

Digital Commons
@ LMU and LLS

Digital Commons@
Loyola Marymount University
and Loyola Law School

Economics Faculty Works

Economics

4-1-2007

Markets: Gift Cards

Jennifer Pate Offenberg

Loyola Marymount University, jennifer.pate@lmu.edu

Repository Citation

Pate Offenberg, Jennifer, "Markets: Gift Cards" (2007). *Economics Faculty Works*. 19.
http://digitalcommons.lmu.edu/econ_fac/19

Recommended Citation

Offenberg, JenniferPate. 2007. "Markets: Gift Cards." *Journal of Economic Perspectives*, 21(2): 227-238. DOI: 10.1257/jep.21.2.227

This Article is brought to you for free and open access by the Economics at Digital Commons @ Loyola Marymount University and Loyola Law School. It has been accepted for inclusion in Economics Faculty Works by an authorized administrator of Digital Commons@Loyola Marymount University and Loyola Law School. For more information, please contact digitalcommons@lmu.edu.

Markets

Gift Cards

Jennifer Pate Offenberg

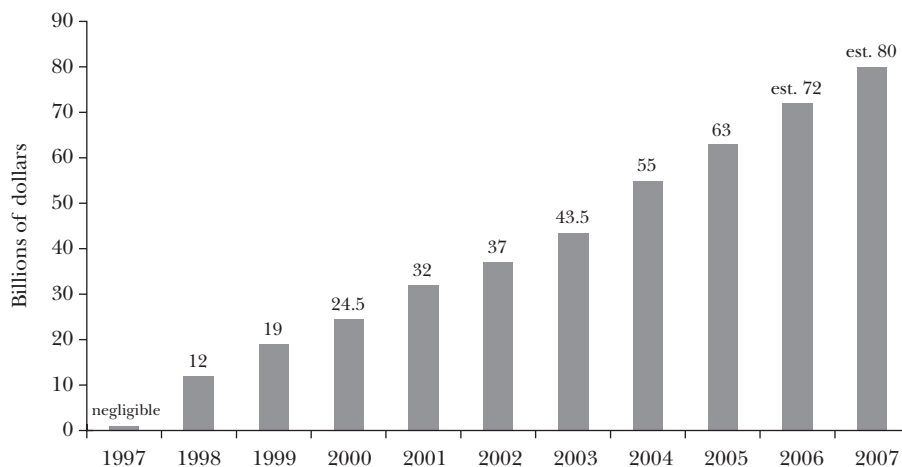
This feature explores the operation of individual markets. Patterns of behavior in markets for specific goods and services offer lessons about the determinants and effects of supply and demand, market structure, strategic behavior, and government regulation. Suggestions for future columns and comments on past ones should be sent to James R. Hines Jr., c/o *Journal of Economic Perspectives*, Department of Economics, University of Michigan, 611 Tappan Street, Ann Arbor, MI 48109-1220.

Introduction

The Mobil Oil Company introduced the first retail gift card that recorded value on a magnetic strip in 1995. In under a decade, such gift cards replaced apparel as the number one item sold during the Christmas season (Deloitte and Touche, 2004).

Figure 1 shows how total sales of gift cards have increased since 1997, exceeding \$60 billion in 2005 and heading for \$80 billion in 2007. The average American consumer purchases seven gift cards annually, spending approximately \$250 in total, according to a ValueLink (2004) consumer survey. The National Retail Federation (2005) estimates that the end-of-the-year holiday season is responsible for roughly 30 percent of annual gift card sales; that is, holiday sales of gift cards reached over \$18 billion in 2005. The average consumer spent \$88 on gift cards over the 2005 holidays, approximately 16 percent of their gift budget. Consumers can now buy gift

■ *Jennifer Pate Offenberg is Assistant Professor of Economics, Loyola Marymount University, Los Angeles, California. Her e-mail address is <joffenberg@lmu.edu>.*

*Figure 1***Gift Card Timeline***(annual gift card sales in billions of dollars)*

Source: Bain and Co. (2003) and TowerGroup (2005).

cards from third party “kiosks” like Quickgifts.com, which offers online purchasing from 122 companies. Gift cards used to be offered primarily by large chain store companies, but more and more local businesses are joining the trend.

A gift card is similar to the formerly standard paper gift certificate, but has the added benefit that purchases are automatically deducted and that the card is entirely transferable. The focus of the discussion here is on gift cards offered by retailers. There is another form of gift card, commonly called a bank card, that holds a cash value and acts as a debit card, and these cards are available directly from banks or credit card companies like Visa. These cards typically have handling fees ranging between \$4.95 and \$8.95, depending on the stored value. They do not appear in the data on gift cards discussed in this paper, but do offer their own issues—especially with regards to the loss associated with giving a bank card instead of a cash gift, since these cards are even closer to cash than retail gift cards.

