



Why do people oppose foreign acquisitions? Evidence from Japanese individual-level data[☆]

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ABSTRACT

This study empirically examines the determinants of individuals' attitudes about inward foreign direct investment (FDI) using responses from questionnaire surveys that were originally designed. Individuals' preferences for inward FDI differ between greenfield investments and mergers and acquisitions (M&A), and people are more likely to have a negative attitude toward M&A than greenfield investments. People with a negative image of the so-called "vulture fund" for foreign capital tend to oppose inward FDI, and this is more pronounced for M&A than greenfield investments. Moreover, loss aversion and high time preference rates are strongly related to opposition to inward FDI, and people with such behavioral biases tend to refuse indigenous firms to be acquired by foreign capital, even if they agree to accept greenfield investment. These results indicate that people's preferences for inward FDI depend more on non-economic attributes than economic attributes. Our results also suggest that a lack of economic literacy is associated with unconscious biases against accepting inward FDI.

1. Introduction

In response to empirical evidence in many countries that inward foreign direct investment (FDI) revitalizes the domestic economy, it has become a policy issue to spur inward FDI. Governments have been making numerous policies to promote inward FDI, but there has been very little research on whether such policies are politically supported compared with studies on the determinants of support for trade policies. In this study, we empirically examine the factors that determine people's attitudes about inward FDI based on Japanese individual-level data retrieved from our questionnaire survey.

People's views on inward FDI vary greatly depending on the type of

investment: greenfield or mergers and acquisitions (M&A). According to the Pew Research Center, which conducts cross-country polling, people's views of inward FDI differ between greenfield investments in establishing new factories and corporations and M&A of existing companies, with 13 out of 15 countries having a majority of positive opinions on the former, while more than half of the 15 countries have a negative view of the latter.¹ Even if it is simply expressed as inward FDI, people's feelings seem to differ depending on the investment method. This study focuses on why people dislike the entry of foreign capital through cross-border M&A.

Previous studies on people's attitudes toward external economic policy or globalization have accumulated some research on trade

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¹ See the following articles from the Pew Research Center "Globally, views of foreign direct investment vary depending on type of investment" <https://pewrsr.ch/2Xmk7GI>.

liberalization (Beaulieu, 2002; Blonigen, 2011; Felbermayr and Okubo, 2021; Ito et al., 2019; Jäkel and Smolka, 2017; Mayda and Rodrik, 2005; Naoi and Kume, 2011; Scheve and Slaughter, 2001), but to the best of our knowledge, there are few studies on inward FDI preferences. The exception is research consisting of a series of empirical studies using data on public views of multinational companies (MNCs) collected by the 2003 International Social Survey Programme (ISSP).² Kaya and Walker (2012) reported that educated people are more likely to show positive attitudes toward MNCs. Daniels et al. (2016) and Harms and Schwab (2018) examined the effects of individuals' attributes and country-specific factors by taking advantage of a cross-country survey. Daniels et al. (2016) indicated that 93% of the total variations in individuals' attitudes toward MNCs were explained by differences in individual attributes, suggesting the importance of controlling personal characteristics. Regarding individuals' attributes, a recent similar survey of trade policy preferences found that non-economic factors, such as social attributes and behavioral biases, in addition to individual labor market characteristics, such as educational background and annual income, have strong explanatory power. For example, regarding behavioral bias, Tomiura et al. (2016) revealed findings from empirical analysis using the results of a nationwide survey of 10,000 people that people trapped in status quo bias tend to oppose import liberalization. As a social attribute, it has been clarified that non-cognitive abilities, based on people's experiences, also influence policy preferences. Yamamura and Tsutsui (2019) indicated that childhood sports and other experiences cultivate positive ideas on the role of collaboration and notions of competition and reciprocity, which are also linked to support for trade liberalization. It has also been demonstrated that people's protectionist policy preferences are significantly influenced by the way they are informed (Di Tella and Rodrik, 2020).

