoided by destroying merchandise and taking steps to conceal its disposal.

Image damage. Whether due to a sense of environmentalism or frugality, many people have a cultural aversion to throwing away perfectly viable items. Press coverage of dumping scandals therefore can significantly tarnish a company's image. For example, imagine that a toy store disposes of slowly moving stuffed animal inventory right before the holiday season in order to make way a more popular line of action figures. The image of a teddy bear in a trash heap can arouse a rather visceral reaction; not only is it wasteful, but in many ways it is antithetical to the holiday gift giving tradition. Clearly, such press coverage could damage employee morale and investor interest, as well as negatively impact customer relations.

Illicit "dumpster diving" and salvaging operations. In some cases, enterprising individuals collect viable product that a company discards. Such practices could potentially impact company sales, particularly if these individuals attempt to resell their finds through flea markets or other similar venues.

Regulatory risks. Since disposal requirements exist at the federal, state, and local level, it can be very difficult to ascertain whether or not a firm is in compliance, even when acting in good faith. Local waste ordinances are a well-known nuisance among businesses for their (sometimes surprising) rules over the appropriate disposal techniques. Continued dumping practices can even lead to the formation of new regulation.

Donating

Like the other options, product donations also carry risk. Most of these risks entail the damage to corporate image that can arise when a contribution is mismatched with the charitable cause. ***Strategic philanthropy and/or working with a gifts-in-kind nonprofit intermediary minimizes, if not essentially eliminates, these risks.***

Product donation scandals

According to the principles underlying strategic philanthropy, corporations should see any product donation as an investment for both the charity and the business. Investment research includes verifying

⁸³ Young, D. R., & Burlingame, D. E. (1996). Paradigm Lost - Research Toward a New Understanding of Corporate Philanthropy. In D. E. Burlingame & D. R. Young (Eds.), *Corporate Philanthropy at the Crossroads*. Bloomington and Indianapolis: Indiana University Process.

that gifts of product will actually benefit the recipients of the organization. Unfortunately, some businesses get sloppy with their research; worse yet, some corporations solely focus on the tax benefits of product donations. Just like with any poorly planned investment, oversights like these increase the risk of negative returns; but unlike most other investments, these bad decisions not only can damage the company, but the people and charities it ostensibly seeks to help.⁸⁴ Some examples include:

Donations that are obviously tax write-offs and that are useless to the people in need.

Unfortunately, some companies have obviously given items solely for the purposes of helping their bottom line. After the recent earthquakes in China, for example, one company donated size 12 shoes – a size very uncommon among people in that region. Because each pair of these shoes had a \$120 market value, the donor was able to take a substantial tax deduction, while the Chinese recipients were stuck with disposing of such an unusable gift. (An additional ironic twist is that these shoes had been manufactured in China for the American market.) In another example, one company donated suckers leftover from the Halloween season purportedly to help survivors of destructive Gulf Coast hurricane.⁸⁵ While both the public and the charitable recipients may be offended by such corporate self-interest, the repercussions can actually be much more serious in natural disaster situations. Such donations can clog-up the “charitable supply chain” and prevent real help from reaching people in need.

Offending cultures with inappropriate items. A well-intentioned but poorly researched gift can be rendered worse than useless when it offends the recipients. For example, one business donated clothing, including pants, to people in Darfur without realizing that the men rarely wear pants. In fact, culture prohibits women from wearing pants in certain parts of the country.⁸⁶ More obviously, political or religious books might offend certain cultures. Not only do culturally insensitive donations tarnish a business’s public image, they can also reflect poorly on the business’s country and people.

Giving product when cash donations are more appropriate. While product philanthropy can benefit both the company and charity in many cases, sometimes materials gifts are inappropriate for the situation. For example, relief groups explained that cash donations to charities were the best way to help with recovery efforts after the disastrous and recent earthquakes in Haiti. Nevertheless, some businesses donated questionably helpful products, like several thousand dollars-worth of socks in one example.

⁸⁴ Dienhart, J. W. (1988). Charitable investments: A strategy for improving the business environment. *Journal of Business Ethics*, 7(1), 63-71.

Himmelstein, J. L. (1997). *Looking Good and Doing Good - Corporate Philanthropy and Corporate Power*. University Press of Kentucky.

McGuire, J. B., Alison, S., & Schneeweis, T. (1988). Corporate Social Responsibility and Firm Financial Performance. *The Academy of Management Journal*, 31(4), 854-872.

⁸⁵ The Worse Kind of In-Kind Donations [web log]. (2009, June 9) *Good Intentions are Not Enough*. Available at <http://goodintentions.org/common-aid-problems/the-worst-in-kind-donations>

⁸⁶ Osman, M. (2011, February). In-kind Donations: Who Benefits? *Humanitarian Exchange Magazine*, 49. Available at <http://www.odihpn.org/report.asp?id=3175>

Gifts that fail to take the whole picture into account. In some cases the value of a product donation is limited by the circumstances of the community. For example, one organization found that the ambulances they donated really didn't help medical service problems in a community; lack of paved roads, trained emergency staff, and other medical facilities severely limited the utility of the gift.⁸⁷

Product donations that disrupt the local economy of the recipients. In some cases, charitable gifts can severely disrupt a local economy. Notably one report documented how Super Bowl shirts helped drive local clothing merchants out of business in one impoverished African town. Gifts like these can also have long term destabilizing effects on communities when donations are irregularly timed or onetime events, since start-up costs can keep local businesses from immediately rising-up to fill the void.⁸⁸

Gifts of product that are actually dangerous to recipients. Finally, some donated goods can be downright dangerous. These include equipment lacking manuals or "seconds" with potentially harmful defects.⁸⁹

These are the kind of stories that the press loves.⁹⁰ Over the past several years, the press has increased its diligence in reporting such incidents in the charitable community. Some reporters assigned to the "nonprofit beat" feel like they receive more recognition for these scandalous stories than they do for more "human interest" pieces.⁹¹ In short, the press is unlikely to overlook such giving mistakes.

