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Partial Refunds or Money-Back Guarantees?*

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Abstract

A partial-refund policy is superior to a "full money-back" policy when a seller faces a significant amount of opportunistic return behavior-i.e., consumers order a product for short term usage only to return it for a refund later. In a partial-refund policy, the seller charges a rent (the nonrefundable portion of price) to those who return the product; this discourages opportunistism, but also penalizes consumers who only return because merchandise is unsatisfactory. The optimal partial refund policy balances this tradeoff. Profit is higher under the partial refund policy because of a lower number of returns and because a higher price can be charged. Mail-order clothing and personal computer industries demonstrate that catalogers typically offer only partial refunds.

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1. Introduction

Today's retailers strive to make buying easy for consumers, offering products not only through traditional stores, but also via mail-order catalogs, television, and the Internet. To stimulate orders, many retailers advertise that they offer 100% money-back guarantees, in which consumers can return products for a full refund, for any reason, "no questions asked."

While returning an item is a common action taken by dissatisfied consumers, according to recent reports, some consumers abuse liberal return policies by buying products with no intention of keeping them (Fenvessy, 1992; Hess and Mayhew, 1997; Longo, 1995). The resulting losses to retailers have been recently estimated to be in the magnitude of $1 billion annually, and Table 1 provides examples of abusive returns documented by Longo (1995) and Neuborne (1996).

To stop consumers from borrowing products-using items before returning them-retailers seek ways to crack down on excessive returns. This paper models incomplete money-back guarantees (called partial refunds) designed to deal with these abusive returns. The model allows us to compare full- and partial-refund policies and to demonstrate why partial refunds are more profitable when a seller faces the kind of consumer opportunism mentioned above. We find that under partial refunds, the seller should raise price and reduce the refund to discourage product orders from marginal consumers (those with low value for the product who order products only to return

Table 1. Cases of Abusive Returns

Products	Abusive Returns
Radar and video cameras	Bought for vacation trips
Evening wear	Bought for proms and class reunions
Patio-furniture and air conditioners	Bought for the summer season
Laptop computers	Bought by students before finals
Hiking boots and camping equipment	Bought for a camping trip
Snow blowers	Bought for the winter season
Compact discs	Recorded and returned

them for a refund). The partial refund should not be too low, as this discourages good customers who intend to keep products that match their needs. Partial refunds are not just theoretical possibilities, but exist in practice, as illustrated by two empirical cases in Section V.

How is this paper different from previous research on product warranties and money-back policies? Models of product warranties typically assume that consumers cannot discern quality before purchase because of high search costs or biased information (Kendall and Russ, 1975; Heal, 1977; Corville and Hausman, 1979; Grossman, 1981; Plafrey and Romer, 1983; Cooper and Ross, 1985; Matthews and Moore, 1987; Lutz, 1988; Welling, 1989; Menezes and Currim, 1992; Padmanabhan and Rao, 1993; and Moorthy and Srinivasan, 1995). These papers then focus on identifying conditions under which the warranties will be profitable and economically efficient in terms of production, quality, information, and resources required for contract enforcement. The underlying assumption is that warranties are honored only when product failure to function can be *objectively* verified by buyers and sellers. Retailers, however, typically offer money-back guarantees based on consumers' *subjective* product evaluations. That is, consumers can obtain refunds "no-questions-asked." The implications of such liberal return policies have not been fully investigated.

Mann and Wissink (1990) compared money-back to replacement-warranty contracts and argued that money-back warranties are more profitable if the cost of replacing defective products is high. Davis, Gerstner, and Hagerty (1995) showed that full money-back guarantees can be more profitable and economically efficient than selling "as-is" (without a warranty), even when it is known that the product functions perfectly. This occurs when retailers obtain salvage value from returned merchandise that is greater than the consumer's salvage value net of returning costs. However, they did not investigate partial refunds as a means to control abusive returns and, in their model, such returns do not prevail in equilibrium.

