

Article

On the Motivations for Purchasing Long-Term Care Insurance: Protecting Bequest and Unreliability of Family Care

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Abstract: Family considerations are known to influence the decision to buy long-term care (LTC) insurance. This paper uses a Swiss survey to identify the characteristics of individuals willing to purchase LTC insurance, either to protect their children's bequest or because they cannot rely on family for care. First, it shows that the presence or absence of children plays an important role in the two motivations for buying LTC insurance. Second, it shows that individuals from the French-speaking part of Switzerland and those with lower self-perceived health are more likely to buy LTC insurance because of the unreliability of family care. On the other hand, individuals with higher self-perceived health and those with a right and center political orientation are more likely to buy LTC insurance for reasons of bequest protection. The results provide insights into designing more targeted strategies to promote LTC insurance.

Keywords: long-term care insurance; family care; bequest



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1. Introduction

The global demographic shift toward an aging population has led to an increasing demand for long-term care (LTC), i.e., care for people who require assistance with activities of daily living (Ansah et al. 2014). This demographic trend entails allocating greater resources to finance LTC, and one potential avenue is LTC insurance (OECD 2020). While the uptake of LTC insurance varies across countries and individuals, its development is still limited even in the most mature insurance markets, such as Switzerland. Extensive research has explored the reasons for this low development and the decision not to purchase, including the issue of insurability of long-term risks, asymmetric information, pricing of LTC risks, biases in risk perception, and crowding-out effects of public support (see, e.g., Pestieau and Ponthière (2012)). Our work differs by exploring two critical determinants of LTC insurance purchase that have been raised in previous works: the desire to protect children's bequests and the inability to rely on family members for future care. These motivations are particularly interesting because LTC insurance decisions and family considerations are closely linked (Van Houtven et al. 2015), unlike most insurance models where the purchaser is the only insurance beneficiary.

Pauly (1990) was the first to point out that LTC insurance protects policyholders from the depletion of their assets due to LTC expenses and, thus, the bequest available to children and relatives. This motivation stems from parental responsibility and emphasizes the intergenerational transfer of wealth when considering the purchase of LTC insurance. Those individuals with a bequest motive, i.e., willing to leave a bequest to their children, value LTC insurance for a bequest-protection motive (Lockwood 2010). This is confirmed by various empirical papers, whether related to the French market (Courbage and Roudaut 2008), the U.S. market (Brown and Finkelstein 2009), or Canadian data (Boyer et al. 2020).

In contrast, an individual's inability to rely on family members for future care has also been shown to be a strong determinant of the decision to buy LTC insurance, highlighting the changing dynamics of modern families and their impact on caregiving expectations. Factors such as smaller family sizes, increased geographic mobility (Joseph and Hallman 1998), and the growing participation of women in the workforce have reduced the availability of family caregivers (OCDE 2011), leading individuals to consider LTC insurance as a means of ensuring adequate care. In this regard, Mellor (2001) shows, using U.S. data, that individuals without living children are more likely to purchase LTC insurance. This suggests that individuals who cannot rely on family for care may be more inclined to seek insurance coverage for their LTC needs. This is supported by Costa-Font (2010) and Costa-Font and Courbage (2015), amongst others, using European data.

While the bequest-protection motive and the unreliability of the family care motive are well documented in the literature, much less is known about the characteristics of individuals willing to purchase LTC insurance for either one of these motives. Our paper attempts to fill this gap. This is an essential concern because knowing each individual's characteristics for the motivation to buy LTC insurance helps identify those individuals who are more likely to buy and target these individuals accordingly.

Our work is based on a unique, novel survey conducted in 2019 among approximately 1000 individuals in Switzerland. The survey examines participants' behaviors and opinions about LTC and LTC insurance. We use generalized linear models to explore the determinants of the above motivations for purchasing LTC insurance.

We first show that having or not having children strongly drives both motivations to buy LTC insurance. Those individuals with children are more likely to buy LTC insurance for the bequest-protection motive. At the same time, those individuals who do not have children are more likely to buy LTC insurance due to a lack of reliance on family care. Second, individuals from the French-speaking language region and those with lower self-perceived health are more likely to buy LTC insurance because of the unreliability of family care. Meanwhile, those with higher self-perceived health and those with right and center political orientation are more likely to buy LTC insurance for the bequest-protection motive.

Our findings provide valuable insights for insurance providers and policymakers to develop more targeted strategies to promote and develop LTC insurance and ensure that a more significant portion of the aging population can be protected against the financial risks associated with LTC.

Insurers can design marketing campaigns tailored to the specific demographic insights in our study. For example, promoting LTC insurance as a means of protecting inheritances can appeal to individuals with children, those in good health, or those with right- or center-leaning political views. Conversely, emphasizing the benefits of LTC insurance as a way to secure personal care in the absence of family support for individuals without children, in poor health, or living in French-speaking regions of Switzerland would increase demand for LTC insurance.

