Finance and Economics Discussion Series
Divisions of Research & Statistics and Monetary Affairs
Federal Reserve Board, Washington, D.C.

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2017-122

Please cite this paper as:
Durkin, Thomas A., and Gregory Elliehausen (2017). "New Evidence on an Old Unanswered Question: Why Some Borrowers Purchase Credit Insurance and Other Debt Protection and Some Do Not," Finance and Economics Discussion Series 2017-122. Washington: Board of Governors of the Federal Reserve System, https://doi.org/10.17016/FEDS.2017.122.

New Evidence on an Old Unanswered Question: Why Some Borrowers Purchase Credit Insurance and Other Debt Protection and Some Do Not

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December 1, 2017

Abstract

Credit related insurance and other debt protection are products sold in conjunction with credit that extinguish a consumer's debt or suspends its periodic payments if events like death, disability, or involuntary unemployment occur. High penetration rates observed in the 1950s and 1960s raised concerns about coercion in the sale of credit insurance. This study presents evidence on credit insurance purchase and debt protection decisions from a new survey. The findings provide little evidence of widespread or systematic coercion in purchases. Instead, findings suggest that risk aversion and health or financial concerns motivate consumers to purchase credit insurance and debt protection, just as these concerns also motivate purchases of other types of insurance.

JEL Codes: D14, D18, G22
Keywords: Personal Finance, Insurance, Consumer Protection, Credit Insurance

New Evidence on an Old Unanswered Question: Why Some Borrowers Purchase Credit Insurance and Other Debt Protection and Some Do Not

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In an environment where unfortunate consequences are possible but timing is unpredictable, both consumers facing risks and entrepreneurs looking for productive opportunities have searched for and engineered ways of spreading and mitigating those risks. Life insurance is well known for mitigating financial risks to a family concerned about the unpredictable timing of death of a breadwinner and is often available through employers as an employee benefit. Likewise, casualty insurance like fire insurance and automobile/truck operating coverages are also well known and even mandatory in many circumstances and jurisdictions. Many states require automobile casualty insurance with auto and truck registrations, for instance. But these are not the only areas where insurance and other risk-spreading techniques have arisen for individuals; consumer borrowing and lending is another. On consumer loans, taking on a stream of monthly installment payments can be risky for individuals, even though overall expected performance of an insurance policy portfolio usually is predictable for insurers. This property makes consumer borrowing another candidate for insurance products.

For almost a century, many installment lenders have made available to their borrowers insurance and insurance-like products that extinguish a consumer's debt or suspend periodic payments on it if unfortunate events like death or temporary disability occur. In effect, these products spread the financial risks of unfortunate occurrences like death, disability, involuntary employment loss, and loss to security property across all purchasers using actuarial principles and methodologies. While these products have never been of interest to all borrowers, evidence of demand for them among borrowers concerned about these financial risks has long been available. Such events could easily lead to considerable unpleasantness for families of deceased debtors or to the debtors themselves unable to work and make their periodic payments on schedule. Beyond just an impact on credit scores of consumers facing these events, in some cases they could lead to negative estates for heirs and even to repossession of critical assets like the family car for debtors or their families at the worst possible moment. Such situations can be unpleasant for creditors as well as for borrowers.

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Over the years, several academic studies have investigated debt protection long known as “credit insurance” but also including “debt cancellation or suspension products” that are not legally insurance products at the consumer level. The number of such analyses has been small, however, at least in comparison to studies of other kinds of insurance. Most studies have focused on the public policy question whether debtors have been “coerced” to purchase credit insurance by self-interested lenders. These studies began after some observers contended in the 1950s and 1960s that monopoly position of lenders enabled them to take advantage of borrowers by coercing them to take and pay for unneeded life and casualty insurance to cover the debts.[2] Consumer surveys began with the “Ohio University Study” in 1973 (referred to below), and have continued with a list of further studies on the same general topic in the decades since. They include four Federal Reserve System reports 1977-2012. Despite such periodic attention to policy aspects of debt protection products, previous studies have not conducted an extended multivariate analysis of factors influencing consumers’ decision to purchase these insurance and insurance-like products.

The purpose of this study is twofold: 1) to update the periodic Federal Reserve studies of these products focusing on these long-standing policy issues and 2) to use new consumer survey data to look at aspects of demand for these products among current users.[3] Data are from a new nationally representative survey of consumers undertaken during March and April 2017 by the Survey Research Center of the University of Michigan (SRC). SRC is the same survey organization that provided the data examined previously in the four Federal Reserve analyses. To ensure continuity and comparability, the new study used the same questions and methodology as previously, with some new questions this time concerning product demand elements and a new simple question that helps address the coercion supposition noted earlier. The first part of this report provides updated discussion and tables based upon those in the 2012 and earlier Federal Reserve efforts, and the second part employs univariate and multivariate statistical evidence to look at aspects of demand for credit insurance and related products.

