

Are Married Women Really Wealthier Than Unmarried Women? Evidence From Japan

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ABSTRACT Using microdata from the Japanese Panel Survey of Consumers, this article examines the relationship between marriage and wealth among women. By exploiting unique data on personal wealth, it also assesses whether the wealth effect of marriage differs depending on whether wealth is measured as household or personal wealth, an issue that very few studies have examined. When wealth is measured as equalized household net worth, on the assumption that married couples share household resources equally, marriage is found to contribute to women's wealth holdings but only to their nonfinancial net worth; however, the results show signs that marriage also contributes to women's total net worth as marriage durations increase. By contrast, when wealth is measured as personal net worth based on the actual ownership of assets, marriage is found to be negatively and significantly associated with women's wealth holdings. These findings underscore the fact that Japanese women are potentially in a financially vulnerable position even after marriage, which is at least partly driven by married women's career disruptions arising from their family responsibilities.

KEYWORDS Marriage • Wealth • Intrahousehold resource allocation • Japan

Introduction

Family structure has been changing significantly in many, if not all, developed countries. Fewer people are marrying today than in the past, and both the average age at first marriage and the divorce rate have been rising. Such trends raise the important question of how singles fare in terms of wealth accumulation compared with their married counterparts. Wealth is an important measure of well-being: it provides resources to maintain living standards during economic hardship and is an important source of funds for living expenses during old age and for intergenerational transfers. A growing literature has examined the relationship between marriage and wealth, generally finding a positive effect of marriage on wealth (e.g., Frech et al. 2017; Painter et al. 2015; Ruel and Hauser 2013; Ulker 2009; Vespa and Painter 2011).

However, the literature has a number of important gaps. First, previous studies typically used household wealth as their main outcome variable, largely because of the unavailability of data on personal wealth. If a couple shares household resources

equally, as commonly assumed, using household wealth to analyze the wealth effect of marriage should not be a problem. However, given that an individual's contribution to household wealth likely affects their access to household wealth, wives might have less access to it because they tend to earn less than their husbands. Moreover, even if spouses fully share each other's wealth regardless of the actual ownership of wealth, relying on one's spouse to share their personal wealth may create undesired economic dependency within the couple (Lersch 2017).

Second, previous studies predominantly examined the instantaneous effect of marriage on wealth. Although some studies looked at the effect of marriage duration on wealth, their estimation strategy assumed a linear relationship between marriage duration and wealth (e.g., Frech et al. 2017; Ulker 2009; Zagorsky 2005). However, married couples are likely to experience important changes through their married lives, which might alter the wealth effect of marriage over time.

Third, most previous studies used data on Australia, Europe, and the United States. To the best of my knowledge, no previous study has examined the relationship between marriage and wealth in Japan. It is not clear whether previous studies' findings for Western societies apply to other parts of the world, such as Asia, where gender roles within households are more clearly delineated than in Western societies.

The main aim of this study is to fill the aforementioned gaps in the literature. Using microdata from the Japanese Panel Survey of Consumers (JPSC), I examine the relationship between marriage and wealth in the case of Japan. The analysis is focused on women, given long-standing concerns regarding their financial security as they age; such concerns are particularly strong for women who remain single or experience disruptions, such as marital dissolution and widowhood.

In this article, I address three key research questions. First, by exploiting the availability of data on personal wealth, I examine the association between marriage and wealth in the case of women and determine whether this association differs depending on whether wealth is measured as household or personal wealth, an issue that very few studies have examined. Second, going beyond the literature, I examine how the association between marriage and wealth evolves throughout the marriage and whether this over-time association differs between household and personal wealth and between financial and nonfinancial wealth. Third, by examining the case of Japan, I assess whether marriage wealth premiums observed in Western societies are also observed in Japan.

Although the JPSC provides unique data on personal wealth, the data are not without limitations. Most importantly, when family members jointly own nonfinancial wealth, the data do not indicate each family member's exact ownership share, although they identify family members who have joint ownership of the asset. This lack of precision certainly poses a nontrivial constraint on the analysis, and the results need to be interpreted with caution. Nevertheless, the data provide a unique opportunity to examine how married couples share their wealth and how marriage affects women's wealth accumulation capacity.

Institutional Context

Japan has a unique institutional context. For example, the country follows a separation of property regime, making it difficult for married couples to share household wealth.

Partly because of this marital regime, joint bank accounts are virtually nonexistent, and savings are held individually. However, if a married couple has a bank account in one of the spouses' name, the other spouse can apply for an additional bank card (a "family card") to access this account. Wealth transfers between spouses are subject to gift taxes, with an annual exemption of 1.1 million yen (about US\$10,000).¹ Transfers for financing living expenses and children's education are also exempt from gift taxes.

In addition to the aforementioned annual gift tax exemption, a special provision allows for a gift tax exemption of up to 20 million yen (about US\$182,000) for transfers of a residential property or money for acquiring a residential property between spouses who have been married for 20 or more years; a given couple can use this exemption only once in a lifetime. The situation is different for a young couple that has been married for fewer than 20 years when the wife does not have sufficient savings to pay for her share or does not have sufficient income to obtain a loan for her share: in this case, jointly purchasing the property will require the payment of gift taxes because the tax office will assume that the husband transferred part of his wealth to his wife to enable the joint purchase. Thus, married couples are unlikely to have joint ownership of their residence when the wife does not have her own income or sufficient wealth.

Although wealth transfers between spouses are subject to gift taxes, wealth accumulated during marriage is treated as joint assets upon divorce or one of the spouses' death. In the case of divorce, a spouse can claim part of the wealth accumulated during marriage, even if it is in the other spouse's name. The exception is for wealth acquired through intergenerational transfers, which remains in the hands of the recipient.

In the case of one of the spouses' death, Japan's Civil Code dictates that the surviving spouse's statutory share is half of the deceased's estate; the other half is divided among the children. Nevertheless, if the surviving spouse inherits the residence, most or all of the financial assets could go to the children because housing typically represents a large share of household wealth in Japan. As a result, the surviving spouse may not have enough financial assets to finance his or her living expenses.

To better protect surviving spouses, the inheritance chapter of Japan's Civil Code was amended in July 2018, establishing the surviving spouse's right to continue living in the deceased spouse's residence for life or for a specified lengthy period even if ownership of the residence is transferred to another heir. Because the value of the residency right will be set lower than the appraised value of the property, the surviving spouse can obtain more financial assets by obtaining the residency right while another heir inherits the property than by inheriting the property to continue living there.

Other aspects of Japanese society also make Japan an interesting case to study. Over the last few decades, Japan has seen a significant increase in the share of people who never marry. The share of men and women who had never been married by the age of 50—sometimes regarded in Japan as the share of those who will never marry in their lifetime—increased from 5.6% and 4.3% in 1990 to 23.4% and 14.1% in 2015,

¹ This figure and all conversions throughout the paper are based on an exchange rate of US\$1=110 Japanese yen.

respectively.² Moreover, a large share of unmarried people reside with their parents: 72.2% and 78.2% of 18- to 34-year-old never-married men and women, respectively, according to the 2015 Japanese National Fertility Survey.³

The relatively high prevalence of premarital coresidence with parents in Japan reflects limited alternative living arrangements due, at least partly, to such factors as the high cost of housing and normative disapproval of independent living (Raymo and Ono 2007). Some never-married adult children live with their parents to enjoy the comforts of life: they are sometimes called “parasite singles” (Yamada 1999). However, recent studies suggest that such arrangements are enjoyed mainly by relatively young adult children and that these never-married children may eventually need to support their elderly parents and provide elderly care (e.g., Okaze 2014; Takada 2005). In addition, because of the increased share of irregular employment over the last few decades,⁴ particularly among women, some adult children reside with their parents out of necessity rather than to enjoy a high level of disposable income (e.g., Kitamura and Sakamoto 2007; Shikata 2018). Given these trends, Takagi and Silverstein (2006) argued that the composition of multigenerational households in Japan is shifting toward a type that prioritizes both generations’ instrumental concerns above traditional norms.