Regulators can also use these findings to improve consumer protection in the LTC insurance market. Recognizing the needs of individuals with poorer health or without children, guidelines can ensure they are well-informed and protected. For example, regulations could require transparent disclosure of relevant terms and promote flexible LTC insurance options, ensuring comprehensive coverage for all policyholders.

The article is organized as follows. Section 2 briefly presents the ways in which LTC is financed in Switzerland. Section 3 describes the database and the variables used. Section 4 presents the econometric analysis and the results. The final section provides some concluding remarks and policy recommendations.

2. Financing LTC in Switzerland

The Federal State of Switzerland is divided into 26 cantons and has four official languages. The German-speaking region spans 19 cantons, which comprise over two-thirds of the Swiss population. In contrast, the French-speaking region consists of six cantons and

comprises about 25% of the Swiss population. Finally, nearly 8% of the population speaks Italian, while Romansh is spoken by less than 1%.

LTC financing in Switzerland is a complex and multi-faceted system that depends on both public and private funding mechanisms at the federal and cantonal levels. The mandatory health insurance system (LAMal) covers a portion of the costs for LTC services. This includes health care provided at home and nursing care received in retirement homes or nursing facilities. It is an important source of LTC financing, accounting for about 25% of LTC expenditures (European Commission 2018).

A significant portion of LTC costs is borne by households, including expenses for household assistance, activity therapy, and board and lodging in nursing homes (Gentili et al. 2017). Switzerland has one of the highest rates of private financing for LTC costs among OECD countries, with out-of-pocket expenditures accounting for about 40% of the total (OECD 2020). Individuals who cannot afford to pay for these expenses with their own assets or retirement income can turn to the national public old-age (AHV) and disability (IV) insurance programs or social assistance programs run by municipal governments for additional financial aid.

As an additional funding source, individuals can purchase supplementary health insurance or life insurance to cover additional LTC services and benefits. Such policies can vary significantly regarding coverage and cost, depending on the insurance provider and the specific plan selected. While the market for LTC insurance in Switzerland remains relatively limited (European Commission 2018), it may have potential appeal due to the aging population and the substantial out-of-pocket expenses for LTC incurred by individuals. The limited supply of insurance options and lack of demand-side knowledge hinder individuals from adequately preparing for potential financial challenges during later stages of life. This calls for a better understanding of the determinants of the motives for purchasing LTC insurance in Switzerland.

3. Data and Variables

3.1. Data

The research is based on a survey study conducted in Switzerland in February 2019, administered by a professional polling institute in German and French. The questionnaire covers various topics relevant to the financing of LTC. It is aimed at individuals aged between 40 and 65 who live in Switzerland's German- and French-speaking regions. The central part of the survey consists of four sections covering the respondents' family background, the provision of informal care, the perception of LTC risks, and preferences regarding LTC financing. In addition, the questionnaire includes questions about respondents' views on risk and the future in general, as well as their socio-demographic characteristics and occupational and economic circumstances.

The survey results represent a random, representative sample of 1066 individuals. Special consideration was paid to ensuring an adequate number of participants with dependent parents and informal caregivers. To achieve this, a three-stage stratified sampling procedure was used, with the following distribution: one-third of the participants were individuals with dependent parents and who provided informal care; another third were individuals with dependent parents who did not provide informal care; and the final third were individuals with any dependent family member. Within each group, the sample was further stratified by gender (50% male and 50% female), age group (40% aged 40–49, 40% aged 50–59, and 20% aged 60–65), and language region (67% German-speaking and 33% French-speaking). The weighting of the second stratification closely reflected the population weights, except for the French-speaking linguistic region, which was over-represented.

Given the nature of our research question, we restricted our final sample to respondents interested in buying LTC insurance. This left us with a total sample of 449 observations.

3.2. Dependent Variables

This research aimed to identify respondent characteristics associated with an agreement with two statements about motivations for purchasing LTC insurance. The two statements were part of a five-statement question designed to explore the motivations that drive an individual's predisposition to purchase LTC insurance. These statements were presented to participants who had previously expressed an interest in purchasing LTC insurance. The question was as follows:

You have indicated that you would be interested in purchasing long-term care insurance. What are the motivations? For each of the following, indicate your level of agreement.

If I became dependent . . .

(M1) I would be concerned about the financial consequences.

(M2) My savings would not be sufficient to cover the costs.

(M3) I would want to spare my family the burden of caring for me.

(M4) I could not rely on my family to help me.

(M5) I would protect my children's future inheritance by not having to pay for professional help at home or a stay in a nursing home.

