Research Brief 321 | JUNE 2015

Narrow Framing and Long-Term Care Insurance

Daniel Gottlieb and Olivia S. Mitchell *

Despite the potentially catastrophic impact of long-term care (LTC) costs on the older population, only eight percent of Americans have LTC insurance. In this project we evaluate how key elements from prospect theory, which describes how people make choices under risk, shape insurance decisions and delayed retirement. Prospect theory suggests that people evaluate the outcomes of risky decisions in terms of gains and losses, rather than in terms of their total wealth. Moreover, most applications of prospect theory assume that decisions are evaluated in isolation, rather than integrated with other risks, which is called narrow framing.

DATA AND METHODOLOGY

We devised and fielded a special module for the 2012 Health and Retirement Study (HRS), a nationally representative and in-depth panel study of around 19,000 age-eligible Americans older than 50 who are interviewed every other year for life. At baseline, every respondent is resident in the community; thereafter the HRS continues to follow respondents even if they move into assisted living or some other arrangement. Each wave, the HRS also includes several experimental modules which are randomly assigned to a subset of respondents. The purpose of these modules is to evaluate new questions and examine alternative ways to get at concepts of interest to researchers. Responses to each module can be linked to respondent variables in the core survey as well.

We designed a short survey, one of 10 experimental modules assigned randomly to the HRS sample, given to about 1,900 HRS respondents. Response rates averaged 85 percent for about 1,700 completed surveys per module. Our module focused on the central question of whether people are sensitive to framing, and if so, how this influences the outcome of most interest here, namely whether they have long-term care insurance. We drop respondents living in a nursing home at the time of the survey, as they probably would not qualify for LTC insurance. We obtain essentially the same estimates when we include them. (For details on the survey, see Appendix B of Working Paper 2015-321.)

We identified the key parameters prospect theory implies will influence people's behavior when they confront uncertainty in the real world. We focused on narrow framing, risk aversion, and loss aversion. We studied how these are related to respondents' behaviors regarding their purchases of long-term care and life insurance, as well as their plans to delay retirement. Control variables included sex, race/ethnicity, age, health, and family status.

RESULTS

Our results are summarized in Tables 1 and 2. Our main conclusion is that people who are narrow framers demand substantially less long-term care insurance. Moreover, this result is robust to controlling on a host of factors including health, cautiousness, risk aversion, probability of needing LTC, and sociodemographics. In fact, Table 1 shows that narrow

*** Daniel Gottlieb** is an assistant professor of business economics and public policy at the Wharton School, University of Pennsylvania. **Olivia S. Mitchell** is the International Foundation of Employee Benefit Plans Professor, professor of business economics and public policy, professor of insurance and risk management, and the executive director of the Pension Research Council at the Wharton School, University of Pennsylvania. This research brief is based on MRRC Working Paper 2015-321.

framing is a more important deterrent to people's LTC insurance purchases than factors previously suggested, such as risk aversion and private information.

Table 2 shows that other behaviors we examined, including having life insurance, are much less affected by narrow framing. This stands to reason, since among the older adults we examine, they are unlikely to still have life insurance unless it is for estate planning purposes. We also see that planned work patterns are not driven by those who exhibit narrow framing.

With this knowledge, insurers could do a better job to position their products by providing more information to consumers regarding the substantial chance of needing care at older ages, along with the very high costs of such care. In particular, framing LTC insurance in terms of the consequences of needing care on one's dependents would be more effective than describing its benefits in isolation. Targeting adult children whose parents will likely require nursing home care would also be wise, since they may end up shouldering LTC costs that insurance could cover.

TABLE 1. MULTIVARIATE MODELS OF DETERMINANTS OF LONG-TERM CARE INSURANCE PURCHASE (PROBIT AND OLS)

Dependent Variable: Has LTC Insurance

	Probit models		OLS models	
	(1)	**(2)**	**(3)**	**(4)**
Narrow framing	-0.091 *** [0.031]	-0.059 *** [0.021]	-0.091 *** [0.031]	-0.092 *** [0.032]
Risk aversion		-0.004 [0.012]		-0.006 [0.017]
Cautious		0.062 [0.039]		0.087 * [0.050]
Percent ChanceNH		0.001 [0.001]		0.002 [0.001]
N	487	487	487	487
R-sq	0.017	0.167	0.013	0.124

Note for tables: Module respondents having a risk aversion measure, not living in nursing homes, and not violating transitivity. Also included in columns (2) and (4) are controls for age, sex, race/ethnicity, marital status, cognition, health (ADL count, smoking, drinking, depression, diabetes, stroke, heart problems, high blood pressure, lung problems, cancer, arthritis, and loss aversion dummy variables), along with dummies for missing control variables. Robust standard errors are reported, with observations clustered on households.

TABLE 2. MULTIVARIATE MODELS OF DETERMINANTS OF HAVING LIFE INSURANCE, PROBABILITY OF WORKING TO AGE 62 AND 65, AND AGE EXPECT TO STOP WORK (OLS)

	Dep Var			
	Has Life Ins (1)	**Prob Work >62 (2)**	**Prob Work > 65 (3)**	**Stop Work Age (4)**
Narrow framing	-0.008 [0.055]	2.675 [3.995]	-1.915 [3.226]	0.189 [0.751]
Risk aversion	-0.024 [0.023]	-0.296 [1.855]	-0.648 [1.521]	-0.272 [0.349]
Cautious	0.104 [0.081]	-12.014 ** [6.010]	-9.318 * [4.979]	-9.318 * [4.979]
Percent ChanceNH	0.001 [0.002]	-0.158 [0.158]	-0.074 [0.101]	-0.026 [0.019]
N	490	491	491	373
R-sq	0.124	0.123	0.105	0.103

Source for tables: Gottlieb and Mitchell (2015).