This study will discuss the reasons for the strong surge in the gift card market. It will then consider the value of gift cards as an intermediate option between two alternatives: purchasing a physical gift, which could possibly be returned or exchanged, versus giving cash. Empirical data on the resale price of gift cards from an Internet auction website provide information on the value that recipients place on gift cards suggesting that the difference between the cost of a gift card to the giver and its value to the recipient is substantial, although perhaps not quite as large as the parallel gap involved in physical gifts.

What Changed?

Paper gift certificates have been available for decades, but have now been largely replaced by plastic gift cards with either a barcode or magnetic strip for recording the buying power of the card and deducting purchases. Dick Outcalt of Outcalt & Johnson Retail Strategists calls gift cards a “win–win–win situation.” That is, a gift card is a win for the retailers; a win for the gift-giver because it “relieves the pressure” of deciding on an appropriate gift; and “a win for the recipient because they can choose what they want and when they want to buy it” (Bolt, 2004).

The new magnetic strip technology is one major factor driving the rise of gift cards. For retailers, the new technology created the ability to account for sales electronically and greatly reduced the cost of offering a gift-certificate-like product. For consumers, the magnetic stripe technology makes gift cards easily transferable, convenient, and lower maintenance than the traditional gift certificate.

A second factor driving the growth of gift card sales is the rapid spread of chain stores. Gift cards can now be purchased, given, and redeemed nationally as companies like Wal-Mart and Home Depot continue to add hundreds of new store locations every year, reaching into the outer regions of all 50 states. As the costs to firms to incorporate gift cards into their business have declined, the benefits have become more apparent. In addition to securing guaranteed sales, stores may see gains in brand awareness and an increase in customer loyalty, as consumers may make several visits to redeem their card. According to a 2004 ValueLink survey, in 55 percent of purchases involving the use of a gift card, consumers spent more than the card value. Also, an estimated 10 percent of gift cards are never redeemed (Maranjian, 2004), and this amount is almost pure profit to the firm. For example, in 2005, Home Depot reported \$52 million of additional income from gift cards for which “the likelihood of redemption by the consumer is remote.”

In addition, gift cards have allowed firms to manage their reported earnings by manipulating the timing and rate at which unredeemed gift cards are written off from liabilities (Berner, 2005). These benefits have led companies to increase their marketing of gift cards. For example, some stores, like Target, sell novelty gift cards that play holiday tunes at the push of a button, while other cards are shaped like candles with glowing lights. Since gift cards are worthless until value is added at the register, shoplifting of the cards from stores is not an issue, allowing them to be placed predominantly at front entrances for prime advertising.

Finally, although gift cards were once considered a lazy present, they have become increasingly popular with both gift-givers and gift recipients. A 2005 National Retail Federation survey found that two-thirds of American consumers planned to buy at least one gift card during the 2005 holidays, while over 52 percent of consumers listed gift cards as their preferred gift to receive. Gift cards may have also flourished as a result of changes in the composition of our

society. Historically, a considerable amount of time may have been devoted to carefully selecting appropriate presents—time which, for married couples, would typically have been performed by a housewife. However, household characteristics have changed. Since 1969, the proportion of wives working year-round full-time has increased from 17 percent to 39 percent in households with children. For married couples without children, 60 percent of wives are now employed full-time (McNeil, 1998). Although the average hours worked per week has declined, households with two income-earners generally lack the time to spend hours shopping. Gift cards fit naturally into a convenience-driven lifestyle, are easy to buy and give, and help givers stay within their holiday budget.

The Welfare Loss of Gifts

A gift involves a cost for the giver and a benefit for the recipient. Most of us know from experience that it is quite possible for the gift-giver to spend more on the gift than the gift is worth to the recipient. This section discusses some evidence on the deadweight loss of gift giving and raises some considerations that should affect the extent of this deadweight loss, including issues of how cash gifts are regarded and how well the gift-giver understands the preferences of the recipient.

The Deadweight Loss of Christmas

Waldfoegel (1993) used surveys of Yale undergraduates to explore the gap between the price of a good to the giver and the value to the recipient. He memorably called this gap the “deadweight loss of Christmas” and estimated that “between a tenth and a third of the value of holiday gifts is destroyed by gift-giving” (p. 1336). Waldfoegel’s argument was that recipients of gifts would have received higher welfare from the cash equivalent of the gifts they received.¹

Waldfoegel’s (1993) survey also showed that the size of the gap was smaller for gifts from friends and “significant others,” and larger for gifts from extended family. A plausible explanation of this finding is that when a gift-giver knows more about the preferences of the gift recipient, the value of the gift to the giver will be closer to the value for the recipient.