Respondents indicated their level of agreement or disagreement with each statement on a five-point Likert scale, with the midpoint representing a neutral position. We consolidated the two disagreement and agreement levels into "disagree" and "agree", respectively, and kept the neutral level separated. While the survey covered all five motivations, this study focused on (M4) and (M5) as these are the two main motivations for purchasing LTC insurance identified in the literature as being related to family considerations.

By analyzing the responses to these two statements, the research aimed to identify the characteristics that shape respondents' agreement with these motivations for purchasing LTC insurance, focusing on their perceptions of family support and their intention to secure their children's future inheritance.

3.3. Independent Variables

In order to identify the respondent characteristics that significantly determine agreement with statements (M4) and (M5) above, we considered a range of factors categorized into socio-economic aspects, health and dependency factors, attitudes toward care funding, and regional influences that may be related to the respondents' perceptions of family support and their intention to protect their children's future inheritance. In the descriptive statistics (see below), we included all variables, whether or not they were later selected in the regression analysis. This approach ensured a broad understanding of the range of factors considered in our analysis and provided valuable insights.

Socio-economic factors serve as key indicators in profiling respondents, shedding light on their lifestyle, financial standing, and family structure. Factors considered included gender, age, marital status, employment status, education level, overall wealth, housing type, monthly income, and the presence of children. These determinants may directly or indirectly influence respondents' views on family support and securing their children's inheritance.

Health and dependency factors provided insight into respondents' current health status, exposure to dependent parents, concerns about future dependency, and their perceptions of their own probability of dependency. These factors may shape respondents' perceptions of family support and their ambitions to secure their children's financial futures.

The category of attitudes toward LTC financing captured respondents' views on who should bear the financial burden of care and their understanding of the costs involved. Specifically, we examined their perspectives on the roles of government, citizens, and insurers in financing LTC. Perceptions of the costs of professional care, another key factor, provided insight into respondents' understanding of the financial aspects of care services. In addition, we considered the respondent's political orientation, which may significantly shape these views. Taken together, these variables could show how beliefs about financing

care and awareness of costs might influence respondents' perceptions and decisions related to LTC.

Finally, regional factors, represented by the respondent's language region, may influence agreement with the statements. Indeed, regional differences in culture, care provision schemes, and availability of support services may influence an individual's views on family support and inheritance protection. More information on the independent variables considered as potential determinants and their brief description can be found in Table 1.

Table 1. Summary of variables used and survey questions.

Variable	Survey Question/Attribute	Answers/Built Categories	
<i>Socioeconomic factors</i>			
1	Education level	What is your highest level of education?	Mandatory school, high school, and higher education
2	Monthly income	What is your monthly net income?	CHF ≤3000, 3001–5000, 5001–7000, 7001–9000, >9000, NA
3	Professional situation	What is your current employment status?	Retired, employed, other
4	Housing type	Concerning your main residence, are you...	Tenant, owner, other?
5	Presence of children	Do you have a daughter and/or son?	Yes, no
6	Overall wealth	Considering all your household income and wealth, would you say that your household is rather...	In a modest/below average/above average/wealthy situation?
7	Gender	You are a...	Male, female
8	Age	How old are you?	40–45, 46–50, 51–55, 56–60, 61–65
9	Marital status	What is your civil status?	Married/registered partnership, other
<i>Health and Dependency Factors</i>			
10	Concern for future dependence	How concerned are you that in old age you may have difficulty to independently perform of one or more of the following activities: bathing or showering; using the toilet; getting out of bed or going to bed; dressing; eating; walking 50 m?	Concerned, not concerned
11	Probability of dependence	How likely do you think it is that you will lose your independence to carry out activities of daily living in the future? activities of daily living in the future?	Unlikely, likely, probably, very probable
12	Self-perceived health	How do you perceive your own health status in general?	Very bad, bad, fair, good, very good
13	Exposure to dependent parents	During the last 12 months, did any of your parents/in-laws have any difficulty independently carrying out a daily living activity (take a bath or a shower, go to the toilet, get dressed...)?	Yes, no
<i>Attitudes toward LTC financing</i>			
14	Attitude toward the state's role in the financing of care	It is the role of the State to plan and guarantee the financing of healthcare for the entire population through social insurance.	Disagree, neutral, agree
15	Attitude toward citizen's role in the financing of care	It is the role of every citizen to supplement state funding of healthcare with his or her own resources, so that only in extreme situations of misfortune do we have to resort to state subsidies.	Disagree, neutral, agree
16	Attitude toward insurers' role in the financing of care	It is the role of private insurers to offer insurance solutions that allow citizens to supplement state financing of care by taking advantage of the pooling of risks.	Disagree, neutral, agree

Table 1. Cont.