Thus, recent empirical analysis suggests that there are many non-economic factors behind the support for protectionism rather than exclusively economic factors. However, to the best of our knowledge, no empirical study has examined whether such a tendency can be seen in people's preferences for inward FDI. Although there have been several attempts at studying attitudes about FDI using survey data from the 2003 ISSP, these are based on people's attitudes toward MNCs' activities rather than inward FDI. In this study, we used data on preferences for inward FDI and other personal attributes collected from more than 4800 people in Japan using our original questionnaire survey and examined which attributes deter people from accepting inward FDI while considering both economic and non-economic attributes. In particular, since opposition to accepting investments is concentrated on inward FDI through M&A of domestic firms, we compared the determinants of preferences for greenfield investment and M&A by applying a bivariate probit model.

The Japanese sample is useful in examining the impact of non-economic factors on preferences. Inward FDI in Japan is significantly lower than in other countries, and the kind of economic impact that the acceptance of inward FDI will have at the individual level is not always recognized. Therefore, it is expected that non-economic factors, such as behavioral bias, have a stronger influence on the preference for accepting inward FDI than economic attributes, such as educational background and income level. This study focuses on behavioral bias and the effect of imprinting negative images on inward FDI through the media. Previous studies on preference factors for trade policy have shown that people's experiences, information, and behavioral biases unconsciously invite people into protectionist policies. Regarding behavioral bias, people who prefer to maintain the status quo may unconsciously dislike inward FDI which induces structural changes; thus, people's status quo biases may also affect their preference for inward

FDI. Regarding loss aversion in the context of international trade, Tovarov (2009) indicated that less profitable industries are given stronger protection when individuals prefer loss aversion. In particular, in the case of inward M&A, domestic firms with deteriorating business conditions are often targeted for acquisitions, and therefore those who prefer to avoid losses may want to prevent acquisitions. Regarding the influence of media, Zhang et al. (2022) examined the experience of reading positive (negative) news has a positive (negative) relationship with individuals' judgments of the legitimacy of emerging multinational enterprises. In Japan, the image of the so-called "vulture fund" disseminated by the mass media is considered to be the reason for the rejection of inward M&A. Vulture funds refer to distressed debt funds that seek to collect debt value through litigation, procuring corporate and sovereign bonds at a low price, and emerging as plaintiffs in sovereign debt litigations in the early 1990s (Schumacher et al., 2021). They have been called vulture funds primarily because they have taken advantage of the debt crisis in developing countries. In Japan, however, vulture funds were widely featured in the media in the context of a private equity fund acquiring a Japanese firm that had been in a slump during the financial crisis in the late 1990s. In particular, there was the case of a foreign investment consortium that acquired the former Long-Term Credit Bank of Japan (LTCB), and subsequently, it gained more than 100 billion yen in profit after the bank was relisted as Shinsei Bank. This operation was sensationalized as a vulture fund resulting in increased social criticism. Subsequently, it was described in economic novels using the vulture fund as a model and was widely recognized through dramas and movies. Is it possible that the experience of these economic cases or sensational imprinting through the media has caused people to reject acquisition through foreign capital? This study provides evidence from an empirical examination of this research question.

2. Data

2.1. Overview of questionnaire survey

The questionnaire survey was conducted on the Internet from June 15 to June 27, 2021, targeting men and women between the ages of 18 and 79 years, and responses were received from 4868 people. We attempted to secure this level of responses so that the distribution of the age structure would be as close as possible to the current age distribution in Japan. The survey method was conducted in the form of questions via the Internet and survey targets were extracted from the monitors registered with the survey consignment company (NTT Com). Monitors were extracted from each category to approach the values of the gender / age / eight regional categories according to the population composition ratio of the 2015 census. The sample was generally close to the census population composition; for example, the composition ratio by gender was 51.3% for women and 24.6% for elderly people (65 years old and over). Regarding other basic personal characteristics, prefectures were surveyed as residences, family status as to whether they had a child, and whether they were single. Industries and employment types were also surveyed for employed individuals.

2.2. People's preferences for inward FDI

As shown in the preceding survey by the Pew Research Center, people's preferences for inward FDI vary depending on the type of investment. In this regard, the survey provided questions about inward FDI via greenfield investment as well as about FDI via M&A. Specifically, regarding greenfield investment, we asked the question: "What do you think about foreign companies setting up new factories and offices in Japan and expanding their business?" Regarding M&A, we asked: "What do you think about foreign companies acquiring Japanese companies with excellent technology and know-how and expanding their business in Japan?" The responses for the five choices presented were: "agree"; "somewhat agree"; "neither"; "somewhat disagree"; and "disagree." The outcome variable of

² The survey includes the following question: "How much do you agree or disagree with the following statement? 'Large international companies are doing more and more damage to local businesses in your country.'"

this study is based on the responses to these questions, but there is concern about bias due to the framing effect, in which people’s attitudes toward inward investment are swayed by other questions. In designing this survey, these questions on people’s preferences for inward FDI were placed at the beginning of the survey.