The JPSC’s information on personal wealth enables me to include in the estimation sample respondents who reside with their parents without conflating respondents’ wealth with their parents’ wealth. It also allows me to examine whether living with parents helps adult children accumulate wealth.

Literature Review

Marriage and Wealth

Marriage has generally been found to aid wealth accumulation (e.g., Frech et al. 2017; Painter et al. 2015; Ruel and Hauser 2013; Ulker 2009; Vespa and Painter 2011). Assuming that wealth accumulation is a function of income, saving, investment strategy, and intergenerational transfers, there are a number of possible reasons why wealth holdings are expected to be greater for married couples than for unmarried individuals. Marriage may be a wealth-enhancing institution by altering total household production and consumption patterns. Efficiency gains from the division of labor could increase the total output of married couples relative to the aggregation of outputs produced separately by each partner (Becker 1981). Moreover, married couples may benefit from economies of scale in consumption, which may translate into additional wealth. These marriage-related advantages are likely to allow married couples to accumulate wealth faster than they would as two single individuals. Even

² These shares are obtained from Population Statistics 2020 (available at <https://www.ipss.go.jp/index-e.asp>).

³ These data are available at http://www.ipss.go.jp/ps-doukou/j/doukou15/doukou15_gaiyo.asp.

⁴ Irregular employees include those who work as a part-time worker, temporary worker, fixed-term worker, or dispatched worker from a temporary agency.

with the same saving rate, married couples may accumulate more wealth over time than unmarried women because men generally have higher earnings than women and marriage allows for dual income.

Wealth may also be enhanced through investment, which is determined by such factors as the level of financial literacy and/or risk preferences. Given that men are generally found to have a higher level of financial literacy than women (Lusardi and Mitchell 2008) and that women tend to be more risk averse than men (Croson and Gneezy 2009), married couples may allocate their wealth in a way that yields a higher return on their assets compared with unmarried women (Bertocchi et al. 2011; Christiansen et al. 2015). Married couples may also benefit from the financial security and resource pooling associated with marriage. In addition, the long-term commitment that marriage usually implies may help married couples purchase a house (Grinstein-Weiss et al. 2011; Hendershott et al. 2009), which contributes to greater wealth accumulation (Di et al. 2007; Turner and Luea 2009).

Intergenerational transfers may also be greater for married couples than for unmarried individuals, inasmuch as they could receive transfers from either spouse's parents. Moreover, Hao (1996) found that marriage reinforces the wealth-enhancing effect of private financial transfers.

Although a growing literature has examined the relationship between marriage and wealth, most previous studies used data on Western societies. I examine whether the marriage wealth premiums observed in Western societies are also observed in Japan. To the best of my knowledge, no previous study has examined the relationship between marriage and wealth in Japan despite the country's increase in the number of never-married individuals and the resulting growing concern about whether singles are accumulating sufficient wealth for old age.

Distribution of Wealth Within Married Couples

The literature is also limited in predominantly using household wealth as the main outcome variable, largely owing to the unavailability of data on personal wealth. Household surveys usually collect wealth data at the household level. The use of household wealth to examine the wealth effect of marriage essentially assumes that married couples equally share household wealth. Hence, if this assumption holds, using household wealth to analyze the wealth effect of marriage should not be a problem. However, if this assumption does not hold, using personal wealth, which considers the actual ownership of wealth, may be more appropriate. That is, whether the effect of marriage on personal wealth diverges from its effect on household wealth is likely to depend largely on how household resources are distributed within married couples.

Two models predominate in the theoretical work on intrahousehold resource allocation: the unitary and collective models. These models differ in their assumptions regarding the household's decision-making structure. The unitary model assumes that the couple acts as a single unit and pools their incomes and maximizes a single common utility function (Becker 1981). Alternatively, the collective model assumes that the couple acts as a collective unit in which each spouse has different preferences and the observed household consumption, saving, and investment patterns are the result

of bargaining within the couple (Chiappori 1988).⁵ If the spouses do not pool their resources, as assumed in the collective model, each spouse is likely to have a different wealth function, and wealth would be more appropriately measured as personal wealth. If a unitary model holds, the choice of wealth measure should not matter.

Empirical evidence from previous research on intrahousehold resource allocation tends to support the collective model (for a survey of the empirical literature, see, e.g., Chiappori and Molina 2020). Evidence from relevant studies examining gender wealth gaps using personal wealth also challenges the assumption of married couples' equal sharing of household resources. Particularly relevant are studies by Grabka et al. (2015) and Lee and Pocock (2007), which examined spousal wealth gaps in Germany and South Korea, respectively. Both studies found that (1) wives tend to hold less wealth in their own name than their husbands hold in theirs and (2) the spousal wealth gap depends on the balance of bargaining power between spouses, which can be proxied by relative income or the receipt of intergenerational transfers.

Nevertheless, previous studies on the relationship between marriage and wealth have predominantly used household wealth. The only exception is Lersch's (2017) study, which examined the relationship between marriage and wealth using both household and personal wealth in Germany. Lersch (2017) found that men and women obtain substantial marital wealth premiums in both household and personal wealth. For women, though, marriage is wealth-enhancing through the couple's joint investment in housing; marriage does not have such an effect on nonhousing wealth. By contrast, for men, marriage seems to be beneficial for personal wealth accumulation even for assets other than housing.

In the current study, I assess whether the finding of marriage wealth premiums in both household and personal wealth obtained for Germany also holds for women in Japan, where resource pooling in legal terms is hindered by institutional factors, as described in the previous section.

Marriage Wealth Premiums Over Time

Although previous studies have generally found a positive effect of marriage on wealth, they have predominantly examined the instantaneous effect of marriage on wealth. Some studies have explored the effect of marriage duration on wealth, but their estimation strategy assumes a linear relationship between marriage duration and wealth (e.g., Frech et al. 2017; Ulker 2009; Zagorsky 2005). For instance, Zagorsky (2005) found that married respondents' wealth increases by about 16% per year. Ulker (2009) also found that marriage duration is positively associated with household wealth.

However, it is not clear whether the assumption of a linear relationship between marriage duration and wealth is appropriate because married couples are likely to

⁵ In the field of family research, these theoretical concepts are commonly referred to as *relative* and *absolute resources*. According to the relative resource theory originally formulated by Blood and Wolfe (1960), the balance of power within married couples depends on the relative resources that each spouse brings to the household. On the other hand, some studies found that married women have substantial economic autonomy in domestic lives because their absolute resources matter more than their relative resources (e.g., Gupta 2007).

experience a number of important changes during the course of their marriage. The current study goes beyond the literature by examining how the relationship between marriage and wealth evolves throughout the marriage and whether this over-time association differs between financial and nonfinancial wealth and between household and personal wealth.