Variable	Survey Question/Attribute	Answers/Built Categories
17	Attitude toward professional home care costs	In your opinion, what is the average monthly cost of professional home help?
18	Attitude toward personal wealth participation in home care	If you became dependent, how much do you think you will have to pay out-of-pocket for LTC?
<i>Other factors</i>		
19	Political Orientation	What is your political alignment?
20	Language region	The linguistic region of the respondent’s place of residence

NA means non answered.

3.4. Descriptive Statistics

Tables 2 and 3 provide descriptive statistics for the dependent and independent variables. While a large majority of respondents, over 90%, agreed with (M1), (M2), and (M3), this percentage was lower for (M4) and (M5), with 57.06% of respondents agreeing with (M4) and 61.21% with (M5) (see Table 2). Motivations (M4) and (M5) had a balanced distribution of agreement and disagreement among respondents, providing a more diverse perspective than motivations (M1), (M2), and (M3), which had a substantial majority of agreement. The lower levels of agreement with (M4) and (M5) suggest that these motivations reflect less universally held beliefs about LTC insurance, revealing nuanced attitudes and preferences. In what follows, we focus on the sample of respondents with a clear opinion (see the right panel of Table 2), making the dependent variable binary.

Table 2. Statistics on the level of agreement with the motives (M1–M5) to buy LTC insurance.

	Overall Sample				Respondents with a Clear Opinion		
	Disagree	Neutral	Agree	N	Disagree	Agree	N'
(M1)	3.79% (17)	8.91% (40)	87.31% (392)	449	4.16% (17)	95.84% (392)	409
(M2)	7.57% (34)	15.81% (71)	76.61% (344)	449	8.99% (34)	91.01% (344)	378
(M3)	7.80% (35)	14.25% (64)	77.95% (350)	449	9.09% (35)	90.91% (350)	385
(M4)	31.85% (143)	25.84% (116)	42.32% (190)	449	42.94% (143)	57.06% (190)	333
(M5)	30.07% (135)	22.49% (101)	47.44% (213)	449	38.79% (135)	61.21% (213)	348

Note: The value N represents the total number of respondents for each motive (M). The value N' represents the reduced sample size (respondents with a clear opinion) for each motive.

Table 3. Summary statistics on the level of agreement with the motives (M4) and (M5) to buy LTC insurance.

Variable	Level of Agreement			
	Motive (M4)		Motive (M5)	
	%	(n)	%	(n)
<i>Gender</i>				
Male	60.11	(110)	63.19	(115)
Female	53.33	(80)	59.04	(98)
<i>Marital status</i>				
Married/Registered partnership	53.16	(101)	69.04	(136)
Other	62.24	(89)	50.99	(77)
<i>Age</i>				
40–49	51.18	(65)	65.71	(92)
50–59	64.84	(83)	55.73	(73)
60–69	53.85	(42)	62.34	(48)

Table 3. Cont.

Variable	Level of Agreement			
	Motive (M4)		Motive (M5)	
	%	(n)	%	(n)
<i>Language region</i>				
German-speaking	52.08	(100)	56.86	(116)
French-speaking	63.83	(90)	67.36	(97)
<i>Presence of children</i>				
Yes	53.11	(111)	74.45	(169)
No	63.71	(79)	36.36	(44)
<i>Professional situation</i>				
Employed	56.64	(145)	62.07	(162)
Retired	52.63	(20)	67.57	(25)
Other	64.10	(25)	52.00	(26)
<i>Monthly income</i>				
Modest	61.48	(75)	59.09	(78)
Below average	53.10	(60)	64.60	(73)
Above average	52.00	(26)	54.00	(27)
Wealthy	60.42	(29)	66.04	(35)
<i>Overall wealth</i>				
Modest	64.44	(58)	59.18	(58)
Below average	62.96	(68)	60.19	(65)
Above average	46.28	(56)	62.90	(78)
Wealthy	57.14	(8)	66.67	(12)
<i>Housing type</i>				
Renter	59.55	(131)	57.52	(130)
Owner	51.79	(58)	67.80	(80)
Other	100.00	(1)	75.00	(3)
<i>Education level</i>				
Mandatory school	56.25	(9)	60.00	(9)
High school	54.26	(102)	63.45	(125)
Higher education	61.24	(79)	58.09	(79)
<i>Self-perceived health</i>				
Poor	74.14	(43)	45.45	(25)
Average	53.70	(58)	64.23	(79)
Good	53.29	(89)	64.12	(109)
<i>Concern for future dependence</i>				
Not worried	55.25	(100)	63.83	(120)
Worried	59.21	(90)	58.13	(93)
<i>Probability of dependence</i>				
Improbable	48.72	(38)	56.16	(41)
Unlikely	56.25	(72)	69.57	(96)
Likely	58.33	(56)	55.77	(58)
Probable	77.42	(24)	54.55	(18)
<i>Exposure to dependent parents</i>				
Yes	57.58	(114)	60.68	(125)
No	56.30	(76)	61.97	(88)
<i>Attitude toward personal wealth participation in home care</i>				
No part	60.00	(6)	50.00	(4)
Small part	49.37	(39)	51.32	(39)
Considerable part	55.56	(80)	64.97	(102)
Big part	68.42	(39)	69.49	(41)
I don't know	60.47	(26)	56.25	(27)
<i>Political orientation</i>				
Left	55.70	(44)	49.35	(38)
Center	56.33	(89)	59.52	(100)
Right	59.38	(57)	72.82	(75)

Table 3. Cont.

