Consumer Motivation for Purchasing  
Low-Deductible Insurance  

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ABSTRACT  
Consumers tend to choose low deductible levels when buying insurance. It is argued that this tendency has undesirable consequences for both individual consumers and society, and thus its motivation should be better understood. Evidence is reviewed that supports four factors that may motivate choice of low deductible levels: desire for flat-rate payment, lack of price information, desire to obtain a good deal or avoid a bad one, and desire to make required insurance against large, low-probability losses more palatable. The public policy implications of research on these motives are discussed.

INTRODUCTION  
Insurance is usually thought of as a product that spreads the risk of serious, but low-probability, losses among a group of individuals, thus providing some financial protection to each individual (Mehr and Cammack 1976, p. 5). This product makes good sense, particularly when the protection is purchased against potential losses so large as to be catastrophic, such as total destruction of one's home, a large accident liability judgment, or death of primary family breadwinner. However, it has long been recognized that this sensible product is difficult to sell (e.g., Kunreuther 1978, pp. 248-9). Indeed, Kotler (1988, p. 450) considers insurance to be in the category of "unsought goods," along with products such as preventive dental services and burial plots. He notes that unsought goods pose special challenges to the marketer.

Apparently, these marketing challenges have not been fully met. Much of the insurance that is purchased is not done so voluntarily. Property insurance and automobile collision insurance are usually required by lenders, and automobile liability insurance is required by law in most states. Moreover, consumer satisfaction with insurance purchases is low, and consumers have a generally unfavorable view of the insurance industry (Insurance Information Institute 1992). Problems with automobile insurance have reached crisis proportions in several states, and a serious crisis in health insurance is currently receiving a great deal of national attention.

Although there has been considerable research activity relevant to the difficulty of selling insurance (e.g., Gentry, Wiener, and Burnett 1987), there has been relatively little research attention to issues related to consumer decisions made after the general decision to buy insurance. This paper focuses on one of those decisions, the question of the deductible level chosen in property and casualty insurance. First, the evidence for the consumer's tendency to buy low-deductible insurance is reviewed. It is argued that this tendency to buy insurance against small, relatively high-probability losses is not as unimportant as it may seem; it carries negative consequences for individual consumers as well as for society. Then four factors that could potentially explain this consumer behavior are described and developed. Finally, the potential benefits of further research on the motives of this behavior are discussed.
THE TENDENCY TO BUY INSURANCE
WITH LOW DEDUCTIBLE LEVELS

Although there appears to be a scarcity of published data on the deductible levels chosen by consumers, examination of the data that are available indicates that consumers show a consistent tendency to choose deductible levels that are low with respect to their income.

Pashigian, Schkade, and Menefee (1966) reported data provided by an insurance industry association on the collision insurance deductible levels chosen by owners of a particular type of automobile in 1962. A majority of the policies, 54%, carried a collision deductible of $50. Fifty dollars was 0.8% of the approximate 1962 median household income of $6000 (U.S. Bureau of the Census 1967, p. 333). Virtually all of the policies, 99.7%, carried a deductible levels of $100 or less.

Eldred (1980) surveyed 658 members of a South Carolina consumer panel on the coverage of their homeowner's and automobile insurance policies. He found that 20% of the respondents had chosen $50 deductibles for automobile insurance and 57% had chosen a $50 deductible level for their homeowner's insurance. For both types of insurance, 97% of the respondents had chosen deductible levels of $100 or less. Since $100 was 0.7% of the $15,000 median household income of the survey respondents, Eldred's data suggests an even greater interest in low deductible levels than does the Pashigian et al. data.

Data on current consumer choices of deductible levels was provided to the author by a large, well-known insurance company under the condition that the source remain anonymous. This company reported that (in 1992) a deductible level of $100 or less was chosen by 35% of its automobile collision coverage customers, 85% of its automobile comprehensive coverage customers, and 18% of its homeowner's insurance customers. A deductible level of $250 or less was chosen by 85% of its automobile collision coverage customers, 95% of its automobile comprehensive coverage customers, and 84% of its homeowner's insurance customers. Two hundred and fifty dollars comprises 0.8% of the current approximate median family income of $30,000 (U.S. Bureau of the Census 1992, p. 179). Thus, all three sources of data are consistent in indicating that a majority of insurance customers choose to purchase insurance against losses that are quite small relative to their income.