Data

The data used for the empirical analysis come from the Japanese Panel Survey of Consumers, conducted annually by the Institute for Research on Household Economics from 1993 to 2016 and by the Panel Data Research Center at Keio University since 2017. One of the unique features of this survey is that it focuses on young women, both unmarried and married, and traces the same individuals yearly. The initial sample at the start of the survey in 1993 comprised 1,500 women aged 24–34. Subsequently, the survey added 500 women aged 24–27 in 1997, 836 women aged 24–29 in 2003, 636 women aged 24–28 in 2008, and 648 women aged 24–28 in 2013. Each time, the survey used two-stage stratified random sampling to ensure that the sample was nationally representative. The relatively high response rate (e.g., approximately 96% in the case of the 2017 wave) helps ensure the representativeness of the sample for the age-group in question. Table A1 in the online appendix compares the JPSC data with those from other nationally representative surveys conducted by the Government of Japan. Although an exact comparison is not possible, Table A1 shows that the JPSC data are broadly consistent with those from other surveys.

I use mainly data collected in 2003–2017 (Waves 11–25) because earlier waves did not collect all the information required for the analysis. However, I obtain information on respondents' marital history from earlier waves to construct variables regarding marital status. The data I use are unbalanced panel data. After I remove observations with missing information, the estimation sample comprises 2,923 respondents with 19,541 individual-year observations. Table A2 in the online appendix shows that the composition of the estimation sample is largely consistent with that of the original sample.

Estimation Methods

To investigate the relationship between marriage and wealth, I estimate the following fixed-effects regression model:

$$w_{it} = \alpha + \beta \mathbf{M}_{it} + \gamma \mathbf{X}_{it} + v_i + \varepsilon_{it}, \quad (1)$$

where w_{it} is the wealth level of respondent i in year t , \mathbf{M}_{it} contains variables that capture the respondent's marital status, \mathbf{X}_{it} contains variables pertaining to the respondent's time-variant socioeconomic characteristics, v_i captures individual time-invariant unobservable characteristics, and ε_{it} is an error term.

The fixed-effects regression model essentially focuses on over-time variations for the same person. Hence, if I include in the estimation model a dummy variable for being married, the coefficient on this variable captures the effect of a transition into

marriage on wealth holdings. However, the wealth effect of marriage may change over time. To examine the short- and long-term effects of marriage, I also look at the relationship between marriage and wealth for each year after marriage by including in the estimation model a set of dummy variables that denote the number of years since the respondent's marriage (as explained in detail later).

One issue with estimating the relationship between marriage and wealth is the potential nonrandom sorting of individuals into marriage. Estimating a fixed-effects regression model eliminates selection bias due to time-invariant unobservable characteristics, although the estimates are still potentially subject to bias due to time-variant unobservable characteristics. Unfortunately, there are no appropriate instruments for the set of marriage duration dummy variables included in the empirical model, thereby limiting the analysis to identifying associations between marriage and wealth; I cannot infer causality from the present analysis. Nevertheless, the analysis offers important insights into the wealth accumulation behavior of married and unmarried women over time, which has direct implications for their economic well-being in retirement.

Dependent Variables

As indicated in Eq. (1), the dependent variables in this analysis are various measures of wealth. I use wealth information at both the household and personal levels to examine whether the wealth effect of marriage differs across wealth measures. I also use financial wealth, nonfinancial wealth, and the sum of financial and nonfinancial wealth (hereafter referred to as total wealth) as dependent variables to see whether the relationship between marriage and wealth differs across these types of wealth. I express all the wealth variables in the empirical analysis as net worth by subtracting the value of loans from the value of wealth.

The survey asks unmarried respondents to indicate the total value of savings and the total value of securities held in their name. Savings include various types of savings accounts in post offices, banks, and *shinkin* banks (credit unions), payroll savings, gold investment/savings accounts, and medium-term government security funds. Securities include bonds, stocks, investment trusts, and loan and money trusts evaluated at market prices. The survey asks married respondents to indicate the total value of savings and the total value of securities held by their households as a whole⁶ as well as those held in their own name. The survey also collects information on the total value of saving-type insurance in which the respondent and/or, for married respondents, her husband is enrolled. Financial wealth is thus calculated by adding the total values of savings, securities, and insurance.

Nonfinancial wealth is defined as the market value of respondents' primary residence (house/condominium, including land, if applicable). Respondents who live in a house/condominium that they or their family members own are asked to indicate the market value and ownership of their primary residence and land (if applicable).

⁶ Only financial assets held by the respondent, her husband, and their children are included. Unfortunately, I cannot separate the financial wealth held in the children's names from the financial wealth held in the respondent's or her husband's name. Nevertheless, the share of financial wealth held in the children's names is presumably relatively small.

Unfortunately, in the case of joint ownership, the data do not provide each family member's exact ownership share of the property and land. I therefore assume the equal sharing of nonfinancial wealth among family members who are joint owners.

I then calculate financial and nonfinancial net worth by subtracting the total value of nonhousing and housing loans from the total value of financial and nonfinancial wealth, respectively. I calculate total net worth as the sum of financial and nonfinancial net worth. The survey does not collect individual-level information on loans for married respondents. I therefore assume that the respondent's shares of nonhousing and housing loans equal her shares of financial and nonfinancial wealth owned by the married couple, respectively.

Because of data unavailability, the wealth variables in this analysis do not include the value of second homes, pension wealth, motor vehicles, and consumer durables. Given that men tend to own more of such assets, the wealth accumulation gap between married and unmarried women in the present analysis is likely to be a lower bound of the true gap.

In sum, for the unmarried sample, I construct three dependent variables: personal net worth for total, financial, and nonfinancial wealth. For the married sample, I construct six dependent variables: household and personal net worth for total, financial, and nonfinancial wealth. When I use household net worth as the dependent variable, I assume that the respondent and her husband share household wealth equally. To account for the fact that consumption needs differ by household size, I express household net worth as equivalized household net worth by summing the respondent's personal net worth and her husband's personal net worth and dividing the total value by the square root of 2 (i.e., the respondent and her husband). I do not use total household size to make this adjustment but control for the number of children in the regression analysis.⁷

Finally, to correct for the skewness of the wealth distribution, I transform the value of the wealth variables using the inverse hyperbolic sine (IHS) function. Unlike logarithmic transformation, IHS allows for retaining negative and zero values.

Explanatory Variables

The main explanatory variables of interest in the present analysis concern the respondent's marital status. In the fixed-effects regression models, the coefficient on a marriage dummy variable captures only the short-term association between marriage and wealth. To investigate how the association evolves over time, I also include a set of dummy variables for marriage duration. More specifically, I include a variable that equals 1 if the respondent is married and is in the transition year; a dummy variable that equals 1 if she is married and is in the year following the transition year; a dummy variable that equals 1 if she is married and is in the second year following the transition year; and so forth, up to 30 years following the transition year. For longer marriage durations, I include a dummy variable that equals 1 if the respondent

⁷ In a separate regression analysis (not reported but available upon request), I used as the dependent variable a measure of equivalized household net worth that also takes into account the number of children. The results were similar to those reported here.

is married and is in at least the 31st year following the transition year. In addition to this set of variables, I include a dummy variable that equals 1 if the respondent is divorced. Given that the sample comprises relatively young women, I have too few observations on widows to create a separate dummy variable for them. I therefore exclude respondents who are widowed from the estimation sample.

I cannot include variables on cohabitation because the JPSC does not collect this information. However, cohabitation remains relatively rare in Japan. According to data from the 2015 Japanese National Fertility Survey,⁸ among never-married 18- to 34-year-olds, only 1.8% of women and 1.7% of men were cohabiting at the time of the survey.