Variable	Level of Agreement			
	Motive (M4)		Motive (M5)	
	%	(n)	%	(n)
<i>Attitude toward the state's role in the financing of care</i>				
Disagree	22.22	(2)	72.73	(8)
Neutral	55.56	(30)	54.39	(31)
Agree	58.52	(158)	62.14	(174)
<i>Attitude toward citizen's role in the financing of care</i>				
Disagree	58.16	(57)	55.66	(59)
Neutral	59.22	(61)	59.65	(68)
Agree	54.55	(72)	67.19	(86)
<i>Attitude toward the insurers' role in the financing of care</i>				
Disagree	61.54	(32)	54.24	(32)
Neutral	54.64	(53)	55.10	(54)
Agree	57.07	(105)	66.49	(127)
<i>Attitude toward professional home care costs</i>				
<5 k	52.87	(184)	59.24	(109)
5–10 k	30.46	(106)	64.15	(68)
>10 k	1.44	(5)	80.00	(4)
Unknown	15.23	(53)	60.38	(32)
Overall agreement	57.06	(190)	61.21	(213)
Sample size N'		(333)		(348)

Note: The level of agreement represents the number and share of respondents who agreed on the motive.

Regarding the independent variables reported in Table 3, we noted several patterns within the share of respondents who agreed with motives (M4) and (M5). For example, males showed a higher rate of agreement (60.11%) than females (53.33%) with (M4). Similarly, respondents from the French-speaking language region showed a higher rate of agreement (63.83%) than their German-speaking counterparts (52.08%). The presence of children also seemed to influence respondents' views. Most respondents without children agreed with (M4), while most respondents with children agreed with (M5). Respondent's overall wealth also affected their agreement with (M4). Respondents with modest (64.44%) and below-average wealth (62.96%) were more likely to agree than those with above-average wealth (46.28%). Self-perceived health status was another influential factor. Respondents in poor health were more likely to agree with M4 (74.14%) while less likely to agree with M5 (45.45%). Finally, political orientation appeared to influence respondents' views on (M5). Right-leaning respondents had a higher rate of agreement (72.82%) than those who identified as centrist (59.52%) or left-leaning (49.35%).

4. Econometric Analysis

4.1. Econometric Specification

Given the binary nature (agree or disagree) of the two response variables related to the motives (M4) and (M5), we considered generalized linear models (GLMs) to explore the determinants of the response. Formally, the regression models related to motive (M4) and (M5) are written as follows:

$$L_{kj} = \alpha_k + \sum_{i=1}^{n_k} \beta_{ki} X_{kij}$$

where L_{kj} is the logit link function for a respondent agreeing with a given statement (dependent variable related to the answer for M4 and M5). The index $k \in \{M_4, M_5\}$ identifies the specific logistic regression model and j indicates individual observations. The coefficient α_k is the model's intercept, and β_{ki} is the coefficient for the i -th independent

variable. To build the model, we systematically analyzed all relevant available variables (see Table 2) using the stepwise Akaike Information Criterion (AIC). The variable selection procedure allows for the identification of the most meaningful variables while minimizing the loss of information. More specifically, a variable was included in our model only if it decreased the value of the AIC. This method ensured that each selected variable improved the goodness-of-fit of the model without significantly increasing the risk of overfitting. Finally, the variables X_{kij} , $i = 1, \dots, n_k$, represent the significant independent variables retained by the selection procedure.

The model related to motive (M4) included $n_{M4} = 7$ variables: gender; attitude toward professional home care costs; self-perceived health; having children; language region; state's role in the financing of care; and overall wealth. For the (M5) model, $n_{M5} = 3$, the variables included having children, self-perceived health, and political orientation.

We tested for multicollinearity among the independent variables. The generalized variance inflation factor (GVIF) was calculated for each variable, with all GVIF values falling between 1 and 2, indicating no significant multicollinearity problems in our models. Additionally, to account for neutral responses in the original data, we ran multinomial regression models for motivations (M4) and (M5). In these models, we used a three-level response variable (disagree, neutral, and agree) for the dependent variable, with neutral opinion as the reference level. Starting with the same set of variables as in the logit regressions, we used the AIC stepwise selection procedure to identify the variables to be retained. This approach confirmed the consistency of our choice of variables in the logit regression models, even when we included neutral opinions in our analysis.