The results of the answers to the two questions were consistent with those of the preceding survey. There was a wide variety of preferences regarding greenfield investment and M&A. Table 1 shows the preference for inward M&A in the horizontal direction and the preference for inward greenfield investment in the vertical direction, with 1 = “agree” through 5 = “disagree” for all respondents for the combinations that correspond to the answers to the two questions. From the pros and cons shown in the Total column, more than 40% of the respondents tended to choose a neutral position, but many people expressed the opposite attitude, especially when the ratio of opposition to M&A was overwhelmingly high. Looking at the intersection between the two, some people had the same answer to the two questions diagonally from the upper left to the lower right; interestingly, some people are distributed in the upper right of the table. In other words, a substantial number of people oppose inward M&A even if they are in favor of or neutral about inward greenfield investments. This is consistent with the results of cross-country surveys conducted by the Pew Research Center. In contrast, the table also shows that very few people are located at the bottom left of the table, that is, those who are in favor of or neutral about inward M&A and who are against inward greenfield investment. This finding raises the question of why M&A is likely to be rejected.

2.3. Economic attributes

The impact of inward FDI on the host country has shown many positive empirical results, such as increased productivity due to technology transfer or knowledge spillover (Blalock and Gertler, 2008; Girma et al., 2008; Haskel et al., 2007; Javorcik, 2004; Keller and Yeaple, 2009). Although rising productivity is likely to result in higher wages, many studies have suggested disparities in the impact on wages (Hijzen et al., 2013; Setzler and Tintelnot, 2021). Using German data, Egger et al. (2020) revealed that the wage premiums of foreign affiliates are concentrated in high-skilled workers, suggesting that the wage gap between high- and low-skilled workers will widen. Considering the possibility of such disparities, the impact of inward FDI on wages and employment would vary depending on the individual’s skills, and as a result, individuals’ preferences for inward FDI may differ. In the case of inward FDI in developed countries such as Japan, labor demand for skill-intensive tasks is expected to increase, and people with higher skills are expected to view inward FDI positively because it can increase employment opportunities and wages. People with low skills are likely to oppose inward FDI because labor demand will decline relatively and wage increases would not be expected.

Attitudes about inward FDI due to labor market attributes may vary depending on the type of investment. Greenfield investments are reminiscent of the possibility of new employment at the destination, but M&A may retain existing company employees or result in employment

Table 1
Pros and cons of inward greenfield (GR) investment and inward M&A.

Inward GR	Inward M&A					Total
	1	2	3	4	5	
1	3.9%	2.0%	2.2%	0.9%	0.7%	9.6%
2	0.8%	9.8%	9.2%	5.7%	1.8%	27.4%
3	0.1%	3.3%	29.5%	11.4%	3.1%	47.4%
4	0.1%	0.5%	2.0%	6.2%	2.9%	11.6%
5	0.0%	0.1%	0.3%	0.4%	3.1%	3.9%
Total	5.0%	15.7%	43.2%	24.5%	11.6%	100.0%

Note: The distribution of responses from 4858 people (100%) is shown. 1 = “agree”; 2 = “somewhat agree”; 3 = “neither”; 4 = “somewhat disagree”; and 5 = “disagree.”

adjustments through post-acquisition restructuring. When associated with employment adjustments after the acquisition, people with lower skills may react more sensitively to rejection and even some high-skilled people may oppose inward M&A. In this survey, we asked about educational background and annual income as labor market attributes that represent individual skills. University and graduate school graduates account for 45% of the total population. Annual income is divided into categories of 2 million yen for 2020, and the most frequent category is those with an income of fewer than 2 million yen (35%) Considering the spread of COVID-19, whether annual income decreased was also added to the questions. A full 25% of the respondents said that their annual income had been lowered by COVID-19. In addition, people with low skill levels but with economic literacy may understand the need for inward FDI. In this survey, those who chose *The Nihon Keizai Shimbun*, the world’s largest financial newspaper, as their source of daily news were defined as those with economic literacy.