Subsequent replies to Waldfoegel’s (1993) article pointed out the absence of a calculation for the sentimental value of gifts, with List and Shogren (1998) finding a welfare gain to gift-giving after incorporating sentimental feelings. This finding suggests an upward bias in the originally estimated deadweight loss for physical gifts. With gift cards, however, it is difficult to convey sentimental feelings; thus they are more straightforward to measure in terms of value.

¹ Analyses of government programs like food stamps often point out that recipients would benefit if these programs were replaced with cash (for theoretical discussion and references, see Offenberg, 2005).

When Cash Gifts are Inappropriate

Cash gifts are traditionally seen as inappropriate. A common rationale for nonmonetary gifts is that both thought and effort are important. A 2004 Deloitte and Touche survey estimated that gift-givers prefer gift cards over cash by a 2-to-1 margin. Webley, Lea, and Portalska (1983) found that consumers rated gift certificates closer to presents than cash, in terms of acceptability. Thus, a gift card might be seen as more thoughtful than a cash gift and also a manner of avoiding the traditional cash stigma.

While this appeal to the traditional stigma of cash gifts has some truth, it is not obvious why a gift card should be preferred to cash. After all, with either a cash gift or a gift card, the exact amount spent on the recipient is revealed, except that in one case the funds are restricted to a specific purpose: purchases from a certain store. Gift cards offer considerable convenience, but simply giving cash would offer even more convenience to a gift recipient—along with flexibility on where to spend the gift.

Gift-givers might actually prefer the restrictions of a gift card because it makes the gesture more memorable than a cash gift. Perhaps a gift card creates a kind of shared bond in which the giver can gain satisfaction from imagining the recipient going to the store and the recipient can appreciate the gift when shopping at the store. If people enjoy giving gift cards and other people appreciate receiving them, then the restriction to a certain store should be viewed as part of the value of the gift, rather than a limitation on the gift.

However, if the thought is what counts in getting a nonmonetary gift, then Prendergast and Stole (2001, p. 1794) ask, “[Couldn’t] the donor simply communicate information to the recipient by telling her what he would have purchased and then making an appropriate transfer of money . . .” Applying their logic to gift cards, this proposal is equivalent to giving a cash gift and including a note that the recipient might want to spend the money at [insert name of store here].

Corresponding Preferences and Welfare Loss

If consumers are perfectly informed of their own preferences, then a gift-giver will be unable to produce a higher utility-increasing gift for the recipient than cash. If the giver instead chooses a gift card, then the more the giver understands the consumer’s preferences, the more appropriate store they choose. For example, a consumer who routinely spends \$100 at Target should not suffer any welfare loss from receiving a \$50 Target gift card (given certain assumptions over consumer preferences), because the gift effectively frees up \$50 of cash to be spent on whatever the recipient desires. Thus, to the extent that the giver understands the recipient’s preferences towards Store X, the welfare loss can be reduced or eliminated.

It may also be the case that recipients are imperfectly informed of their own preferences, giving the donor an opportunity to offer a gift card that creates value.

One example is a gift card for a store that the recipient is unaware of, but that fits their personality or style. This possibility would help explain why people give gift cards, as they may be attempting to achieve this outcome.

Evidence from the Resale of Gift Cards

Gift cards are bought and sold, at a discount, through Internet auction sites like eBay.² The existence of this secondary market demonstrates a gap between the face value of the card and the value to the recipient. I collected information from 2,002 completed sales of gift cards by at least 500 unique sellers on eBay.com from February to June 2004. In these data, auctions of gift cards from 31 stores took place, ranging from electronic stores to discount “supercenters.”³ Most readers will recognize these store names because they are all national chains. The average company in the sample operates around 1,000 locations in 45 states. The average company has been open 52 years, and the average store for that company offers over 55,000 square feet (1.28 acres) in floor space. The dominance of nationwide firms in the sample suggests that chain stores were an important factor in the rapid growth of gift card sales.

These data provide evidence on how recipients perceive the cash value of gift cards and on how this cash value varies with the stored value of the card and the type of store.