We treated all categorical variables, regardless of whether they were ordinal or nominal, as nominal variables. This was because our primary interest was comparing each level of the categorical variables to a specific reference level rather than examining trends across ordered levels. While this approach did not account for the inherent order of ordinal variables, it did allow for a straightforward interpretation of the coefficients in terms of the odds of the outcome occurring at each level of the categorical variables compared to the reference level. This decision was guided by our specific research objectives and the exploratory nature of our research questions.

4.2. Empirical Results

In Table 4, we present the estimated coefficients and significance levels for the two regression models related to motives (M4) and (M5) presented above.

Table 4. Statistics on the level of agreement with the motives (M4–M5) to buy LTC insurance.

	Model for (M4)		Model for (M5)	
	Coef.	(SD)	Coef.	(SD)
Gender (<i>baseline</i> : Female)				
Male	0.418 *	(0.239)		
Presence of children (<i>baseline</i> : No)				
Yes	−0.562 **	(0.257)	1.761 ***	(0.257)
Language region (<i>baseline</i> : French-speaking)				
German-speaking	−0.807 ***	(0.262)		
Overall wealth (<i>baseline</i> : modest)				
Below average	−0.683	(0.596)		
Above average	0.080	(0.609)		
Wealthy	0.108	(0.622)		

Table 4. Cont.

	Model for (M4)		Model for (M5)	
	Coef.	(SD)	Coef.	(SD)
Self-perceived health (<i>baseline</i> : Good)				
Average	−0.241	(0.271)	−0.020	(0.273)
Poor	0.796 **	(0.362)	−0.899 **	(0.349)
State's role in the financing of care (<i>baseline</i> : Agree)				
Neutral	−1.651 *	(0.866)		
Disagree	−0.103	(0.321)		
Attitude toward professional home care costs (<i>baseline</i> : 10 k)				
5–10 k	0.200	(1.072)		
<5 k	−0.400	(1.062)		
Unknown	−0.880	(1.101)		
Political orientation (<i>baseline</i> : Left)				
Center			0.602 **	(0.306)
Right			1.225 ***	(0.350)
Constant	1.393	(1.279)	−1.120 ***	(0.337)
Sample size <i>N'</i>		333		348

Note: The significance levels are coded as follows: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

First, having children was a strong determinant of both motivations, but in opposite directions. Respondents without children were more likely to purchase LTC insurance due to not being able to rely on family care than those with children. This followed a logical pattern, considering that children often represent the primary caregivers within the family structure (Dellmann-Jenkins et al. 2000). Those without children were, therefore, less likely to rely on and receive family care. This suggests that parents may feel more dependent on their family because they expect support from their children. In contrast, individuals with children were more likely to purchase LTC insurance as a means of estate protection, a behavior that underscores parents' inclination to secure their descendants' financial well-being, as detailed by Boar (2020).

Self-perceived health was another determinant of both motivations that also worked in the opposite direction. Respondents with poor self-perceived health were more likely to purchase LTC insurance because of the unreliability of family care than those with good self-perceived health. This may indicate a heightened awareness of potential care needs among those in poorer health and a concern that family alone may not be able to meet these needs, as Huang et al. (2014) alluded to. Conversely, respondents with good self-perceived health were more likely to buy LTC insurance for estate protection.

Shifting the focus to (M4), we found that cultural factors also influenced the motivation to buy LTC insurance due to the unreliability of the family care motive. Individuals from the French-speaking language region were more likely to buy LTC insurance than those from the German-speaking language region. These results aligned with Gentili et al. (2017), showing that individuals from Latin-speaking regions of Switzerland rely on informal care provided by their family at home than individuals from the German-speaking language region. Thus, the purchase of LTC insurance by French-speaking individuals due to the unreliability of family care could be interpreted as a strategy to secure access to professional home care services they would potentially require.

Finally, political orientation drove the motivation to buy LTC insurance for the bequest-protection motive. Respondents with right and center political orientations were more

likely to buy LTC insurance for this motive. A plausible explanation is that respondents with a left-leaning political orientation may be more inclined toward universal solutions, such as social support systems, as documented by [Amilon et al. \(2020\)](#). This inclination could reduce their perceived need for private LTC insurance as a bequest protection tool.

5. Conclusions

Previous research has shown that family considerations strongly drive LTC insurance decisions. This paper explored this issue further and used an original Swiss survey to identify the characteristics of individuals willing to purchase LTC insurance for either a bequest protection motive or due to the unreliability of family care. Among respondents, about 61 percent reported a willingness to buy LTC insurance for estate protection reasons, while about 57 percent reported a willingness to buy because of the unreliability of family care.