Laboratory studies of insurance preferences have shown some perplexing inconsistencies (Urbany, Schmit, and Butler 1989). For example, although Slovic, Fischhoff, Lichtenstein, Corrigan, and Combs (1977) found that subjects were more likely to buy insurance against small, high-probability losses than insurance against large, low-probability losses, Hershey and Schoemaker (1980) reported the opposite result.

Nevertheless, laboratory studies have been consistent in showing subjects' substantial interest in protecting themselves against small, high-probability losses. Even though Hershey and Schoemaker's (1980) subjects were more likely to buy insurance against large losses than small ones, they still showed considerable interest in insuring against small losses. For example, 56% of Hershey and Schoemaker's subjects preferred to pay a $10 insurance premium rather than incur a .05 probability of losing $200. Corroborating this result, Slovic, Fischhoff, and Lichtenstein (1982) found that 65% of subjects preferred to pay a $50 insurance premium to avoid a .25 probability of a $200 loss.

Schoemaker and Kunreuther (1979) reported that 45% of student subjects and 36% of subjects sampled from a population of insurance-agency clients preferred to pay a $90 premium for a zero deductible insurance policy to paying $20 for a policy with a $500 deductible to protect themselves from a .01 probability of losing an amount between $10,000 and $30,000. This is a striking finding since a sizable proportion of the subjects were apparently willing to spend $70 (the difference between the $90 premium and the $20 premium) in order to prevent a loss that has an expected value of only $5 (.01 probability of losing $500). It illustrates that laboratory studies, as well as data on actual insurance choices, have provided evidence for the consumer's interest in insurance against small, high-probability losses.
CONSEQUENCES OF CONSUMER CHOICE
OF LOW-DEDUCTIBLE INSURANCE

The tendency of consumers to choose low deductible levels has undesirable consequences for consumers, and probably also for society. For many consumers, choosing a low deductible level is simply buying a product that they do not need. There is a consensus among consumerists that it is unwise to buy insurance for a loss that will not cause a disruption of one's life (e.g., Abromovitz 1990, pp. 7-8; Nader and Smith 1990, p. 212). In his list of "The Insurance Buyer's 13 Commandments," Kennedy (1987, p. 15) included as Commandment #6: "Thou shalt always take the maximum available deductible affordable."

Although the consumer would be unwise to purchase any insurance with the expectation of monetary gain, in dollar terms, small-loss insurance is likely to be a particularly poor value to the consumer. Low-deductible insurance causes a large number of small claims to be filed. Claims for small amounts of money require many of the same investigative and paperwork operations as large claims. This results in high administrative costs that must be passed on to the customer. Thus, monetarily, it is highly likely that the consumer will come out ahead in the long run by obeying the general rule of self-insuring against non-disruptive losses.

Further, there is evidence that the buying of unneeded protection against small losses is associated with failing to buy sufficient protection against large losses. In his survey of insurance buyers, Eldred (1980) found that most of the consumers who had paid for a $50 deductible level had skimmed on coverage against large liability losses. At a time when insurance professionals and consumer publications agreed that a $100,000 personal liability limit was necessary to afford reasonable protection, 68% of the automobile policies and 69% of the homeowner's policies that had a $50 deductible also had liability limits of $25,000 or less.

Thus, the savings likely to be realized by avoiding the purchase of unneeded low deductible levels could be used to buy more thorough protection against large, low-probability losses that would be highly disruptive. The result of this would be a more effective allocation of the consumer's insurance expenditures (Huebner, Black, and Cline 1982, p. 98).

The widespread purchase of low-deductible insurance may also be associated with economic inefficiencies. In particular, small-loss insurance increases the problem of moral hazard, the consumer's reduced motivation to take every possible step toward loss prevention (Huebner et al. 1982, p. 98; Dorfman 1991, p. 220). Since large losses (such as accidents, fires, etc.) tend to involve severe emotional distress beyond what a monetary payment can relieve, insurance protection against such losses is unlikely to substantially affect preventive activities. But many smaller losses are less likely to involve severe emotional distress, and thus, a high degree of monetary protection may lull the consumer into a decreased vigilance against such losses.