Obviously, such negative press tarnishes a business's public image. As explained in the review of broader qualitative advantages (beginning on page 29), a positive, philanthropic public business image can motivate employees, entice investors, and attract talent. Likewise, a negative image can damage sales, corporate morale, productivity, and ultimately corporate profitability.

All of these risks can be overcome by being a strategic philanthropist. A company that treats charitable giving as an investment should be able to easily anticipate and avoid these risks. In some rare cases a well-planned and well-intentioned product donation might turn out to be sub-par; but, like any investment, a business can have contingency plans on hand to manage such risks.

⁸⁷ Friesen, J. (2011, June 29). Is An Ambulance Donation The Best Way You Can Help? *EMS World*. Available at: <http://www.emsworld.com/article/article.jsp?id=17302>

⁸⁸ Wadhams, N. (2010, May). Bad Charity? (All I Got Was This Lousy T-Shirt!). *Time-World*. <http://www.time.com/time/world/article/0,8599,1987628,00.html#ixzz11ozAHDjQ>

⁸⁹ Osman, M. (2011, February). In-kind Donations: Who Benefits? *Humanitarian Exchange Magazine*, 49. Available at <http://www.odihpn.org/report.asp?id=3175>

⁹⁰ Burlingame, D. F. , & Young, D. R. (Eds.). (1996). *Corporate philanthropy at the crossroads*. Bloomington and Indianapolis: Indiana University Press.

⁹¹ This observation is based on anecdotal experience. One of this report's authors had the opportunity to be a member of a roundtable on press coverage of the nonprofit sector.

Product misuse and misdistribution

Unfortunately, there is also some risk that recipient nonprofits might misuse the product donations that they receive. Nonprofits generally intend no harm in these situations; nevertheless misuse has negative implications. There are two main misuse scenarios:

- Nonprofits that are worried about their liquidity could just choose to turn around and sell donated products. Once items are sold, the business has no reassurances about how this money will be spent; it might go toward essential expenses (e.g., keeping the lights on) or more dubious purposes (e.g., covering payroll bonuses). Moreover, this reselling can cut into the current sales of the business.
- Not wanting to seem ungrateful to a philanthropic business, some nonprofits might accept gifts that they can neither use themselves nor redistribute to needy populations. In these instances, donations might end up being stashed in the back of storerooms or simply thrown away. The businesses making the donation still benefit from disposing of their product in the most tax-advantageous way; however, the recipient nonprofits have to pay to get rid of the items, and the environment is further burdened with additional waste.

Working with a gifts-in-kind intermediary minimizes such risks. By maintaining an exchange system for donated goods, intermediaries can ensure nonprofits only receive products they can use. In fact, some intermediaries often have “catalogues” from which nonprofits select the items they need. Furthermore, intermediaries can vet the legitimacy of recipient nonprofits and monitor recipients to make sure donated goods benefit the “ill, needy, and infants.” Some intermediaries will go as far as to contractually ensure the proper distribution and use of donated goods. Additionally, they educate and update recipients and new staff about the rules.

Summary of Cost Benefit Analysis

The preceding sections examined tax considerations, logistics, risks, and broader qualitative in extensive detail. Taken together, incorporating a product donation program provides a positive rate of return in most circumstances. Though it would be inappropriate to make any claims that product donation would survive a cost-benefit analysis in all cases, there are general observations and trends to be drawn:

- The level of benefit of donation over disposal and liquidate rises with the cost-basis of the product, if the inventory qualifies for a special tax deduction.
- Claiming fair market value of the inventory before marking the product down for liquidation creates larger tax advantages.
- The higher the cost basis or fair market value relative to the weight of the product, the more likely donations will provide greater rate than the disposal or liquidate alternatives.
- The more expensive the floor space of the retail/warehouse and the larger the amount of liquidated inventory, the more likely the donation will provide greater return than the liquidation and disposal alternatives.
- If disposal costs are dependent on the amount of the waste, then liquidating or donating usually become a more financially attractive option.
- Risks to product image appear to be greater for disposal than for donation. Image risks associated with liquidation have likely already been determined.

- Most risks and costs associated with product donation can be substantially reduced, or even eliminated, by partnering with a gifts-in-kind intermediary.

On the next page, a worksheet is provided to calculate a financial impact for a given inventory set across the liquidation, donation, and disposal questions. Before proceeding with any choice, a set of helpful discussion questions are provided to assist in the company's decision.

Worksheet for Cost-Benefit Analysis of Donate, Liquidate, or Dispose

Part I: Corporate Tax Rate

- | | |
|---|-------|
| 1. Federal marginal tax rate | _____ |
| 2. Apportionment-weighted state and local marginal tax rate | _____ |
| 3. Calculate total corporate income tax rate | |
| a. Add Item 1 and Item 2 | _____ |
| b. Multiply Item 1 by Item 2 | _____ |
| c. Subtract 3b from 3a.
<i>This is the combined federal, state, and local income tax effect.</i> | _____ |

Part II: DONATION

Tax Effect of Charitable Contribution

- | | |
|---|--|
| 4. Cost basis of the donation | \$ _____ |
| 5. If the donation eligible under 170(e)(3)?
<i>If no, skip to Item 6.</i> | Yes <input type="checkbox"/> / No <input type="checkbox"/> |
| a. The fair market value of the donation | \$ _____ |
| b. Subtract Item 4 from Item 5a | \$ _____ |
| c. Divide Item 5b by 2 | \$ _____ |
| d. Add Item 5c and Item 4 | \$ _____ |
| e. Multiple Item 4 by 2 | \$ _____ |
| f. Compare Item 5d and Item 5e. Enter the lesser number here.
<i>This the tax deduction that can be taken if the donation is eligible under 170(e)(3).</i> | \$ _____ |
| 6. If §170(e)(3) eligible, then use Item 5f, else use Item 4
<i>This is the tax deduction that can be taken if the donation is NOT eligible under 170(e)(3).</i> | \$ _____ |
| 7. Multiply Item 6 by Item 3c: | \$ _____ |

Shipping Expenses (Skip if shipping costs paid by external source)

- | | |
|---|----------|
| 8. Total Shipping Estimate (Internal or from Worksheet in page 25): | \$ _____ |
| 9. Multiply Item 8 by Item 3c | \$ _____ |

