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Who Should Be Responsible for the Livelihoods of Older Adults? A Comparison of Gender Differences in Public Attitudes Across Four East Asian Countries

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Who Should Be Responsible for the Livelihoods of Older Adults?

A Comparison of Gender Differences in Public Attitudes Across Four East Asian Countries

Abstract

Using the East Asia Social Survey (EASS), this paper compares public opinion in four East Asian countries – China, Japan, South Korea and Taiwan – regarding old-age livelihoods and care. We estimate multivariate logit models using answers to two questions as the dependent variables: (1) whether responsibility for older adults' livelihoods lies with the government or families/individuals and (2) who within a family should care for older parents. Because these responsibilities are unevenly distributed between men and women, the analysis is conducted separately by gender and restricted to married respondents. Regarding (1), respondents in China and Japan tend to prefer the government option, whereas in Taiwan the families/individuals option is favoured. Men and women show similar preferences on average, although the individual characteristics underlying these preferences differ markedly by gender. Regarding (2), respondents in all four countries prefer 'Any child or children, their families', although in South Korea about one-third of the population favour 'Eldest son, any son, or their families'. This latter option is more strongly preferred by men than by women in all four countries.

JEL Code: H55, O53

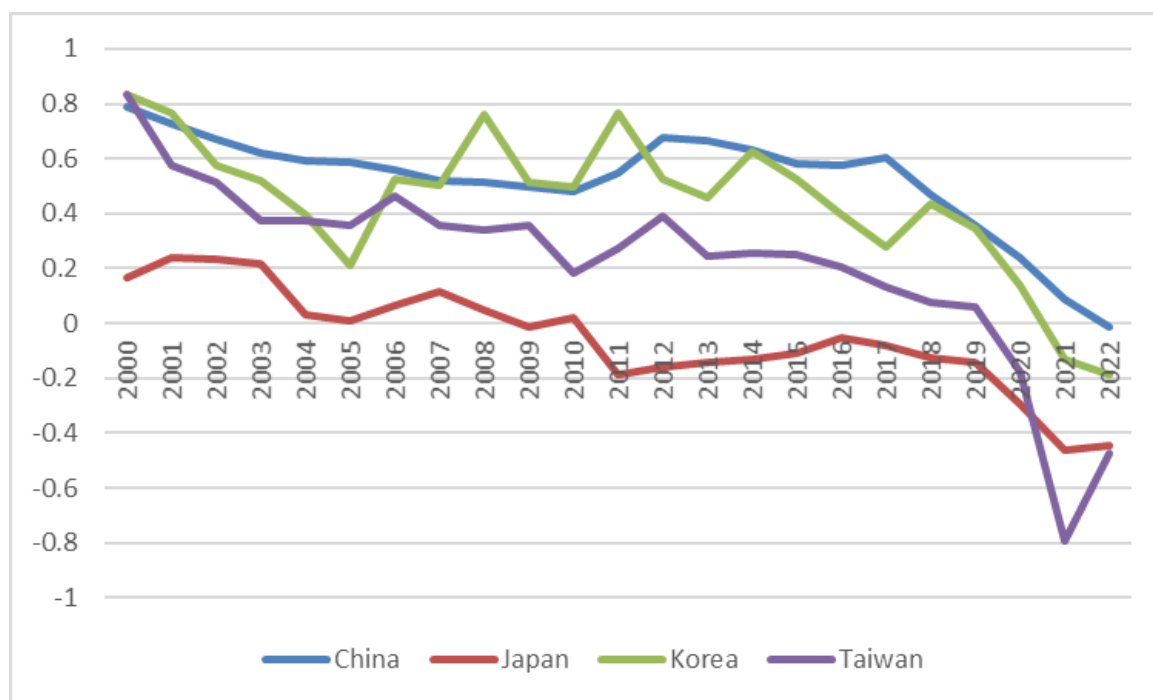
Keywords: Public opinion; Old-age support; Parental care; Gender differences; East Asia

I. Introduction

Rapid population ageing is a common challenge facing the four East Asian societies of China, Japan, South Korea and Taiwan. Crude birth rates per 1,000 people have shown a downward trend in these countries over the past two decades (Figure A1 in the Appendix). Although all four countries have experienced a marked decline in birth rates, the drop has been most pronounced in South Korea. At the same time, the share of the population aged 65 and over has increased (Figure A2 in the Appendix). Japan has the highest proportion of older adults. Figure 1 shows population growth rates in the four countries. From 2021 onwards, Japan, South Korea and Taiwan have

recorded negative population growth, while China's rate has been close to zero.

Figure 1: Population growth rates (in %)



Source: The World Bank Group's *World Development Indicators* for China, Japan and Korea; the National Development Council for Taiwan.

Such rapid population ageing poses severe economic challenges. Nearly a decade ago, the World Bank highlighted these issues (World Bank, 2015), and similar concerns are discussed in ESCAP (2022) and U.S. Census Bureau (2022). Country-specific studies include Du and Yang (2014) and Bai and Lei (2020) for China; Miyahara and Adelaja (2022) and Mariana and Emilico (2018) for Japan; Choi (2009) and Park et al. (2021) for South Korea; and Tsai (2008) and Chen (2023) for Taiwan. A particularly important challenge is implementing structural reforms of social security systems, especially pensions and healthcare. The main alternatives considered in public debate are government-organised versus individual/family-organised systems. From a political economy perspective, politicians are more likely to initiate reforms if they do not face immediate electoral backlash. In this sense, public support for social security reforms is crucial. Thus, it is important to study public attitudes towards organising the social security system, as these attitudes will likely affect reactions to specific reform plans.

However, research exploring public attitudes towards ageing societies in Asia remains scarce. Kikuzawa (2005) conducted a cross-country study on pension attitudes for 13 countries, including Japan, Germany and the US, using data from the International Social Surveys Programme (ISSP). She found that preference for government involvement in pensions is relatively high in Europe, low in

the US, Australia and Canada and intermediate in Japan. The only significant predictor of people's opinions was low educational achievement. Using their own survey data on Japan, Tachibanaki et al. (2006) found that respondents have high expectations of the government in providing social security, especially for pensions and less so for long-term care.

Hayo and Ono (2009) compared opinion formation in Japan and Germany, using data from the Japanese General Social Survey (JGSS) and 'Deutschland vor der demographischen Herausforderung'. They found that those with higher income in both countries are more inclined towards privately-organised systems, while age has the opposite effect. Part-time work status negatively affects preference for a government-based pension system in Japan, but positively in Germany. Focusing on Japan, Hayo and Ono (2011) used multiple-year micro-data from JGSS to identify household finance, political orientation, educational attainment and family composition as significant factors affecting opinions on public pensions and medical/long-term care. They also demonstrated an increase in support for greater government involvement over the study period. Zi and Chengcheng (2021) explored how adult children (aged 20–60) perceive caring for older adults, using the 2012 General Social Surveys for China, Japan and South Korea. They found that gender plays a significant role in shaping adult children's values towards elder care.

This study seeks to provide insights into individual attitudes towards implementing a government-organised or individual/family-organised system, in line with Hayo and Ono (2009, 2011). Our paper differentiates itself from Zi and Chengcheng (2021) not only in the surveys used, statistical methodology, type and number of included variables, and the addition of Taiwan as a sample country, but also in its focus. While they examine specific support for daily living – such as groceries, laundry and room cleaning – our study centres on the overall livelihood of older adults.

Our analysis makes several contributions. First, it provides a novel systematic comparison of four relatively affluent East Asian countries facing similar demographic challenges, using the latest available wave of the East Asia Social Survey (EASS) from 2016. Second, it thoroughly considers possible gender differences in attitudes towards implementing a government-organised or individual/family-organised system. These gender differences are potentially important, as the responsibility for older adults tends to be asymmetrically distributed across men and women. Third, we concentrate on respondents who are currently married. This means that our analysis is no longer based on a representative sample of the full population, but the restricted sample allows us to analyse the relevant family context more thoroughly. For instance, we can show that characteristics of the respondents' spouses influence their attitudes. Moreover, in the Asian context, non-marital partnerships play only a minor role and the corresponding number of observations in our sample is

quite low.

The paper is structured as follows. The next section briefly discusses key features of the public pension systems in the four countries, as public attitudes may depend on existing institutions. The third section describes the data and methodology, as well as the dimensions considered relevant for understanding attitudes towards economic security in later life. Sections 4 and 5 present and interpret the results. The final section concludes with a summary, caveats and suggestions for future research.

II. Public Pension Systems of the Four East Asian Countries

This section outlines the salient features of the public pension systems in each of the four sample countries, focusing on the institutions as of 2016 – the year under analysis in the following sections.