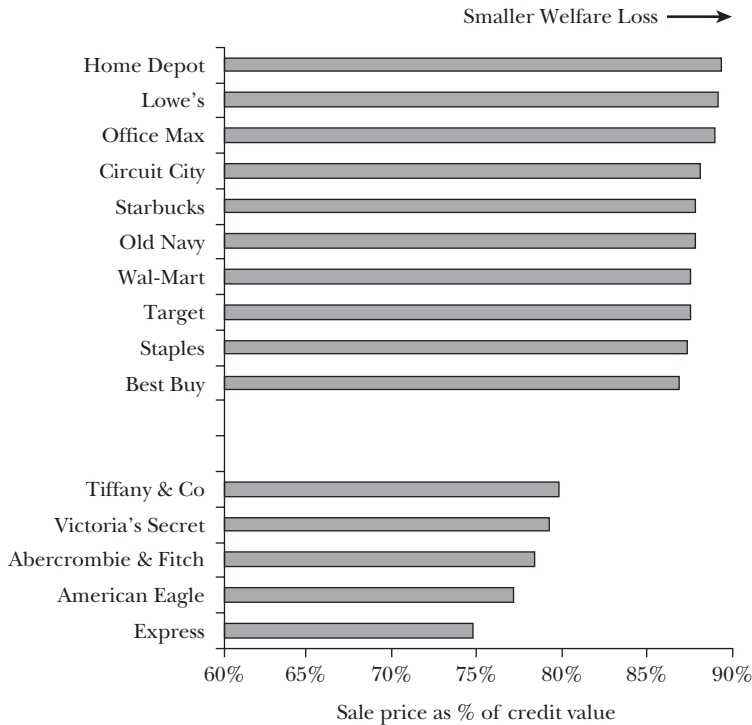
Cash Equivalence

The “face value” of the gift card is the amount of the store’s credit currently stored on the card. The average discount of a card on eBay is calculated as the difference between the average face value of the gift card being sold and the average sale price, divided by the average face value. Sellers accept significantly less cash for their gift cards, at a loss of approximately 15 percent of the initial value on average. Defining welfare loss as the difference between how much a gift-giver spends and the ultimate value to the recipient, a gift card’s discount on eBay is an estimate of the welfare loss to giving that gift card. Although the highest bidder’s willingness to pay for the gift card is not revealed in an ascending auction, the appropriate value to use when calculating the welfare loss to gift-giving is the recipient’s willingness to accept, as it measures the direct monetary loss between

² Gift card sellers on eBay face several restrictions, with the most limiting rule being that a seller can only sell at most one gift card per week. This restriction prevents mass sales by any particular seller.

³ The 25 stores in the sample with 20 or more observations were: Abercrombie & Fitch, American Eagle, Banana Republic, Best Buy, Bloomingdales, Circuit City, Express, GAP, Home Depot, JCPenney’s, K-Mart, Lowe’s, Macy’s, Nordstrom, Office Max, Old Navy, PetSmart, Sears, Staples, Starbucks, Target, Tiffany & Co., Toys “R” Us, Victoria’s Secret, and Wal-Mart. For a summary table showing for each store the average face value of the gift, the average sale price, the average discount, and information on number of stores, store size, how long the firm has been in operation, and sample size, see the Appendix Table that appears with this article at (<http://www.e-jep.org>).

Figure 2

The Ten “Best” and Five “Worst” Gift Cards*(according to sale price as a percentage of credit value)*

giver and recipient. Figure 2 shows the ten stores with the smallest discounts and the five stores with the largest discounts.

A majority of the auctions offered “free” shipping, which in effect means that shipping is therefore an additional cost incurred by the seller and should be included as part of the cost. Absent in this 15 percent figure are the costs associated with selling on eBay, which may add an additional 5 percent of funds lost in the transfer.⁴ Taking the sales price and the selling costs together, a fair estimate would be that gift cards have a cash value 20 percent lower than their face value to recipients, which is similar in magnitude to Waldfogel’s (1993) estimate of the deadweight loss of presents.

Another issue potentially affecting the value of the card is that many stores have policies that specify the number of months a consumer has to spend the value

⁴ Since these data include an auction’s starting bid and sale price, an approximation of average selling cost per auction can be calculated. The average fee was approximately 5 percent of the sale price, with a maximum of 19.25 percent. The fee percentage was also negatively correlated with the sale price of the item, at a value of -0.34 , suggesting that sales of lower-valued gift cards may incur a slightly higher proportional fee than higher-valued credit sales.