Other explanatory variables include the number of children and a dummy variable for residing with parents/parents-in-law, which equals 1 only if the respondent resides with her parents/parents-in-law and shares living expenses with them. I also control for income. For unmarried respondents, I use their personal income. For married respondents, I calculate the sum of their personal income and their husband's personal income and adjust it for economies of scale in consumption by dividing it by the square root of 2, as I do for the wealth variables. In addition, I include the total amount of bequests and *inter vivos* transfers received from the respondent's parents/parents-in-law during the past year. I use the IHS transformation of these income and intergenerational transfer variables, as I do for the wealth variables. All the wealth, income, and intergenerational transfer variables are expressed in 2017 yen.

How wealth is distributed within married couples may depend on how the household budget is managed. In the JPSC, respondents are asked which of 18 types best describes how the monthly household budget is managed. On the basis of responses to this question, I sort respondents into five categories: (1) the respondent receives her husband's entire income or the respondent is unmarried; (2) the respondent receives part of her husband's income, but she does not share her own income; (3) the respondent receives part of her husband's income and either shares her own income or does not have her own income; (4) the respondent and her husband manage their respective incomes separately; and (5) the respondent gives her entire income to her husband.

Finally, I control for the key characteristics of the respondent, including her age, age squared, and employment status. I also include dummy variables for year, region, and residing in a major city.

Empirical Results

Descriptive Statistics

Table 1 shows summary statistics for the dependent and explanatory variables. Approximately 37% of women in the sample are unmarried.

The table shows that the average personal total net worth for the full sample is about 3.1 million yen (approximately US\$28,200). As shown in Figure 1, the average

⁸ These data are available at http://www.ipss.go.jp/ps-doukou/j/doukou15/doukou15_gaiyo.asp.

Table 1 Summary statistics

	Mean	SD	Min.	Max.
Personal Total Net Worth (IHS-transformed)	1.00	1.30	-4.74	5.79
Untransformed value (million yen)	3.05	7.15	-57.24	164.32
Personal Financial Net Worth (IHS-transformed)	0.97	1.15	-3.94	5.79
Untransformed value (million yen)	2.60	5.79	-25.73	164.32
Personal Nonfinancial Net Worth (IHS-transformed)	0.11	0.78	-4.74	5.59
Untransformed value (million yen)	0.45	3.58	-57.24	133.59
Equivalentized Household Total Net Worth (IHS-transformed) ^a	1.56	1.93	-4.35	6.12
Untransformed value (million yen) ^a	7.53	14.73	-38.79	226.88
Equivalentized Household Financial Net Worth (IHS-transformed) ^a	1.63	1.39	-4.31	5.31
Untransformed value (million yen) ^a	5.51	8.88	-37.17	101.32
Equivalentized Household Nonfinancial Net Worth (IHS-transformed) ^a	0.39	1.70	-4.39	5.85
Untransformed value (million yen) ^a	2.02	9.14	-40.47	173.30
Marital Status				
Never married	.29		0	1
Married	.63		0	1
Divorced	.08		0	1
Number of Children	1.23	1.16	0	7
Coresides With Parents/Parents-in-Law	.29		0	1
Equivalentized Annual Income (IHS-transformed)	1.93	0.60	0	4.61
Untransformed value (million yen)	3.97	2.40	0	50.35
Intergenerational Transfers (IHS-transformed)	0.04	0.32	0	5.19
Untransformed value (million yen)	0.14	1.78	0	90.18
Budget Management				
Respondent controls	.79		0	1
Respondent does not share, but husband shares	.03		0	1
Respondent shares, and husband shares	.15		0	1
Separate management	.03		0	1
Husband controls	.01		0	1
Respondent's Characteristics				
Age	37.52	7.96	24	58
Age squared / 100	14.71	6.25	5.76	33.64
Employment status				
Regular worker	.31		0	1
Irregular worker	.35		0	1
Self-employed	.06		0	1
Not in labor force	.28		0	1
Resides in a Major City	.29		0	1
Number of Observations			19,541	
Number of Individuals			2,923	

Note: IHS = inverse hyperbolic sine.

^a Figures for equivalentized household net worth are based on the married sample only.

Source: Calculations are based on data from the JPSC.

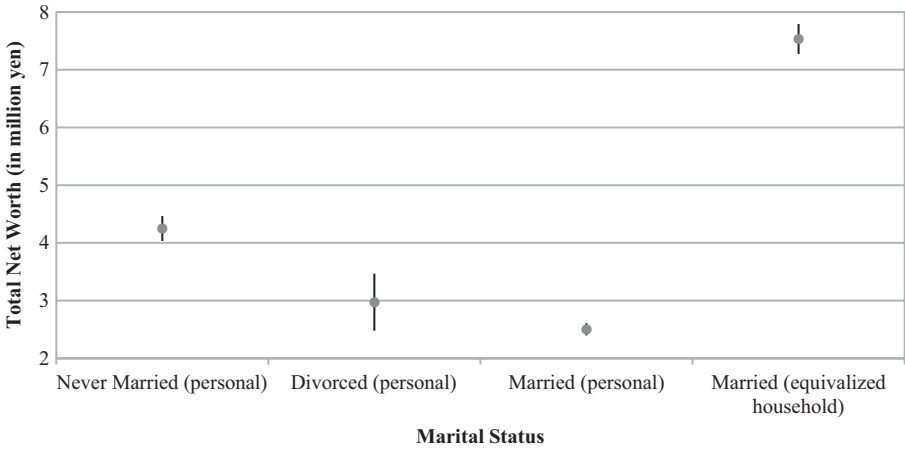


Fig. 1 The average level of total net worth (in million yen) by marital status. Spikes indicate 95% confidence intervals. The figure is based on calculations using data from the JPSC.

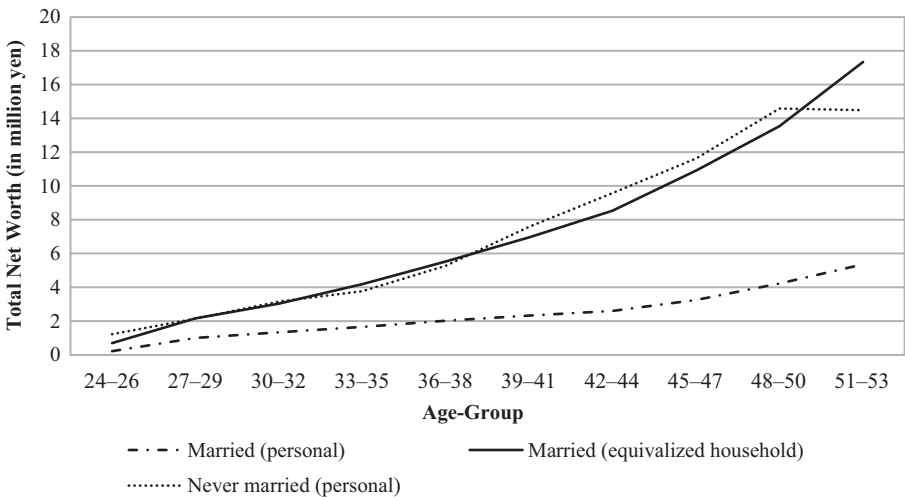


Fig. 2 The average level of personal/equivalized household wealth (total net worth, in million yen) by age-group. The figure is based on calculations using data from the JPSC.

personal net worth for the never-married sample (4.2 million yen) is significantly greater than that for the married sample (2.5 million yen). These figures suggest that when wealth is measured as personal wealth, married women are not necessarily wealthier than never-married women. However, when married women’s wealth is measured as equivalized household net worth on the assumption that married couples share household resources equally, married women have more wealth (7.5 million yen) than their never-married or divorced counterparts.