New Survey

[2] For example, see Subcommittee on Antitrust and Monopoly of the Senate Committee on the Judiciary, 83rd Congress, 2nd Session, *Report on the Tie-In Sale of Credit Insurance in Connection with Small Loans and Other Transactions (Committee Print* 1955).

[3] Despite past studies that have developed relevant research evidence, these products have remained controversial among some observers, See, for example, Carolyn Carter, et al., “Installment Loans: Will States Protect Borrowers from a New Wave of Predatory Lending?” (Boston: National Consumer Law Center, July 2015).

The authors have extensively described credit insurance and other debt protection products before, including product features, costs, and controversies, and it seems redundant to do so at any length again.[4] Basically, credit insurance products consist foremost of credit life insurance that repays the debt in the event of the debtor's death, and credit casualty insurance which continues the payments in the event of the debtor's incapacity due to covered conditions (typically, accidents and health-related incapacities, involuntary loss of employment, or loss to property securing a loan). These products have been around for almost a century (since 1919), and millions of borrowers have purchased them over the decades.

Related products called “debt cancellation contracts” and “debt suspension agreements,” both developed decades ago, do the same things from the consumer's viewpoint. They are two-party loan agreements between the borrower and the lender for the lender to cancel the debt, in a lump sum or through a series of loan payments (debt cancellation agreements), or suspend loan payments for covered events (debt suspension agreements). As two-party loan agreements these products are not insurance products and are regulated under federal and state banking laws. Since they are similar looking to insurance from the debtor's standpoint, they are considered here together with traditional credit insurance.

In March and April 2017, the SRC conducted a total of 1200 nationally-representative interviews about consumers' experiences with credit insurance and other debt protection products.[5] The first part of the survey was based explicitly upon the 2012 survey project in order to provide evidence of similarities and trends. Indeed, some of the questions were unchanged from the 1977 Federal Reserve survey and used unchanged in 2017 for the fifth time overall. The SRC's research approach produced a nationwide probability sample of respondents that is representative of the contiguous 48 states within statistical confidence limits. The SRC coded the interview results and provided a machine-readable data set in SAS format. The authors wrote the SAS computer program to produce the tables reported here.

[4] See Thomas A. Durkin and Gregory Elliehausen, “Consumers and Debt Protection Products: Results of a New Survey of Borrowers,” *Federal Reserve Bulletin*, December 2012. For extended discussion of features, costs, and controversies associated with credit insurance and other debt protections, see Thomas A. Durkin, Gregory Elliehausen, Michael E. Staten, and Todd J. Zywicki, *Consumer Credit and the American Economy*, (New York: Oxford University Press, 2014, Chapter 12).

[5] The interviews actually were representative of the contiguous 48 states and did not include Alaska and Hawaii. The authors thank SRC and the Consumer Credit Industries Association (CCIA) for making the data available. The analysis and views expressed here are those of the authors and not those of either of these organizations.

Survey Findings

One goal of the survey was to observe again the long-term trends in the purchase of these insurance and insurance-like products. A population survey design over time is the only way to determine such trends. Examining evidence from insurance companies would not be revelatory because it would contain information only on those who purchase the products from them and not on those who purchase from others or do not purchase. Likewise, insurance companies would not have information about debt cancellation agreements and debt suspension agreements because these are issued by the potentially thousands of lenders and creditors that might provide such products in the marketplace.

Survey evidence from SRC on prevalence of debt protection has previously been available for 1977, 1985, 2001, 2012, and now also for 2017.[6] The results show that frequency of purchase of debt protection products on consumer installment credit was much higher in 1977 and 1985 than in later years. In the earlier years when the "coercion" issue became a public-policy concern in some quarters, purchase prevalence on consumer installment credit (frequently called the "penetration rate") exceeded 60 percent (Table 1). The penetration rate has dropped by almost two thirds since then, to measurements in the 22 to 26 percent range. The decline in the penetration rate after 1985 seems to have brought it well under the early range that triggered concerns of systematic purchase "coercion" in earlier times.[7]

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[6] The earlier survey results are in Thomas A. Durkin and Gregory E. Elliehausen, *The 1977 Consumer Credit Survey* (Washington: Board of Governors of the Federal Reserve System, 1978); Anthony W. Cyrnak and Glenn B. Canner, "Consumer Experiences with Credit Insurance: Some New Evidence," Federal Reserve Bank of San Francisco *Economic Review*, Summer 1986; Thomas A. Durkin, "Consumers and Credit Disclosures: Credit Cards and Credit Insurance," *Federal Reserve Bulletin*, April, 2002; and Durkin and Elliehausen, "Consumers and Debt Protection Products: Results of a New Survey of Borrowers" (2012) referenced in footnote 2. Also discussing these survey results are Robert A. Eisenbeis and Paul R. Schweitzer, *Tie Ins Between the Granting of Credit and Sales of Insurance By Bank Holding Companies and Other Lenders* (Washington: Board of Governors of the Federal Reserve System, Staff Study 101, 1979) and Durkin, Elliehausen, Staten, and Zywicki, *Consumer Credit and the American Economy* (2014), referenced in footnote 2, Chapter 12.