In contrast, in our model, abusive returns occur in equilibrium. It will be shown that, under such opportunistic behavior (by consumers), a partial-refund policy is more profitable than a full-refund policy for the following reason. Under full refund,

consumers can borrow the product for free; with partial refunds, the retailer not only sells to people who keep the product, but also rents to customers who return the product. The best policy consists of a price and partial-refund that allows the seller to optimize the level of selling and renting. That is, the seller avoids consumers with excessive opportunistic behavior, but retains enough good customers who order with intentions to buy.

2. Elements of the Model

Consider a seller who offers a product at price P. The product may or may not satisfy a particular consumer's needs. This uncertainty is modeled with a random variable. If the product is a good match with the consumer's needs, its value to the consumer is v; if it is a mismatch, its value is 0. Let m denote the probability of a match and $1-m$ denote the probability of a mismatch. The parameter m can also be viewed as a measure of product familiarity; for a familiar product, m is expected to be close to one and for an unfamiliar product, significantly below one.

We assume each consumer knows their own tastes, as described by v and m. However, heterogeneity in these tastes exists. Specifically, the value v is assumed to be uniformly distributed within the consumer population from zero to V. The probability of a match, m, is for simplicity assumed to be identical for all consumers and to be known by the seller. The market size is normalized to one.

The product may be returned, "no-questions-asked." That is, the judgment of whether the product meets the customer's needs is purely subjective. Consumers may behave in an opportunistic fashion, in which they return the product even when it is a match. If the product is returned, the seller offers the consumer a partial refund (on the price), rP, where r is the proportion of the price refunded (partial refund rate), and $1-r$ is the nonrefundable proportion. Consumers also incur the cost of returning the product, R, that captures time, effort and reshipping expenses. The seller obtains some salvage value, S, from the returned item by selling it in a secondary market. We assume that the salvage value exceeds the cost of returning

($S>R$), so that the return process is economically efficient. Merchandise costs are irrelevant for the analysis and are assumed for simplicity to be zero.

After ordering the product, a consumer tries it to discover if it matches his/her needs. A proportion of the value, t, is extracted during the trial period, giving the consumer a utility tv if the product is a match and zero value if it is a mismatch. (For simplicity, we assume that t is exogenous. However, t could also be endogenous, as it could depend on the opportunistic intentions of the customer.) The consumption value remaining after product trial is therefore $(1-t)v$ for a match and zero for a mismatch. When $t=0$, the period is too short for the consumer to gain any utility during the trial, and when $t=1$, the consumer can obtain full utility from the product during the trial period. An example of a product with a low t might be a pay-per-view movie through cable-television where the buyer is allowed to sample the first five minutes free of charge. On the other hand, a wedding gown will have a high t, because it is used for a once-in-a-lifetime occasion.

This completes the specification of the ingredients of the model. The optimal partial-refund policy consists of the product's price and partial-refund rate that maximize profit from all consumer segments, as explained next.

3. Optimal Partial-Refund Policy

One can envision the sequence of decisions within the framework of a three stage game (see Figure 1). First, the seller sets both purchase price and partial refund, taking into account predicted, subsequent customer behavior. Second, consumers decide whether to order the product. Third, after receiving and inspecting the product, consumers decide whether to buy the product (keep the product) or return it for a partial refund. To find a subgame perfect solution, we will first analyze the third stage of the game, given that consumers have already ordered the product. Then, we will analyze the decision to order (second stage), given the price and partial refund. Finally, we analyze the seller's decisions on profit-maximizing price and partial refund (first stage).