Taking a closer look at differences in wealth accumulation patterns between married and never-married women, [Figure 2](#) shows married and never-married women’s

Table 2 Wives' share of household income and wealth

	Mean	SD
All Respondents		
Income	.18	.19
Total wealth	.22	.26
Financial wealth	.25	.26
Nonfinancial wealth	.16	.28
Employed Respondents		
Income	.26	.18
Total wealth	.24	.27
Financial wealth	.28	.27
Nonfinancial wealth	.18	.29
Regularly Employed Respondents		
Income	.41	.15
Total wealth	.35	.27
Financial wealth	.37	.28
Nonfinancial wealth	.30	.31

Note: The figures in the table are based on married respondents for whom positive amounts were recorded for household total income, total wealth, financial wealth, and nonfinancial wealth.

Source: Calculations are based on data from the JPSC.

average personal total net worth by age-group. For married women, the figure also shows the average equivalized household total net worth. Never-married women accumulate personal wealth (personal total net worth) much faster than married women. However, if wealth is measured as equivalized household total net worth, trends in wealth holdings by age-group for married women are similar to those for never-married women up to approximately age 50. Thereafter, they diverge: never-married women's wealth holdings start stagnating, whereas married women's continue to increase. [Figure 2](#) therefore suggests that the wealth premium of marriage is relatively limited in Japan and that it is observed only at a later stage of the life cycle and also only under the assumption that married couples share household wealth equally.

Do married couples share their wealth equally, as is commonly assumed? [Table 2](#) shows that married women in Japan own, on average, only about 22% of household total wealth (gross wealth). Moreover, among married couples who own their primary residence (and land, if applicable), women own, on average, only about 16% of their primary residence. According to the JPSC data, among married couples who own their primary residence, only about 29% of women own part or all of the residence. [Table 2](#) also suggests that married women's share of total household wealth becomes larger only when they have regular employment.

The relatively small proportion of married women who own all or part of their primary residence in Japan is in sharp contrast to that found previously in Germany. [Lersch \(2017\)](#) found that married women in Germany accumulate more wealth than their never-married counterparts mainly through joint investments in housing with their husbands. [Sierminska et al. \(2010\)](#) also found that married couples in Germany tend to share housing wealth more than nonhousing wealth.

Regression Results

To examine the relationship between marriage and wealth, I conduct a regression analysis, as explained earlier. [Table 3](#) shows the estimation results for the fixed-effects regression models.

To investigate the over-time association between marriage and wealth, I include in the estimation model a set of dummy variables for marriage duration instead of including a dummy variable for being married. The coefficients on these marriage duration dummy variables, reported in [Figures 3–5](#), indicate how the wealth premium of marriage changes as marriage durations increase. The base category for these marriage duration dummy variables is never married. The solid lines show the coefficients obtained from the regression analyses in which personal wealth is used to measure both married women's and unmarried women's wealth holdings; the dotted lines show those obtained from the regression analyses in which personal wealth is used to measure unmarried women's wealth holdings and equivalized household wealth is used to measure married women's wealth holdings. Only the estimated coefficients that are shown in black (i.e., not those in gray) in these figures are statistically significant.

When personal wealth is used as the wealth measure, marriage is negatively and significantly associated with total net worth throughout the marriage (see [Figure 3](#)). A similar relationship is observed between marriage and financial net worth (see [Figure 4](#)). [Figures 3 and 4](#) also show that, contrary to assumptions in previous research, the relationship between marriage and wealth is not linear, suggesting the importance of allowing the effect of marriage to be nonlinear. [Figure 5](#) shows that the relationship between marriage and nonfinancial net worth is only rarely statistically significant. This finding is not surprising given that a relatively small number of women own their primary residence in their own name regardless of their marital status.

These results are in sharp contrast to [Lersch's \(2017\)](#) findings of substantial wealth premiums of marriage for women in Germany regarding not only household wealth but also personal wealth, mainly through joint investment in housing with their husbands. Institutional barriers that prevent married couples from having joint ownership of their residence when wives do not have sufficient income or wealth may explain the absence of marriage wealth premiums for personal wealth in Japan.

Moreover, a relatively large share of women in Japan still experience child-related career disruptions. Even those who remain in the labor market or return to work after childbearing tend to reduce their working hours. Only about 19% of the women in the married sample are engaged in regular employment, compared with 52% in the unmarried sample. [Table 3](#) shows that, of the employment-related variables, only the coefficients on irregular employment are statistically significant. These coefficients are negative, suggesting that women in irregular employment might work out of necessity.

To investigate the implications of women's employment for their wealth accumulation in more detail, I run a regression separating the income variable into two variables: one for the respondent's income and the other for her husband's income. Similarly, I separate the intergenerational transfer variable into two variables: one for

Table 3 Estimation results for determinants of wealth (fixed-effects models)

	Personal Total Net Worth	Personal Financial Net Worth	Personal Nonfinancial Net Worth	Personal/Equivalized Household Total Net Worth	Personal/Equivalized Household Financial Net Worth	Personal/Equivalized Household Nonfinancial Net Worth						
	Coef.	SE	Coef.	SE	Coef.	SE						
	Coef.	SE	Coef.	SE	Coef.	SE						
Marital Status (ref. = never married) ^a												
Divorced	-0.313**	0.109	-0.297**	0.098	-0.004	0.064	-0.007	0.160	-0.030	0.119	0.112	0.142
Number of Children	-0.042	0.026	-0.048*	0.020	0.005	0.022	-0.042	0.035	-0.041†	0.022	0.041	0.034
Coresides With												
Parents/Parents-in-Law	0.070†	0.037	0.064*	0.032	0.014	0.026	0.072	0.047	0.055	0.034	0.040	0.042
Equivalized Annual Income	0.117**	0.026	0.129**	0.025	-0.011	0.015	0.160**	0.034	0.166**	0.028	0.001	0.028
Intergenerational Transfers	0.078**	0.022	0.030†	0.017	0.064**	0.023	0.112**	0.023	0.019	0.023	0.127**	0.032
Budget Management (ref. = respondent controls)												
Respondent does not share, but husband shares	0.126*	0.052	0.106*	0.042	0.018	0.042	0.120†	0.069	0.140**	0.049	0.006	0.065
Respondent and husband share	0.054	0.033	0.053*	0.025	-0.001	0.026	0.082†	0.047	0.095**	0.030	-0.014	0.045
Separate management	0.045	0.067	0.099†	0.058	-0.044	0.044	-0.093	0.106	0.067	0.071	-0.203*	0.089
Husband controls	0.011	0.080	-0.024	0.066	0.053	0.058	-0.125	0.107	0.034	0.073	-0.148	0.094
Age	0.117**	0.019	0.134**	0.017	-0.021†	0.012	0.133**	0.023	0.155**	0.018	-0.035†	0.020
Age Squared / 100	-0.094**	0.024	-0.121**	0.022	0.039*	0.017	-0.113**	0.031	-0.146**	0.024	0.060*	0.028
Employment Status (ref. = not in labor force)												
Regular worker	0.017	0.036	0.023	0.030	-0.018	0.025	-0.066	0.045	-0.065†	0.033	-0.042	0.042
Irregular worker	-0.045†	0.025	-0.039†	0.020	-0.006	0.018	-0.107**	0.036	-0.084**	0.025	-0.025	0.037
Self-employed	0.064	0.064	0.030	0.045	0.051	0.048	-0.049	0.093	-0.121	0.064	0.078	0.091

Table 3 (continued)

	Personal Total Net Worth		Personal Financial Net Worth		Personal Nonfinancial Net Worth		Personal/Equivalized Household Total Net Worth		Personal/Equivalized Household Financial Net Worth		Personal/Equivalized Household Nonfinancial Net Worth	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Resides in a Major City	0.024	0.050	0.022	0.042	0.024	0.043	-0.045	0.081	-0.004	0.052	-0.087	0.081
Constant	-1.489**	0.424	-1.777**	0.386	0.304	0.224	-1.665**	0.484	-2.158**	0.416	0.608	0.376
R ²	.142		.171		.012		.118		.170		.044	
Number of Observations	19,541		19,541		19,541		19,541		19,541		19,541	
Number of Individuals	2,923		2,923		2,923		2,923		2,923		2,923	

Notes: The results in the first six columns of the table are from regression analyses in which personal wealth is used for both the married and unmarried samples. The results in the last six columns of the table are from regression analyses in which personal wealth is used for the unmarried sample and equivalized household wealth is used for the married sample. Dummy variables for region and year are included in all regressions. Standard errors are clustered at the individual level.