Other survey findings and discussion of credit insurance are in Charles L. Hubbard, ed., *Consumer Credit Life and Disability Insurance* (Athens, Ohio: College of Business Administration, Ohio University, 1973); Joel Huber, *Consumer Perceptions of Credit Insurance on Retail Purchases* (West Lafayette, Indiana: Purdue University Credit Research Center, 1976); and John M. Barron and Michael E. Staten, *Consumer Attitudes toward Credit Insurance* (Norwell, Massachusetts: Kluwer Academic Publishers, 1996).

[7] The three latter measurements for the penetration rate reported here are within normal statistical sampling range for being three measurements from the sampling frame. So, statistically, they may be considered close to identical and no strong conclusions should be drawn from the small differences among the three more recent surveys.

To examine the coercion issue more fully, all of the SRC surveys have included specific questions about this concern. As in earlier years of this series of survey projects, the first approach was to question respondents directly about their experiences at the point of sale.[8] Consumers with common closed-end consumer installment credit outstanding were asked whether or not they had purchased any debt protection products and about the debt protection offering experience at the point of sale. It appears that experience has changed sharply over the decades since 1977.

In 1977, the majority (72 percent) of closed-end consumer installment credit users who had purchased debt protection reported that the lender had either recommended the purchase of the protection or recommended it strongly (Table 2). This proportion fell to under 20 percent in 2017.

That the penetration rate was also much lower in the more recent years is worth noting again. This decrease in the penetration rate means that among closed-end installment credit users, the proportion who both purchased and who noted receiving a recommendation to that effect fell sharply after 1977 due to both lower penetration rates and fewer experiences of a recommendation. Specifically, in 1977 about 46 percent of closed-end installment credit users reported that they purchased and received a purchase recommendation from the creditor of varying intensity (that is, the 72.4 percent who said that debt protection was “recommended” or strongly “recommended/required” (Table 2) of the 63.9 percent who purchased (Table 1)). These percentages compare to only about 5 percent in 2017 (19.7 percent of the purchasers who said that debt protection was “recommended” or “strongly recommended/required” (table 2) of the 26 percent who purchased (Table 1)). This decline is substantial and suggests that even if widespread aggressive sales are being attempted by some providers, they are not very successful.[9]

Table 1 also reports penetration rates for debt protection products for consumers with credit card accounts. As discussed more fully in 2012, these rates measure proportion of respondents having any card account with debt protection. Since consumers may individually have many credit cards, penetration rates for any one kind of account or brand would be lower (see Durkin and Elliehausen, “Consumers and Debt Protection Products: Results of a New Survey of Borrowers” (2012), referenced in footnote 2, p. 6.

[8] The next few paragraphs draw upon the outline of similar discussion in Durkin and Elliehausen “Consumers and Debt Protection Products: Results of a New Survey of Borrowers” (2012), referenced in footnote 2.

[9] In each survey year, some purchasers indicated the lender did not mention the product at point of sale, which must mean either they purchased it after some kind of follow up after the fact by telephone or mail, or they brought it up themselves at the point of sale before mention by the lender. If somehow it were to indicate that the lender just placed it in the contract, then it seems there would also be evidence that

To look at experience at the point of sale more directly, respondents who either did or did not purchase debt protection but indicated that protection was offered or recommended to them were then asked directly about their understanding of whether the offered or recommended product was voluntary. Significantly, not one respondent in either the purchasers or non-purchasers groupings reported belief the purchase decision was not voluntary. Among purchasers who indicated recollection of the circumstance (96 percent), almost all (again 96 percent) reported the lender had explained the terms. The proportion was almost as high among non-purchasers (89 percent), even if a lot of explanation to them would seem unimportant as soon as they indicated they were not purchasing.

It is worth repeating that many respondents were not even offered these products. In each of the survey years except 1985, more than half of those who did not purchase a protection product on closed-end consumer credit reported that protection products were not even mentioned by the lender. Even in the exception year 1985, the proportion not hearing any mention was about 45 percent. It is difficult for people to be pushed into buying an add-on or ancillary product to a credit transaction if it is not even mentioned to them at the point of sale. The proportion of non-purchasers who said the products were not mentioned reached two thirds (67 percent) in 2017.

Along with the hypothesis that if coercion is widespread evidence of it should show up in direct questioning, a second hypothesis is that consumers who felt pressured to buy an add-on or ancillary product they did not want would probably not be very favorably inclined toward the add-on or ancillary product. To examine this possibility, consumers over the years with and without debt protection were asked about their feelings toward buying the protection, specifically whether such purchase is “a good idea or a bad idea.”