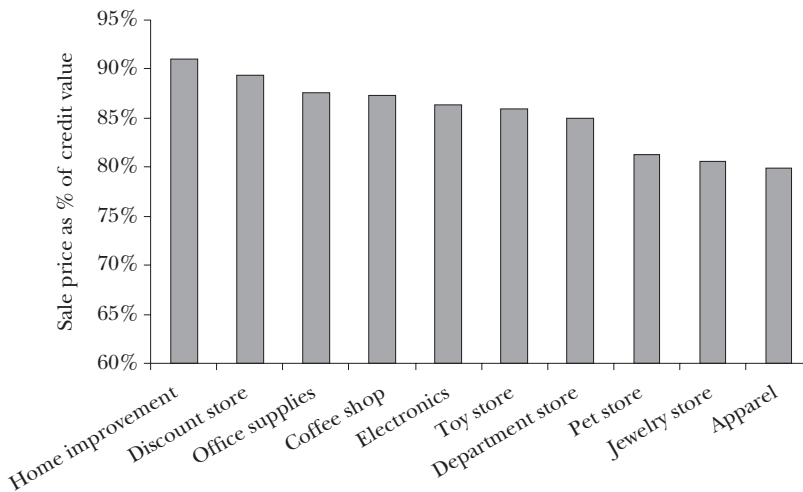
of the card before certain “maintenance” fees will be assessed or the card expires. Most states have passed laws making it illegal for gift cards to expire or for companies to charge these fees. For example, California banned gift card expiration dates in 1997. In some states this battle continues. In Massachusetts a 2003 law extended the minimum time before gift cards may expire from two to seven years. A 2006 Ohio law banned expiration dates of less than two years, though gift cards may still expire at that time. In these data, the original purchase date of the gift card being auctioned is unavailable, so it is impossible to calculate how the value of the card might be affected by expiration dates or maintenance fees. However, a recent survey examining gift card policies listed 18 stores as having the best policies with no deductions or expiration dates, including Best Buy, Circuit City, Gap, Home Depot, JCPenney, Lowe’s, Nordstrom, Old Navy, PetSmart, Sears, Starbucks, Target, and Wal-Mart (Montgomery County Division of Consumer Affairs, 2005). Since together these stores make up over 67 percent of the dataset, gift card expiration policies should not cause much or any bias in the analysis.

Is this estimate of a 20 percent gap between the cost of gift cards and the value to the recipient likely to contain a predictable upward or downward bias? On the one hand, if a substantial number of people are aware of the secondary market for gift cards and those choosing to sell their gift cards are the recipients who value them least, then many recipients value their cards more highly (or at least too highly to sell them), and the 20 percent estimate would be biased upward. On the other hand, some people would be willing to sell their gift card at a discount, but do not do so because they are unaware that a secondary market exists. Doing a recent small survey of Yahoo! users, I found that less than 39 percent of these Internet-experienced consumers knew gift cards could be sold for cash ($N=103$). A survey of the general population would likely yield a smaller percentage. In addition, some of those recipients willing to sell their gift cards at a 20 percent discount would presumably also have been willing to sell at a larger discount, if that had been the market price. This suggests that the welfare loss associated with giving gift cards could have been greater, especially if the recipient had been unable to trade the gift card subsequently. Without knowing the percentage of gift card sellers relative to the total gift cards given, the percentage of the public that is aware of this market, and the elasticity of demand and supply of gift cards to this market, this estimate for welfare loss from gift cards must remain an approximation.

Store Characteristics

The more potential uses of a gift card, the less welfare loss it should create. The data was pooled, according to the type of store, into ten categories shown in Figure 3. Gift cards for home improvement and discount stores have the smallest welfare loss; gift cards for jewelry and apparel stores have the largest loss. A similar pattern is apparent in Figure 2 provided earlier, where gift cards from a home improvement store (Home Depot) and a discount store (Wal-Mart) are among the least

Figure 3

Welfare Losses of Gift Cards by Store Type*(according to sale price as a percentage of credit value)*

discounted, while clothing and jewelry stores show the most discounting from face value (Express and Tiffany & Co.).

Gift cards from stores that offer more general use items or larger product variety tend to sell with smaller discounts, resulting in smaller welfare losses. Wal-Mart, one of the top sellers in terms of the cash equivalence of their gift cards, offers a number of possible choices, from completing car repairs to buying sports equipment and even groceries. This reasoning may also apply to the potential sellers of Wal-Mart gift cards. If gift card recipients can spend them without difficulty, then supply will decrease and the price will rise, all else equal. Therefore, if a certain store characteristic like product variety increases the demand for gift cards, decreases the supply of gift cards, or both, then stores with greater product variety will sell for higher prices.

Regression analysis, using the discount from face value as the dependent variable, confirms that traits of stores influence the size of the discount. A greater number of locations, locations in more states, the availability of shopping and purchasing online, and greater product variety as measured by larger retail space all result in a smaller gift card discount. The number of years in which a store had been in existence had a positive and significant effect on the size of the discount (equal to a negative impact on a gift card's sale price), suggesting that "newer" retailers may be more popular with the eBay bidder population.⁵

⁵ For specific regression results, as well as comments on the data and alternative specifications, see the appendix to this article available at (<http://www.ejep.org>).