Immediate Financial Analysis of Donation

Subtract Item 8 from Item 7, then add item 9	\$ _____
--	----------

Part III: DISPOSAL

Are your disposal costs based on a:

10. Fixed rate system. If no, skip to Item 11	Yes <input type="checkbox"/> / No <input type="checkbox"/>
a. If you are using a fixed rate system, disposal of inventory will not increase your disposal costs	\$ 0
11. Number of pulls. If no, skip to Item 12	Yes <input type="checkbox"/> / No <input type="checkbox"/>
a. How many pulls would be required for disposal	_____
b. Charge per pull	\$_____
c. Multiply Item 11a by Item 11b	\$_____
12. Tonnage. If no, skip to Item 13	Yes <input type="checkbox"/> / No <input type="checkbox"/>
a. How much tonnage would be required for disposal	_____
b. Charge per ton	\$_____
c. Multiply Item 12a by Item 12b	\$_____
13. Identify your waste disposal cost by drawing from the relevant items 10, 11, and/or 12:	\$_____
14. Multiply Item 13 by Item 3c	\$_____
15. Multiply Item 4 by Item 3c	\$_____

Immediate Financial Analysis of Donation

Immediate Financial Analysis of Disposal is Item 15 plus Item 14 minus Item 13 \$_____

Part IV: LIQUIDATION

Revenue effect from sale

16. Revenue collected from sale of items after sales tax remittance	\$ _____
17. Subtract Item 4 from Item 16	\$ _____
18. Multiply Item 17 by Item 3c	\$ _____
19. Add Item 18 and Item 16	\$ _____

Shipping Expenses (Skip if shipping costs paid by external source)

20. Financial Expenses created by liquidation (advertising, labor overtime, etc.)	\$ _____
21. Multiply Item 20 by Item 3c	\$ _____
22. Subtract Item 21 from Item 20	\$ _____

Floor space opportunity cost

23. Total floor space of warehouse/retail outlet (square feet)	_____ sq ft
24. Annual lease	\$ _____
25. Number of open working days	_____ days
26. Item 24 divided by item 23	\$ _____/ft ² /yr
27. Item 26 divided by item 25	\$ _____/ft ² /day
28. Total floor space devoted to liquidated product (square feet)	_____ sq ft
29. Number of days for liquidation sale	_____ days
30. Multiply Item 28 by Item 27	\$ _____/day
31. Multiply 30 by 29	\$ _____

Immediate Financial Analysis of Liquidation

Item 19 minus Item 22 minus Item 31	\$ _____
-------------------------------------	----------

Which of the three options carries the largest/smallest immediate financial impact? (See above worksheet.)

What is the current practice of our competitors? Do they routinely dispose or donate unsold product?

What risks do the three choices confront us with in terms of brand security, image, and reputation? Can any of these be alleviated with a GIK intermediary?

What regulatory risks do we face with disposed product? Is there threat of new regulation with continued waste?

How will donation and disposal affect our employees in terms of recruitment, morale, engagement, and turnover?

How will donation and disposal affect investor interests?

How will customers react to disposal, donation, or liquidation?

Can product donation be incorporated into our existing marketing and advertising plan? Can it enhance our brand?

Will liquidation cannibalize our sales?

Will product donation influence the corporate culture, favorably or unfavorably?

Would product donation be a substitute for (or in addition to) our existing cash-based philanthropy programs?

How would product donation fit with current corporate social responsibility objectives?

Cash versus Product Philanthropy

For a host a reasons, many corporations have existing philanthropic programs. This section analyzes whether it is better to make a donation in the form of a cash gift, or as a donation of product. Naturally, the strategic corporate philanthropist must weigh how much “bang for the buck” a gift carries in these two competing forms. A strategic philanthropy plan does not need to be a blunt “either/or” choice, and can be a combination that is dependent on the circumstance. The strategic business philanthropist has to consider that both cash and product donations have various advantages and logistical challenges.

Product donations are more visual than cash donations and can more effectively demonstrate a corporation’s values. Product donations can align better with a company’s brand and receive better quality press than equivalent cash gifts. Giving product is a more photogenic transaction than writing a check partially because product donations are likely to be used directly in charitable programs rather than to cover nonprofit administrative costs. For example, consider the visual quality of these scenarios: disaster survivors drinking donated bottled water, the elderly receiving donated medicine at a health clinic, or high school students using donated software to complete homework projects. Such scenes have high visual impact and can go far in shaping a corporation’s image. In contrast, unrestricted cash donations could be directed toward “behind the scenes” operations like paying for the electric bill, fundraiser salaries, janitorial services, and insurance premiums, which are all much less photogenic. By receiving product donations, nonprofits can free-up unrestricted cash to allocate to such operational expenses.

During recessions, inventory donation is likely the strategically wise way of maintaining a charitable outreach program while your business reorganizes. Recessions are characterized in part by reduced consumer spending, which implies excess inventories of unsold product. Similarly, cash balances could enable businesses to redirect their investments towards changing consumer preferences and maintaining payroll.⁹² Interestingly, recessions often make the product donations appear more influential because of the reduced incomes and higher levels of unemployment, so the charitable outreach program may have higher returns than during normal periods of the business cycle.

Product donations can be more valuable to nonprofits than cash equivalent gifts. For most products, the acquisition or production cost will be less than the market value. A cash gift equivalent to the cost of acquisition would, therefore, not be enough for nonprofits to purchase the product. So while product donations might be less flexible cash gifts, nonprofits will prefer products when they fit well with particular mission needs and operations.

Deciding how much product to donate can be simpler than determining the amount of a cash gift. Cash donations can be directed to almost any nonprofit organization; to choose an organization or cause, many businesses find they need to design complex grant programs to select and monitor recipients. In contrast, gift-in-kind intermediaries can effectively and efficiently match product donations to nonprofit recipients.

Businesses can also use product donations to give more to charity than they otherwise could with just cash. Donating cash is akin to donating current, actively profitable inventory. Naturally businesses must

⁹² McMahan, B. L., & Zavada, J. (1992). How to Turn Excess Inventory Into a Tax Deduction. *Journal of Accountancy*, 173(2), 91-92.

place restrictive limits on such donations in order to maintain profitability, while such limits do not apply to donations of items already scheduled to be disposed of or liquidated.