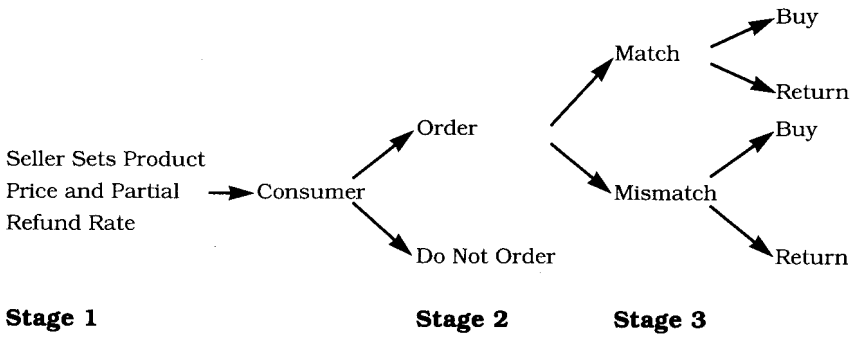

Figure 1. Sequence of Decisions

Stage 3: Buyer's Decision to Return the Product

The seller faces two types of returns: mismatched returns (those coming from unfortunate consumers who judge, after purchase, that the product a mismatch) and opportunistic returns (those coming from consumers who return even when the product is a match). Since customers can return the product for any reason, the seller will not be able to identify opportunistic from mismatched returns. However, the seller will be able to control the size of the segments by understanding the consumers' behaviors as analyzed next.

Mismatched Returns: The product is of no value to the consumer when a mismatch occurs. The gain from returning it is the partial-refund, rP, less returning costs, R. Therefore, a mismatched consumer will return the product if $rP > R$. We later show that this condition is satisfied for the optimal price.

Opportunistic Returns: When a match occurs after product trial, the residual value is $(1-t)v$. The gain from returning the product is the partial refund, rP, less returning cost, R. Therefore, a well-matched consumer will return the product if and only if $rP-R \geq (1-t)v$ or

$$v \leq (rP - R)/(1 - t). \tag{1}$$

Stage 2: The Decision to Order the Product

Now consider the consumer's ordering decision in Stage 2. The consumer makes the ordering decision based on expected surplus. Knowing their own valuation of the matched good, v,

each consumer knows her/his own return intentions upon purchasing the product. Let v^o denote the value of the boundary person who is just indifferent between ordering and not ordering the product. All consumers with a v exceeding v^o will order the product (although some may later return it). We will examine the interesting case where the boundary person returns opportunistically.

Let us identify the boundary, opportunistic consumer who just barely benefits from ordering the product. The expected surplus of the boundary consumer, $EU[v^o]$, is obtained as follows. When there is match, the boundary person gains a value of tv^o by using the product during trial. When returning the product to the seller, the boundary person loses the nonrefundable portion of price, $(1-r)P$, and the returning cost, R. When there is a mismatch, the boundary person also returns the product, incurring a cost of $(1-r)P+R$ with no benefit. Therefore, the expected surplus of the boundary consumer is

$$EU[v^o] = m[tv^o - (1 - r)P - R] - (1 - m)[(1 - r)P + R]. \tag{2}$$

To induce the boundary customer to order the product, the retailer must provide nonnegative surplus. To maximize profits, zero surplus must be provided. Setting $EU[v^o] = 0$ and solving for v^o, we get

$$v^o = [(1 - r)P + R] / mt. \tag{3}$$

We can identify, from equation (3), the demand for orders and, from inequality (1), the number of opportunistic returns as a function of the seller's price and partial-refund rate.

Expected Number of Orders: A consumer will order the product if $v \geq v^o$. Given the uniform distribution of v, the number of products ordered, $O(P,r)$, is the area to the right of v^o in Figure 2.

$$\text{Orders} = O(P,r) = 1 - \frac{(1 - r)P + R}{mtV}. \tag{4}$$

The number of orders is a decreasing function of the nonrefundable portion of the price, $(1-r)P$, and the return cost, R.