(1) China ¹

A distinct urban–rural divide is a prominent feature of China’s public pension system. In urban areas, both company employees and the self-employed must subscribe to the urban public pension, a two-tier system. Companies contribute 16% of salaries to the first tier, a pay-as-you-go (PAYG) system, while employees contribute 8% to the second tier, a funded system. Contributions are based on individual salaries, and the system is administered by first-level local authorities (municipalities, provinces and autonomous regions). Entitlements, however, are based on the average wages in the respective areas. The central government’s involvement is limited, covering only the administrative costs of the first tier. The rural public pension was established in 1992 and merged with the system for non-urban workers in 2014. Subscription is voluntary for those aged 16 and over.

(2) Japan

The Japanese public pension system has three key characteristics. First, it has a two-tiered structure. Everyone belongs to the first tier, the Basic Pension, which provides uniform entitlements regardless of premiums paid. The second tier varies by job category: salaried workers in the private sector and government employees belong to employees’ pension insurance and mutual aid associations, respectively, with benefits based on pre-retirement income. These two tiers are compulsory. However, the self-employed and non-working spouses of salaried workers (category-I and category-III insured, respectively) lack compulsory second-tier coverage and may choose to join the National Pension Fund.

Second, although the system is nominally funded, it operates *de facto* as a PAYG system. In the

¹ This summary draws on Katayama (2020).

fiscal year 2016, total revenues amounted to ¥53,501 billion, while expenditures were ¥51,700 billion, leaving ¥1,800 billion for the reserve fund (Pension Actuarial Subcommittee of the Social Security Council, Annual Actuarial Report FY2016).

Third, while originally designed as an insurance institution, the system is now partially tax financed. Half of the Basic Pension's revenue comes from taxation. Of total revenues in fiscal year 2016, ¥12,381 billion came from national and local government subsidies, blurring the distinction between social security and tax-based government programmes.

(3) South Korea²

The Korean public pension system was initially established in 1960 for civil servants and gradually expanded to include military personnel (1963) and private school employees (1975). The 1986 National Public Pension (NPP) law further expanded coverage. By 2016, the system consisted of five main pillars, each serving distinct employment categories: public servants, military personnel, private school employees, postal service employees and the NPP. The NPP is the largest pillar, with over 20 million subscribers, divided into 'enterprise subscribers' (employees of private companies aged 18–59) and 'regional subscribers' (self-employed individuals aged 18–59 and the unemployed aged 27 and over). Subscription is optional for students aged 26 or younger and homemakers.

The system is primarily funded and currently runs a substantial surplus, as it is relatively new. Under the NPP, the contribution rate is 9% of an insured person's salary. Employers and employees each pay half of this 9% for enterprise (workplace-based) subscribers, while regional (self-employed/voluntary) subscribers pay the full 9% themselves. Only the NPP receives limited government subsidies from general taxes.

(4) Taiwan³

Taiwan's public pension system comprises four pillars: for military personnel, public servants and school teachers/staff, the Labour Pension (for private-sector employees in firms with five or more workers), and the National Pension. Private-sector employees in firms with five or more workers are covered by the Labour Insurance/Labor Pension scheme. In contrast, the National Pension applies to citizens aged 25–65 who are not covered by any other public pension programme, which effectively includes employees in smaller firms and the self-employed. The military pension is the oldest, while the National Pension is the newest, established in 2008.

The four pillars operate on different funding principles. The military pension is a PAYG system, with 65% of its revenue from the government. The pension for public servants and school

² This part is based on Fujimori (2020).

³ This section draws on Negishi (2020).

teachers/staff combines funded and PAYG elements, receiving 65% and 32.5% of its revenue from the government, respectively. The Labour Pension also mixes both methods but receives only 10% of its revenue from the government. The National Pension is a PAYG system, with government subsidies covering 40% of its revenue.

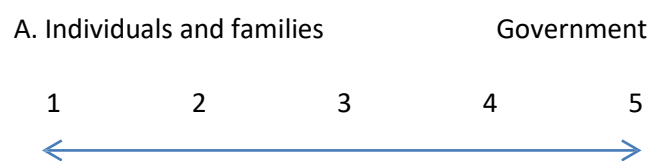
Annuity rates vary: 9.9% for military personnel, 8.3% for public servants and school teachers/staff, 10% for the Labour Pension and 9% for the National Pension. The largest pillars are the National Pension (over 10 million subscribers), the Labour Pension (about 3 million) and the pension for public servants and school teachers/staff (roughly 500,000).

III. Data and Methodology

(1) Dependent variables

We use data from the 2016 East Asian Social Survey, a nationwide, representative survey collected via a two-stage stratified random sampling process in each country. As previously noted, we focus on currently married respondents. In the Asian context, non-marital partnerships are comparatively uncommon. We construct two dependent variables from two questions. The first question asks who should be responsible for the livelihoods of older adults. Following Hayo and Ono (2011), we interpret this item as referring mainly to economic security in later life.

Q. 'Who do you think should be responsible for the following? Elderly's livelihood.⁴ Choose a number from 1 to 5 for each.'



This question was not asked in South Korea, so our analysis is limited to China, Japan and Taiwan.

The second question examines the individual/family option, asking who within the family should bear the greatest responsibility for the care of older parents:

⁴ In the questionnaire, the wording differs slightly between Japan and China/Taiwan. In the Japanese survey, 'Elderly's livelihood' is used, whereas the phrasing in the surveys on China/Taiwan is 'Ensuring reasonable living standards for the elderly'.

Q. 'Who do you think is most responsible for taking care of old parents? Choose one.'

1. Eldest son, his family
2. Any son, his family
3. Any daughter, her family
4. Any son or daughter, his/her family
5. All children, their families
6. Children are not responsible
7. Other
8. DK, refused

This question is also available for South Korea, which means we can investigate it for all four countries. However, in order to create reasonably large groups for the analysis, we combine categories 1 and 2, 3 through 5, and 6 and 7, resulting in the following three categories:

- (a) Eldest son, any son, or their families
- (b) Any child or children, their families
- (c) Children are not responsible

The first option reflects the traditional male-line inheritance prevalent in most East Asian cultures. The second places responsibility on all children and their families. The third does not view children as responsible, possibly implying government or other organisations (e.g. religious groups or organisations providing care for older adults) as alternatives.

(2) Relevant dimensions for the explanatory variables

There is no clear theoretical consensus to guide the choice of potentially relevant explanatory variables; consequently, our approach is largely exploratory. Two important dimensions that may affect people's attitudes towards responsibility for the livelihoods of older adults are (i) engagement in housework and (ii) adherence to traditional values. The first dimension captures respondents engaged in housework, a form of unpaid domestic work. These respondents are likely to bear much of the burden of care in later life, as those in this group are generally more active in caregiving than those in the labour market. We therefore hypothesise that individuals engaged in housework are

less likely to favour family responsibility. However, if housework is chosen voluntarily, this may also reflect a preference for home-based work, in which case care responsibilities may be viewed more positively.

The second dimension reflects a cultural factor; we expect more traditionally-oriented respondents to favour family responsibility, and within the family to prefer the option 'eldest son, any son, or their families'. These dimensions are difficult to measure with a single question. Fortunately, the EASS survey contains items that can serve as proxies for these dimensions using factor analysis. To avoid imposing excessive assumptions of cultural homogeneity, we construct factors separately for each country, allowing country-specific loadings.

Although conceptually distinct, 'engaged in housework' and 'traditional values' are not easily distinguished empirically. The EASS includes items on whether the respondent prepares evening meals, does the laundry and cleans the house, as well as questions on social values such as whether a wife should help her husband's career, whether a wife should stay at home, whether good mothers should not work, whether fathers have family authority, whether children must honour their parents, and whether a family should have a son.

To avoid imposing priors, we begin with exploratory factor analysis on this combined set of variables. If our priors hold, we expect to find two relevant factors reflecting these theoretical dimensions. Scree plots clearly suggest two factors (eigenvalues: China: 2.1 and 2; Japan: 2.7 and 1.9; Taiwan: 1.8 and 1.5), interpretable along the lines above. The Kaiser-Meyer-Olkin measure of sampling adequacy is reasonably high (China: 0.74; Japan: 0.78; Taiwan: 0.74) and the LR test for independence rejects the null at the 1 per cent level. We then estimate factors based on these two item groups. Loadings for the 'engaged in housework' factor range from 0.77 to 0.85 in China, 0.76 to 0.84 in Japan and 0.64 to 0.75 in Taiwan; for 'traditional values' they range from 0.47 to 0.77 in China, 0.56 to 0.75 in Japan and 0.45 to 0.71 in Taiwan. Thus, we have obtained satisfactory proxies for our two dimensions of interest. However, note that although the traditional values index is constructed consistently across countries, the possibility of cross-national differences in the interpretation of underlying survey items cannot be fully excluded.