Cash versus Product Philanthropy Return on Investment

Though many factors, including those discussed in the previous section, should determine what mix of cash and product philanthropy is employed, the examination of a cash-to-product return on philanthropic investment (ROI) can be informative for making this determination. This section considers a company which has already budgeted for a charitable contribution, but has yet to determine if this gift will be either cash or product.

To create a valid comparison, the framework is established under a cost-effective analysis approach. The approach starts with the presumption that a product donation is used to substitute for one made of cash. This might seem counterintuitive at first, but the exercise is merely for the purpose of deriving a single approach to evaluating multiple decisions. To make the comparison more intuitive, one might think of giving a product gift equivalent in value to what they otherwise would have made in cash. A pivotal point of such an analysis is by what basis one would consider the product gift. For a product donation with a regular retail value of \$50,000 and a cost basis of \$20,000, would a cash equivalent gift be considered \$50,000, \$20,000, or perhaps even the profit margin between the two? The framework developed below is made suitable for any basis subject to the manager's discretion. In cases where the ROI (Line 19 in the following worksheet) is positive, product donation has a greater return for the equivalent cash gift. The two alternatives are break-even when the result is zero, and cash donation dominates when the result of the framework is negative. The result could also be expressed as a ROI percentage if divided by the value of the cash equivalent choice.

For concreteness, consider the trendy blue jeans example employed in the cost-benefit analysis framework, where the fair market value was \$50,000 with a \$20,000 cost-basis. The product gift will also be assumed to have the \$723.64 shipping cost estimate derived in the logistical cost section. Three alternative cash equivalent gifts are considered: \$50,000, \$20,000, and \$30,000 (the difference between \$50 and \$20 thousand). The results indicate that the net effect of the product-for-cash substitution would be \$20,517.26, \$11,577.26, or \$17,557.26; these returns correspond to ROI's between 57 and 59%. It can also be shown that even if this product could be liquidated without discount, then the ROI for a cash equivalent donation of \$50 thousand the ROI would still remain at 11.19%.

Return on Investment Worksheet

Part I: Corporate Tax Rate

1. Federal marginal tax rate _____
2. Apportionment-weighted state and local marginal tax rate _____
3. Calculate total corporate income tax rate
 - a. Add Item 1 and Item 2 _____
 - b. Multiply Item 1 by Item 2 _____
 - c. Subtract 3b from 3a.
This is the combined federal, state, and local income tax effect. _____

Part II: Product Donation

Tax Effect of Charitable Contribution

4. The cost basis of the donation: \$ _____
5. Is the donation eligible under 170(e)(3)? If No, skip to Item 6 \$ _____
 - 5a. The fair market value of the donation \$ _____
 - 5b. Item 5a – Item 4: \$ _____
 - 5c. One-half of Item 5b: \$ _____
 - 5d. Item 5c+Item 4: \$ _____
 - 5e. Two times Item 4: \$ _____
 - 5f. The minimum value between Item 5d and 5e: \$ _____
6. If §170(e)(3) eligible, then use Item 5f, else use Item 4 \$ _____
7. Multiply Item 6 by Item 3c: \$ _____

Shipping Expenses (Skip if shipping costs paid by external source)

8. Total Shipping Estimate from Worksheet (page 25)(\$ _____
9. Multiply Item 8 by Item 3c: \$ _____

Forgone Revenue

10. Revenue (net of sales tax) if product had been sold: \$ _____
11. Subtract Item 4 from Item 10 \$ _____
12. Multiply Item 11 by Item 3c \$ _____
13. Subtract Item 12 from Item 10 \$ _____

Continue on next page

Part II: Product Donation (Continued)**Saved Cash Donation**

- | | |
|--|----------|
| 14. The amount of the cash donation in absence of product donation : | \$ _____ |
| 15. Multiply Item 10 by Item 3c | \$ _____ |
-

Part III: Final Calculation

Dollar amount difference

- | | |
|--|----------|
| 16. Add Items 8, 13, and 15: | \$ _____ |
| 17. Subtract Item 16 from Item 7: | \$ _____ |
| 18. Add Items 9 and 14: | \$ _____ |
| 19. <i>Return on Investment</i> . Add Items 18 and 17: | \$ _____ |
-

Divide item 19 by item 14 to compute ROI as a percentage _____%

Socio-Economic Impact of Product Donation

If product philanthropy is employed in part of a brand image building campaign or some other strategic plan, it is helpful to have some idea as to how such donations would impact socioeconomic groups. For tax purposes, it is the responsibility of the nonprofits passing along the product donations to prove that they fit a qualified purpose. Nevertheless, it is in the interest of a strong strategic plan to be able to identify groups and the positive impact of the gift.

The donation of some products can carry financial assistance to charities beyond the immediate value of the donation. Since some products carry financial spillover costs, one area of competition in market economies is on the ability of the product to reduce these spillover costs. For instance, the cost of a flush-toilet is not just the price paid immediately to purchase the toilet and have it installed, but the associated water costs with each flush over its lifetime. As a result, manufacturers have competed over time to create more water-efficient toilets. Since needy groups tend to use older appliances, either by holding onto these longer or acquiring them as used goods, newer products represent an additional reduction in these spillover costs. This section provides evidence of these effects.

For example, the table below provides estimates of annual savings from the GIK donation of Energy Star products through The Home Depot's "Framing Hope" program.⁹³ Though many of the cost-savings might, at first glance, appear small, these amounts can represent considerable contributions to a rather inflexible portion of the budget for the recipients of GIK donations.

