**Online Appendix**

Table A.1: Proportions of Sample with Expectations on Sources of Old-age Finances and Tests of Equality of Proportions (N=8,901)

Table A.2: Marginal Effects from Probit and Recursive Multivariate Probit Regressions of Saving Behavior (N=8,901)

Table A.3: Tests for Validity of Instrumental Variables

Table A.4: Covariances from Multivariate Probit Regressions of Saving Behavior based on Specifications 1-3 without Instrumental Variables (N=8,901)

**Table A.1: Proportions of Sample with Expectations on Sources of Old-age Finances and Tests of Equality of Proportions (N=8,901)**

| ***Variables*** | **Proportion with non-self-reliance expectations (I)** | **Proportion with****self-support, most important (II)** | **Proportion with family support, most important (III)** | **Proportion with state support, most important (IV)** |
| --- | --- | --- | --- | --- |
| Male = 1 [Ref.] | 0.026 | 0.653 | 0.306 | 0.041 |
| Female = 1 | 0.041 | 0.573 | 0.384 | 0.044 |
| *Proportion-equality test statistics* | 15.153\*\*\* | 62.378\*\*\* |
| 18-24 years old = 1 [Ref.] | 0.036 | 0.653 | 0.304 | 0.043 |
| 25-34 years old = 1 | 0.025 | 0.679 | 0.291 | 0.030 |
| 35-44 years old = 1 | 0.023 | 0.630 | 0.329 | 0.041 |
| 45-54 years old = 1 | 0.035 | 0.566 | 0.383 | 0.051 |
| 55-59 years old = 1 | 0.071 | 0.481 | 0.471 | 0.049 |
| *Proportion-equality test statistics* | 58.409\*\*\* | 148.060\*\*\* |
| No formal education =1 [Ref.] | 0.116 | 0.336 | 0.587 | 0.077 |
| Primary education = 1 | 0.051 | 0.495 | 0.454 | 0.051 |
| Secondary education = 1 | 0.025 | 0.661 | 0.301 | 0.038 |
| Tertiary education = 1 | 0.009 | 0.776 | 0.196 | 0.029 |
| *Proportion-equality test statistics* | 99.631\*\*\* | 452.475\*\*\* |
| Single = 1 [Ref.] | 0.018 | 0.755 | 0.211 | 0.035 |
| Married = 1 | 0.037 | 0.555 | 0.401 | 0.044 |
| Divorced/Separated/Widowed = 1 | 0.056 | 0.574 | 0.375 | 0.051 |
| *Proportion-equality test statistics* | 34.256\*\*\* | 291.835\*\*\* |
| Unemployed/ Not seeking = 1 [Ref.] | 0.081 | 0.508 | 0.443 | 0.049 |
| Employed in formal sector = 1 | 0.016 | 0.720 | 0.244 | 0.036 |
| Employed in informal sector = 1 | 0.032 | 0.575 | 0.381 | 0.044 |
| *Proportion-equality test statistics* | 115.792\*\*\* | 223.697\*\*\* |
| Income < 10,000 THB = 1 [Ref.] | 0.049 | 0.534 | 0.406 | 0.060 |
| Income 10,000-19,999 THB = 1 | 0.026 | 0.641 | 0.330 | 0.030 |
| Income 20,000-29,999 THB = 1 | 0.010 | 0.701 | 0.274 | 0.026 |
| Income > 30,000 THB = 1 | 0.023 | 0.750 | 0.223 | 0.027 |
| *Proportion-equality test statistics* | 52.842\*\*\* | 219.829\*\*\* |
| Having enough children = 1 [Ref.] | 0.024 | 0.702 | 0.256 | 0.042 |
| Wanting more children = 1 | 0.041 | 0.542 | 0.416 | 0.042 |
| *Proportion-equality test statistics* | 20.421\*\*\* |  | 252.286\*\*\* |  |
| Non-municipal area = 1 [Ref.] | 0.034 | 0.644 | 0.315 | 0.041 |
| Municipal area = 1 | 0.034 | 0.568 | 0.389 | 0.044 |
| *Proportion-equality test statistics* | 0.001 |  | 55.899\*\*\* |  |

Notes: [Ref.] = Reference category; \*\*\*, \*\*, \* = 1, 5 and 10 % of level of significance respectively; test statistics reported at the end of each variable refer to chi-2 tests for equality of proportions.