To analyse attitudes towards responsibility for the livelihoods of older adults, we use explanatory variables grouped into seven dimensions: economic, socio-demographic, cultural values, spouse, family, health and employment. This grouping facilitates interpretation of the regression results. The selected indicators are listed below.

i) Economic dimension

1) Relative household per capita income (in tertiles):

Medium relative equivalent income (dummy)

High relative equivalent income (dummy)

Reference: Low relative equivalent income (dummy)

2) Per capita household income (in ¥10,000)

3) Top-to-bottom self-placement (10-point scale)

Interpretation: Economic standing likely influences individuals' expectations regarding support for older adults. Those with higher incomes may prefer private responsibility (self or family provision), while lower-income individuals may expect more public involvement. Higher per capita household income may be associated with greater self-reliance, whereas lower incomes may correlate with stronger expectations for government assistance. A subjective measure of social status can shape views on social responsibility: individuals who place themselves lower on the social ladder may favour state support, while those who place themselves higher on the social ladder might emphasise family or self-reliance.

ii) Socio-demographic dimension

4) Age (years)

5) Age squared (years squared)

6) Education

Respondent has secondary education (dummy)

Respondent has higher than secondary education (dummy)

Reference: Respondent has primary education or less (dummy)

7) Area of residence

Respondent lives in an urban area (dummy)

Reference: Respondent lives in a rural area (dummy)

Interpretation: Younger individuals may believe that older adults should rely on their own savings or government pensions, whereas older adults (especially those nearing retirement) may prefer state or family-based provision. Including age squared allows detection of non-linear effects (e.g. middle-aged individuals may differ from the very young or very old in attitudes). Education can shape perspectives on social policy: higher-educated individuals might be more aware of formal welfare systems and thus favour state support, while less educated individuals may adhere more strongly to traditional family support norms. Urban residents may lean towards state-provided support due to greater exposure to welfare policies and weaker extended family networks,

whereas rural residents may be more likely to prefer family-based elder support aligned with traditional norms.

iii) Cultural values

8) Religion:

Respondent does not adhere to a religion (dummy)

Reference: Respondent adheres to a religion (dummy)

9) Respondent adheres to traditional values (factor value for each country)

Interpretation: Religious individuals may be more inclined towards family-based support due to moral or cultural beliefs about filial duty, while non-religious individuals might favour a state or mixed approach. Those who adhere strongly to traditional values may emphasise family responsibility for caring for older adults, aligning with cultural norms of intergenerational obligation.

iv) Spouse dimension

10) Spouse education

Spouse has secondary education (dummy)

Spouse has higher than secondary education (dummy)

Reference: Spouse has primary education or less (dummy)

11) Spouse working hours

Spouse works full time (dummy)

Spouse works part time (dummy)

Reference: Spouse not employed (dummy)

Interpretation: Similar to the respondent's education, a higher-educated spouse may increase preference for state support, whereas a lower-educated spouse may favour family-based care. If a spouse works full time, availability for informal family caregiving may be limited, making state support more appealing; spouses with more flexible or part-time hours may be more able to provide caregiving within the family.

v) Family dimension

12) Number of respondent's children (number)

13) Respondent's involvement in housework for each country (factor value for each country)

14) Most frequent contact with eldest son

Of the adult children, respondent most frequently contacts the eldest son (dummy)

Reference: Of the adult children, the respondent does not most frequently contact the eldest son

15) Contact with child and co-residence

The child whom the respondent contacts most frequently co-resides with him/her (dummy)

Reference: The child whom the respondent contacts most frequently does not co-reside with him/her (dummy)

16) Family contact activities

Family dinner and family leisure activities take place (dummy)

Reference: Family dinner and family leisure activities do not take place (dummy)

17) Older person in household

An older person lives in the household (dummy)

Reference: No older person lives in the household (dummy)

Interpretation: More children could lead to a greater expectation that at least one child will care for older parents, reinforcing family responsibility over state provision. If the respondent is highly involved in domestic work, they may have a stronger sense of familial duty, leading to a stronger preference for family-based care. In some cultures, particularly in parts of Asia, the eldest son may have traditional responsibility for elder care; frequent contact with the eldest son may reflect stronger expectations of family support. Living with an adult child indicates reliance on family support, reinforcing attitudes favouring family-based care. Regular family contact activities may signal stronger family ties, whereas weak ties suggest reliance on state provision. Direct exposure to care for older adults through co-residence or contact may influence preferences for support systems.

vi) Health dimensions

18) Health status of the respondent (5 best, 1 worst)

19) Health status of the spouse (5 best, 1 worst)

Interpretation: Respondents reporting poorer health may be more likely to prefer state support because they feel less able to provide care for older parents themselves. A healthy spouse may be expected to assist with elder care, whereas an unhealthy spouse may increase the perceived need for institutional or state support.

vii) Employment dimension

20) Respondent working hours

Respondent works full time (dummy)

Respondent works part time (dummy)

Respondent is self-employed (dummy)

Respondent is retired (dummy)

Reference: Respondent is neither employed nor retired (dummy)

Interpretation: Full-time workers may have less time available for elder caregiving and thus may be more likely to favour state support. Self-employed individuals may have more flexible schedules, making family caregiving more feasible. Retired individuals may favour state support if they depend on pensions, but could also favour family-based support if they co-reside with children.

IV. Private and Government Responsibility for the Livelihoods of Older Adults

This section presents the first analysis, examining support for private versus government responsibility for the livelihoods of older adults.

(1) Descriptive analysis

We begin by considering response frequencies to the question on responsibility for older adults. Table 1 shows results for China, Japan and Taiwan, differentiated by gender. In China, the largest share of respondents favours a system leaning towards government provision. When strong and weak supporters of a government-based system are combined, these groups exceed half of the population, while only around 15% indicate family responsibility.

In Japan, around 50% favour government responsibility and approximately 20% prefer family responsibility. In Taiwan, over half of the population occupies a middle position between individual or family and government responsibility, with more than 25% favouring family responsibility and fewer than 20% favouring government responsibility. This pattern contrasts clearly with those observed in China and Japan.

Attitudes are broadly similar across genders in China and Japan, whereas differences in Taiwan are minor. This suggests that gender comparisons offer limited insight, which may explain their absence from much of the existing literature. However, similar average responses do not imply that the underlying characteristics of groups holding different attitudes are the same. As shown below, associations between views on support for older adults and our key variables differ substantially between men and women.

Table 1: Answer frequencies for ‘Responsibility for the livelihoods of older adults’

	Individual/family	↔	Both	↔	Government
Men					
China	3%	12%	31%	42%	11%
Japan	6%	15%	29%	29%	21%
Taiwan	5%	24%	54%	14%	4%
Women					
China	3%	11%	32%	43%	11%
Japan	5%	12%	34%	28%	21%
Taiwan	4%	21%	61%	12%	3%

Notes: Observations (men: China 1,904; Japan 1,234; Taiwan 1,005; women: China 2,197; Japan 1,366; Taiwan 997). Missing observations omitted.

(2) Regression analysis

Our investigation is mainly exploratory. We begin with a generalised ordered logit model including all potentially relevant factors listed above. To improve estimation efficiency and identify variables robustly associated with the dependent variable, we then reduce the model using a consistent general-to-specific approach (Hendry 1993). Considering all potentially relevant variables combined with a systematic reduction process addresses both omitted variable bias and standard-error-reducing complementarity (Hayo 2018).

In each country, missing observations on the two main questions are minimal, under 2% of the respective sample. Given these small numbers, we simply drop these observations. It should be noted, however, that the number of missing observations is about twice as high for female respondents as for male respondents.

(i) Chinese men

Starting with male respondents from China, Model 1 in Table A1 of the appendix presents estimates of the reduced model resulting from a general-to-specific model reduction (testing-down restriction: $\text{Chi}^2(24)=45$). Three variables significantly predict respondents’ attitudes regarding who should ensure the livelihoods of older adults. In the larger-sample specification (Model 2, Table A1), which adds 124 observations (slightly under 10%), one of these variables is no longer statistically

significant.

The socio-demographic dimension matters: Chinese men living in urban areas are more likely to favour family responsibility. One spouse-related characteristic is significant at the 10% level: men whose wives have secondary education are more likely to indicate family responsibility. This effect is not significant in the extended sample and is therefore not considered further. Finally, co-residence with an adult child increases the likelihood of indicating government responsibility.

Table 2 presents the corresponding average marginal effects for Chinese men. In the discussion, we focus on the two extreme positions: maximum support for family responsibility and maximum support for government responsibility. Marginal effects for intermediate positions are available in the tables.

Table 2: China: Average marginal effects for ‘Responsibility for the livelihoods of older adults’

	Gender	Family responsibility	2	3	4	Government responsibility
i) Economic dimension						
ii) Socio-demographic dimension						
Respondent	Men	0.004***	0.02***	0.02***	-0.02***	-0.02***
lives in urban area	Women	0.002***	0.01***	0.01***	-0.02***	-0.01***
iii) Value-related dimension						
No adherence to a religion	Men			n.a.		
	Women	0.01*	0.02*	0.03*	-0.04*	-0.02*
iv) Spouse dimension						
v) Family dimension						
Adult child lives in household	Men	-0.01**	-0.03***	-0.04***	0.04***	0.03***
	Women			n.a.		