Experience in 2017 confirms prior findings that the overwhelming majority of purchasers of debt protection on closed-end consumer credit consider its purchase to be a good idea. The proportion answering good or good with some degree of qualification exceeded 85 percent in each of the interview years (Table 3). In contrast, the proportion responding “bad” was less than 10 percent in all but the 2012 survey, in which it reached 11 percent. Although the proportion in 2012 is not statistically significantly different from 2017, the slightly higher incidence of this response in 2012 may be an artifact of the lengthy prior recession that had recently ended. It seems possible in any year, but maybe more so in worse economic times, that

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the attitude of these buyers toward the product would not be very good. In fact, a look at attitudes of the individuals in this relatively small group whether the insurance/protection product is good or bad, discussed next in more detail for the larger sample size of respondents as a whole, does not suggest this possibility.

if consumers find themselves in a situation where they realize after the fact that an expenditure on insurance or an insurance-like substitute did not result in a payoff, they may to some degree regret the expenditure at a time when budgets are tight. Of course, they did not suffer the loss they insured against either, and the peace of mind entailed with the protection purchase may still resonate with many of them.

Table 3 also demonstrates that attitudes are much different between purchasers and non-purchasers of the protection products. For the non-purchasers, attitudes toward the protection products are decidedly less favorable than among purchasers, but a majority of non-purchasers still expressed a favorable view anyway in every survey year except 2001. Nonetheless, a somewhat higher portion of non-purchasers with unfavorable attitude toward the protection products is consistent with their choices not to purchase.

Attitudes were also measured in a related but somewhat different manner. Specifically, purchasers of debt protection were asked directly about their satisfaction with the protection product purchased. Obviously, this view could not be asked of non-purchasers. Again, using this measurement, purchasers of debt protection expressed favorable views. Approximately four fifths of purchasers suggested satisfaction in each of the years when measurements were undertaken (2001, 2012, and 2017, Table 4). Although in each survey year that included this question some respondents appeared indifferent, relatively few expressed dissatisfaction. For this reason, it appears important to remember the views of users as well as non-users in any discussion of regulatory changes affecting availability of debt protection products.

Purchasers also expressed a high degree of willingness to purchase debt protection on future credit use. More than 70 percent of purchasers indicated willingness to purchase again on installment credit in each survey year (Table 5). While a favorable attitude now does not necessarily translate directly into a purchase later, it is also possible that actual purchases later could be higher than the attitude expressed now. When entering into the next credit contract, financial anxieties may surface again and purchasing debt protection may again produce the peace of mind that it apparently did in many cases in the past. In any case, the favorable proportion on this measurement appears to have settled in the 70 percent to three quarters range, down a bit from the extremely high measurement in 2001. (The measured difference between 2012 and 2017 is not statistically significantly different.) Thus, neither direct nor indirect findings about possible coercion in purchase of debt protection suggest the kind of unhappiness with a product that might arise if purchasers felt that they were being pushed into the purchase or that the product itself was not very useful.

Evidence on Potential Factors Associated with Willingness to Purchase Debt Protection

If coercion is not the explanation for the decision to purchase debt protection by users of installment credit who purchase, then what other factors are possibly explanatory? Based on previous studies of demand for life insurance, it is easy enough to hypothesize quite a few and ask survey questions about them.[10] The 2017 survey did this and they are summarized in Table 6. The table contains five groupings of possible underlying reasons that might be associated with purchase of debt protection:

1) Current perceptions of “underinsurance” in other areas by some purchasers who, therefore, might believe that debt protection is a means of managing this concern in at least one area of their lives.

2) Current health issues that might make some individuals more concerned over their financial future than other individuals.

3) Other financial concerns that might make scheduled repayments potentially more problematic for some individuals than for others. These concerns could include desire to build or protect a credit reputation as evidenced in a credit score.

4) Differences in basic risk aversion among segments of the population. Some individuals may simply be more risk averse than others, apart from specific health or financial concerns. The survey also examined this possibility.

5) Difference in demographic/economic status including income, assets, age, life cycle stage, and others that indicate differences in underlying current situation.

Univariate display of relevant variables in Table 6 looks at each of these areas individually before passing to multivariate review. The table consists of five columns for each of 22 separate measurements plus some sub measurements listed in column 1. Multivariate review involves looking at the same variables but accounting for (holding constant) the simultaneous effects of the others in a statistical equation.

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[10] For a summary of the literature on demand for life or credit life insurance, see L. Lee Colquitt, Stephen G. Fier, Robert E. Hoyt, and Andre P. Liebenberg, “Adverse Selection in the Credit Life Insurance Market,” *Journal of Insurance Regulation*, Winter 2012. Colquitt, et al. is the only other study of components of demand for debt protection. It necessarily had to rely upon state-wide averages for most of its demand-related variables because of unavailability of micro data.

The table is read as follows: The first column notes, possible characteristics of surveyed individuals with installment credit outstanding that might be related to demand for debt protection. The second column is the percent of surveyed debtors *who did not purchase debt protection* who had this characteristic. The third is the percent of debtors who *did purchase* protection who had this characteristic.

For instance, looking at the first row, other life insurance, the second column shows that 76.8 percent of surveyed individuals with installment credit and who *had not* purchased debt protection had other life insurance. Still looking at this row, the third column shows that 78 percent of those with installment credit and *had* purchased debt protection had other life insurance.