Product Category	Lifetime	Annual Monetary Savings	Lifetime Monetary Savings
Ceiling Fans	10 years	\$121.90	\$1,074.50
Doors	20 years	\$12.74	\$196.41
Light Bulbs	1 year	\$37.11	\$37.11
Light Fixtures	4 years	\$11.24	\$173.45
Skylights	20 years	\$1.70	\$25.96
Windows			
<i>New Construction</i>	20 years	\$2.71	\$41.84
<i>Upgrade</i>	20 years	\$12.82	\$197.70

The table illustrates how much money would be saved beyond the initial value of the donation. For example, the ceiling fan donation would save the recipient the value of the ceiling fan plus \$121.90 in annual energy expenditures. Likewise, energy efficient light bulbs have been estimated to save \$37.11 over the course of the year. The bundling of these products, as The Home Depot has done with the

⁹³ The table is based on combined information from Tables 3.10 and 3.11 from: Bashour, Hani, Laura Bellows, Brijesh Krishnan, Katherine LaBeau, Lance Lindeen, Veronica Rog, Laura Smothers, Lawrence Summers, Mary Beth Wendelin, and Elaisa Vahnie. *Assessing Product Philanthropy's Impact on Community Sustainability: Energy and Solid Waste*. Indiana University-Bloomington School of Public and Environmental Affairs. December 10, 2010.

Framing Hope program, can be of considerable assistance to the groups they have targeted. The remainder of this section will provide data demonstrating that product donations are likely going to be of assistance to these groups.

Expenditures on Items related to Product by Socio-Economic Groups

One of the principal advantages of product donation is that the categories of consumer expenditures come from a portion of the budget that economists often consider “necessary” goods. One of the defining characteristics of a necessary good is that their expenditures do not decline proportionally when income falls. This is often intuitive, for instance, if you think about a water bill. If your income were to unexpectedly double, you might start watering your lawn more frequently or take longer showers, but you would probably not double your current water bill. Likewise, if your income were unexpectedly cut in half, you might take shorter showers and never water your lawn, but you would probably find it very difficult to cut your water bill in half.

This section explores the potential effects of product donations on the household expenditures made by different socioeconomic groups that are defined by their annual income, household composition (i.e., marital status and children), race and ethnicity, and educational attainment. The seven expenditure categories include: Energy and Utilities, Household Operations, Housekeeping Supplies, Household furnishings, Apparel and Services, Entertainment, and Personal Care Products. These expenditures are identified by the *Consumer Expenditure Survey* (CES)⁹⁴ and are expenditure categories that most likely affected by product donations. These categories were selected by sampling numerous items available from the Good360 website (www.good360.org) and then matching items against CES consumer expenditure categories.

To give some examples of donated products as they relate to the CES categories, any of the donations through the The Home Depot Framing Hope program would be reported as expenditures from household operations or household furnishings and equipment. For example, fitting into these two categories are donations of wood products (flooring, fencing, doors, etc.), furniture (countertops, cabinets) and construction materials which contribute to the physical stability of housing structures; indirectly many of these donations would also have implications for Energy and Utility Expenditures, which cover household utility payments. For example, energy-efficient light fixtures would affect household furnishings expenditures as energy and utility expenditures. Personal care products would include other items found at the Good360 site, including baby items, body care, and skin care; toys, books, arts, and gift items would be listed among entertainment expenditures.

Expenditures by Income Groups

In the table below, expenditures statistics for selected income groups generally in need of assistance are compared to those of all households: the bottom 20%, those with less than \$15,000, and the unemployed.⁹⁵ In all expenditure categories, the share of pre-tax income devoted to this portion of the budget is greater for each of the three selected groups than it is in the average of all households. For

⁹⁴ Collected by the U.S. Bureau of Labor Statistics by the U.S. Census Bureau

⁹⁵ The “bottom 20%” means that if we were to line the households up from poorest to richest, then we would calculate based on the first 20% of that line, so that the remaining 80% of households in front of our group would be those with higher income levels.

instance, the average household has an income level about six times higher than the average among the bottom 20 percent, but expenditures on utilities and energy are greater by just 60%. Similarly, the average household has about \$55,000 more in income before taxes, but only spends \$800 more on Apparel and Services. Furthermore, the table below also reveals that even small contributions in product value can represent significant contributions relative to their budget.

Income and Expenditures by Selected Income Groups in 2009				
	All Households	Bottom 20%	Less than \$15,000	Unemployed
Average Income Before Taxes	\$62,857	\$9,846	\$7,170	\$17,514
Expenditure Category				
Energy and Utilities	\$3,645 (6%)	\$2,238 (23%)	\$2,092 (29%)	\$2,256 (13%)
Household Operations	\$1,011 (2%)	\$417 (4%)	\$363 (5%)	\$666 (4%)
Housekeeping Supplies	\$659 (1%)	\$349 (4%)	\$326 (5%)	\$364 (2%)
Household Furnishings	\$1,506 (2%)	\$565 (6%)	\$538 (7%)	\$553 (3%)
Apparel and Services	\$1,725 (3%)	\$873 (9%)	\$925 (13%)	\$568 (3%)
Entertainment	\$2,693 (4%)	\$1,015 (10%)	\$1,005 (14%)	\$1,052 (6%)
Personal Care Products	\$596 (1%)	\$268 (3%)	\$259 (4%)	\$294 (2%)
Total Expenditures	\$11,835 (19%)	\$5,725 (58%)	\$5,508 (77%)	\$5,753 (33%)

Source: *Consumer Expenditures in 2009*. U.S. Department of Labor-Bureau of Labor Statistics. May 2011.

Note: The % reported in parentheses is the expenditure as a share of average income before taxes.

Expenditures by Other Selected Groups

The Appendix 3 (page 58) contains several tables which mimic the previous income group expenditure patterns, and are discussed here.

Household Composition

Single parent households represent another group often targeted for assistance from nonprofits (e.g., the American Red Cross, the Bethel Foundation, etc.) and government programs (e.g., FHA loans, WIC programs, etc.). Single parents are less likely to have the support of a partner in child care, as well as the potential for an additional income earner. In addition to comparing them to all households, the table provides married cohabitating families for comparison. Compared to their married peers, expenditures in the GIK categories required a larger share of single parent household's income. Notably, single parent households spent less than half of the amount that their married household counterparts budgeted for entertainment. These entertainment expenditures could be reduced by donations of qualifying toys.