The Size of Gift Cards

Giving a smaller amount in the form of a gift card is less likely to create a welfare loss. If a consumer had budgeted \$20 for purchases at Store X and then received a gift card valued at \$20 for that store, then the income can simply be shifted to other goods and no welfare loss arises. If a gift-giver is already planning to spend a small amount on someone, then a gift card or cash gift would likely create the same impact on the recipient.

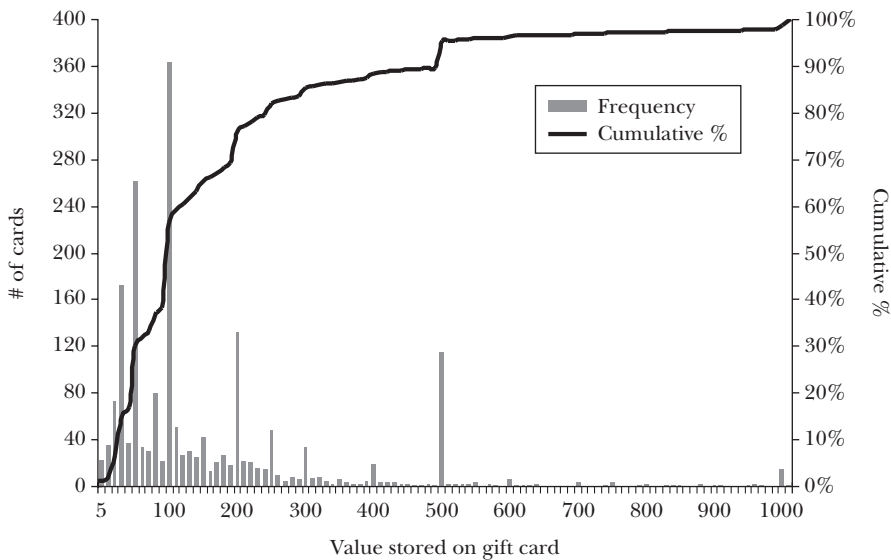
This insight suggests that larger-valued gift cards are more likely to create significant welfare losses. Conversely, smaller-valued gift cards would then be less likely to be sold and the secondary market should be characterized by a disproportionate number of higher valued gift cards. Since eBay fees are proportional to the value of the item, selling costs should have a consistent effect on the selling decision across all values of gift cards and should not disproportionately affect smaller valued gift cards. However, there is also a fixed cost of time incurred by sellers that may affect the decision of whether to sell a gift card.

These data support the hypothesis that smaller-valued gift cards are less disruptive to a consumer's consumption preferences, creating little or no welfare loss. Figure 4 displays the distribution of gift card values over the sample. A ValueLink (2003) survey found the average amount spent per gift card purchase to be \$48 for men and \$37 for women, making the average gift card purchased in the United States roughly \$42. The average gift card sold on eBay has a face value of \$192. Gift cards valued up to and including \$20 account for just 6.5 percent of the sample, while cards valued up to \$40 account for only 17.1 percent of the auctioned gift cards. Smaller valued gift cards are less likely to be sold on eBay, supporting the hypothesis that smaller-valued gift cards are less likely to create welfare losses.

Conclusion

Gift cards are booming in popularity. However, gift cards lack the sentimental value of a physical present and have similar properties of cash gifts, such as revealing the total amount spent. Moreover, gift cards can produce welfare losses between the giver and the recipient. This loss in the transfer from giver to recipient is estimated at 15 percent of the original amount spent, increasing to 20 percent when the eBay seller transaction costs are included. If the projected \$80 billion is indeed spent on gift cards in 2007, then a welfare loss of 20 percent would be equal to \$16 billion. Of course, the sample is censored, because it only consists of sellers willing to part with their gift cards. Also, the existence of a secondary market for gift cards likely reduces the size of the welfare loss by providing an opportunity for recipients to exchange cards for cash, an opportunity which has long existed for

Figure 4
Distribution of Gift Card Values



physical goods received as presents. If Waldfogel's (1993) estimation of the welfare loss from physical gifts at 10–30 percent is correct, then at an average welfare loss of 15–20 percent, gift cards have a welfare loss that is comparable—although perhaps not worse—than physical presents.