Older person	Men			n.a.		
in household	Women	-0.01**	-0.04***	-0.05***	0.06***	0.04***

vi) Health dimensions

Spouse is	Men			n.a.		
healthy	Women	-0.002*	0.02*	-0.01*	0.01*	0.01*

vii) Employment dimension

Notes: Estimator: ordered logit. Number of observations: men: 1,432; women: 1,611. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

Differentiating between urban and rural dwelling Chinese men, the probability of indicating family responsibility (government responsibility) increases (decreases) by 0.4pp (2pp). Co-residence with an adult child decreases (increases) the likelihood of indicating family (government) responsibility by 1pp (3pp). In summary, although these variables are significantly associated with the attitudes of Chinese men regarding older adults' livelihoods, their quantitative impact is relatively small.

(ii) Chinese women

Turning to Chinese women, the reduced Model 3 in Table A1 (testing-down restriction: $\chi^2(23)=20$) shows a different pattern than for men. Only one variable has the same direction of effect as for men: living in an urban area is associated with lower support for government responsibility. Three other variables are significant. Women who do not adhere to a religion are more likely to indicate family responsibility, whereas those with an older person living in the household are more likely to indicate government responsibility. Finally, women whose husbands are healthy are more likely to indicate government responsibility. These effects remain significant when extending the sample by 154 observations (11% of the sample) in Model 4 (Table A1).

Table 2 presents the corresponding average marginal effects for Chinese women. Living in urban areas increases the probability of supporting family responsibility by 0.2pp and decreases the probability of supporting government responsibility by 1pp. Women without religious adherence have a 1pp higher probability of supporting family responsibility and a 1pp lower probability of supporting government responsibility. Co-residence with an older person increases the probability of supporting government responsibility by 4pp and decreases support for family responsibility by 1pp. Finally, women whose husbands are healthy have a 1pp higher probability of supporting government responsibility and a 0.2pp lower probability of supporting family responsibility.

Overall, these effects are modest. Comparing men and women, only urban residence is significant in both cases. The qualitative effects are the same, but the quantitative impact differs: the effect is small for men as well, but roughly twice as large as for women.

(iii) Japanese men

We apply the same analysis to Japan. For men, the reduced Model 1 in Table A2 of the appendix (testing-down restriction: $\text{Chi}^2(22)=11$) presents the results. Extending the sample by 33 observations (almost 5% larger, Model 2) yields very similar findings.

None of the significant variables overlap with those for Chinese men. Age has a positive coefficient, indicating that older Japanese men are more likely to indicate government responsibility. The nonlinearity suggests an inverted U-shape, peaking in the late 50s, though the effect's sign remains unchanged across realistic ages.

Men with higher per capita household income or more children are more likely to choose family responsibility. In contrast, full-time employment is associated with a higher likelihood of indicating government responsibility.

Table 3 presents the estimated average marginal effects for Japanese men. An increase of ¥10,000 in equivalent per capita monthly household income raises the probability of supporting family responsibility by 1pp and lowers the probability of supporting government responsibility by 3pp. Given that the standard deviation of this income variable is about 145 (in units of ¥10,000), a standard deviation change has a substantial effect on attitudes regarding the livelihoods of older adults.

The difference in the probability of supporting family or government responsibility between respondents aged 20 and 50 is 12pp and 30pp, respectively. An additional child increases the probability of indicating family responsibility by 1pp and decreases the probability of indicating government responsibility by 3pp. Finally, full-time employment raises the probability of indicating government responsibility by 10pp and lowers that of indicating family responsibility by 2pp.

Table 3: Japan: Average marginal effects for ‘Responsibility for the livelihoods of older adults’

	Gender	Family responsibility	2	3	4	Government responsibility
i) Economic dimension						
Subjective social status	Men			n.a.		
	Women	0.01***	0.02***	0.02***	-0.02***	-0.03***
Per capita household income (in ¥10,000)	Men	0.01**	0.02***	0.02**	-0.01**	-0.03***
	Women			n.a.		
ii) Socio-demographic dimension						
Age	Men	-0.004**	-0.01**	-0.01**	0.01**	0.01**
	Women			n.a.		
Age squared	Men	0.00003**	0.0001**	0.0001**	-0.0001**	-0.0001**
	Women			n.a.		
Secondary education	Men			n.a.		
	Women	-0.03***	-0.05***	-0.06***	0.05***	0.09***
Higher education	Men			n.a.		
	Women	-0.02**	-0.05**	-0.05**	0.04**	0.08**
iii) Value-related dimension						
iv) Spouse dimension						
v) Family dimension						
Number of children	Men	0.01**	0.02**	0.01**	-0.01**	-0.03**
	Women			n.a.		

vi) Health dimensions

vii) Employment dimension

Full-time employ- ment	Men	-0.02*	-0.04**	-0.03**	0.03**	0.10**
	Women			n.a.		

Notes: Estimator: ordered logit. Number of observations: men: 740; women: 918. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

(iv) Japanese women

For Japanese women, the reduced specification in Model 3 of Table A2 (testing-down restriction: $\chi^2(24)=21$) shows a markedly different pattern from that observed for men. Women with higher levels of formal education are more likely to select government responsibility. The only other significant variable is subjective social status: the higher the status women perceive for themselves, the more likely they are to indicate family responsibility. Model 4 (Table A2) demonstrates that these results are robust, as extending the sample by 261 observations (40% of the sample) changes the estimated coefficients only slightly.

Table 3 presents the average marginal effects for Japanese women. Women with secondary or higher education have a 9pp and 8pp higher probability of indicating government responsibility and a 3pp and 2pp lower probability of indicating family responsibility, respectively. While per capita household income is significant for Japanese men, women's attitudes are more strongly influenced by perceived social status. Each one-point increase in perceived status raises the likelihood of indicating family responsibility by 1pp and lowers the likelihood of indicating government responsibility by 3pp. Consequently, the difference in the probability of indicating government responsibility between women in the lowest and highest perceived social classes amounts to 40pp, a sizeable effect.

(v) Taiwanese men

Finally, we consider Taiwanese respondents. Tests of joint significance indicate that the ability to model attitudes in Taiwan is generally weaker than in China or Japan. Reduced Model 1 in Table A3 (testing-down restriction: $\chi^2(24)=19$) shows that older Taiwanese men are more likely to choose government responsibility. The effect of age follows an inverted U-shape, though the curvature is negligible for the relevant age range. This effect is not significant in Model 2. Men whose wives have

more than secondary education are also more likely to select government responsibility. Re-estimating Model 1 with 130 additional observations (30% of the sample, Model 2) shows that only the spouse’s education remains significant.

Table 4 presents the average marginal effects for this robust variable. If the respondent’s wife has a high education level, the probability of indicating government responsibility increases by 2pp and the probability of indicating family responsibility decreases by 2pp. Effects for intermediate positions can reach up to 7pp, but overall the influence of the wife’s education is modest.

(vi) Taiwanese women

Examining the attitudes of Taiwanese women, we find that only age and its nonlinear term are significant. As Model 3 of Table A3 (testing-down restriction: $\chi^2(25)=25$) shows, an increase in age significantly raises the likelihood of favouring government responsibility for older adults. The nonlinearity, in the form of an inverted U-shape, is negligible in practice. Model 4 of Table A3, which extends the sample by 123 observations (28%), confirms that the age effect is robust.

Table 4 presents the estimated marginal effects of age for Taiwanese women. To gauge economic relevance, we compare a 20-year-old woman with a 50-year-old woman. On average, the older woman has a roughly 13pp lower likelihood of supporting family responsibility and a 10pp higher likelihood of favouring government responsibility, a substantial effect.

Comparing attitudes of respondents in mainland China and Taiwan suggests that, despite shared cultural roots, the determinants of attitudes towards the livelihoods of older adults differ markedly. The age effect among Taiwanese women is qualitatively similar to that observed for Japanese men, though only about one-third as strong.

Table 4: Taiwan: Average marginal effects for ‘Responsibility for the livelihoods of older adults’

	Gender	Family responsibility	2	3	4	Government responsibility
i) Economic dimension						
ii) Socio-demographic dimension						
Age	Men			n.a.		
	Women	-0.004**	-0.02***	0.01**	0.01***	0.003**

Age squared	Men			n.a.		
	Women	0.00004**	0.0002***	-0.0001**	-0.0001**	-0.00003**
iii) Value-related dimension						
iv) Spouse dimension						
Spouse higher education	Men	-0.02*	-0.07**	0.03*	0.04**	0.02*
	Women			n.a.		
v) Family dimension						
vi) Health dimensions						
vii) Employment dimension						

Notes: Estimator: ordered logit. Number of observations: men: 568; women: 558. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

V. Support for Different Models of Private Responsibility in the Care of Older Adults

This section shifts the focus from general responsibility for the livelihoods of older adults to the narrower question of who should care for older adults within the family. We examine three response categories: (a) responsibility of one of the sons or his family, (b) responsibility of any child or their family and (c) children have no responsibility. This perspective allows us to include South Korea in the analysis.