Expenditures by Race and Ethnicity

The CES data also includes a self-reporting of racial heritage into three categories: Asian, Black/African-American, and all other races. On the basis of this definition of racial identification, the table below reveals that African-Americans devote the largest share of their pre-tax income to goods related to GIK donations. "Energy and Utilities" stands out the most in the group, as they apparently spend slightly more in this category than the other two racial groups, despite having the lowest income by \$20-\$30 thousand.

Shifting demographics in the United States has also raised interest in the effects on populations by Hispanic or Latino descent. The table in Appendix 3 compares income and expenditures of Hispanics against non-Hispanics. Hispanics have, on average, about \$15,000 less income than non-Hispanics, but

expenditure patterns remain very similar. In particular, Hispanics spend a larger share of their budget on energy and utilities, but less on household operations.

Expenditures by Education Group

There is a wide consensus among economists that educational attainment is related to income. But examining GIK expenditures by education level is worth considering separately because sociologists have long deemed it to have important relationships to social class that extend beyond income.⁹⁶ The table in Appendix 3 demonstrates the relevant consumption patterns for those without a high school diploma, those who only have a high school diploma, and those who have completed at least some college.

Once again, across all product categories, the dollar differences across expenditures is small when compared to the dollar differences in average income, demonstrating that these tend to be “necessary” goods, according to the economist view. Most notably, “Apparel and Services” is practically identical in spending across the three groups, with those without a high school diploma spending the most in this category, on average; all despite having incomes which separate them by tens of thousands of dollars. Likewise, only a few hundred dollars separates the different groups in terms of their spending on “Energy and Utilities.”

Summary

The previous analysis demonstrates that product donations, by their nature, have a strong tendency to favor groups which are frequently targeted by philanthropic programs. Even small donations contribute substantively in the applicable areas of household budgets, and these are the types of expenditures which frees family income to cover other, more discretionary expenses.

Conclusion

This report evaluates the business case for product philanthropy and provides managers a framework for analyzing the costs, benefits, risks, and opportunities of implementing a product philanthropy program in their own operations. To this end, this report provides:

- A cost-benefit analysis of liquidating, disposing or donating inventory. Overall, the analysis demonstrates that product donation is the most profitable choice in many circumstances.
- A return-on-investment analysis comparing comparable cash and product donations. Product donation provides a greater financial return compared to cash donation, due to the enhanced tax benefits associated with donated products.
- The advantages of coordinating product donation programs with a GIK intermediary, like Good360. These intermediaries assist in matching companies and charities, lowering administrative costs, simplifying logistics, ensuring brand security, and gaining positive media coverage.
- A summary of the history and philosophy underlying corporate philanthropic and social responsibility programs. While scholars and the courts questioned the business merits of

⁹⁶ Example: Lareau, A. (1987). Social Class Differences in Family-School Relationships: The Importance of Cultural Capital. *Sociology of Education* 60(April): 73-85.

corporate charity nearly a century ago, present-day opinion favors businesses to engage in philanthropic activities to attract consumers, investors, and employees.

- A review of the broader business benefits associated with philanthropic activities, like product donation programs. Product donation programs can enhance a business's corporate image; increase employee engagement; and attract new talent, customers, and investors. Additionally, media coverage of product donation programs is an affordable method to compliment current marketing strategies. Corporate philanthropy also has a risk management benefit, in that regulatory agencies and local governments tend to grant greater leeway to businesses with such programs.
- The effects of product donation programs on community members and customer bases. Donated products can alleviate constraints on family budgets, by reducing necessary expenses associated with utilities, household upkeep, furnishings, apparel, and personal care products. This frees family income to cover other more discretionary expenses.

Overall, the business case for product donation demonstrates such programs can result in substantial financial and social benefits for minimal cost and risk.

Appendixes

Appendix 1: Derivation of the Suggested Rule of Thumb

Note: The notation used here is different from that in the text.

Consider inventory with fair market value of F and cost basis C . Let L reflect a share of F that is retained by the corporation if the product is liquidated on the salvage market. Let f be the federal tax rate and s represent the apportionment weighted effective state income tax rate. If inventory is donated, amount D is deducted from taxable income.

Donation is financially advantageous when the tax savings from the donation are greater than the revenue from the liquidation and the net effect of the salvaging on the firm's tax position:

$$L - (L - C)(f + s - f \cdot s) \leq (f + s - f \cdot s)D$$

Letting $\tau = f + s + f \cdot s$, then this can be rewritten as

$$L - (LF - C)\tau \leq \tau D$$

Distributing τ through the equation on the left-hand side yields:

$$L - \tau L + \tau C \leq \tau D$$

The value of the donation (D) is the cost basis plus some mark-up, so we can write $D = C + \alpha C$, where α is the mark-up determined in IRS Tax Code 170(e)(3) as the maximum of $2C$ or $\frac{1}{2}(F - C)$. Substituting $C + \alpha C$ into the equation for D yields:

$$L - \tau L + \tau C \leq \tau(C + \alpha C)$$

τC can be subtracted from both sides, LF can be factored out on the left-hand side:

$$L \frac{(1 - \tau)}{\tau} \leq \alpha C$$

If the effective state income tax rate is 8%, and the federal rate is 35%, then $\frac{(1 - \tau)}{\tau} \approx 1.49$.

$$1.49 L \leq \alpha C$$

The above equation indicates that it is financially advantageous to donate when the special extended deduction is greater than 1.5 times the revenue salvaged through liquidation.