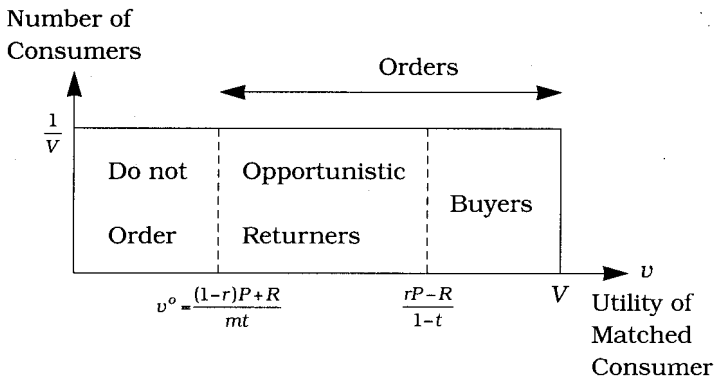

Figure 2. Partition of Consumers

Expected Mismatched and Opportunistic Returners: Two types of returns occur in our model: mismatched returns, those that occur when the product is a mismatch, and opportunistic returns, those that occur even when the product is a match.

Expected Mismatched Returns: A customer will return a mismatched product if $rP>R$. The expected number of mismatched returns, $MR(P,r)$, is the probability of a mismatch multiplied by the number of orders. Using (4), we obtain

$$\text{Mismatched Returns} = MR(P,r) = \left[1 - \frac{(1-r)P + R}{mtV}\right](1-m). \qquad (5)$$

Expected Opportunistic Returns: A consumer will return opportunistically if there is a good match and condition (1) above holds. The probability of a match is m, and the number of consumers who value the product enough to order ($v \geq v^o$), but not enough to keep it (inequality 1) leads to the expected number of opportunistic returns:

$$\text{Opportunistic Returns} = OR(P,r) = m\left[\frac{rP - R}{1-t} - \frac{(1-r)P + R}{mt}\right]\frac{1}{V}. \qquad (6)$$

Since total returns equal mismatched returns plus opportunistic returns, equations (5) and (6) yield the expected total number of returns, $TR(P, r)$:

$$\text{Total Returns} = TR(P,r) = MR(P,r) + OR(P,r)$$
$$= 1 - \frac{(1-r)P + R}{mtV} - m\left(1 - \frac{rP - R}{(1-t)V}\right). \quad (7)$$

Expected Number of Buyers: The expected number of buyers equals number of orders less total returns. Using equations (4) and (7), we obtain

$$\text{Expected Buyers} = B(P,r) = O(P,r) - TR(P,r) = m\left(1 - \frac{rP - R}{(1-t)V}\right). \quad (8)$$

The expected demand of buyers is an inverse function of the refund less return costs, rP–R. If this increases, it becomes more attractive to return opportunistically.

Stage 1: Setting Price and Partial-Refund

At Stage 1 of the game, the seller chooses P and r to maximize expected profit. The expected profits can be expressed as expected profit from buyers plus expected profit from returners. Expected profit from buyers is the number of buyers, $B(P,r)$, multiplied by the price, P, and expected profit from returners is total returns, $TR(P,r)$, multiplied by both the nonrefundable portion of price and the salvage value. Therefore, expected profit as a function of P and r is

$$\text{Expected Profit} = \pi(P,r) = B(P,r)P + TR(P,r)[(1-r)P + S]$$
$$= m\left[1 - \frac{rP - R}{(1-t)V}\right](rP - S) + \left[1 - \frac{(1-r)P + R}{mtV}\right]((1-r)P + S). \quad (9)$$

The seller optimizes the partial-refund policy by choosing P and r to maximize the expected profit function (9). Straightforward calculus yields the optimal values (P^*, r^*) reported in the partial-refund column of Table 2 (note that $r^*P^* > R$ as required at Stage 3). The equilibrium values of orders, total returns, buyers, and profit were obtained by substituting (P^*, r^*) into equations (4)-(9). The optimal full-refund policy is obtained by maximizing the profit function with respect to price P under the constraint that the refund is full, r=1.