* Coefficients on marriage duration variables are displayed in Figures 3–5.

Source: Estimations are based on data from the JPSC.

[†] $p < .10$; * $p < .05$; ** $p < .01$

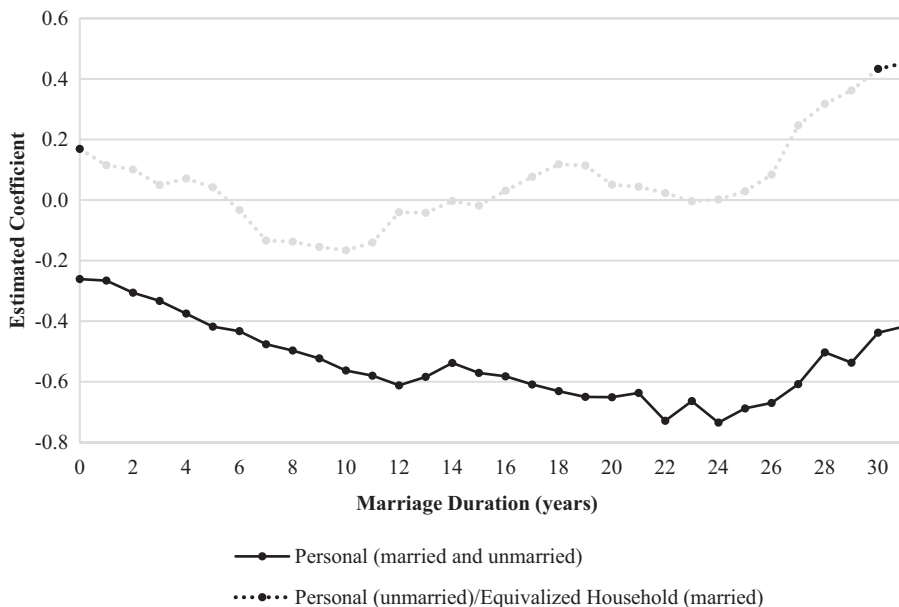


Fig. 3 Estimated coefficients on marriage duration dummy variables (total net worth). The solid line noted as “personal” shows the estimated coefficients on marriage duration dummy variables from the regression analysis in which personal wealth is used for both the married and unmarried samples. The dotted line noted as “personal/equivalized household” shows the estimated coefficients on marriage duration dummy variables from the regression analysis in which personal wealth is used for the unmarried sample and equivalized household wealth is used for the married sample. The remaining regression results are reported in Table 3. Only the coefficients in black (i.e., not those in gray) are statistically significant at the 10% level or lower. The figure is based on estimations using data from the JPSC.

transfers from the respondent’s parents and the other for transfers from her parents-in-law. The relevant regression results are shown in Table 4.⁹

Table 4 indicates that personal financial net worth, and hence total net worth, is accumulated mainly through the respondent’s income and transfers from her parents; personal nonfinancial net worth is accumulated mainly through transfers from her parents. By contrast, the respondent’s husband’s income and transfers from her parents-in-law have almost no statistically significant bearing on her personal wealth, which seems to challenge the commonly made assumption of married couples’ equal sharing of wealth.

Nevertheless, married women potentially have access to all or part of the wealth their husbands own. Under the assumption that married couples informally share household wealth, it might be more appropriate to use household wealth to measure married women’s wealth holdings.

When using equivalized household wealth as the dependent variable for the married sample, marriage is positively and significantly associated with nonfinancial net worth only for respondents who have been married for 11 or more years; this effect becomes larger with increasing marriage duration (see Figure 5). The positive

⁹ The remaining regression results are similar to those reported in Table 3. The full regression results are available from the author upon request.

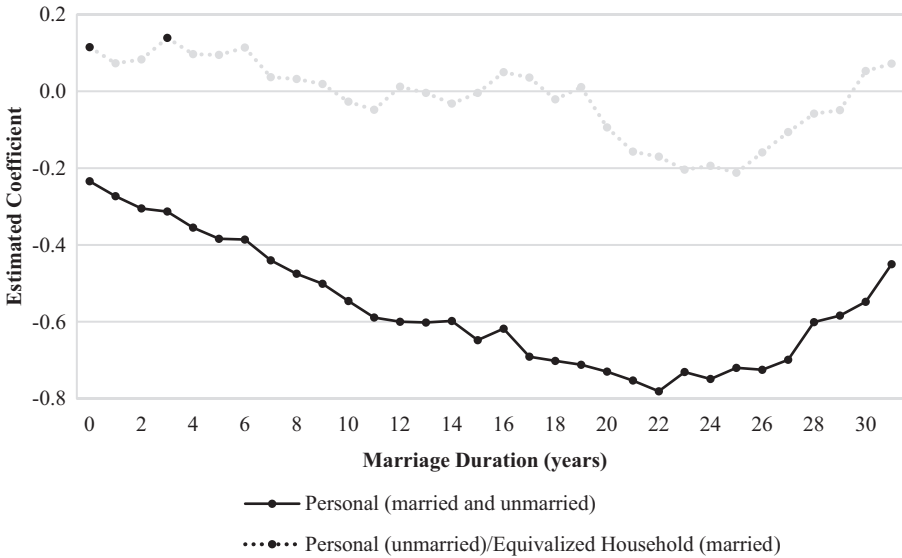


Fig. 4 Estimated coefficients on marriage duration dummy variables (financial net worth). The solid line noted as “personal” shows the estimated coefficients on marriage duration dummy variables from the regression analysis in which personal wealth is used for both the married and unmarried samples. The dotted line noted as “personal/equalized household” shows the estimated coefficients on marriage duration dummy variables from the regression analysis in which personal wealth is used for the unmarried sample and equalized household wealth is used for the married sample. The remaining regression results are reported in Table 3. Only the coefficients in black (i.e., not those in gray) are statistically significant at the 10% level or lower. The figure is based on estimations using data from the JPSC.

relationship between marriage and nonfinancial wealth is due partly to Japanese adults’ tendency to purchase their primary residence after they marry. Moreover, given that the wealth variables in this analysis are expressed as net worth, the positive relationship between marriage and nonfinancial wealth might be observed only after people pay off a certain amount of their housing loans.

I next examine the cases of total and financial net worth. The relationship between these two types of wealth and marriage is only rarely statistically significant (see Figures 3 and 4). This result is rather surprising given that previous studies predominantly found a positive relationship between marriage and wealth, as discussed earlier. The limited positive effect of marriage in Japan, even when household wealth is used to measure married women’s wealth holdings, may be explained by married women’s tendency to withdraw from the labor market or reduce their labor supply to meet their family responsibilities. Hence, even if married couples equally share the wealth accumulated from husbands’ income, married women may not be able to accumulate more wealth than their unmarried counterparts.