(1) Descriptive analysis

We begin by examining the distribution of responses in Table 5. In China, almost 80% of respondents state that any child or their families should be responsible. Responsibility focused on the sons or their families is favoured by less than 20% and very few respondents believe children have no responsibility. The distribution is broadly similar for men and women, although men are somewhat more likely than women to favour responsibility lying with the eldest son.

In Japan, as in China, a clear majority believe that responsibility should rest with any child or their families. However, the proportion of respondents who do not hold children responsible at all is even

higher. The gender gap regarding responsibility resting with sons or their families is more pronounced in Japan: the share of men favouring this option is more than twice that of women.

Table 5: Answer frequencies for ‘Most responsible persons for caring for parents’

	Eldest son, any son, or their families	Any child or children, their families	Children not responsible or other
Men			
China	20%	77%	3%
Japan	19%	69%	12%
Taiwan	20%	78%	2%
South Korea	33%	65%	3%
Women			
China	16%	80%	3%
Japan	8%	79%	13%
Taiwan	10%	89%	1%
South Korea	23%	72%	5%

Notes: Number of observations: men: China: 2,203, Japan: 1,246, Taiwan: 1,009, South Korea: 475; women: China: 2,216, Japan: 1,385, Taiwan: 1,005, South Korea: 576. Missing observations are omitted.

In Taiwan, the pattern closely resembles that in China. Most respondents indicate that any child or their families can be responsible for older adults’ care. The proportion of those who do not consider children responsible is small, while responsibility focused on the sons or their families is slightly more prominent. A relatively larger share of men than women assign responsibility to the sons or their families, reinforcing the cultural proximity between China and Taiwan on this issue.

In South Korea, the greatest support is also for responsibility falling on any child or their family. Children are generally seen as responsible. Compared with the other three countries, however, over a quarter of respondents express the view that older adult care should be the responsibility of sons or their families.

(2) Regression analysis

To examine the underlying characteristics of respondents' attitudes, we apply multinomial logit analysis, differentiating between men and women. To economise on space, we report only the estimates for the reduced model using the maximum number of observations.⁵

(i) Chinese men

For Chinese men, Table 6 presents significant average marginal effects from the reduced model (testing-down restriction: $\chi^2(36)=30$), estimated with 10 additional observations compared to the general model, a negligible increase of under 1% of the sample.

Table 6: China: Average marginal effects for who is perceived to be the most responsible person for parental care (reduced model, full available sample)

	Gender	Eldest son, any son, or their families	Any child or children, their families	Children not responsible or other
i) Economic dimension				
Per capita household income (in ¥10,000)	Men			0.006**
	Women		n.a.	
ii) Socio-demographic dimension				
Age	Men			0.009***
	Women		-0.002**	0.002***
Age squared	Men			-0.0001**
	Women		n.a.	
Respondent lives in urban area	Men	-0.020***	0.017**	
	Women		n.a.	
iii) Value-related dimension				

⁵ The reduced models, based on the same sample as the general model, are available on request.

Traditional Values	Men	0.032**		-0.015***
	Women	0.045***	-0.048***	
iv) Spouse dimension				
Spouse has secondary education	Men	-0.063*		
	Women		n.a.	
Spouse has higher education	Men		n.a.	
	Women	-0.123***	0.102**	0.020*
v) Family dimension				
Number of children	Men		n.a.	
	Women		0.017*	-0.016***
Most frequent contact with the eldest son	Men	0.098***	-0.083***	
	Women	0.127***	-0.098***	-0.029***
vi) Health dimensions				
Health status respondent	Men			0.014**
	Women		n.a.	
vii) Employment dimension				

No. of observations Men: 1,319; women: 1,594

Test of joint significance Men: $\chi^2(4)=27***$; women: $\chi^2(12)=162***$

Notes: Average marginal effects based on multinomial logit estimation. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

Men living in urban areas and those whose spouse has secondary education are less likely to indicate care by sons or their families. The probability of selecting the option 'eldest son, any son or their families' is 2pp lower for urban dwellers and 6pp lower for those whose spouse has secondary education. In contrast, men who adhere to traditional values are more likely to choose this option: a one standard deviation increase in traditional value orientation raises the probability by about 3pp.⁶ Regular contact with the eldest son has the largest quantitative effect, increasing

⁶ Note that the effects expressed in standard deviations may differ from the marginal effects reported in the output

the likelihood of selecting this option by nearly 10pp.

Higher household income, older age and good health increase the probability of believing that children are not responsible for older adults' care. The income effect is modest: a one-standard deviation increase in per capita household income raises the likelihood of selecting this option by less than 1pp. Age has a substantial impact: a 50-year-old Chinese man has over a 25pp higher probability of selecting the 'Children not responsible or other' category compared with a 20-year-old. Finally, comparing very healthy and very unhealthy respondents shows a 5pp higher likelihood of favouring this option among the healthiest men.

(ii) Chinese women

For Chinese women, model reduction produces the results shown in columns 1 and 2 of Table 6 (testing-down restriction: $\text{Chi}^2(36)=30$). The model uses 132 additional observations compared with the general model, a 9% increase in sample size.

Older women are more likely to indicate that children are not responsible for the care of older adults, though the difference in predicted probability between a 20-year-old and a 50-year-old is modest at 5pp. As with men, women who have frequent contact with their eldest son or adhere to traditional values are more likely to choose options focusing on sons. Regular contact with the eldest son raises the probability by 13pp, while a one standard deviation increase in traditional value orientation increases it by about 4pp, slightly larger effects than for men.

Women whose spouses have higher education are 12pp less likely to select the 'Eldest son, any son, or their families' option, which is roughly twice the corresponding effect for men whose wives have secondary education. Finally, women with more children are more likely to indicate 'Any child or children, their families'. The probability difference between a woman with one child and one with three children is nearly 3pp.

(iii) Japanese men

For Japanese men, Table 7 presents average marginal effects. The reduced model easily satisfies the testing-down restriction ($\text{Chi}^2(42)=41$) and includes 181 additional observations, a 25% increase in sample size.

Men who do not adhere to a religion are less likely to indicate that the 'Eldest son, any son, or their families' should be responsible for older adults' care, consistent with the expectation that religious men tend to hold traditional male-line inheritance views. This reduces the likelihood of

selecting this option by about 6pp. In contrast, a one standard deviation increase in traditional value orientation raises the probability of indicating sons' responsibility by almost 12pp, a substantial effect. The presence of an older person in the household also increases the likelihood of selecting this option by 9pp. Health has a notable effect: very healthy men are approximately 10pp less likely than very unhealthy men to choose the 'Children not responsible or other' option, qualitatively similar to the effect for Chinese men but twice as large in magnitude. Finally, part-time working men show a 7pp higher probability of indicating that children are not responsible.

(iv) Japanese women

Table 7 presents average marginal effects from the reduced model for Japanese women (testing-down restriction: $\chi^2(46)=34$). The model includes 265 additional observations, a 40% increase in sample size. Only one variable from the reduced model based on the smaller sample loses significance, indicating the robustness of the specification.

Older women are more likely to express the view that children are not responsible for older adults' care. A 50-year-old woman has a 17pp lower probability of selecting 'Any child or children, their families' compared with a 20-year-old. Women who do not adhere to a religion have a 6pp higher likelihood of indicating that children are not responsible, whereas a one standard deviation increase in traditional value orientation raises the probability of selecting 'Eldest son, any son, or their families' by 6pp.

Table 7: Japan: Average marginal effects for who is perceived to be the most responsible person for parental care (reduced model, full available sample)

	Gender	Eldest son, any son, or their families	Any child or children, their families	Children not responsible or other
i) Economic dimension				
ii) Socio-demographic dimension				
Age	Men		n.a.	
	Women		-0.006***	0.005***
iii) Value-related dimension				

Does not adhere to a religion	Men	-0.058**		
	Women			0.056**
Traditional Values	Men	0.127***	-0.106***	-0.022*
	Women	0.069***		-0.058***
	iv) Spouse dimension			
	v) Family dimension			
Older person lives in the household	Men	0.089**		-0.073*
	Women		n.a.	
	vi) Health dimensions			
Health status respondent	Men			-0.024**
	Women		n.a.	
	vii) Employment dimension			
Works part time	Men			0.071**
	Women		n.a.	
No. of observations	Men: 893; women: 926			
Test of joint significance	Men: $\text{Chi}^2(12)=89^{***}$; women: $\text{Chi}^2(8)=105^{***}$			

Notes: Average marginal effects based on multinomial logit estimation. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

(v) Taiwanese men

For Taiwanese men, Table 8 presents average marginal effects from the reduced model (testing-down restriction: $\text{Chi}^2(38)=20$). The model includes 118 additional observations, a 27% increase in sample size. Older men are significantly more likely to indicate 'Eldest son, any son, or their families' and less likely to select 'Any child or children, their families'. Age follows an inverted U-shape, though the non-linearity is negligible for realistic ages. The effect is substantial: each additional year increases the probability of selecting the sons' option by 1.7pp and decreases the probability of selecting the 'any child' option by 1.9pp. Comparing 20- and 50-year-old men, the older group has a 51pp higher probability of selecting the sons' option and a 57pp lower probability of selecting the

‘any child’ option.