In addition to the societal costs of this decrease vigilance, there are the numerous inefficiencies associated with third-party payments. These may be subtle, as in reduced competitive pressure on prices for services, such as auto body repair, where payment by an insurance company is common. Or, the inefficiencies may be obvious, as in increased opportunities for the fraudulent exaggeration of loss amounts (Huebner et al. 1982, p. 99).

It could even be argued that the consumer's long-term indulgence in low-deductible insurance may have played a role in causing the current health insurance crisis. Health insurance once covered only large losses. Doctor visits, prescriptions, and even some hospital visits were considered normal family maintenance expenses (Denenberg et al. 1964, p. 189). However, it appears that in order to convince employers and consumers to adopt HMO's and other health-care plans, these plans have offered successively more complete coverage of everyday medical expenses; in effect, lower deductible levels. Now, for most Americans, some form of health insurance covers virtually all health-care costs, and there is the expectation that this type of coverage is what "insurance" should provide. The predominance of third-party payments that results from this arrangement has weakened the free-market pressures that control prices and has contributed to the national crisis of burdensome health-care costs.
FOUR POTENTIAL REASONS FOR CONSUMER CHOICE OF LOW-DEDUCTIBLE INSURANCE

Considering that there has been relatively little explicit research attention devoted to the phenomenon of consumer interest in low-deductible insurance, it is not surprising that there has been even less attention to the question of what may motivate this consumer interest. However, conversations with insurance customers, agents, and insurance-industry researchers along with a consideration of relevant consumer behavior and decision research studies suggest four likely reasons for consumer interest in low deductibles.

Of the four potential reasons that will be discussed, only the first, the desire for flat-rate payment, is clearly a rational reason in the sense that it involves an interest in the true benefits of a low deductible level policy. The other three reasons are, to some degree, less rational. They involve either lack of accurate information, an estimation bias, or an appeal that is peripheral to the product's intended benefits. In addition, the four potential reasons are by no means mutually exclusive, and it is possible that all four are involved. A primary goal of further research would be to assess the relative importance of each of these factors in the consumer's tendency to purchase low-deductible insurance.

DESIRE FOR FLAT-RATE PAYMENT

The traditional explanation of insurance by economists has involved the concept of risk aversion (e.g., Arrow 1971, p. 91), the tendency to prefer a sure outcome over a gamble with an expected value equal to that of the sure outcome. For example, a risk averse consumer would prefer to pay $100 rather than take a 50-50 chance of paying either $200 or nothing. Risk aversion will occur when the consumer's disutility for a large loss is proportionately greater than for a small loss. Thus, a consumer who would feel more than twice as uncomfortable from a loss of $200 than from a loss of $100 would be wise to prefer the certain loss of $100 to the 50-50 chance of losing $200.

An improbable loss that is large enough to produce financial ruin is very likely to be proportionately more painful than an affordable loss that can be paid to avoid it. However, it is possible that a probable small loss may also be proportionately more painful than the loss that can be paid to avoid it.

This disproportionate pain of a small loss may take either or both of two forms. The first involves the financial consequences of a loss for which the time of occurrence is unpredictable. Some consumers may buy low-deductible insurance because their financial resources are so severely limited (either by poverty or by excessive financial commitments) that an unpredictable loss, even if small in relation to gross income, would cause painful disruption of a tight budget.

A second, perhaps more common, form of this risk aversion would be that consumers may find many of the small losses covered by low-deductible insurance to cause, not so much financial hardships, but emotional hardships. For example, having to pay for a repair due to an act of vandalism on one's automobile may feel like "adding insult to injury." Paying $500 to repair the results of an unjustifiable crime may feel much worse than paying the same amount for an ordinary repair, and thus it could constitute a loss painful enough to be worth insuring against.