Appendix 2: Waste Removal Cost Worksheet

Name of Waste Removal Company: _____ Telephone Number: _____ Contract Expires: _____			
Removal Schedule: Number of times _____ per (day/week/month/other) _____ Day of week: _____ Time(s): _____ Day of week: _____ Time(s): _____			
Waste Removal Charge (if charged as flat fee or part of rent) <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center; margin-right: 10px;"> _____ Waste removal fee </div> <div style="text-align: center; margin-right: 10px;"> X </div> <div style="text-align: center; margin-right: 10px;"> _____ Time periods per year (if applicable) </div> <div style="text-align: center; margin-right: 10px;"> = </div> <div style="border: 1px solid black; padding: 5px; text-align: center; width: 150px;"> _____ Annual Waste Removal Charge </div> </div>			
Waste Removal Charge (if charged by weight or volume) <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center; margin-right: 10px;"> _____ Waste removal charge </div> <div style="text-align: center; margin-right: 10px;"> per </div> <div style="text-align: center; margin-right: 10px;"> _____ Unit of weight or volume </div> <div style="text-align: center; margin-right: 10px;"> X </div> <div style="text-align: center; margin-right: 10px;"> _____ Units of waste removed annually </div> <div style="text-align: center; margin-right: 10px;"> = </div> <div style="text-align: center; margin-right: 10px;"> _____ Annual waste removal cost </div> </div> <p>If applicable, add:</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center; margin-right: 10px;"> _____ Hauling container(s) rental fee </div> <div style="text-align: center; margin-right: 10px;"> per </div> <div style="text-align: center; margin-right: 10px;"> _____ Time period </div> <div style="text-align: center; margin-right: 10px;"> X </div> <div style="text-align: center; margin-right: 10px;"> _____ Time periods per year </div> <div style="text-align: center; margin-right: 10px;"> = </div> <div style="text-align: center; margin-right: 10px;"> _____ Annual waste container rental cost </div> </div> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <div style="text-align: center; margin-right: 10px;"> _____ Annual waste removal charge </div> <div style="text-align: center; margin-right: 10px;"> + </div> <div style="text-align: center; margin-right: 10px;"> _____ Annual waste container rental cost </div> <div style="text-align: center; margin-right: 10px;"> = </div> <div style="border: 1px solid black; padding: 5px; text-align: center; width: 150px;"> _____ Annual Waste Removal Charge </div> </div>			
Waste Removal Charge (if charged per pull) <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center; margin-right: 10px;"> _____ Charge per pull </div> <div style="text-align: center; margin-right: 10px;"> X </div> <div style="text-align: center; margin-right: 10px;"> _____ Pulls per year </div> <div style="text-align: center; margin-right: 10px;"> = </div> <div style="text-align: center; margin-right: 10px;"> _____ Annual waste pulling charge </div> </div> <p>If applicable, add:</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center; margin-right: 10px;"> _____ Hauling container(s) rental fee </div> <div style="text-align: center; margin-right: 10px;"> per </div> <div style="text-align: center; margin-right: 10px;"> _____ Time period </div> <div style="text-align: center; margin-right: 10px;"> X </div> <div style="text-align: center; margin-right: 10px;"> _____ Time periods per year </div> <div style="text-align: center; margin-right: 10px;"> = </div> <div style="text-align: center; margin-right: 10px;"> _____ Annual waste container rental cost </div> </div> <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center; margin-right: 10px;"> _____ Tipping fee </div> <div style="text-align: center; margin-right: 10px;"> per </div> <div style="text-align: center; margin-right: 10px;"> _____ Unit of weight or volume </div> <div style="text-align: center; margin-right: 10px;"> X </div> <div style="text-align: center; margin-right: 10px;"> _____ Units of waste removed annually </div> <div style="text-align: center; margin-right: 10px;"> = </div> <div style="text-align: center; margin-right: 10px;"> _____ Annual tipping fee </div> </div> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <div style="text-align: center; margin-right: 10px;"> _____ Annual waste pulling charge </div> <div style="text-align: center; margin-right: 10px;"> + </div> <div style="text-align: center; margin-right: 10px;"> _____ Annual waste container rental cost </div> <div style="text-align: center; margin-right: 10px;"> X </div> <div style="text-align: center; margin-right: 10px;"> _____ Annual tipping fee </div> <div style="text-align: center; margin-right: 10px;"> = </div> <div style="border: 1px solid black; padding: 5px; text-align: center; width: 150px;"> _____ Annual Waste Removal Charge </div> </div>			

Source: Environmental Protection Agency

Example of Waste Disposal Rates

RATES FOR COMMERCIAL BIN CUSTOMERS

(Rates valid from July 1, 2011 through June 30, 2012)

Garbage Collection Service*

Billed Monthly

Bin Size	Loose Materials					
	Pick-Ups per Week					
	1	2	3	4	5	6
1 cubic yard	\$103.30	\$210.72	\$322.27	\$437.95	\$557.78	\$696.15
2 cubic yard	\$206.58	\$421.42	\$658.18	\$894.46	\$1,139.16	\$1,421.35
3 cubic yard	\$309.87	\$645.53	\$987.27	\$1,369.66	\$1,744.38	\$2,132.02
4 cubic yard	\$413.17	\$860.70	\$1,343.82	\$1,826.21	\$2,325.84	\$2,900.78
5 cubic yard	\$527.39	\$1,098.31	\$1,679.78	\$2,329.41	\$2,966.70	\$3,698.57
6 cubic yard	\$632.87	\$1,317.98	\$2,015.73	\$2,795.29	\$3,560.04	\$4,438.28
7 cubic yard	\$738.34	\$1,537.64	\$2,399.76	\$3,261.18	\$4,236.55	\$5,279.00

Source: Livermore Sanitation (<http://www.livermoresanitation.com/commercial-services-bins.html>)

Appendix 3: Socio-Economic Impact Tables

Expenditures by Family Groups in 2009

	All Households	Married with Children	Single Parent
Average Income Before Taxes	\$62,857	\$92,616	\$35,845
Expenditure Category			
Energy and Utilities	\$3,645 (6%)	\$4,708 (5%)	\$3,438 (10%)
Household Operations	\$1,011 (2%)	\$1,784 (2%)	\$1,215 (3%)
Housekeeping Supplies	\$659 (1%)	\$851 (1%)	\$583 (2%)
Household Furnishings	\$1,506 (2%)	\$2,101 (2%)	\$991 (3%)
Apparel and Services	\$1,725 (3%)	\$2,600 (3%)	\$1,708 (5%)
Entertainment	\$2,693 (4%)	\$4,030 (4%)	\$1,907 (5%)
Personal Care Products	\$596 (1%)	\$798 (1%)	\$552 (2%)
Total Expenditures	\$11,835 (19%)	\$16,872 (18%)	\$10,394 (29%)

Source: *Consumer Expenditures in 2009*. U.S. Department of Labor-Bureau of Labor Statistics. May 2011.

Note: The % reported in parentheses is the expenditure as a share of average income before taxes.