Men whose spouses have more than secondary education are 8pp more likely to select ‘Any child or children, their families’ and 8pp less likely to select ‘Eldest son, any son, or their families’, respectively. A one standard deviation increase in traditional value orientation raises the likelihood of selecting the sons’ option by 6pp and correspondingly lowers the likelihood of selecting ‘Any child or children, their families’. Very healthy respondents are almost 14pp less likely than very unhealthy respondents to indicate ‘Any child or children, their families’.

(vi) Taiwanese women

For Taiwanese women, estimation initially suffered from completely determined observations. Dropping per capita household income from the general model resolves this issue, though the general model is no longer fully comparable with those for other groups. Table 8 presents average marginal effects from the reduced model (testing-down restriction: $\text{Chi}^2(42)=18$). Estimating the reduced model adds 13 observations, a small 2% increase in sample size. We find only one significant effect, namely that women in better health have an almost 1pp lower probability of indicating that children are not responsible for older adults’ care, implying that the effect is statistically significant but quantitatively small.

Table 8: Taiwan: Average marginal effects for who is perceived to be the most responsible person for parental care (reduced model, full available sample)

	Gender	Eldest son, any son, or their families	Any child or children, their families	Children not responsible or other
i) Economic dimension				
ii) Socio-demographic dimension				
Age	Men	0.017*	-0.019*	
	Women		n.a.	
Age squared	Men	-0.0002*	0.0002*	
	Women		n.a.	
iii) Value-related dimension				

Traditional Values	Men	0.068***	-0.066***
	Women		n.a.
iv) Spouse dimension			
Spouse has higher education	Men	-0.081*	0.081*
	Women		n.a.
v) Family dimension			
vi) Health dimensions			
Health status respondent	Men		-0.034*
	Women		-0.008*
No. of observations		Men: 557; women: 550	
Test of joint significance		Men: $\chi^2(14)=34^{***}$; women: $\chi^2(10)=64^{***}$	

Notes: Average marginal effects based on multinomial logit estimation. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

(vii) South Korean men

For South Korean men, estimation issues arose due to the smaller sample size. In the general model, three observations were perfectly predicted, making standard error estimates questionable. To address this, two explanatory variables, 'respondent is retired' and 'child whom respondent contacts most frequently co-resides with him/her', were dropped. Experiments with the model indicate that these variables are never significant in any specification. Nonetheless, the estimated general model for South Korean men is not fully equivalent to those for other countries. Table 9 presents average marginal effects from the reduced model (testing-down restriction: $\chi^2(36)=32$). Estimating the reduced model adds 15 observations, a small 6% increase in sample size.

Table 9: South Korea: Average marginal effects for who is perceived to be the most responsible person for parental care (reduced model, full available sample)

Gender	Eldest son, any son, or their families	Any child or children, their families	Children not responsible or other
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i) Economic dimension			
Relative income is medium	Men	-0.208***	0.255***
	Women		0.112**
ii) Socio-demographic dimension			
iii) Value-related dimension			
Does not adhere to a religion	Men		0.047*
	Women		n.a.
Traditional Values	Men	0.158***	-0.158***
	Women	0.117***	-0.118***
iv) Spouse dimension			
Spouse works full time	Men		n.a.
	Women		0.047*
v) Family dimension			
vi) Health dimensions			
vii) Employment dimension			
No. of observations	Men: 280; women: 334		
Test of joint significance	Men: $\text{Chi}^2(12)=68^{***}$; women: $\text{Chi}^2(6)=31^{***}$		

Notes: Average marginal effects based on multinomial logit estimation. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

For South Korean men, those with medium relative per capita household income have a 21pp lower probability of selecting the option focusing on sons, while their likelihood of indicating ‘Any child or children, their families’ is 26pp higher compared with other income groups. Men who do not adhere to a religion have a 5pp higher probability of indicating that children are not responsible for older adults’ care. Finally, a one standard deviation increase in support for traditional values raises the likelihood of selecting ‘Eldest son, any son, or their families’ by 14pp.

(viii) South Korean women

For South Korean women, Table 9 presents average marginal effects from the reduced model (testing-down restriction: $\text{Chi}^2(48)=35$), estimated using the larger sample. The reduced model adds 28 observations, a 9% increase in sample size. Women from households with medium relative per capita income have an 11pp higher probability of indicating 'Any child or children, their families', roughly half the magnitude of the effect for men. A one standard deviation increase in support for traditional values is associated with a 10pp higher probability of selecting 'Eldest son, any son, or their families', which is 50% lower than the corresponding effect for men. Finally, women whose husband works full time have a 5pp higher probability of selecting 'Children not responsible or other'.

VI. Conclusion

Using survey data, we study public attitudes of married respondents towards who should be responsible for ensuring the livelihoods of older adults in four East Asian countries. First, we differentiate between 'government' and 'individual/family' responsibility. In China and Japan, respondents tend to indicate government responsibility, whereas in Taiwan the individual/family option is more commonly selected. No data were available for South Korea on this question.

On average, there is little difference between men and women regarding their attitudes towards responsibility for the livelihoods of older adults. However, ordinal logit regression analyses show that the significant individual characteristics associated with these attitudes differ notably between men and women. The estimates for other variables after a rigorous testing-down process are robust, as the identified significant variables generally remain significant even after extending the sample size.

Second, we focus on the question 'Who do you think is most responsible for taking care of older parents?' Among the three response options, 'Children are not responsible' is rarely selected. The main comparison is therefore between 'Any child or children, their families' and 'Eldest son, any son, or their families'. Using multinomial regression analysis, we find that in all four countries respondents tend to select 'Any child or children, their families'. In South Korea, however, up to one-third of respondents select 'Eldest son, any son, or their families'. Across all countries, men are relatively more likely than women to indicate this option. In Japan, South Korea and Taiwan, the difference is substantial, roughly 10pp, while in China it is only 4pp. The most robust predictor across countries and genders is adherence to traditional values. As with the first dependent variable, few similarities are observed in the robustly significant explanatory variables between male and

female respondents within each country.

A limitation of this analysis is that it is primarily descriptive. While it identifies differences between countries and genders, it does not determine their underlying causes, which may stem from cultural, institutional or political factors. Future research should adopt a deeper, multidisciplinary approach to investigate these differences. The East Asian Social Survey (EASS) conducted a similar survey in 2006, so examining changes in attitudes over this period would provide another avenue for research.

Taken together, these findings have several policy implications, although stronger policy recommendations would require further causal analysis. First, the descriptive patterns indicate that preferences for public and family responsibility differ across the countries in our sample. In particular, respondents in China and Japan show greater support for government responsibility, whereas respondents in Taiwan place relatively more emphasis on family responsibility. This is consistent with the view that policymakers face different levels of public receptiveness to public provision and family-based support across national contexts.

Second, the results show that men and women differ less in average attitudes than in the correlates of those attitudes. This pattern suggests that policies concerning caregiving, work flexibility and family support may affect men and women differently, even when aggregate gender differences appear modest. It also underlines the importance of accounting for intra-household and gender-specific factors when designing or evaluating ageing-related policies.

Third, traditional values are among the most consistent correlates of attitudes towards responsibility for older adults, particularly regarding intra-family care responsibilities. This suggests that the social acceptability of ageing-related policies may depend in part on how well they align with prevailing cultural norms concerning intergenerational obligations and gender roles.

Fourth, the cross-country differences documented here indicate that a uniform policy approach is unlikely to be appropriate. Instead, effective policy design is likely to depend on country-specific institutional, cultural and demographic conditions. The results therefore support a context-sensitive approach to policy development rather than a single model for all four societies.

Finally, the descriptive nature of the analysis highlights the need for further research. In particular, longitudinal data, repeated cross-sections and research designs better suited to causal inference would help clarify whether the observed associations reflect underlying preferences, institutional effects or broader social norms. Such evidence would provide a firmer basis for policy evaluation and the design of ageing-related policies.