However, these results also imply that married women can accumulate as much wealth as unmarried women even if they earn less income, allowing them to enjoy a level of economic well-being no lower than that of their unmarried counterparts despite their limited labor supply. Furthermore, the empirical results offer some signs that the wealth premium of marriage is realized at longer marriage durations, particularly as married couples pay off their housing loans. Given that the sample used

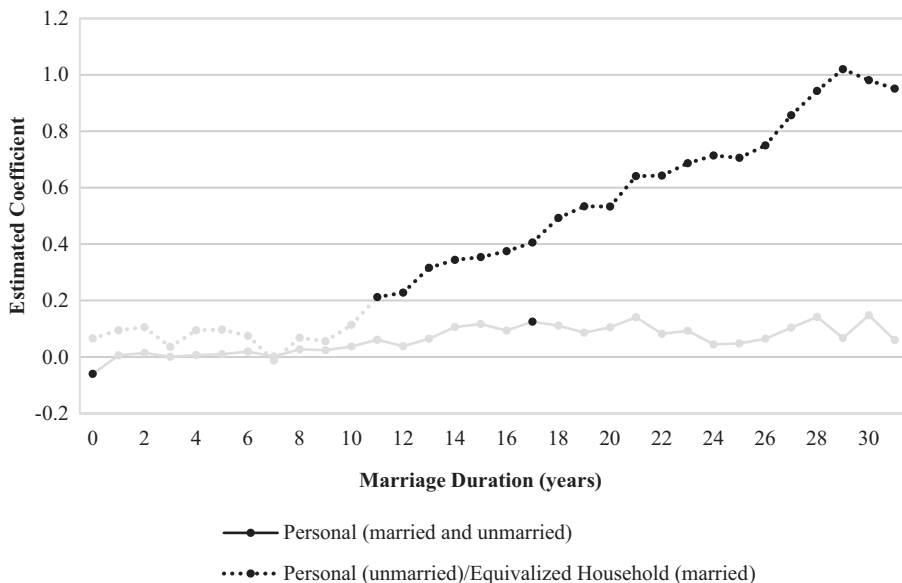


Fig. 5 Estimated coefficients on marriage duration dummy variables (nonfinancial net worth). The solid line noted as “personal” shows the estimated coefficients on marriage duration dummy variables from the regression analysis in which personal wealth is used for both the married and unmarried samples. The dotted line noted as “personal/equivalized household” shows the estimated coefficients on marriage duration dummy variables from the regression analysis in which personal wealth is used for the unmarried sample and equivalized household wealth is used for the married sample. The remaining regression results are reported in [Table 3](#). Only the coefficients in black (i.e., not those in gray) are statistically significant at the 10% level or lower. The figure is based on estimations using data from the JPSC.

for the empirical analysis in this study is relatively young, it would be interesting to reexamine changes in the association between marriage and wealth over longer durations when the necessary data become available.

The remaining regression results are broadly similar regardless of whether I use equivalized household net worth or personal net worth for the married sample (see [Table 3](#)). The number of children is negatively and significantly associated with financial net worth, which suggests that the cost of raising children outweighs the positive effect of having children on financial wealth, such as incentivizing parents to accumulate wealth to leave a bequest. Household income is positively and significantly associated with total and financial net worth, as expected. The positive association between the receipt of intergenerational transfers and total net worth seems driven mainly by its effect on nonfinancial net worth, which is not surprising considering that the share of nonfinancial net worth in intergenerational transfers is high in Japan, partly because land/housing is expensive and partly because inheritance tax rates are lower on land/housing than on financial assets. On the other hand, coresiding with parents/parents-in-law seems to help women accumulate personal total and financial wealth.

Finally, I turn to the implications of household budget management type for wealth accumulation. Interestingly, I find that women in households in which the husband shares his income with his wife have higher personal and household wealth than women in households in which the husband gives his entire income to his wife.

Table 4 Estimated coefficients on respondents' and their husbands' income and intergenerational transfers from respondents' parents/parents-in-law

	Personal Total Net Worth		Personal Financial Net Worth		Personal Nonfinancial Net Worth	
	Coef.	SE	Coef.	SE	Coef.	SE
Respondent's Annual Income	0.121**	0.022	0.125**	0.018	0.007	0.017
Respondent's Husband's Annual Income	-0.011	0.036	0.034	0.028	-0.049 [†]	0.028
Intergenerational Transfers From Respondent's Parents	0.169**	0.036	0.077**	0.027	0.119**	0.039
Intergenerational Transfers From Respondent's Parents-in-Law	-0.010	0.023	-0.022	0.019	0.016	0.024
Number of Observations	19,541		19,541		19,541	
Number of Individuals	2,923		2,923		2,923	

Notes: The remaining explanatory variables included in [Table 3](#) as well as dummy variables for year and region are included in all regressions. Standard errors are clustered at the individual level.

Source: Estimations are based on data from the JPSC.

[†] $p < .10$; ** $p < .01$

Discussion

In this article, I examined the relationship between marriage and wealth over time in the case of Japan using the JPSC data. By exploiting the availability of data on personal wealth, I also investigated whether the effect of marriage on wealth differs depending on whether wealth is measured as household or personal wealth. The use of household wealth assumes that married couples share household resources equally.

When I used equalized household net worth to measure married women's wealth holdings, I found that marriage contributes to women's wealth holdings but only to their nonfinancial net worth. However, the results provide some signs that marriage also contributes to women's total net worth as marriage durations increase. By contrast, when I measured wealth as personal net worth, I found that marriage is negatively and significantly associated with women's wealth holdings—specifically, with their total and financial net worth.

The observed negative effect of marriage on personal wealth in Japan is in sharp contrast to the positive effect found for Germany in previous research: married women in Germany accumulate their personal wealth largely through joint investment in housing with their husbands (Lersch 2017). The joint ownership of housing seems to be less common in Japan, where a relatively small proportion of married women own housing wealth. This difference may be due partly to married women's greater likelihood of child-related labor market exits or work hour reductions in Japan relative to other developed countries, likely decreasing their lifetime income. Moreover, this

possible income loss due to marriage cannot be compensated for by wealth transfers from husbands for the purposes of joint investment in housing because wealth transfers between spouses are subject to gift taxes in Japan.

These results cast doubt on the commonly made assumption that married couples share household wealth equally. At least in Japan, the allocation of intrahousehold resources seems more in line with the collective model rather than the unitary model. This allocation, in turn, suggests that Japanese women are economically dependent on their husbands and that their bargaining power within marriage is relatively weak.

Finally, the empirical results obtained in the present analysis underscore the importance of examining the relationship between marriage and wealth over time. I found that the relationship changes with marriage duration.

The empirical analysis presented is not without caveats. Although estimating fixed-effects regression models helps eliminate selection bias due to time-invariant unobservable characteristics, the estimates are still potentially subject to possible bias due to time-variant unobservable characteristics. The difficulty of identifying appropriate time-variant instruments prohibited me from fully addressing this issue, leaving it as an important agenda for future research. In addition, the relatively young sample prevented me from examining the wealth premium of marriage over a longer horizon. Furthermore, although the JPSC provides unique data on personal wealth, the data do not provide information on each family member's exact ownership share of nonfinancial wealth when nonfinancial wealth is owned jointly among family members. As a result, I had to make assumptions to calculate respondents' personal wealth, which is likely to have introduced noise to the empirical analysis. The results should therefore be interpreted with caution.