Source: Authors’ calculation from the 2011 Survey of Knowledge and Attitudes on Elderly Issues.

**Table A.2: Marginal Effects from Probit and Recursive Multivariate Probit Regressions of Saving Behavior (N=8,901)**

| **Variables** | **Specification 1** | **Specification 2** | **Specification 3** |
| --- | --- | --- | --- |
| **Model 1** | **Model 2** | **Model 3** | **Model 4** | **Model 5** | **Model 6** |
| **Model description** | *Probit* | *Multivariate probit* | *Probit* | *Multivariate probit* | *Probit* | *Multivariate probit* |
| **Use of instrumental variables** | *No* | *Yes* | *No* | *Yes* | *No* | *Yes* |
| *Expected source [Ref = self-reliance]* |  |  |  |  |  |  |
| Non-self-reliance | -0.169\*\*\* | 0.039 |  |  |  |  |
|  | (0.029) | (0.164) |  |  |  |  |
| *Most important source [Ref = self]* |  |  |  |  |  |  |
| Family  |  |  | -0.065\*\*\* | -0.181\*\*\* |  |  |
|  |  | (0.011) | (0.060) |  |  |
| Government  |  |  | -0.006 | -0.085 |  |  |
|  |  | (0.026) | (0.294) |  |  |
| *Combination [Ref = self-reliance & self, most important]* |  |  |  |  |  |  |
| Self-reliance & family, most important |  |  |  |  | -0.056\*\*\* | -0.097 |
|  |  |  |  |  | (0.011) | (0.079) |
| Self-reliance & government, most important |  |  |  |  | 0.039 | 0.087 |
|  |  |  |  |  | (0.028) | (0.269) |
| Non-self-reliance & family, most important |  |  |  |  | -0.174\*\*\* | -0.187\* |
|  |  |  |  |  | (0.032) | (0.102) |
| Non-self-reliance & government, most important |  |  |  |  | -0.267\*\*\* | -0.242 |
|  |  |  |  | (0.069) | (0.339) |
| Female | 0.045\*\*\* | 0.039\*\*\* | 0.047\*\*\* | 0.052\*\*\* | 0.047\*\*\* | 0.049\*\*\* |
|  | (0.010) | (0.010) | (0.010) | (0.010) | (0.010) | (0.011) |
| 25-34 years old | 0.086\*\*\* | 0.085\*\*\* | 0.084\*\*\* | 0.079\*\*\* | 0.085\*\*\* | 0.085\*\*\* |
|  | (0.020) | (0.020) | (0.020) | (0.020) | (0.020) | (0.017) |
| 35-44 years old | 0.165\*\*\* | 0.165\*\*\* | 0.161\*\*\* | 0.149\*\*\* | 0.161\*\*\* | 0.157\*\*\* |
|  | (0.021) | (0.021) | (0.021) | (0.021) | (0.021) | (0.022) |
| 45-54 years old | 0.241\*\*\* | 0.241\*\*\* | 0.237\*\*\* | 0.223\*\*\* | 0.237\*\*\* | 0.232\*\*\* |
|  | (0.022) | (0.022) | (0.022) | (0.024) | (0.022) | (0.025) |
| 55-59 years old | 0.246\*\*\* | 0.242\*\*\* | 0.242\*\*\* | 0.233\*\*\* | 0.244\*\*\* | 0.241\*\*\* |
|  | (0.025) | (0.026) | (0.025) | (0.025) | (0.025) | (0.026) |
| Primary education | 0.031 | 0.042 | 0.034 | 0.018 | 0.026 | 0.023 |
|  | (0.038) | (0.039) | (0.038) | (0.038) | (0.038) | (0.039) |
| Secondary education | 0.086\*\* | 0.101\*\* | 0.087\*\* | 0.057 | 0.076\* | 0.069\* |
|  | (0.039) | (0.041) | (0.039) | (0.041) | (0.039) | (0.042) |
| Tertiary education | 0.209\*\*\* | 0.226\*\*\* | 0.207\*\*\* | 0.169\*\*\* | 0.197\*\*\* | 0.188\*\*\* |
|  | (0.041) | (0.043) | (0.042) | (0.046) | (0.041) | (0.046) |
| Married | 0.036 | 0.032 | 0.034 | 0.038 | 0.037 | 0.037 |
|  | (0.023) | (0.022) | (0.023) | (0.023) | (0.023) | (0.023) |
| Divorced/Separated/Widowed | 0.010 | 0.005 | 0.004 | 0.004 | 0.008 | 0.006 |
|  | (0.026) | (0.026) | (0.026) | (0.026) | (0.026) | (0.026) |
| Employed in formal sector | 0.050\*\*\* | 0.060\*\*\* | 0.052\*\*\* | 0.037\* | 0.045\*\* | 0.042\*\* |