References

- Bai, C. & Lei, X. (2020). New Trends in Population Aging and Challenges for China's Sustainable Development. *China Economic Journal* 13(1), 1–21.
<https://doi.org/10.1080/17538963.2019.1700608>
- Bianchi, S., Milkie, L., Sayer, M. & Robinson, J. (2012). Housework: Who Did, Does or Will Do It, and How Much Does It Matter? *Social Forces* 91(1), 55–63.
<http://www.jstor.org/stable/41683183>
- Boeri, T., Boersch-Supan, A. & Tabellini, G. (2001). Would you like to Shrink the Welfare State? A Survey of European Citizens. *Economic Policy* 32, 8–44. <https://doi.org/10.1111/1468-0327.00069>
- Boeri, T., Boersch-Supan, A. & Tabellini, G. (2002). Pension Reforms and the Opinions of European Citizens. *American Economic Review, Papers and Proceedings* 92(2), 396–401.
<https://doi.org/10.1257/000282802320191688>
- Chappell, N. & Kusch, K. (2007). The Gendered Nature of Filial Piety – A Study Among Chinese Canadians. *Journal of Cross-Cultural Gerontology* 22(1), 29–45. <https://doi.org/10.1007/s10823-006-9011-5>
- Chen, C.H. (2023). Taiwan's Rapidly Aging Population: A Crisis in the Making? *Munich Personal RePEc Archive*. <https://mpa.ub.uni-muenchen.de/116543/>
- Choi, S. (2009). Ageing Society Issues in Korea, *Asian Social Work and Policy Review* 3(1), 63–83.
<https://doi.org/10.1111/j.1753-1411.2008.00025.x>
- Costa-Font, J., Garcia-Gonzalez, A. & Font-Vilalta, M. (2008). Relative Income and Attitudes Towards Long-term Care Financing. *The Geneva Papers on Risk and Insurance Issues and Practice* 33, 673–693. <http://www.jstor.org/stable/41953003>
- Du, Y. & Yang, C. (2014). Demographic Transition and Labour Market Changes: Implications for Economic Development in China. *Journal of Economic Surveys* 28(4), 617–635.
<https://doi.org/10.1111/joes.12072>
- ESCAP (2022). *Asia-Pacific Report on Population Ageing 2022. Trends, Policies and Good Practices Regarding Older Persons and Population Ageing*, Economic and Social Commission for Asia and the Pacific.

- Evans, M. & Kelly, J. (2005). Assessing Age Pension Options: Public Opinion in Australia 1994–2001 with Comparisons to Finland and Poland. *Melbourne Institute Working Paper 21/04*. University of Melbourne.
- Fujimori, K. (2020). 'Kankoku no nenkin seido' [The Public Pension in Korea], '*Nenkin to Keizai*' [Pension and Economy]. Research Institute for Policies on Pension and Aging, No. 39(2).
- Grunow, D. (2019). Comparative Analyses of Housework and Its Relation to Paid Work: Institutional Contexts and Individual Agency. *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 71 (Suppl 1), 247–284. <https://doi.org/10.1007/s11577-019-00601-1>
- Hayo, B. (2018). On Standard-Error-Decreasing Complementarity: Why Collinearity Is Not the Whole Story. *Journal of Quantitative Economics* 16, 289–307. <https://doi.org/10.1007/s40953-017-0092-5>
- Hayo, B. & Ono, H. (2009). Comparing Public Attitudes toward Providing for the Livelihood of the Elderly in Two Aging Societies: Germany and Japan. *Journal of Socio-Economics* 39, 72–80. <https://doi.org/10.1016/j.socec.2009.08.005>
- Hayo, B. & Ono, H. (2011). Livelihood and Care of the Elderly: Determinants of Public Attitudes in Japan. *Journal of the Japanese and International Economies* 25, 76–98. <https://doi.org/10.1016/j.jjie.2010.11.001>
- Hendry, D.F. (1993). *Econometrics: Alchemy or Science?* Oxford: Blackwell.
- Katayama, Y. (2020). 'Chugoku no nenkin seido' [The Public Pension in China], '*Nenkin to Keizai*' [Pension and Economy]. Research Institute for Policies on Pension and Aging No. 39(2).
- Kikuzawa, S. (2005). '*Hukushi kokka to shakai ishiki: nennkinn seisaku ni kakaru ishiki nokokusai hikaku*' [Welfare State and Social Consciousness: International Comparisons of Consciousness with Regard to Pension Policies]. *Soshioroji* 49, '*Shakaigaku kenkyukai*' [Research Association of Sociology], 93–108.
- Lee, M., Yoon, E. & Kropf, N. (2007). Factors Affecting Burden of South Koreans Providing Care to Disabled Older Family Members. *International Journal of Ageing and Human Development* 64(3), 245–262. <https://doi.org/10.2190/C4U5-078N-R83L-P1MN>
- Lin, I., Goldman, N., Weinstein, M., Lin, Y., Gorrindo, T. & Seeman, T. (2003). Gender Differences in Adult Children's Support of their Parents in Taiwan. *Journal of Marriage and Family* 65, 184–200. <https://doi.org/10.1111/j.1741-3737.2003.00184.x>

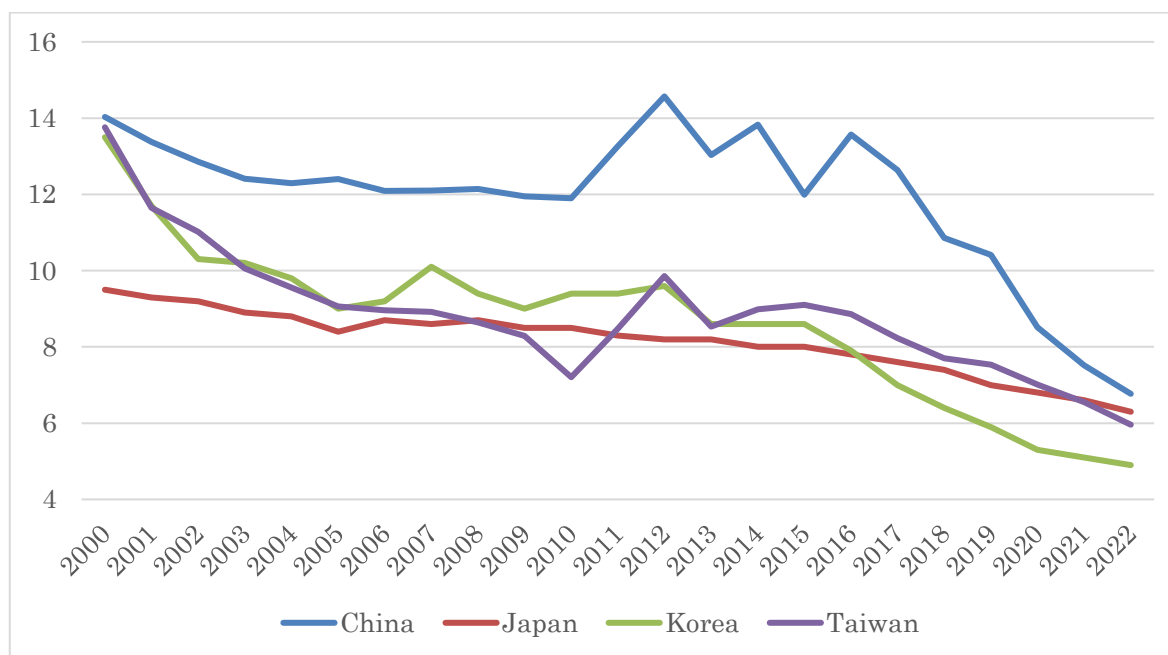
- Long, S. & Harris, P.B. (2000). Recognizing the Need for Gender-responsive Family Caregiving Policy. In Long, S. (ed.). *Caring for the Elderly in Japan and the U.S.*, New York: Routledge, 248–271.
- Mariana, C. & Emilico, F.C. (2018). Macroeconomic Effects of Japan’s Demographics: Can Structural Reforms Reverse Them? *IMF Working Paper* 2018/248.
<https://doi.org/10.5089/9781484384732.001>
- Miyahara, T. & Adelaja, A. (2022). Aging and Economic Growth in Japan: Differential Effects of Multiple Generations. *Journal of Population Ageing* 15, 239–258. <https://doi.org/10.1007/s12062-020-09307-1>
- Negishi, T. (2020). ‘Taiwan no nenkin seido’ [The Public Pension in Taiwan], ‘Nenkin to Keizai’ [Pension and Economy]. Research Institute for Policies on Pension and Aging No. 39(2).
- Park, C.Y., Shin, K. & Kikkawa, A. (2021). Aging, Automation, and Productivity in Korea. *Journal of the Japanese and International Economies* 59, 101109.
<https://doi.org/10.1016/j.jjie.2020.101109>
- Pension Actuarial Subcommittee of the Social Security Council (2017). Annual Actuarial Report on the Public Pension System in Japan - Fiscal Year 2016 (Summary). Ministry of Health, Labor, and Welfare, <https://www.mhlw.go.jp/content/12501000/001329618.pdf>.
- Samtleben, C. & Müller, K. (2022). Care and Careers: Gender (In)equality in Unpaid Care, Housework and Employment. *Research in Social Stratification and Mobility* 77, 100659.
<https://doi.org/10.1016/j.rssm.2021.100659>
- Tachibanaki, T., Okamoto, A., Kawaide, M., Hatano, T. & Miyazato, S. (2006). ‘Koukyou shishutsu no jueki to kokumin hutaan nikansuru ishikichousa to keiryoku bunseki’ [Opinion Survey and Econometric Analysis of Benefits of Public Spending and Burden of People]. *REITI Discussions Paper Series 06-J-058*.
- Tsai, W. (2008). The Growth of Taiwan’s Aging Population and Its Socio-Economic Consequences, *American Journal of Chinese Studies* 15(2), 93–105. <http://www.jstor.org/stable/44288877>
- U.S. Census Bureau (2022). *Asia Aging: Demographic, Economic, and Health Transitions*. International Population Reports, the United States Census Bureau.
- Van Els, P.J.A., van den End, W.A. & von Rooij, M.C.J. (2003). Pensions and Public Opinion: A Survey among Dutch Households. De Nederlandsche Bank Research Memorandum WO, No. 752.
<https://doi.org/10.1023/B:ECOT.0000019524.13113.22>