The existence and appeal of extended warranties and service contracts (Padmanabhan and Rao 1993; Voss and Ahmed 1992), flat-rate phone service, budget-plan utility payments, and prepaid vacations can all be considered evidence for the existence of risk aversion to relatively small losses. However, it is interesting that, in at least one category, the proportion of eligible consumers who purchase such products appears to be smaller than the proportion choosing low deductible levels. Padmanabhan and Rao (1993) found that 36% of new car buyers purchase extended service contracts. This proportion is considerably smaller than the proportion of customers (85-95%) of the major insurer mentioned earlier who buy deductible levels of $250 or less on the collision or comprehensive coverage of their automobile policies.
LACK OF INFORMATION
A second possible reason for consumers choosing low deductible levels is that they may be unaware of either the existence of higher deductible levels or of the cost savings that result from the choice of higher deductible levels. In his survey of insurance purchasers, Eldred (1980) found that a large proportion of insurance customers could not recall having been provided with this information by their insurance agents. For homeowner's insurance, 54% of the respondents reported that they had not, or were uncertain about whether they had, received information about the existence and costs of various deductible levels. For automobile insurance, the corresponding number was 49%.

It may be that this lack of information on the part of consumers is more a consequence rather than a cause of the high likelihood of choosing low deductible levels. For example, if consumers feel that it is very important to have low deductible levels, they may not be strongly concerned about what proportion of their insurance dollar is devoted to these low deductible levels. This would be particularly likely to be the case when total premium payments do not involve large amounts of money. This possibility is consistent with Eldred's finding of a higher percentage of consumers unaware of deductible-level prices for homeowner's insurance (which typically involves relatively low premiums) than for automobile insurance (which typically involves larger premiums).

On the other hand, Eldred also found evidence that lack of information may indeed be a cause of choosing low deductible levels. He found that homeowner's insurance customers who had been informed of the cost savings of higher deductible levels were more likely to have chosen deductible levels above the minimum offered than those customers who had not received this cost savings information.

DESIRE FOR A GOOD DEAL
A third possible reason for consumer interest in low deductible levels is that the deductible-level decision may evoke in consumers the desire to get a good deal. Under certain circumstances (e.g., when the consumer feels responsible for the outcome of the decision), such "deal motivation" can be quite powerful (Schindler 1989). Typically, the deductible-level decision arises during the course of implementing the larger decision to buy the insurance and may tend to involve a "worth it" evaluation. In other words, the situation may tempt consumers to make a judgment as to whether or not they would come out ahead monetarily if they paid the higher premium for a lower deductible level.

However, insurers generally pay out as claims only a portion of the money they receive as premiums. For example, from 1964 to 1974, property insurers paid out to customers less than 69% of the premiums received (Mehr and Cammack 1976, p. 13). Thus, assuming that low-deductible policy options are not heavily subsidized, the chances are that the vast majority of consumers will not realize a monetary gain by buying low deductible levels. If deal motivation plays a role in consumer choice of low deductible levels, there must be factors that bias the judgments in favor of low deductible levels being perceived as a good deal.

One factor that might lead to such a bias is the use of the availability heuristic (Tversky and Kahneman 1973). This is the tendency to make a judgment by heavily weighting the relevant examples that come to mind. When considering the likelihood of experiencing a small loss, like a dented fender or a wind-damaged window awning, one is more likely to recall one's own experiences of such a loss than the experiences of others. This could lead the consumer to a judgment that he or she is more likely than the average insurance customer to experience a small loss of this type and thus is likely to win by buying insurance against such losses. Further, a tendency to be more aware of one's own risky behaviors (e.g., a habit of avoiding parking lot fees by parking on dark city streets) than of the risky behaviors of others, might also support a judgment bias in favor of low deductible levels constituting a good deal.

Another biasing factor may be the anchoring-and-adjustment heuristic, the tendency to estimate a quantity by anchoring on an initially presented value and insufficiently adjusting for likely deviations from that initially presented value (Tversky and Kahneman 1974). Here, the illusion would concern not the estimation of the likelihood of the loss, but the estimation of the amount of money that will be paid out in premiums. If the
deductible-level decision involves weighing an increased loss exposure (e.g., $500 vs. $250) against a savings in an annual or semi-annual premium (e.g., $35), the dollar amount of the premium savings will always be lower than the dollar amount of increased exposure since the premium savings will occur repeatedly over time. However, if the consumer anchors on the single period savings amount and insufficiently adjusts that number upward to estimate the savings that will accrue over time (or has accrued over some period of past experience that is being evaluated), then he or she will be biased towards judging that a lower deductible level constitutes a better deal than a higher deductible level.