The other rows of the table work the same way. For example, the second row shows that among borrowers with installment credit and other life insurance, 65 percent of non-purchasers of debt protection had other life insurance of $50,000 or more while only 59 percent of debt protection purchasers had this much other life insurance.

The fourth column of the table then indicates the prior hypothesis whether the row criterion is more likely for non-purchasers of debt protection. “Yes” indicates the hypothesis that likelihood is greater for non-purchasers of protection than for purchasers. For instance, the first row indicates the expectation that non-purchasers of protection would be *more likely* to have other life insurance than purchasers (“Yes” hypothesis). (As it turns out, column 5 shows that the evidence does not support this first hypothesis, although the univariate evidence is consistent with most of the other hypotheses.)

Column 5 then shows, row by row, the relationship of actual survey results to the relevant expectations. The findings are presented with the positive or negative sign of the actual relationship of column 1 (non-purchasers of protection) to column 2 (purchasers) for each characteristic.

As indicated, survey results are consistent with expectations of differences in hypothesized demand-related criteria in almost every case where there is an expectation. The first grouping of variables involves evidence of other insurance holdings. The general contention here is that if some debtors have less other insurance, they may feel underinsured when taking on more installment debt, and so they purchase debt protection as at least a partial remedy for this concern. Life, health, and disability insurance can provide benefits similar in some ways to common forms of debt protection. Thus, not having these types of insurance likely stimulates demand for debt protection.

In general, Table 6 shows consistency with the hypothesized relations, although holdings of other insurance seem less important as a univariate explanation of debt protection demand than other classes of borrower criteria. For example, life insurance holding is quite widespread among both non-purchasers and purchasers of debt protection but actually slightly more common among debt protection buyers (line 1 of the table). And so, life insurance demand already seems strong in the experience of debt protection users.

Debt protection purchasers are more likely to have smaller *amounts* of life insurance (line 2), however, and those with small amounts of life may feel underinsured. Survey results summarized in column 5 show that those with small amounts of life insurance are more likely to purchase debt protection than consumers with life insurance of $50,000 or more. Holding of health insurance and disability insurance also have the expected relationships between non-purchasers and purchasers of debt protection, although the differences are not large.

The most sizable difference in the insurance area concerns the question about holding of long-term care insurance. Long-term care insurance covers a distant large expense, whereas credit insurance involves a relatively small amount limited to the amount of debt over a relatively short period of time. As such, these products would not seem to be substitutes, but the difference between purchasers and non-purchasers of debt protection is fairly large, with purchaser of debt protection more likely also to have long-term care coverage. (Frequency of this sort of insurance actually is lower both with purchasers and non-purchasers of debt protection compared to other kinds of insurance.) There may be an explanation, however. One possibility is that in purchasing long-term care insurance installment credit users, who are mostly young or middle aged, exhibit foresight for future large risks. In this case, the purchase of long-term care insurance seems more a reflection of these consumers' risk aversion than concern that one is underinsured for an immediate shorter term risk.

A different explanation involves non-financial considerations. In discussion with the authors, one knowledgeable insurance specialist suggested that purchase of long-term care insurance for many purchasers does not solely involve financial concerns like other insurance. In his words, long-term is also "dignity insurance" and so involves elements of a bit different nature. In this view, it potentially saves dignity of elderly individuals and so it may be relatively more important to those with fewer other resources, possibly including debt protection purchasers, for protecting dignity in old age. Whatever the specifics of this relationship that ultimately might involve psychological elements as well as financial, more extensive buying of long-term care coverage by purchasers of debt protection does not seem like this purchase solely involves a financial decision. Both of these two potential explanations seem plausible and are not mutually exclusive.

In the second grouping in the table, health concerns, survey measurements of a group of possible health concerns among non-purchasers and purchasers of debt protection are consistent with hypotheses (lines 6 through 11 in the table). In general, the finding is that those with health concerns are more likely to purchase debt protection, consistent with reasonable expectations in this area. In particular, the survey provides evidence of adverse selection arising because of only limited underwriting allowable for debt protection but where there is asymmetric information (i.e. consumers have better private information on their health than the insurers). This makes debt protection more attractive to higher-risk consumers. The idea is that consumers having bad health will disproportionately choose debt protection. This, of course, results in a worsening of the risk pool. The worsening of the risk pool can then lead to higher prices, causing lower-risk consumers to leave the market and produce an upward spiral of risk and price.

The findings in the health area provide evidence supporting the adverse selection hypothesis, and the differences are mostly larger than for the mainstream insurance-holding measures. The exception is whether the respondent is a smoker, but this difference disappears when whether spouse or partner (or either individual in the relationship) is a smoker is also taken into account. Immediate health issues over the near term seem to be relevant to the decision to purchase debt protection for installment credit.