Our first result showed the important role of having or not having children in driving the two motivations to buy LTC insurance. Those individuals with children were more likely to buy LTC insurance for the bequest protection motive. Meanwhile, individuals who did not have children were more likely to buy LTC insurance due to non-reliance on family care.

Second, individuals from the French-speaking language region, and those with lower self-perceived health were more likely to buy LTC insurance due to the unreliability of family care. Meanwhile, those with higher self-perceived health and those with right and center political orientation were more likely to buy LTC insurance for bequest protection.

Our results offer insight into targeted strategies, product development, and policy recommendations that could enhance the appeal and perceived value of LTC insurance across different demographic segments.

Insurers can develop tailored marketing campaigns that address the specific concerns and needs of the various populations identified in our study. For example, messages for individuals with children could emphasize LTC insurance as a means of estate protection, ensuring financial security for their heirs. Conversely, marketing strategies for individuals without children might highlight LTC insurance as essential for securing personal care without family support, focusing on its ability to offer peace of mind and autonomy in managing future LTC needs.

The correlation between self-perceived health and motivations for purchasing LTC insurance also highlights the need for tailored insurance products. Individuals with poor self-perceived health are often motivated by concerns about unreliable family care, while those in good health focus more on protecting bequests. Consequently, insurance products emphasizing coverage for institutional care costs may better serve those with poorer health. Conversely, framing LTC insurance to safeguard bequests might be more appealing to healthier individuals. For instance, unused LTC benefits could be partially converted into a life insurance benefit, providing both care coverage and financial security for heirs.

The distinction in LTC insurance motivations between French and German-speaking regions, reflecting deeper cultural and care preference nuances, also calls for tailored policies and product strategies. This is especially important in Europe, where views on family responsibilities differ greatly between the north and the south, influencing attitudes toward LTC, as expressed by [Gentili et al. \(2017\)](#). For instance, offering enhanced home care coverage could address the preferences predominant in French-speaking regions, which align with the Southern European emphasis on family-based care. Meanwhile, broader nursing home care options might appeal more to German-speaking areas, resonating with Northern European tendencies toward institutional care solutions.

However, promoting LTC insurance in linguistically and culturally distinct regions, such as the French-speaking versus German-speaking areas, raises important questions about inclusion and equity. It is essential to consider whether targeted promotion in these areas might inadvertently lead to disparities in access and coverage across linguistic boundaries. Regulators and policymakers must create frameworks that recognize these differences

and actively promote fairness and accessibility, ensuring that all individuals, regardless of language and culture, have equal access to the protections offered by LTC insurance.

In addition, the connection between political orientation and the motivation to purchase LTC insurance for bequest protection revealed significant socio-political aspects that affect insurance uptake. For right and center-leaning individuals, messages highlighting LTC insurance's role in enhancing financial security for heirs could be effective. One possible way to increase uptake among these individuals would be by introducing tax-advantaged LTC savings products. These products combine LTC insurance with a savings or investment component, offering tax benefits that may appeal to those focused on bequest protection.

Finally, by underscoring the connection between family considerations and LTC insurance demand, our research supported theoretical advancements in this field. It highlighted the value of incorporating multivariate utility functions into decision models of LTC insurance demand, where arguments extend beyond an individual's wealth to include elements such as the potential bequest amount and the quality of life of children as informal caregivers (Cremer and Roeder 2017; Klimaviciute 2017).

Some limitations to this study need to be mentioned. First, like much survey-based research, the data collected relied on self-reported responses, which introduces the possibility of response manipulation or self-report bias. Combining quantitative surveys with qualitative interviews would offer deeper insights into LTC insurance attitudes. Implementing validation checks, such as consistency checks, could also help correct inaccuracies in survey responses. Second, because the survey was administered only once, the results of this research lack a temporal dimension and primarily represent associations rather than causal relationships. Future studies could use longitudinal designs to observe changes over time and establish causality between factors influencing LTC insurance decisions.

While this study focused on Switzerland, its findings are relevant to other countries with low LTC insurance demand, revealing a social, cultural, and political divide in motives for purchasing LTC insurance. We hope our work enhances the understanding of the complex factors influencing these decisions, particularly the role of family. By doing so, a more significant proportion of the aging population can be protected against the financial risks associated with LTC, ultimately contributing to the well-being and quality of life of older adults worldwide.