The evidence presented here suggests some advice for those considering a gift card. First, givers who are less aware of the recipient's preferences should rely more on gift cards from general-purpose stores that offer greater product variety like Target or Home Depot, since gift cards from these retailers are less likely to create welfare losses. Second, smaller-valued gift cards are less likely to produce welfare losses than higher-valued gift cards. Finally, for higher-valued gifts and when the gift-giver is imperfectly informed of the recipient's preferences, a cash gift will generally provide a larger increase in the recipient's utility than a gift card. Gift-givers planning on giving a gift card might want to bear in mind the possible benefit of a cash gift with a note to the recipient suggesting that the money could be spent at [insert name of store here]—to add the thought that counts.

■ *I would like to thank Jack Barron, Dan Kovenock, Tim Cason, Stephen Martin, David Offenberg, Colin Cameron, and James Konow for guidance. I also thank James Hines, Timothy Taylor, and Michael Waldman for comments. This research is based on one chapter of my Ph.D. dissertation, and I gratefully acknowledge the Purdue Research Foundation for their support.*

References

- Bain and Co.** 2003. "U.S. Gift Pre-Paid Market Size by Sales in Dollars from 1997 through 2001 and Forecast for 2002." *Credit Card Management*, 15(12): 36.
- Berner, Robert.** 2005. "Gift Cards: No Gift to Investors." *Business Week Online*, March 3, 2005.
- Bolt, Kristen.** 2004. "Retail Notebook: Plastic Makes Perfect Gift This Holiday Season." *Seattle Post-Intelligencer*, November 13, 2004.
- Deloitte and Touche.** 2004. "Holiday Shopping: It's in the Cards." Deloitte Consumer Holiday Survey Findings. <http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=109&STORY=/www/story/11-09-2004/0002399718&EDATE=>
- Home Depot.** 2005. *Annual Report 2005*. <http://ir.homedepot.com/reports.cfm>.
- List, John, and Jason Shogren.** 1998. "The Deadweight Loss of Christmas: Comment." *American Economic Review*, 88(5): 1350–5.
- Maranjian, Selena.** 2004. "Careful With Those Gift Cards!" *The Motley Fool*. November 29, 2004. <http://www.fool.com/News/mft/2004/mft04112902.htm>.
- McNeil, John.** 1998. "Changes in Median Household Income: 1969–1996." U.S. Department of Commerce, Current Population Report, Special Studies P93-126.
- Montgomery County Division of Consumer Affairs.** 2005. "Gift Cards 2005: Many Good Retail Cards. Any Good Bank Cards?" http://www.montgomerycountymd.gov/content/ocp/consumer/gift_cards_report_2005.pdf.
- National Retail Federation.** 2005. "Gift Card Sales to Surge Again this Holiday as Popularity Increases." National Retail Federation News Release. <http://www.nrf.com/content/default.asp?folder=press/release2005&file=giftcards1105.htm&bhcp=1>.
- Offenberg, Jennifer P.** 2005. "Welfare Implications of Gift Cards and the New Market for Store Credit: Theory and Evidence from Internet Auctions." <http://myweb.lmu.edu/joffenberg/research.html>.
- Offenberg, Jennifer P.** 2006. "Seller Reputation as a Determinate of Sale Price in Online Auctions: Theory and Evidence from Gift Card Sales." <http://myweb.lmu.edu/joffenberg/research.html>.
- **Prendergast, Canice, and Lars Stole.** 2001. "The Non-Monetary Nature of Gifts." *European Economic Review*, 45(10): 1793–1810.
- TowerGroup.** 2005. "U.S. Gift Card Market to See Rapid Sales Growth through 2007." TowerGroup Press Release. <http://old.towergroup.com/Public/presscenter/pressreleases/040604.htm>.
- ValueLink Survey.** 2003. "Twice as Many Americans Purchased Gift Cards in 2003 vs. 2004." ValueLink Press Archive. <http://www.valuelink.info/news/2003PressArchive.htm>.
- ValueLink Survey.** 2004. "U.S. Annual Survey Percentages of Gift Card Spending in Six Consumer Behavior and Spending Categories." *Credit Card Management*, 17(8): 10.
- Waldfoegel, Joel.** 1993. "The Deadweight Loss of Christmas." *American Economic Review*, 83(5): 1328–36.
- **Webley, Paul, S. Lea, and R. Portalska.** 1983. "The Unacceptability of Money as a Gift." *Journal of Economic Psychology*, 4(3): 223–38.

Appendix

Regression Evidence on Gift Card Discounts and Store Traits

To test how certain store characteristics affect the magnitude of a store's gift card discount, a regression was estimated with the dependent variable taking the value of $\ln(\text{Face value}) - \ln(\text{Sale price})$. In this case, the "Sale price" is calculated as the winning bid plus the cost of shipping (if applicable). Data regarding different store characteristics were collected to examine which factors may be responsible for the variance across store gift cards, and the size of their effect. The explanatory variables include the number of locations of each store and the number of states, to test for national brand awareness. Stores with more locations and/or in more states should be better known across potential bidders, which should increase demand. The average number of acres per store is included as a proxy for product variety, under the assumption that stores occupying more retail space offer greater product variety. To test for generational brand awareness, the age of the company entered the equation. Finally, to measure the effect of convenience, a dummy variable representing the availability of online sales is also included in the analysis.