The third grouping of factors that might be relevant is financial concerns. Again, the survey measures in Table 6 are consistent with hypotheses, and the differences are mostly large (lines 12 through 15). Especially large is the difference in whether the respondent rates credit history for self (and spouse, if any) as “very good,” with debt protection users considerably less likely to indicate “very good” credit history (line 12). This suggests a strong possibility that protecting credit history is associated with purchasing debt protection. Since a very good credit history can lower the cost of credit arrangements by considerably more than the cost of debt protection lowers it, this is not especially surprising.[11]

Other measured relevant financial concerns include two measures of ability to meet financial emergencies, with limitations on financial reserves directly associated with likelihood of purchasing debt protection (lines 13-14). Finally in this litany of financial matters, worry over current job security also apparently enters into

[11] For further discussion of this point, see Durkin, Elliehausen, Staten, and Zywicki, *Consumer Credit and the American Economy*, referenced in footnote 2, Chapter 12.

the demand for debt protection. Those somewhat worried or very worried over job security are more likely to be purchasers of debt protection than non-purchasers (line 15).

All of these factors taken one at a time on a univariate basis may well come together in a question on overall risk aversion (line 16). In this case, those who do not have debt protection are considerably more likely to express they are willing to take financial risks than those who have debt protection. A lot of the background for this willingness to take financial risks may well rise from their greater financial ability to take on such risks. Those with a bit less insurance, but sometimes with greater health or financial concerns may well be looking for ways to reduce risks rather than take on more.

Finally, a series of demographic variables also collected with the rest of the survey information offers some more description of debtors who purchase debt protection relative to those who do not. For instance, purchasers of debt protection are a bit younger but less likely to be married (lines 17-18). This suggests they are more likely to be facing risks alone, probably with lower family income. This income description is borne out with direct family income measurement where installment debtors with debt protection are considerably less likely in the highest income quintile (line 21). They also are less likely to be home owners (a measure of asset holding, line 22), and holders of credit cards (not in table).

A multivariate logistic regression analysis of the debt protection choice supports the findings suggested by the univariate analysis. The dependent variable is whether or not the consumer purchased debt protection for an installment loan. Explanatory variables include the sets of variables reflecting other insurance coverage, health concerns, financial concerns, basic risk aversion, and demographic characteristics discussed in Table 6. Some categories have been combined in slightly different ways (Table 7). Explanatory variables also include a price, the state prima facie rate for credit life insurance, stated as dollars per $100 per year.[12] Credit insurers generally charge this rate in each state.[13]

The first column of Table 7 lists the statistically important variables using the same variable definitions as Table 6. The estimated regression is statistically significant at the one-percent level. Many of the variables identified as statistically related to

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[12] Source: *Fact Book of Credit-Related Insurance* (Atlanta: Consumer Credit Industry Association 2016). The *Fact Book* also reports state prima facie rates for credit disability insurance, but the reference version of this product is not offered in several states. For the states that offer the reference version, prima facie rates for credit disability and credit life are strongly positively correlated.

[13] See Gary Fagg, *Credit-Related Insurance* (Hurst, Texas: CreditRe, 2004).

the purchase of debt protection when examined individually remain important when multiple variables are taken into account simultaneously. Having other life insurance of $50,000 or more is negatively related and health or disability insurance is positively related to using debt protection, but neither estimated coefficient is statistically significant. Having long-term care insurance is statistically significant and positive. The odds ratio, which measures the size of an explanatory variable's effect on the dependent variable, indicates that the odds of purchasing debt protection for consumers having debt protection are 2.256 times that for consumers not having long-term care insurance.[14]

Having bad health is statistically significant and positively related to purchasing debt protection. Consumers who have bad health are about twice as likely as healthy consumers to purchase debt protection. This finding suggests the possibility of adverse selection in debt protection markets. That is, an unfavorable risk pool leads to high prices, which causes healthy consumers to avoid debt protection products.

Among financial concerns, consumers having good credit, a reserve fund of $400 or more, and the ability to cover 90 days of expenses are less likely than other consumers to choose debt protection. Consumers who are worried about job losses are more likely than other consumers to choose debt protection. These findings are each believable, although the estimated coefficients are not statistically significant.

Consumers who are risk averse are significantly more likely than consumers who are not risk averse to choose debt protection. The odds ratio estimate indicates that risk averse consumers are 1.72 times more likely to purchase debt protection than consumers who are willing to take financial risks.

The price of debt protection has a negative sign, indicating the expected result that that the likelihood if purchasing debt protection decreases as price increases, as expected for the demand for any product. However, the estimate is not statistically significant either, showing that the effect is not very strong.

Of the demographic characteristics, consumers with a college degree and married consumers were less likely than consumers in lower

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[14] Odds are the ratio of the probability of x (purchasing debt protection, for example) to the probability of not x (i.e. not purchasing debt protection). The odds ratio for an indicator variable (having long-term care insurance) is the probability of purchasing debt protection for consumers who have long-term care insurance divided by the probability of purchasing debt protection for consumers not having long-term care insurance. The odds ratio can be calculated by exponentiating the coefficient for having long-term care insurance from the logistic regression. That is, exp(0.842)=2.321.

education categories or unmarried consumers to purchase debt protection. Consumers in the third income quartile were significantly more likely than consumers in other income groupings to purchase debt protection.