World Bank (2015). *Live Long and Prosper: Aging in East Asia and Pacific*. World Bank East Asia Regional Report.

Zi, Y. & Chengcheng, S. (2021). Gender Role Attitudes and Values toward Caring for Older Adults in Contemporary China, Japan, and South Korea: Evidence from a Cross-sectional Survey. *Journal of Asian Sociology* 50(3), 431–464. <https://doi.org/10.21588/dns.2021.50.3.001>

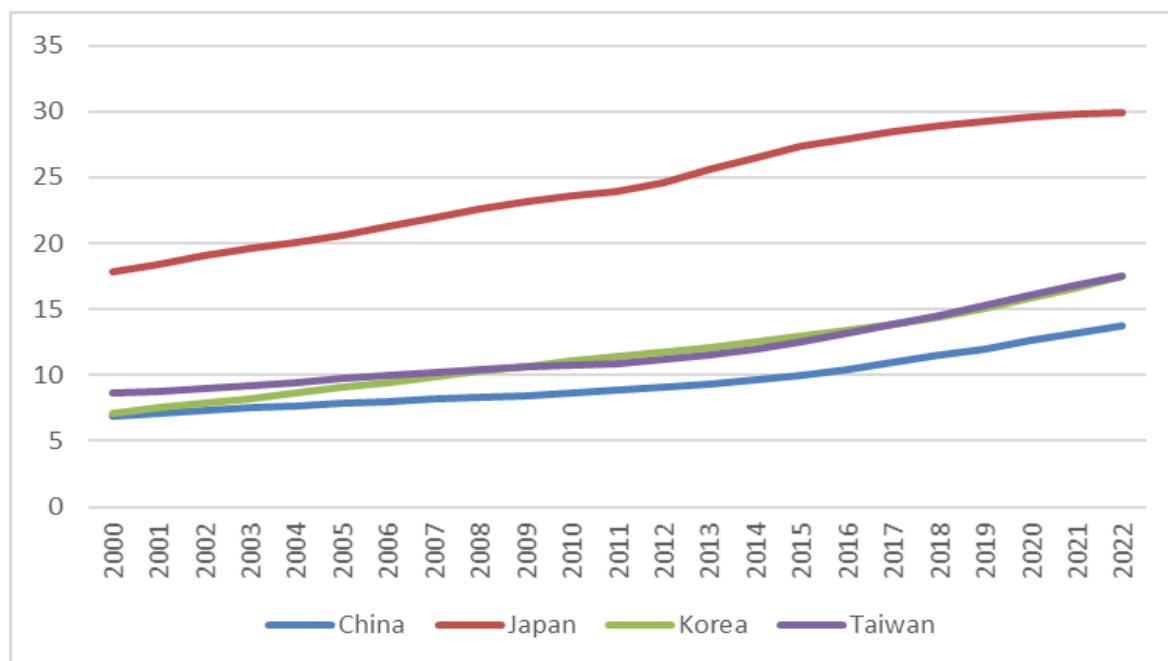
Appendix

Figure A1: Crude birth rates in per cent



Source: The World Bank Group's *World Development Indicators* for China, Japan and Korea, and the National Development Council for Taiwan.

Figure A2: Ratio of population aged 65 and over to the total population in per cent



Source: The World Bank Group's *World Development Indicators* for China, Japan and Korea, and the National Development Council for Taiwan.

Table A1: China: Explaining who supports government responsibility for older adults (reduced models)

Model	Men		Women	
	1 Smaller sample	2 Larger sample	3 Smaller sample	4 Larger sample
Variables	Coef.	Coef.	Coef.	Coef.
i) Economic dimension				
ii) Socio-demographic dimension				
Respondent lives in urban area	-0.16*** (0.03)	-0.18*** (0.03)	-0.11*** (0.03)	-0.11*** (0.03)
iii) Value-related dimension				
Respondent adheres to no religion			-0.25* (0.15)	-0.26* (0.14)
iv) Spouse dimension				
Spouse has secondary education	-0.24* (0.14)	-0.16 (0.13)		
v) Family dimension				
An older person lives in household			0.38** (0.16)	0.40*** (0.15)
Adult child lives in household	0.32*** (0.12)	0.31*** (0.12)		
vi) Health dimension				
Spouse is healthy			0.10** (0.05)	0.09* (0.05)
vii) Employment dimension				
Cut value 1	-4.17	-4.24	-3.88	-4.69
Cut value 2	-2.30	-2.32	-2.01	-2.79
Cut value 3	-0.63	-0.65	-0.29	-1.08
Cut value 4	1.62	1.59	2.05	1.24
No. of observations	1,308	1,432	1,459	1,611

Test of joint significance	Chi ² (3)= 45***	Chi ² (73)= 50***	Chi ² (4)= 25***	Chi ² (4)= 28***
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Notes: Estimator: ordered logit. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

Table A2: Japan: Explaining who supports government responsibility for older adults (reduced models)

Model	Men		Women	
	1 Smaller sample	2 Larger sample	3 Smaller sample	4 Larger sample
Variables	Coef.	Coef.	Coef.	Coef.
i) Economic dimension				
Subjective social status			-0.20*** (0.05)	-0.18*** (0.04)
Per capita household income in ¥10,000	-0.02*** (0.007)	-0.02*** (0.007)		
ii) Socio-demographic dimension				
Age	0.08** (0.03)	0.07** (0.03)		
Age squared	-0.0007** (0.0003)	-0.0007** (0.0003)		
Secondary education			0.68*** (0.23)	0.57*** (0.19)
Higher education			0.55** (0.24)	0.48** (0.20)
Number of children	-0.17** (0.08)	-0.16** (0.08)		
iii) Value-related dimension				
iv) Spouse dimension				
v) Family dimension				
vi) Health dimension				
vii) Employment situation				

Full-time employment	0.35** (0.18)	0.36** (0.18)		
Cut value 1	-1.23	-1.48	-3.57	-3.53
Cut value 2	0.18	-0.04	-2.20	-2.11
Cut value 3	1.56	1.35	-0.65	-0.57
Cut value 4	2.86	2.63	0.76	0.84
No. of observations	707	740	657	918
Test of joint significance	Chi ² (5)= 22***	Chi ² (5)= 21***	Chi ² (3)= 26***	Chi ² (3)= 27***

Notes: Estimator: ordered logit. *, ** and *** indicate significance at a 10%, 5% and 1% levels, respectively.

Table A3: Taiwan: Explaining who supports government responsibility for older adults (reduced models)

Model	Men		Women	
	1 Smaller sample	2 Larger sample	3 Smaller sample	4 Larger sample
Variables	Coef.	Coef.	Coef.	Coef.
i) Economic dimension				
ii) Socio-demographic dimension				
Age	0.10** (0.05)	0.06 (0.04)	0.20*** (0.06)	0.12*** (0.04)
Age squared	-0.001** (0.0004)	-0.0005 (0.0004)	-0.002*** (0.0006)	-0.001*** (0.0004)
iii) Value-related dimension				
iv) Spouse dimension				
Spouse higher education	0.51** (0.21)	0.41** (0.19)		
v) Family dimension				
vi) Health dimension				
vii) Employment situation				
Cut value 1	-0.31	-1.33	0.60	-0.33

Cut value 2	1.84	0.90	2.80	1.82
Cut value 3	4.39	3.41	5.64	4.61
Cut value 4	6.12	5.14	7.63	6.37
No. of observations	438	568	435	558
Test of joint significance	Chi ² (3)= 8**	Chi ² (3)= 6	Chi ² (2)= 13*	Chi ² (2)= 8**

Notes: Estimator: ordered logit. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.