Table 2. Partial Refund Versus Full Refund
Assuming $mtV > S + R$

Variable	Partial Refund	Full Refund	Larger Value
Price, P	$[(1-t)V+mtV]/2$	$[(1-t)V+S+R]/2$	Partial
Refund Rate, r	$\frac{(1-t)V+R+S}{(1-t)V+mtV}$	1	Full
Orders, O	$\frac{mtV+S-R}{2mtV}$	$\frac{mtV-R}{mtV}$	Full
Buyers, B	$\frac{m}{2}\left(1+\frac{R-S}{(1-t)V}\right)$	$\frac{m}{2}\left(1+\frac{R-S}{(1-t)V}\right)$	Identical
Total Returns, TR	$\frac{1}{2}\left[1-m+\frac{S-R}{V}\left(\frac{1}{mt}+\frac{m}{1-t}\right)\right]$	$\frac{1}{2}\left[2-m-\frac{2R}{mtV}+\frac{m(S-R)}{(1-t)V}\right]$	Full
Opportunistic Returns, OR	$(S-R)\frac{mt+1-t}{2r(1-t)V}$	$\frac{m}{2}\left[1+\frac{mt(S-R)-2(1-t)R}{mt(1-t)V}\right]$	Full
Profit, π	$\pi_{FULL}+\frac{(mtV-S-R)^2}{4mtV}$	π_{FULL}	Partial

4. Comparing Partial Refund to Full Refund

The nonrefundable charge can be viewed as a rent for trying the product. Therefore, one can view renting (ordering with the intention to always return) and buying (ordering with the intention to keep a well-matched product) as customer alternatives. When the rent-for-trial-use is zero (under a full-refund policy), customers find it attractive to return opportunistically.

The partial refund imposes a rent-for-trial-use which gives customers a larger incentive to substitute buying for renting. On the other hand, the rent is also paid by consumers who return honestly mismatched items, so the nonrefundable portion of price cannot be too high. The optimal partial refund takes this tradeoff into account. Partial refunds control opportunistic returns by consumers, but as seen in Table 2, opportunism is not eliminated if the salvage value exceeds the cost of return, ($S>R$).

Requiring the optimal partial refund to be less than one gives

the following result.

Result 1. A partial refund is more profitable than a full refund policy if

$$mtV - R > S. \tag{10}$$

Condition (10) implies that partial refunds will be optimal in situations where opportunistic behavior is attractive to consumers. That is, opportunistic returns are likely to be substantial when the product is likely to be a good match (large m), when the value extracted during trial is large (large t), and when the product is valuable relative to the cost of returning it to the seller (when V is large relative to R). In addition, a partial-refund policy is less essential for controlling opportunism when the seller can salvage the returned item (large S). Since our interest is in exploring the return policy when opportunistic returns are of concern, we assume that condition (10) holds for the remainder of the paper.

Table 2 contrasts partial- and full-refund policies under the assumption of inequality (10). Many of the comparisons are obvious: a full-refund policy leads to more orders, more total returns, and more opportunistic returns. However, a surprising results is the following.

Result 2. A seller who offers only a partial refund charges a higher price than one that offers full refunds for returned merchandise.

One might expect that a seller who refuses to refund 100% of the price of returned merchandise would be forced to compensate customers by pricing the product lower. This intuition is wrong. A full-refund policy limits the seller's incentive to raise price because higher prices encourage opportunistic returns. Under a partial-refund policy, however, the seller can raise price because the nonrefundable portion of price discourages opportunistic returns. A consequence of this is that the number of buyers (consumers who do not return their orders) is identical whether the seller offers partial or full refunds.

Table 3 provides comparative static results of the optimal partial refund. The intuition for the signs follows.

Increase in product familiarity (larger m): When a product is more

Table 3. Comparative Statics of Partial Refund Policy

	Probability Match, m	Trial Period, t	Salvage Value, S	Returning Costs, R	Maximum Value, V
Price, P^*	+	–	0	0	+
Partial Refund Rate, r^*	–	–	+	+	–

familiar to consumers, the probability of a good match increases, and so does the consumer's basic expected utility from opportunistic behavior (renting) and buying. The seller uses this opportunity to raise the selling price and lower the refund rate (increase the rent).

Increase in the trial period (larger t): When the trial period increases, opportunistic returns become more attractive to consumers relative to buying. To discourage excessive returns, the seller decreases the refund rate, and lowers the price. The lower price helps generate more orders and makes the reward from returns less attractive.