Regression coefficient estimates for each of these variables, appearing in Appendix Table 2, indicate that all but one of the above characteristics have a negative and significant impact on the size of a gift card's discount.

Although not a focus of this article, information regarding other auction characteristics like the seller's reputation or feedback score and payment restrictions were collected and controlled for in the analysis. For descriptive statistics and an in-depth analysis of how these different auction characteristics affect sale price, see Offenberg (2006).

An alternate test was conducted with the dependent variable $\ln(\text{Sale price})$ regressed on $\ln(\text{Face value})$, along with the other variables. The coefficient for $\ln(\text{Face value})$ was not significantly different from 1 (p -value = 0.265). The R^2 term for that regression was 0.99, and the values of the auction coefficients simply change sign, while their level of significance remains the same.

Table A1
Summary Statistics for Gift Card Auctions

	<i>Average face value</i>	<i>Average sale price</i>	<i>Average discount (%)</i>	<i>Number of locations/states</i>	<i>Average store size (acres)</i>	<i>Years of service</i>	<i>Count</i>
<i>Abercrombie & Fitch</i>	\$ 177.09	\$ 140.12	21.85%	366/49	0.229	16	164
<i>American Eagle</i>	109.45	84.61	23.03%	849/50	0.094	27	42
<i>Banana Republic</i>	147.29	119.79	18.21%	462/46	0.128	26	37
<i>Best Buy</i>	179.49	156.63	13.34%	698/48	0.735	21	187
<i>Bloomingdale's</i>	188.39	147.21	22.78%	36/12	5.186	132	33
<i>Circuit City</i>	218.44	195.88	12.08%	617/45	0.689	55	67
<i>Express*</i>	161.41	120.99	25.47%	884/47	0.140	24	48
<i>GAP</i>	108.38	92.85	15.49%	1,390/50	0.275	35	66
<i>Home Depot</i>	305.28	276.98	10.83%	1,900/50	2.502	26	260
<i>JCPenney's</i>	108.43	91.32	16.07%	1,017/50	2.664	92	44
<i>K-Mart</i>	71.08	60.59	16.07%	1,479/49	2.778	105	26
<i>Lowe's</i>	252.65	226.62	11.02%	1,100/48	2.755	58	137
<i>Macy's</i>	88.17	72.90	17.67%	423/34	4.079	146	30
<i>Nordstrom</i>	200.54	179.57	12.20%	151/27	3.444	103	26
<i>Office Max</i>	170.46	152.25	11.19%	945/49	0.459	16	24
<i>Old Navy</i>	51.84	45.00	12.40%	907/48	0.344	10	20
<i>PetSmart</i>	117.75	95.02	17.81%	726/48	0.528	17	32
<i>Sears</i>	157.72	136.39	14.89%	900/50	3.139	111	61
<i>Staples</i>	107.12	91.53	12.87%	1,442/50	0.482	18	54
<i>Starbucks*</i>	78.99	67.15	12.39%	8,909/50	0.034	33	109
<i>Target</i>	111.57	98.65	12.65%	1,330/47	2.869	42	104
<i>Tiffany & Co</i>	1483.40	1187.16	20.34%	55/23	0.184	167	33
<i>Toys "R" Us</i>	96.26	82.16	15.50%	927/50	1.034	56	76
<i>Victoria's Secret</i>	106.23	84.51	20.99%	1,001/48	0.108	22	56
<i>Wal-Mart</i>	154.99	138.12	12.62%	3,066/50	3.412	42	219
<i>All</i>	192.29	163.35	15.05%	1,125/45	1.277	51.7	2002

Note: Stores with less than 20 observations do not appear in this table.

* Indicates that products are not available online.

Table A2
Gift Card and Store Characteristic Estimates
 (Dependent variable: $\ln(\text{Face value}) - \ln(\text{Sale price})$)

<i>Store characteristic variables</i>	<i>Estimate</i>	<i>Standard error</i>
Number of store locations	-0.0013*	0.0002
Locations in number of states	-0.114*	0.032
Size of average store (in acres)	-0.95*	0.143
Years of service	0.018*	0.006
Available online	-5.846*	1.336
R^2	0.19	

* Significant at the 1% level, based on 2,002 observations.