|  | (0.018) | (0.019) | (0.018) | (0.019) | (0.018) | (0.020) |
| Employed in informal sector | 0.038\*\* | 0.050\*\*\* | 0.043\*\*\* | 0.028 | 0.035\*\* | 0.032\* |
|  | (0.017) | (0.019) | (0.017) | (0.018) | (0.017) | (0.018) |
| Household income 10,000-19,999 THB | 0.058\*\*\* | 0.061\*\*\* | 0.056\*\*\* | 0.048\*\*\* | 0.057\*\*\* | 0.057\*\*\* |
| (0.012) | (0.012) | (0.012) | (0.015) | (0.012) | (0.012) |
| Household income 20,000-29,999 THB | 0.131\*\*\* | 0.137\*\*\* | 0.127\*\*\* | 0.112\*\*\* | 0.129\*\*\* | 0.127\*\*\* |
| (0.017) | (0.018) | (0.017) | (0.021) | (0.017) | (0.017) |
| Household income > 30,000 THB | 0.210\*\*\* | 0.204\*\*\* | 0.190\*\*\* | 0.168\*\*\* | 0.197\*\*\* | 0.193\*\*\* |
| (0.022) | (0.022) | (0.023) | (0.027) | (0.022) | (0.024) |
| Number of household members | 0.006\* | 0.005 | 0.007\* | 0.009\*\* | 0.007\* | 0.007\*\* |
| (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) |
| Ratio of old household members | 0.052\* | 0.050 | 0.048 | 0.045 | 0.051 | 0.025 |
| (0.032) | (0.032) | (0.032) | (0.033) | (0.032) | (0.020) |
| Number of children | 0.014 | 0.014 | 0.023 | 0.036\* | 0.021 | 0.025 |
|  | (0.019) | (0.019) | (0.019) | (0.020) | (0.019) | (0.020) |
| Wanting more children | 0.016 | 0.015 | 0.020 | 0.023 | 0.018 | 0.020 |
|  | (0.015) | (0.015) | (0.015) | (0.015) | (0.015) | (0.016) |
| Municipal area | 0.024\*\*\* | 0.026\*\* | 0.034\*\*\* | 0.035\*\*\* | 0.025\*\*\* | 0.026\*\* |
|  | (0.011) | (0.011) | (0.011) | (0.011) | (0.011) | (0.011) |
| Region fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Wald test of joint significance - specification | 669.40\*\*\* | 892.36\*\*\* | 667.14\*\*\* | 1798.20\*\*\* | 693.96\*\*\* | 1927.72\*\*\* |
| $$Cov(e\\_SAV\_{i},e\\_NSelf\_{i})$$ |  | -0.268 |  |  |  |  |
|  |  | (0.209) |  |  |  |  |
| $$Cov(e\\_SAV\_{i},e\\_Fam\\_M\_{i})$$ |  |  |  | 0.193 |  |  |
|  |  |  |  | (0.120) |  |  |
| $$Cov(e\\_SAV\_{i},e\\_Gov\\_M\_{i})$$ |  |  |  | 0.043 |  |  |
|  |  |  |  | (0.377) |  |  |
| $$Cov(e\\_Fam\\_M\_{i},e\\_Gov\\_M\_{i})$$ |  |  |  | -1.587\*\*\* |  |  |
|  |  |  |  | (0.190) |  |  |
| $Cov(e\\_SAV\_{i},e\\_SF\\_M\_{i})$  |  |  |  |  |  | 0.074 |
|  |  |  |  |  |  | (0.150) |
| $Cov(e\\_SAV\_{i},e\\_SG\\_M\_{i})$  |  |  |  |  |  | -0.079 |
|  |  |  |  |  |  | (0.361) |
| $Cov(e\\_SAV\_{i},e\\_NSF\\_M\_{i})$  |  |  |  |  |  | -0.002 |
|  |  |  |  |  |  | (0.134) |
| $Cov(e\\_SAV\_{i},e\\_NSG\\_M\_{i})$  |  |  |  |  |  | -0.037 |
|  |  |  |  |  |  | (0.328) |
| $Cov(e\\_SF\\_M\_{i},e\\_SG\\_M\_{i})$  |  |  |  |  |  | -0.759\*\*\* |
|  |  |  |  |  |  | (0.068) |
| $Cov(e\\_SF\\_M\_{i},e\\_NSF\\_M\_{i})$  |  |  |  |  |  | -0.864\*\*\* |
|  |  |  |  |  |  | (0.079) |
| $Cov(e\\_SF\\_M\_{i},e\\_NSG\\_M\_{i})$  |  |  |  |  |  | -0.414\*\*\* |
|  |  |  |  |  |  | (0.093) |
| $Cov(e\\_SG\\_M\_{i},e\\_NSF\\_M\_{i})$  |  |  |  |  |  | -0.021 |
|  |  |  |  |  |  | (0.063) |
| $Cov(e\\_SG\\_M\_{i},e\\_NSG\\_M\_{i})$  |  |  |  |  |  | 0.135 |
|  |  |  |  |  |  | (0.092) |
| $Cov(e\\_NSF\\_M\_{i},e\\_NSG\\_M\_{i})$  |  |  |  |  |  | 0.104 |
|  |  |  |  |  |  | (0.106) |
| LR test of joint significance - rho's (Chi2 test statistics) |  | 2.179 |  | 287.438\*\*\* |  | 438.357\*\*\* |