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References

- Amilon, Anna, Jacob Ladenburg, Anu Siren, and Stine Vernstrøm Østergaard. 2020. Willingness to pay for long-term home care services: Evidence from a stated preferences analysis. *The Journal of the Economics of Ageing* 17: 100238. [CrossRef]
- Ansah, John P., Robert L. Eberlein, Sean R. Love, Mary Ann Bautista, James P. Thompson, Rahul Malhotra, and David B. Matchar. 2014. Implications of long-term care capacity response policies for an aging population: A simulation analysis. *Health Policy* 116: 105–13. [CrossRef] [PubMed]
- Boar, Corina. 2020. *Dynastic Precautionary Savings*. NBER Working Paper w26635. Boston: National Bureau of Economic Research.

- Boyer, M. Martin, Philippe De Donder, Claude Fluet, Marie-Louise Leroux, and Pierre-Carl Michaud. 2020. Long-Term Care Insurance: Information Frictions and Selection. *American Economic Journal: Economic Policy* 12: 134–69. [\[CrossRef\]](#)
- Brown, Jeffrey R., and Amy Finkelstein. 2009. The Private Market for Long-Term Care Insurance in the United States: A Review of the Evidence. *Journal of Risk and Insurance* 76: 5–29. [\[CrossRef\]](#) [\[PubMed\]](#)
- Costa-Font, Joan. 2010. Family ties and the crowding out of long-term care insurance. *Oxford Review of Economic Policy* 26: 691–712. [\[CrossRef\]](#)
- Costa-Font, Joan, and Christophe Courbage. 2015. Crowding out of long-term care insurance: Evidence from European expectations data. *Health Economics* 24: 74–88. [\[CrossRef\]](#) [\[PubMed\]](#)
- Courbage, Christophe, and Nolwenn Roudaut. 2008. Empirical Evidence on Long-term Care Insurance Purchase in France. *The Geneva Risk and Insurance Review* 33: 645–58. [\[CrossRef\]](#)
- Cremer, Helmuth, and Kerstin Roeder. 2017. Long-term care policy with lazy rotten kids. *Journal of Public Economic Theory* 19: 583–602. [\[CrossRef\]](#)
- Dellmann-Jenkins, Mary, Maureen Blankemeyer, and Odessa Pinkard. 2000. Young Adult Children and Grandchildren in Primary Caregiver Roles to Older Relatives and Their Service Needs. *Family Relations* 49: 177–86. [\[CrossRef\]](#)
- European Commission. 2018. *ESPN Thematic Report on Challenges in Long-Term Care—Switzerland*; Brussels: European Commission.
- Gentili, Elena, Giuliano Masiero, and Fabrizio Mazzonna. 2017. The role of culture in long-term care arrangement decisions. *Journal of Economic Behavior & Organization* 143: 186–200. [\[CrossRef\]](#)
- Huang, Ying-Chia, Chiao-Lee Chu, Ching-Sung Ho, Shou-Jen Lan, Chen-His Hsieh, and Yen-Ping Hsieh. 2014. Decision-making factors affecting different family members regarding the placement of relatives in long-term care facilities. *BMC Health Services Research* 14: 21. [\[CrossRef\]](#) [\[PubMed\]](#)
- Joseph, Alun E., and Bonnie C. Hallman. 1998. Over the hill and far away: Distance as a barrier to the provision of assistance to elderly relatives. *Social Science & Medicine* 46: 631–39. [\[CrossRef\]](#)
- Lockwood, Lee M. 2010. *The Importance of Bequest Motives: Evidence from Long-Term Care Insurance and the Pattern of Saving*. Chicago: University of Chicago.
- Klimaviciute, Justina. 2017. Long-term care insurance and intra-family moral hazard: Fixed vs. proportional insurance benefits. *Geneva Risk and Insurance Review* 42: 87–116. [\[CrossRef\]](#)
- Mellor, Jennifer M. 2001. Long-Term Care and Nursing Home Coverage: Are Adult Children Substitutes for Insurance Policies? *Journal of Health Economics* 20: 527–47. [\[CrossRef\]](#) [\[PubMed\]](#)
- OCDE. 2011. *Long-Term Care: Growing Sector, Multifaceted Systems*. Paris: OECD Publishing.
- OECD. 2020. *Long-term Care and Health Care Insurance in OECD and Other Countries*. Paris: OECD Publishing.
- Pauly, Mark V. 1990. The rational non-purchase of long-term care insurance. *Journal of Political Economy* 98: 153–67. [\[CrossRef\]](#)
- Pestieau, Pierre, and Grégory Ponthière. 2012. The Long Term Care Insurance Puzzle. In *Financing Long Term Care in Europe: Institutions, Markets and Models*. Edited by Joan Costa-Font and Christophe Courbage. London: Palgrave Macmillan, pp. 41–52.
- Van Houtven, Courtney Harold, Norma B. Coe, and R. Tamara Konetzka. 2015. Family Structure and Long-Term Care Insurance Purchase. *Health Economics* 24: 58–73. [\[CrossRef\]](#) [\[PubMed\]](#)

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