Increase in salvage value (higher S): When the seller's salvage value increase, returns hurt less. Therefore the seller increases the generosity of the return policy by increasing the refund.

Increase in returning cost (higher R): The total expense to consumers of returning a product is the nonrefundable charge plus the returning cost, R. A higher R increases the total cost, and returning the product becomes less attractive compared to keeping it. Therefore the need to discourage opportunistic behavior is lower, and the seller can increase the refund.

Increase in maximum product value (higher V): An increase in maximum product value enlarges the population's basic willingness-to-pay, so buying and renting become more valuable. The seller captures the opportunity by raising price. However, the higher price would also encourage opportunistic returns. To offset excessive returns, the refund rate is reduced.

In the next section, we discuss special cases of partial refunds and provide empirical evidence for their existence.

5. Do Sellers Use Partial Refunds?

Do partial refunds exist in practice? Two observed formats are

restocking charges and nonrefundable shipping and handling charges. We consider them in turn.

Restocking Fees: Retailers of computer components accept returns, but many retain a percentage of the original price to cover the costs of "restocking." Table 4 shows restocking fees collected from twenty mail-order computer dealers, drawn randomly from the October 1996 issue of *Computer Buying Guide and Handbook*. As can be seen, 60% of the dealers have restocking fees, and therefore only provide partial refunds. Table 4 reports the partial refunds based on restocking fees, not taking into account shipping and handling charges, as considered next.

Nonrefundable Shipping and Handling Charges: Many retailers do not refund shipping and handling charges (Hess, Chu, and Gerstner, 1996). Therefore, the partial refund as a percentage of the total computer expenditure is actually smaller than the reported percentages in Table 4. Our model already incorporates the possibility of nonrefundable shipping and handling charges. The refundable price, rP, could be thought of as the list price, and the nonrefundable price, $(1-r)P$, could be thought of as the shipping and handling charges.

Consider Table 5, which is based on data collected from apparel catalogers. We requested a catalog from all mail-order

Table 4. Restocking Fees and Partial Refunds

Restocking Fee (percent)	Partial Refund[1] (percent)	Number of Companies[2]
0	100	8
10	90	1
15	85	8
20	80	3
Mean = 9.5	Mean = 90.5	Total = 20

1 The partial-refund percent is actually lower because the retailers do not refund shipping and handling charges, as is discussed below.

2 The following companies were included in the survey: Anson, Arbor Computer, Astra Technology, Computer Palace, Dee One Systems, Elek-Tek, Envision One Systems, Envision, Insight Computers, Magic PC, Micro X Press, Micron Electronics, MMI Corporation, O.S. Computers, PC's Complete, Price Pointe, Renegade Systems, Technology Distribution, Top Data, US Computer, and Wonderex.

clothing retailers identified in the October issue of *Consumer Reports*, and twenty-seven responded. Twenty-four of the catalogs listed shipping and handling charges as a function of the order value, and the other three determine the shipping charge by weight. Table 5 gives the percentages of companies that refund shipping and handling and the percentage of those refunding return costs (reshipping expenses). Roughly 90% of the apparel catalogers do not refund shipping and handling, 70% do not compensate for return costs, and more than two-thirds of the sellers refund neither shipping and handling charges nor return costs. A true, full money-back policy in which all the consumer out-of-pocket costs are refunded constitute only 7% of the sample (see upper left cell of Table 5).

Table 6 shows the listed shipping and handling charges of the twenty four catalogs for a $100 order, and the partial refund as a percent of total price (list price plus shipping and handling charges). The partial-refund percents vary from 89 percent to 96 percent.

Computer and clothing are representative of many direct-marketing industries. We find that:

Table 5. Refund Policies of Apparel Mail-Order Sellers
Is Shipping and Handling Charge Refunded?