Nevertheless, the findings of the present analysis have important policy implications. The results suggest that promoting gender equality in the labor market will help women enhance their economic well-being and accumulate sufficient wealth for old age regardless of their marital status. Equally important is creating an environment where married women can continue working even after marrying or bearing a child to avoid relying so heavily on their husbands for their economic well-being. Finally, removing institutional barriers, such as the imposition of gift taxes on wealth transfers between spouses, will help promote the equal sharing of household wealth within married couples—perhaps even in a legal sense. ■

Acknowledgments I am grateful to *Demography's* Editor, Mark D. Hayward, and two anonymous referees. I also thank Bertrand Garbinti, Tatsuo Hatta, Yoshio Higuchi, Charles Yuji Horioka, Hiroshi Ishida, Akira Kawaguchi, Yukinobu Kitamura, Jong-Wha Lee, Colin R. McKenzie, Eric D. Ramstetter, Eva Sierminska, Tien Manh Vu, Dain Wie, Kazuo Yamaguchi, and other participants of the 16th International Convention of the East Asian Economic Association, the conference on "Asian Economic Outlook and Challenges to Growth and Stability" organized by the Asiatic Research Institute of Korea University, a seminar at the East-West Center, the 18th Panel Survey Conference organized by the Panel Data Research Center at Keio University, the Asian Growth Research Institute Staff Seminar, the Economics Seminar at the Graduate School of Economics of the University of Toyama, the Singapore Economic Review Conference 2019, the Family Economics Workshop, the Japan Forum at Banque de France, and the 36th International Association for Research in Income and Wealth (IARIW) General Conference for their valuable comments. I thank the Panel Data Research Center at Keio University for permitting me to use data from the Japanese Panel Survey of Consumers. This work was financially supported by the Japan Society for the Promotion of Science KAKENHI (Grants-in-Aid for Scientific Research) grants 18H00870 and 20H01513.

References

- Becker, G. S. (1981). *A treatise on the family*. Cambridge, MA: Harvard University Press.
- Bertocchi, G., Brunetti, M., & Torricelli, C. (2011). Marriage and other risky assets: A portfolio approach. *Journal of Banking & Finance*, *35*, 2902–2915.
- Blood, R. O., & Wolfe, D. M. (1960). *Husbands and wives: The dynamics of married living*. Glencoe, IL: Free Press.
- Chiappori, P. A. (1988). Rational household labor supply. *Econometrica*, *56*, 63–89.
- Chiappori, P. A., & Molina, J. A. (2020). The intra-spousal balance of power within the family: Cross-cultural evidence. In W. K. Halford & F. Van De Vijver (Eds.), *Cross-cultural family research and practice* (pp. 185–209). London, UK: Elsevier.
- Christiansen, C., Joensen, J. S., & Rangvid, J. (2015). Understanding the effects of marriage and divorce on financial investments: The role of background risk sharing. *Economic Inquiry*, *53*, 431–447.
- Crosan, R., & Gneezy, U. (2009). Gender differences in preferences. *Journal of Economic Literature*, *47*, 448–474.
- Di, Z. X., Belsky E., & Liu, X. (2007). Do homeowners achieve more household wealth in the long run? *Journal of Housing Economics*, *16*, 274–290.
- Frech, A., Painter, M., & Vespa, J. (2017). Marital biography and mothers' wealth. *Journal of Family and Economic Issues*, *38*, 279–292.
- Grabka, M. M., Marcus J., & Sierminska, E. (2015). Wealth distribution within couples. *Review of Economics of the Household*, *13*, 459–486.
- Grinstein-Weiss, M., Charles, P., Guo, S., Manturuk, K., & Key, C. (2011). The effect of marital status on home ownership among low-income households. *Social Service Review*, *85*, 475–503.
- Gupta, S. (2007). Autonomy, dependence, or display? The relationship between married women's earnings and housework. *Journal of Marriage and Family*, *69*, 399–417.
- Hao, L. (1996). Family structure, private transfers, and the economic well-being of families with children. *Social Forces*, *75*, 269–292.
- Hendershott, P. H., Ong, R., Wood, G. A., & Flatau, P. (2009). Marital history and home ownership: Evidence from Australia. *Journal of Housing Economics*, *18*, 13–24.
- Kitamura, Y., & Sakamoto, K. (2007). Sedaikan kankei kara mita kekkon kodo [Marriage behavior from a viewpoint of generational relation]. *Keizai Kenkyu*, *58*(1), 31–46.
- Lee, J., & Pocock, M. L. (2007). Intrahousehold allocation of financial resources: Evidence from South Korea individual bank accounts. *Review of Economics of the Household*, *5*, 41–58.
- Lersch, P. M. (2017). The marriage wealth premium revisited: Gender disparities and within-individual changes in personal wealth in Germany. *Demography*, *54*, 961–983.
- Lusardi, A., & Mitchell, O. S. (2008). Planning and financial literacy: How do women fare? *American Economic Review: Papers & Proceedings*, *98*, 413–417.
- Okaze, K. (2014). Chunenki mikonjosei niokeru kateinairodo to shugyo: Chunenki mikondansei tonohikaku niyoru kento [Middle-aged single women's domestic work and employment status: Comparative study with middle-aged single men]. *Seikatsu Shakai Kagaku Kenkyu/Journal of Social Sciences and Family Studies*, *21*, 17–28.
- Painter, M., Frech, A., & Williams, K. (2015). Nonmarital fertility, union history, and women's wealth. *Demography*, *52*, 153–182.
- Raymo, J. M., & Ono, H. (2007). Coresidence with parents, women's economic resources, and the transition to marriage in Japan. *Journal of Family Issues*, *28*, 653–681.
- Ruel, E., & Hauser, R. (2013). Explaining the gender wealth gap. *Demography*, *50*, 1155–1176.
- Shikata, M. (2018). Oyakokyo mikonsha no zoka to shotoku kakusa [The increase in the number of never married individuals coresiding with parents and income inequality]. *Kikan Kojin Kinyu*, *2018*(Summer), 13–20.
- Sierminska, E. M., Frick, J. R., & Grabka, M. M. (2010). Examining the gender wealth gap. *Oxford Economic Papers*, *62*, 669–690.
- Takada, S. (2005). Mikonjosei no rodokyokyo nikansuru bunseki: Oya tonodokyo ha rodokyokyo ni eikyo wo ataeteiruka? [Labor supply of unmarried Japanese women: Does parent-youth coresidence affect the labor supply?]. *Jinkogaku Kenkyu*, *37*, 31–46.

- Takagi, E., & Silverstein, M. (2006). Intergenerational coresidence of the Japanese elderly: Are cultural norms proactive or reactive? *Research on Aging*, 28, 473–492.
- Turner, T. M., & Luea, H. (2009). Homeownership, wealth accumulation and income status. *Journal of Housing Economics*, 18, 104–114.
- Ulker, A. (2009). Wealth holdings and portfolio allocation of the elderly: The role of marital history. *Journal of Family and Economic Issues*, 30, 90–108.
- Vespa, J., & Painter, M. A. (2011). Cohabitation history, marriage, and wealth accumulation. *Demography*, 48, 983–1004.
- Yamada, M. (1999). *Parasaito shinguru no jidai* [The era of parasite singles]. Tokyo, Japan: Chikuma Shinsho.
- Zagorsky, J. L. (2005). Marriage and divorce's impact on wealth. *Journal of Sociology*, 41, 406–424.

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