Income and Expenditures by Self-Identified Racial Heritage in 2009

	Asian	Black or African American	White and All Others
Average Income Before Taxes	\$76,633	\$44,397	\$64,898
Expenditure Category			
Energy and Utilities	\$3,270 (4%)	\$3,668 (8%)	\$3,658 (6%)
Household Operations	\$1,347 (2%)	\$633 (1%)	\$1,051 (2%)
Housekeeping Supplies	\$536 (1%)	\$429 (1%)	\$696 (1%)
Household Furnishings	\$1,671 (2%)	\$854 (2%)	\$1,591 (2%)
Apparel and Services	\$2,150 (3%)	\$1,755 (4%)	\$1,704 (3%)
Entertainment	\$2,270 (3%)	\$1,404 (3%)	\$2,894 (4%)
Personal Care Products	\$557 (1%)	\$536 (1%)	\$606 (1%)
Total Expenditures	\$11,801 (15%)	\$9,279 (21%)	\$12,200 (19%)

Source: *Consumer Expenditures in 2009*. U.S. Department of Labor-Bureau of Labor Statistics. May 2011.

Note: The % reported in parentheses is the expenditure as a share of average income before taxes.

Income and Expenditures by Hispanic or Latino Origin in 2009

	Hispanic or Latino	Not Hispanic or Latino
Average Income Before Taxes	\$49,930	\$64,591
Expenditure Category		
Energy and Utilities	\$3,532 (7%)	\$3,660 (6%)
Household Operations	\$714 (1%)	\$1,051 (2%)
Housekeeping Supplies	\$517 (1%)	\$677 (1%)
Household Furnishings	\$1,177 (2%)	\$1,549 (2%)
Apparel and Services	\$2,002 (4%)	\$1,689 (3%)
Entertainment	\$1,664 (3%)	\$2,829 (4%)
Personal Care Products	\$532 (1%)	\$604 (1%)
Total Expenditures	\$10,138 (20%)	\$12,059 (19%)

Source: *Consumer Expenditures in 2009*. U.S. Department of Labor-Bureau of Labor Statistics. May 2011.

Note: The % reported in parentheses is the expenditure as a share of average income before taxes.

Income and Expenditures by Educational Attainment in 2009

	Less than High School	High School Diploma Only	Some College or More
Average Income Before Taxes	\$33,262	\$47,338	\$53,065
Expenditure Category			
Energy and Utilities	\$3,101 (9%)	\$3,491 (7%)	\$3,479 (7%)
Household Operations	\$346 (1%)	\$598 (1%)	\$889 (2%)
Housekeeping Supplies	\$414 (1%)	\$568 (1%)	\$607 (1%)
Household Furnishings	\$764 (2%)	\$1,057 (2%)	\$1,431 (3%)
Apparel and Services	\$1,454 (4%)	\$1,369 (3%)	\$1,432 (3%)
Entertainment	\$1,406 (4%)	\$2,184 (5%)	\$2,626 (5%)
Personal Care Products	\$361 (1%)	\$459 (1%)	\$555 (1%)
Total Expenditures	\$7,846 (24%)	\$9,726 (21%)	\$11,019 (21%)

Source: *Consumer Expenditures in 2009*. U.S. Department of Labor-Bureau of Labor Statistics. May 2011.

Note: The % reported in parentheses is the expenditure as a share of average income before taxes.

Appendix 4: Summary Statistics of Good360 Product Shipping Data

Variable	Mean	Standard Deviation	Minimum	Maximum
Total Cost	546.19	834.2	20.53	6050
Miles	738.3	703.21	0	3000
Weight (lbs.)	2787.47	5795.37	0	35000
Indirect Delivery	0.21	0.41	0	1
Less Than Truckload	0.86	0.35	0	1
Has a NMFC Classification	0.83	0.38	0	1
NMFC Class	150.35	139.61	0	925
February	0.04	0.20	0	1
March	0.1	0.29	0	1
April	0.07	0.25	0	1
May	0.06	0.23	0	1
June	0.06	0.23	0	1
July	0.05	0.21	0	1
August	0.09	0.28	0	1
September	0.15	0.36	0	1
October	0.11	0.31	0	1
November	0.15	0.36	0	1
December	0.11	0.31	0	1
Spot Price of WTI Oil (\$/barrel)	81.4	12.07	0	1

Definitions: Total Cost: The amount of final invoice; *Miles*: The delivery distance in miles; *Weight*: the weight of the product shipped, in pounds; *Indirect Delivery*: Equals ‘1’ if the product was shipped from the company to the charity directly, and ‘0’ if was shipped to/from a warehouse; *Less Than Truckload*: Equals ‘1’ if it did not use a full truck, else 0 (full truck); *Has a NMFC Classification*: dummy variable where ‘1’ indicates that the product was assigned a freight code from the National Motor Freight Classification, else ‘0’; *NMFC Classification*: if it has a freight class, then this is the numeric value where more positive numbers indicate greater density, but zero if no class is given. *February-December*: dummy variables where ‘1’ indicates the month of the shipment, else ‘0’; *Spot Price of WTI Oil (\$/barrel)*: The average daily spot price of West Texas Intermediate Oil averaged over the month, retrieved from FRED data systems of the St. Louis Federal Reserve.

Regression Results for Total Cost Function

VARIABLE	COEFFICIENT	
Miles	-0.015636	
Miles ²	0.0000949	***
Weight (lbs.)	0.209793	***
Weight ² (lbs.)	-5.46E-06	***
Indirect Delivery	-42.19889	**
Less Than Truckload	-352.1991	***
Has a NMFC Classification	-110.5969	***
NMFC Class	0.356904	***
February	415.8649	***
March	188.6503	***
April	95.20474	*
May	198.9304	***
June	282.5277	***
July	270.3393	***
August	307.9553	***
September	370.7122	***
October	207.6	***
November	136.7688	***
December	197.9937	***
Spot Price of WTI Oil (\$/barrel)	7.847	***
Intercept	-392.2994	***

R² 0.6789

Sample Size 4,442

Note: Statistical significance indicated at the 1% (***) , 5% (**), and 10% (*) level.