Notes: Heteroskedasticity-adjusted standard errors calculated with the delta method in parentheses; \*\*\*, \*\*, \* = 1, 5 and 10 % of level of significance respectively.

Source: Authors’ calculation from the 2011 Survey of Knowledge and Attitudes on Elderly Issues.

**Table A.3: Tests for Validity of Instrumental Variables**

|  |  |  |
| --- | --- | --- |
| **Dependent variables** | **Coefficients of instrumental variables** | **Joint significance** |
| **IV1** | **IV2** | **IV3** | **IV4** |
| **Model 2** |  |  |  |  |  |
| Saving behavior | -0.025 | -0.196\* | 0.019 | -0.104 | 5.16 |
|  | (0.050) | (0.117) | (0.150) | (0.172) |  |
| Non-self-reliance | 0.020 | 0.578\*\*\* | 0.534\*\* | 0.560\*\* | 41.90\*\*\* |
|  | (0.091) | (0.187) | (0.221) | (0.268) |  |
| **Model 4** |  |  |  |  |  |
| Saving behavior | -0.003 | -0.225\* | 0.030 | -0.108 | 5.59 |
|  | (0.050) | (0.116) | (0.149) | (0.171) |  |
| Self, most important | -0.364\*\*\* | 0.162 | -0.755\*\*\* | -0.394\*\* | 108.70\*\*\* |
|  | (0.051) | (0.118) | (0.147) | (0.167) |  |
| Family, most important | 0.295\*\*\* | -0.022 | 0.779\*\*\* | 0.390\*\* | 100.82\*\*\* |
|  | (0.051) | (0.119) | (0.148) | (0.169) |  |
| Government, most important | 0.298\*\*\* | -0.577\*\* | -0.091 | 0.069 | 15.74\*\*\* |
|  | (0.084) | (0.229) | (0.270) | (0.301) |  |
| **Model 6** |  |  |  |  |  |
| Saving behavior | -0.010 | -0.198\* | 0.047 | -0.084 | 4.24 |
|  | (0.050) | (0.117) | (0.150) | (0.173) |  |
| Self-reliance & self, most important | -0.361\*\*\* | 0.158 | -0.761\*\*\* | -0.394\*\* | 108.81\*\*\* |
| (0.051) | (0.118) | (0.147) | (0.167) |  |
| Self-reliance & family, most important | 0.303\*\*\* | -0.150 | 0.619\*\*\* | 0.249 | 65.54\*\*\* |
| (0.052) | (0.120) | (0.149) | (0.170) |  |
| Self-reliance & government,most important | 0.264\*\*\* | -0.731\*\*\* | 0.100 | -0.142 | 16.73\*\*\* |
| (0.088) | (0.237) | (0.273) | (0.306) |  |
| Non-self-reliance & family, most important | -0.059 | 0.686\*\*\* | 0.708\*\*\* | 0.494\* | 50.03\*\*\* |
| (0.099) | (0.191) | (0.225) | (0.283) |  |
| Non-self-reliance & government, most important | 0.279\* | 0.043 | -0.799\* | 0.738 | 7.51\* |
| (0.152) | (0.405) | (0.504) | (0.555) |  |