In addition to biases toward estimating that a purchase of a low deductible level is a good deal, the tendency to purchase it may be influenced by fear that not buying it will result in a bad deal. If a low deductible level is perceived as the default option, either because of past choices, agent recommendation, or the choices of friends or relatives, then the consumer may feel particularly responsible for the outcome of any choice that deviates from this default option (Kahneman and Miller 1986). This heightened sense of responsibility would lead to greater feelings of regret if the decision has a bad outcome (Simonson 1992). Thus, if a consumer switches from a low to a high deductible level and then incurs an uncovered loss that would have been largely covered with the low deductible level, the consumer is likely to feel a strong sense of regret. Fear of this regret may be a factor that reinforces a consumer tendency to stay with low deductible levels. (Note that fear of regret is distinguishable from insuring against a small loss that constitutes an emotional hardship. Unlike losses due to a crime or accident, the emotional hardship of regret would result entirely from the low deductible level having been offered.)

DESIRE TO MAKE REQUIRED INSURANCE MORE PALATABLE

The last possible reason for consumer interest in low-deductible insurance is perhaps the most interesting of the four. It is the possibility that low deductible levels help relieve the consumer's discomfort with being required, by law or by lenders, to purchase an intangible, unsought product.

One aspect of this relief is that giving an insurance company the opportunity to pay small claims can serve as a risk-reduction strategy for the consumer. It shows that the insurer will indeed make payments to customers. Even though such payments may not be a valid indication of a company's reliability, they may at least be reassuring. Thus, a result of the payment of a small claim could be a greater confidence in the company's promise of protection against unlikely large losses. In other words, small claims might help make the main insurance product less intangible.

However, it is likely that the more important aspect of this relief of consumer discomfort concerns the consumer's need to achieve greater equity. Since consumers may often underestimate, or even ignore, the likelihood of low-probability losses (Slovic et al. 1977; Urbany et al. 1989), they may thus perceive the requirement of purchasing protection against such losses to be unfair. In the terms of equity theory (Adams 1965), the consumer's perception is likely to be one of giving much and getting little or nothing in return, while the big insurance companies give very little and get large profits in return. By purchasing a low-deductible policy, the company becomes likely to have to pay something out to the consumer, thus taking a step toward redressing the perceived imbalance. Such a need for equity could help explain the findings that experimental subjects are more likely to choose, say, a sure loss of $50 over a .25 probability of losing $200 when the question is presented in the context of an insurance purchase than when it is presented in the context of a pure gamble (Schoemaker and Kunreuther 1979; Slovic et al. 1982).

In their insurance experiments, Slovic et al. (1977) found that more consumers would choose to protect themselves against low-probability losses if that coverage was tied to protection against small, high probability losses. They suggested that such bundling of the two types of coverage is a useful way to market insurance for large, low-probability losses. If consumers use low-deductible policies to achieve a feeling of greater equity, and thus less discomfort with the required insurance, then, in effect, they are accomplishing this bundling themselves. It is primarily insurance against the large, low-probability losses that is required by state laws and lending institutions. That consumers choose to supplement these often resented purchases with additional insurance purchases suggests that these supplemental small-loss purchases may help
accomplish the consumer's self-management of resentful feelings. Purchase of low-deductible policies may help make the consumer's purchase of protection against large, low-probability losses more palatable.

PUBLIC POLICY IMPLICATIONS OF RESEARCH ON THESE MOTIVATIONS

The four possible reasons for the consumer's tendency to choose low-deductible insurance that have been discussed here have not been thoroughly researched. In particular, there is need for better understanding of the relative importance of each of these reasons in causing this behavior. Better data on the relative importance of each of the four reasons for consumer choice of low deductibles can help guide policies for insurance regulation.