Thus, the multivariate examination also finds a profile for debt protection purchasers of individuals with health concerns, who are more likely to register credit concerns, who are not in the highest income or education groupings, who have life insurance but not a great deal of it, and often without large financial reserves. A general measure also often finds them individually risk averse. Ultimately, this describes a likely prospect to purchase insurance for perceived risks. That they sometimes do so when entering into consumer credit arrangements is not surprising.

Conclusion

And so, survey research suggests other reasons for purchasing debt protection than the old argument that purchase reflects lack of understanding or even widespread coercion at the point of sale. Direct questioning again shows a long-term decline in purchase penetration rate and in the frequency and strength of offers to the point where only about 5 percent of installment credit users reported both that the creditor had recommended the product and they had bought it. Furthermore, not one respondent reported feeling that debt protection was other than a voluntary option. In contrast, a substantial majority of purchasers believed that purchase was voluntary and that they would do it again.

Rather, survey evidence shows that debt protection amounts to an add-on in credit arrangements preferred by some but not by others. Over the longer term its prevalence as part of installment credit arrangements has declined, probably reflecting long-term growth in employment, income, and assets that have permitted more consumers to self-insure themselves in the marketplace. Evidence suggests it is useful to many consumers, however, and is much more than a niche product. Installment debtors who purchase debt protection are somewhat otherwise less insured than product purchasers and more frequently have either health, financial, or possibly both kinds of concerns. They generally are not among the financially elite, and they tend to be quite risk averse. Their wealthier brethren who are similarly risk averse may often be candidates for purchase of other specialized insurance products like trip-cancellation insurance.

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Table 1. Debt Protection Penetration Rates
1977-2017
(Percentage Distributions Within Groups of Credit Users)

	1977 Install Credit	1985 Install Credit	2001 Install Credit	2012 Install Credit	2017 Install Credit	2001 Credit Card	2012 Credit Card	2017 Credit Card
Have	63.9	64.7	22.7	22.0	26.0	20.1	14.0	19.2
Do not have	30.1	33.1	74.4	75.6	70.6	73.9	82.0	75.4
Do not know/ Refuse	6.0	2.2	2.9	2.4	3.4	6.0	4.0	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Columns may not sum to totals because of rounding.

Source: University of Michigan. Survey Research Center, Surveys of Consumers, http://new.sca.isr.umich.edu/

Table 2. Recommendations Concerning Debt Protection Purchase at Point of Sale on Installment Credit, 1977-2017

(Percentage Distributions Within Groups of Users and non Users of Installment Credit, With and Without Debt Protection)

	1977		1985		2001		2012		2017	
	Protection		Protection		Protection		Protection		Protection	
	Have	Not Have	Have	Not Have	Have	Not Have	Have	Not Have	Have	Not Have
Recommendation:										
Never mentioned	10.6	52.2	14.8	45.2	15.4	53.3	18.7	62.7	30.0	67.4
Offered	15.0	22.6	44.7	35.5	53.2	33.9	43.5	29.5	42.9	21.3
Recommended	33.1	17.0	16.4	12.9	12.2	4.1	17.6	0.5	9.6	1.6
Strongly recommended/ required	39.3	2.3	20.1	2.6	16.6	3.4	20.1	0.9	10.1	0.3
Do not know/Refuse	2.1	5.9	3.9	3.9	2.6	5.3	*	6.5	7.4	9.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: * Less than one half of one percent.
Columns may not sum to totals because of rounding.

Source: University of Michigan. Survey Research Center, Surveys of Consumers, http://new.sca.isr.umich.edu/

Table 3. Attitudes Toward Debt Protection Among Users of Installment Credit, 1977-2017

(Percentage Distributions Within Groups of Users and non Users of Installment Credit, With and Without Debt Protection)

	1977		1985		2001		2012		2017	
	Protection		Protection		Protection		Protection		Protection	
	Have	Not Have	Have	Not Have	Have	Not Have	Have	Not Have	Have	Not Have
Attitude:										
Good	86.7	59.8	89.9	56.4	88.5	32.3	85.5	53.8	84.4	53.6
Good with qualifications	8.6	18.9	2.9	8.3	3.8	6.1	*	3.2	2.6	*
Neither good nor bad	2.1	9.1	1.9	6.4	3.2	13.9	3.1	1.8	4.1	5.8
Bad with qualifications	*	2.7	*	2.6	*	1.6	*	6.5	*	*
Bad	2.2	9.5	5.2	26.3	4.5	46.0	11.4	40.5	8.8	40.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: * Less than one half of one percent.
Columns may not sum to totals because of rounding.

Source: University of Michigan. Survey Research Center, Surveys of Consumers, http://new.sca.isr.umich.edu/

Table 4. Satisfaction With Purchase of Debt Protection on Installment Credit 2001-2017

(Percentage Distributions Within Groups of Installment Credit Users)

Satisfied with Purchase?	2001 Installment Credit	2012 Installment Credit	2017 Installment Credit
Very	27.8	38.2	29.6
Somewhat	65.6	40.9	43.3
Subtotal: Satisfied	93.4	79.1	72.9
Neither satisfied nor not	3.9	20.9	17.5
Somewhat dissatisfied	2.7	*	4.7
Very dissatisfied	*	*	5.0
Total	100.0	100.0	100.0

Notes: * Less than one half of one percent.
Columns may not sum exactly to totals because of rounding.