Is Return Cost Refunded?	Yes	No	
Yes	2 (7%)	6 (22%)	8 (29%)
No	1 (4%)	18 (67%)	19 (71%)
Total	3 (11%)	24 (89%)	27 (100%)

Table 6. Nonrefundable Shipping and Handling Charges and Partial Refunds

Company	List Price ($)	Shipping & Handling ($)	Total Price ($)	Partial Refund* (%)
Victoria's Secret	100	11.95	111.95	89
Bloomingdales	100	8.95	108.95	92
Neiman Marcus	100	11.00	111.00	90
Brownstone Studio	100	9.95	109.95	91
J. Peterman Co.	100	11.90	111.90	89
Brooks Brothers	100	9.00	109.00	92
Cheyenne Outfitters	100	9.95	109.95	91
Talbots	100	8.50	108.50	92
Bachrach	100	7.25	107.25	93
Willow Ridges	100	8.50	108.50	92
Bedford Fair	100	8.50	108.50	92
Lerner NY	100	8.95	108.95	92
Eddie Bauer	100	9.95	109.95	91
J. Crew	100	7.90	107.90	93
Huntington Clothiers	100	8.00	108.00	93
International Male	100	9.50	109.50	93
Clifford of Willis	100	7.95	107.95	93
Norm Thompson	100	8.50	108.50	92
James River Traders	100	6.95	107.95	93
Lands' End	100	6.95	106.95	94
L'eggs Shwes of Sav.	100	5.99	105.99	95
Patagonia	100	5.50	105.50	95
Orvis	100	4.95	104.95	96
LL Bean	100	4.50	104.50	94

Many mail-order sellers use a partial-refund policy, implemented either in the form of nonrefundable shipping and handling charges or restocking fees.

Unlike mail-order companies, traditional stores do not charge nonrefundable fees and may be more vulnerable to abusive returns. Perhaps this is why their complaints about excessive returns are heard louder (Longo, 1995 and Neuborne, 1996).

6. Conclusions

Although many retailers claim to offer 100% money-back guarantees, a more careful examination of these policies reveal that, frequently, only partial refunds are offered. We showed that partial refunds help mitigate the problem of abusive product returns experienced by retailers who accept returns, "no-questions-asked." Without such policies, too many consumers would use products for a limited time, rent-free, before they are returned for a refund.

Under partial refunds, products are both sold and rented by the retailer. The nonrefundable portion of the price is a rent paid by those who return products. Since buying and renting the product are substitute options from the point-of-view of the consumers, the seller can control their choices by designing the selling price and partial-refund rate optimally. The nonrefundable portion should not be too high because mismatched consumers pay a rent even though they do not receive any value from trial use of the product. Forcing them to pay a rental fee would significantly reduce the number of orders.

The model presented was designed to determine the optimal partial-refund policy, including as a special case, a full-refund policy. The seller's price and profits will generally be higher with partial refunds, compared to full refunds. Partial refunds reduce the number of orders, but have no impact on the number of buyers because they also reduce the amount of returned merchandise. That is, partial refunds improve the quality of the typical order, while reducing the quantity of such orders.

Consider some of the model's assumptions and limitations. We assumed that production unit cost is zero and that consumers' willingness to pay for the product is uniformly distributed across consumers. We believe that relaxing these assumptions will not change the nature of our results for many retail scenarios. First, production costs in our model are sunk costs, and the seller's decision of whether to offer money-back guarantees depends on the size of the salvage value relative to the reshipping costs, not on unit production cost. Second, the consumer's decision of whether to buy or rent is driven, among other things, by the

product value. Figure 2 illustrates that renters will be consumers with a relatively low willingness to pay, and that as long as the distribution of consumers' values is adequately diverse, partial refunds with renters are likely to prevail in equilibrium, independent of the exact shape of the distribution.

We presented empirical evidence to show that partial refunds exist in the form of nonrefundable shipping and handling charges and restocking fees. Restocking fees are much less common. One explanation for this is that shipping charges are a more subtle way to screen for credible orders than the more transparent restocking fees. Consumers may think that shipping charges are designed to cover legitimate shipping and handling costs, while actual restocking costs are thought to be trivial. Therefore, consumers may be more receptive to shipping charges than to restocking fees.

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