REQUIREING MORE EFFECTIVE COMMUNICATION OF THE COSTS OF LOW DEDUCTIBLE LEVELS

If research on the causes of low-deductible purchasing determines that lack of information plays a major role in these consumer choices, then steps can be taken to better inform consumers of the costs of choosing low deductible levels. There are numerous means of accomplishing this, such as supporting public education programs, requiring insurance education in high schools, or requiring insurance agents present to customers a standardized information form.

RESTRICTING THE TERM "INSURANCE" TO PROTECTION AGAINST ONLY LOW-PROBABILITY LOSSES

Countering the consumer's perception that a low deductible level is a good deal would be a more difficult task. As with gambling, it is unlikely that education alone can weaken the perceptual biases and emotional factors that support buying small-loss insurance in the hope of winning or out of the fear of losing. If deal motivation is a major cause of low-deductible purchases, then perhaps legislation to restrict the offering of low-deductible insurance policies should be considered.

Such a restriction of low-deductible insurance need not deprive consumers of the option of buying protection against small, relatively high-probability losses. The key to accomplishing this would be to allow any type of small-loss insurance to be sold, but to require that it be sold separately from large-loss insurance. The term "insurance" could be reserved for losses whose likelihood of occurrence is below some very low probability; protection against higher-probability losses could be sold under names like "home and auto protection plan." There might also be consumer benefits to selling such products through distribution channels that also sell flat-rate service contracts and extended warranties.

ENCOURAGE INSURERS TO OFFER REFUND PLANS

If further research supports the possibility that consumers are "self-bundling" small loss insurance with large loss insurance in order to make the latter more palatable, then insurers can be encouraged to take steps to reduce this activity. One approach to doing this would be to expand the already extensive efforts to educate consumers as to the benefits of large-loss protection. Insurance regulators might contribute to these efforts by mandating that consumers receive information on the per-lifetime risks (vs. per-year risks) of insurable large losses (Slovic et al. 1977).

Another approach would be to deflect the consumer's tendency to choose low deductibles in order to make insurance seem fairer by offering the consumer an alternative means of getting the feeling that he or she is receiving something in return for the continual payment of premiums. A promising example of such an alternative means is a refund plan, where the insurance customer pays a higher premium, but receives a monetary refund at the end of a period if no claims are made during that period. Although a refund plan is equivalent to a high-deductible policy (since the consumer should never report a loss less than the refund), there is evidence that it has much greater appeal to the consumer (Johnson, Hershey, Meszaros, and Kunreuther 1993). In their experimental simulation, Slovic et al. (1977) found that a refund plan was
extremely successful in increasing the number of subjects who chose to buy comprehensive insurance. Their subjects reported feeling that they could not lose: either they would receive a claim payment or they would receive a refund.

Moreover, a refund-for-no-claims program has advantages over superficially similar programs. It is likely to be better than offering lower rates to customers who have had no claims during a previous period because, by presenting the customer with a check, a refund program helps enhance the company's credibility, an extremely important factor in satisfaction with purchased insurance against large, low-probability losses. A refund program is also likely to be superior to charging higher rates to customers who have filed a claim. It would help avoid the anger that many consumers feel when they perceive themselves as being punished by their insurance company simply for incurring a loss that they paid the insurance company to protect them against.

If consumers are indeed using low-deductible purchases to help manage their conflicting feelings about buying protection against large, low-probability losses, then insurers can be encouraged to develop ways to meet consumer needs for relief of insurance anxiety while at the same time avoiding the undesirable consequences of the widespread purchase of insurance against small, relatively high-probability losses.

CONCLUSIONS

Insurance against large, low-probability losses is a product with a clear consumer benefit, and public policy should continue to encourage its use. However, products that provide protection against small, relatively high probability losses offer a considerably less attractive set of costs and benefits. Research on the consumer's motives for choosing low deductible levels is a logical place to start the task of better understanding how public policy may help consumers deal with their tendency to purchase this more questionable type of product.

In addition, exploring the consumer's desires for small-loss protection would also be likely to yield insights into the broader question of how consumers make decisions concerning insurance and can help public policy makers more effectively meet the broad array of issues involved in managing this difficult, but important consumer product.

REFERENCES


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