Notes: IV1 = “Older people are outdated”; IV2 = “Older people should not live with their family”; IV3 = “Older people do not set good examples for the younger generations”; IV4 = “Older people do not have important social roles”; heteroskedasticity-adjusted standard errors in parentheses; \*\*\*, \*\*, \* = 1, 5 and 10 % of level of significance respectively; test statistics in the last column refer to Chi-2 tests of joint significance.

Source: Authors’ calculation from the 2011 Survey of Knowledge and Attitudes on Elderly Issues.

**Table A.4: Covariances from Multivariate Probit Regressions of Saving Behavior based on Specifications 1-3 without Instrumental Variables (N=8,901)**

| **Variables** | **Spec 1** | **Spec 2** | **Spec 3** |
| --- | --- | --- | --- |
| $$Cov(e\\_SAV\_{i},e\\_NSelf\_{i})$$ | -0.127 |  |  |
|  | (0.083) |  |  |
| $$Cov(e\\_SAV\_{i},e\\_Fam\\_M\_{i})$$ |  | -0.0003 |  |
|  |  | (0.066) |  |
| $$Cov(e\\_SAV\_{i},e\\_Gov\\_M\_{i})$$ |  | 0.028 |  |
|  |  | (0.114) |  |
| $$Cov(e\\_Fam\\_M\_{i},e\\_Gov\\_M\_{i})$$ |  | -0.536\*\*\* |  |
|  |  | (0.025) |  |
| $Cov(e\\_SAV\_{i},e\\_SF\\_M\_{i})$  |  |  | -0.003 |
|  |  |  | (0.064) |
| $Cov(e\\_SAV\_{i},e\\_SG\\_M\_{i})$  |  |  | 0.020 |
|  |  |  | (0.110) |
| $Cov(e\\_SAV\_{i},e\\_NSF\\_M\_{i})$  |  |  | 0.020 |
|  |  |  | (0.094) |
| $Cov(e\\_SAV\_{i},e\\_NSG\\_M\_{i})$  |  |  | 0.035 |
|  |  |  | (0.131) |
| $Cov(e\\_SF\\_M\_{i},e\\_SG\\_M\_{i})$  |  |  | -0.461\*\*\* |
|  |  |  | (0.024) |
| $Cov(e\\_SF\\_M\_{i},e\\_NSF\\_M\_{i})$  |  |  | -0.523\*\*\* |
|  |  |  | (0.030) |
| $Cov(e\\_SF\\_M\_{i},e\\_NSG\\_M\_{i})$  |  |  | -0.335\*\*\* |
|  |  |  | (0.038) |
| $Cov(e\\_SG\\_M\_{i},e\\_NSF\\_M\_{i})$  |  |  | 0.004 |
|  |  |  | (0.034) |
| $Cov(e\\_SG\\_M\_{i},e\\_NSG\\_M\_{i})$  |  |  | 0.038 |
|  |  |  | (0.041) |
| $Cov(e\\_NSF\\_M\_{i},e\\_NSG\\_M\_{i})$  |  |  | 0.062 |
|  |  |  | (0.051) |
| LR test of joint significance - rho's (Chi2 test statistics) | 2.147 | 247.811\*\*\* | 394.65\*\*\* |

Notes: \*\*\*, \*\*, \* = 1, 5 and 10 % of level of significance respectively.

Source: Authors’ calculation from the 2011 Survey of Knowledge and Attitudes on Elderly Issues.