Source: University of Michigan. Survey Research Center, Surveys of Consumers, http://new.sca.isr.umich.edu/

Table 5. Willingness to Purchase Debt Protection Again Among Users of Installment Credit 2001-2017

(Percentage Distributions Within Groups of Credit Users)

Purchase again?	2001 Installment Credit	2012 Installment Credit	2017 Installment Credit
Yes	94.2	74.6	70.2
No	5.8	24.4	29.7
Total	100.0	100.0	100.0

Notes: * Less than one half of one percent.
Columns may not sum exactly to totals because of rounding.

Source: University of Michigan. Survey Research Center, Surveys of Consumers, http://new.sca.isr.umich.edu/

Table 6. Factors that May Associate with Instalment Credit Users' Willingness to Purchase Debt Protection

Installment credit users *who have*:	Proportion among *non*-purchasers of debt protection (Percent)	Proportion among purchasers of debt protection (Percent)	Hypothesized to be greater for non-purchasers?	Actual percent points by which non-purchasers exceed purchasers*
1. Other life insurance	76.8	78.0	yes	- 1.2
2. Other life insurance of $50,000 or more	65.3	59.5	yes	5.8
3. Health insurance	95.0	94.5	yes	.5
4. Disability insurance from employer	49.7	47.8	yes	1.9
5. Long-term care insurance	20.5	38.2	uncertain	- 17.7
Health concerns				
6. Respondent has bad health	13.2	22.7	no	- 9.5
7. Spouse has bad health	10.4	16.9	no	- 6.5
8. Respondent or spouse has bad health	15.4	29.4	no	- 14.0
9. Respondent smokes	15.2	13.9	no	1.3
10. Spouse smokes	11.5	20.7	no	- 9.2
11. Respondent or spouse smokes	18.0	22.4	no	- 4.4
Financial concerns				
12. Respondent or spouse has very good credit	61.4	42.5	yes	21.9
13. Has reserve funds of $400 or more	83.7	76.4	yes	7.3
14. Could cover living expenses for 90 days	81.3	62.9	yes	18.4
15. Respondent or spouse worried about job security	15.9	19.1	no	- 3.2
Basic risk aversion				
16. Unwilling take above average risks	67.6	88.2	no	- 20.6
Demographic characteristics				
17. Age				
Less than 35	22.0	27.2		- 5.2
34-44	19.0	18.5		.5
45-54	18.9	19.1		- .2
55 and older	40.0	35.2		4.8
18. Married	73.9	63.8		10.1
19. Children	33.6	34.1		- .5

20. Education:			
High school diploma or less	15.2	18.5	- 3.3
Some college	17.1	25.9	- 8.8
College degree	67.7	55.6	12.1
21. Income quintile			
Lowest	16.4	25.3	- 8.9
Second	25.0	26.9	- 1.9
Third	20.9	25.3	- 4.4
Highest	37.8	22.6	15.2
22. Home owner	73.1	65.0	8.1

Note: * Actual percentage point difference measured by the survey by which frequency of purchase of debt protection (Column 2) exceeds non purchase (Column 1) for those meeting the line criterion.

Source: University of Michigan. Survey Research Center, Surveys of Consumers, http://new.sca.isr.umich.edu/

Table 7. Logistic Regression of Factors Associated with Instalment Credit Users' Willingness to Purchase Debt Protection

Variable	Coefficient estimate		Standard error	Odds ratio
Price				
crliferate	- .178		1.230	.837
Other insurance				
haslife50+	- .363		.405	0.695
hashealth	.429		.738	1.536
haslongterm	.814	***	.295	2.256
Health concerns				
healthbad	.650	**	.348	1.916
smokes	.211		.340	1.235
Financial concerns				
creditvgood	- .429	†	.334	.651
reserve400+	- .054		.420	.947
exp90day	- .175		.421	.840
jobloss	.112		.374	1.118
Basic risk aversion				
riskaverse	.543	†	.379	1.720
Demographic characteristics				
age<35	.230		.374	1.259
age55+	- .450		.338	.638
married	- .409		.351	.664
haschild	.007		.319	0.993
incquart1	.078		.521	1.081
incquart2	.024		.408	1.025
incquart3	.638	*	.354	1.893
somecollege	- .038		.420	.963
collegedeg	- .416		.373	.660
homeowner	.312		.340	1.366
Intercept	-1.249		1.152	
Likelihood ratio	42.420	***		
McFadden's R-squared	14.3			
Number of observations	336			

Note: Significance levels: *** 1 percent, ** 5 percent, * 10 percent, † 20 percent.

Source: University of Michigan. Survey Research Center, Surveys of Consumers, http://new.sca.isr.umich.edu/