2.4. Non-economic attributes

The primary focus of attention on non-economic factors in this study was unconscious biases based on personal experience. Those with a negative impression of inward FDI as an experience are likely to reject it unconsciously. In particular, regarding inward M&A, a foreign investment consortium centered on an American private equity firm, Ripplewood acquired the LTCB, which was injected with public funds of 8 trillion yen, for a cost of only 1 billion yen during the financial crisis in the late 1990s. In this survey, 55% of the respondents said they knew or had heard of the case. Furthermore, since vulture funds were widely recognized in dramas and movies based on economic novels, we also investigated whether the respondents had watched them. As a result, 17% of all respondents said that they had watched the original novel, drama, or movie.³ To distinguish between those who have experience in media information and those who view foreign investors negatively and those who do not, the survey also asked whether they would like to work for a foreign affiliate if their annual income was high. Results showed that 29% of the total said they do not want to work for a foreign affiliate even if their annual income was high. By relating the answers to these questions, we attempted to identify people who had a negative view of foreign companies after the imprint of vulture funds.⁴ Specifically, we defined them as people who knew about the acquisition of LTCB, read novels about vulture funds, watched dramas and movies, did not want to work at a foreign affiliate, or did not want to work unless their annual income would be raised by 30% or more. Alternatively, an understanding of external economic policy may be deepened through foreign experience. The survey asked whether the respondents had traveled abroad or had studied abroad. More experienced people had a more positive view about inward FDI. Ideology may also affect people’s views of inward FDI. Generally, conservatives are likely to be more negative about accepting foreign investors, and the survey asked whether they were proud of their country or hometown. We constructed a patriot

³ We designed the survey so that respondents were allowed to return to questions that had already been answered, giving priority to the accuracy of their answers. Thus, there still remains a concern about the framing effect of making respondents aware of their avoidance of M&A by directly asking them about their experiences with the novel. To mitigate the bias from the framing effect, economic novels other than the vulture fund were included as options, and the respondents were asked to choose one of them (multiple selections allowed). Specifically, four Japanese economic novels that were made into TV dramas were shown to the respondents, and among them, we identified those who read the economic novel, titled *Vulture*, by Jin Mayama, which described the acquisition by foreign capital based on the true story during the Heisei recession in Japan.

⁴ A synonymous relationship is suspected between the intention to work at a foreign affiliate and the preference for inward FDI, but the correlation coefficient between the two responses is 0.16, and the relationship is weak.

dummy variable that took a value of 1 for responses of “*extremely proud*.”

Considering that thoughts on selfishness or altruism may matter, the survey asked about their hopes about vaccinating against COVID-19. Vaccination has the externality of not only lowering the probability of infection but also the probability of infecting others. Those who tolerate such externalities are considered altruistic and are expected to agree with inward FDI in consideration of the Japanese economy as a whole.

Empirical analysis of trade policy preferences has revealed that behavioral biases deter people from supporting trade liberalization. In this study, following Tomiura et al. (2016), we first considered status quo bias. In this regard, those who answered “*I would not buy*” when asked whether they would buy a lottery with a winning probability of 1 million yen when it is sold for 3000 yen, and those who answered “*I would not sell*” when asked if they were willing to sell if they already owned the item were considered to be trapped in the status quo bias. Regarding loss aversion, Tovar (2009) theoretically and empirically showed that stronger protection trade policies apply to industries with reduced profitability if individuals prefer loss aversion. In the context of inward FDI, assuming an acquired company whose business situation is deteriorating, people who prefer loss aversion may want to prevent acquisition. On this subject, we asked if the respondents were willing to purchase insurance that could cover the loss that could occur with the same expected value as the lottery. We defined those who answered that they would not buy the lottery ticket but would take out insurance as a loss-averters. In addition, the survey included a question to measure people’s time preference rate, and when the receipt of 100,000 yen was postponed after one year, the amount that they wished to receive was chosen from 100,000 yen, 105,000 yen, 110,000 yen, and 120,000 yen. Compared to those who answered that 100,000 yen would be enough, the higher the amount they wished to receive, the higher the time preference rate. We examined whether there was a difference in their preference for inward FDI depending on the time preference rate. Considering that it takes time for the positive impact of inward FDI to penetrate the host country and inward FDI is required from a long-term perspective, people who prefer a high time preference rate are more likely to have a negative view of accepting inward FDI.

Two additional questions were added to the survey to control for people’s home bias and political interests. Regarding home bias, we asked whether they would buy domestic products or imported products when they were cheaper than other domestic products. It was expected that those who would choose domestic products would also reject the acceptance of foreign capital. Regarding the degree of political participation, we asked whether they would participate in national elections. In the context of trade policy, it was believed that only import-competing producers whose loss due to import liberalization exceeds the voting cost would vote. In addition, for consumers whose benefits from import liberalization are distributed thinly, the voting cost is greater than the profit, and therefore they would not vote. Table 2 presents the descriptive statistics of the personal attributes mentioned above.⁵

3. Empirical analysis for the preference of inward FDI

3.1. Analytical framework

Concisely, we applied a binary selection model to analyze how per-

⁵ Since the model contains many explanatory variables, one may be concerned about multicollinearity. Appendix Table A1, which displays the correlation coefficient matrix between the variables, suggests that the multicollinearity concern is not a serious issue.

Table 2
Descriptive statistics.

Variables	Mean	S.D	Min	Max
Oppose inward Greenfield investment	0.156	0.363	0	1
Oppose inward M&A	0.361	0.48	0	1
Generation: 18–20 s	0.143	0.35	0	1
Generation: 30 s	0.166	0.372	0	1
Generation: 40 s	0.194	0.396	0	1
Generation: 50 s	0.174	0.379	0	1
Generation: 60 s	0.19	0.393	0	1
Generation: 70 s	0.133	0.34	0	1
Female	0.513	0.5	0	1
Single	0.446	0.497	0	1
Have a child	0.509	0.5	0	1
College degree	0.452	0.498	0	1
Income: 0	0.158	0.365	0	1
Income: less than 2 million JPY	0.352	0.478	0	1
Income: 2–4 million JPY	0.23	0.421	0	1
Income: 4–6 million JPY	0.137	0.343	0	1
Income: 6–8 million JPY	0.063	0.243	0	1
Income: 8–10 million JPY	0.03	0.17	0	1
Income: 10 million JPY or more	0.031	0.172	0	1
Income declined due to COVID-19	0.25	0.433	0	1
Subscribe the Nikkei	0.152	0.359	0	1
Homeowner	0.715	0.452	0	1
Shareholder	0.305	0.46	0	1
Executives	0.016	0.126	0	1
Managers	0.077	0.267	0	1
Non-managers	0.232	0.422	0	1
Non-regular workers	0.173	0.378	0	1
Self-employed, sole proprietor, freelance	0.078	0.268	0	1
Professional, technical	0.019	0.137	0	1
Student	0.043	0.204	0	1
Unemployed (in search of employment)	0.043	0.203	0	1
Unemployed (not looking for a job)	0.274	0.446	0	1
Domestic helper	0.046	0.209	0	1
Desire to be hired by a foreign affiliate & no imprinting of vultures	0.152	0.359	0	1
Desire to be hired by a foreign affiliate & imprinting of vultures	0.219	0.414	0	1
No desire to be hired by a foreign affiliate & no imprinting of vultures	0.309	0.462	0	1
No desire to be hired by a foreign affiliate & imprinting of vultures	0.32	0.466	0	1
Experience traveling abroad	0.598	0.49	0	1
Experience studying abroad	0.065	0.246	0	1
Experienced in overseas business trips and assignments	0.139	0.346	0	1
Status-quo bias	0.549	0.498	0	1
Loss aversion	0.414	0.493	0	1
Time preference rate : 100,000 yen	0.076	0.266	0	1
Time preference rate : 105,000 yen	0.198	0.398	0	1
Time preference rate : 110,000 yen	0.253	0.435	0	1
Time preference rate : 120,000 yen	0.473	0.499	0	1
Patriot	0.267	0.443	0	1
Home bias	0.719	0.449	0	1
No wish to receive vaccination	0.156	0.363	0	1
Go to national elections	0.724	0.447	0	1
SNS as a source of daily news	0.336	0.472	0	1

sonal attributes affected inward FDI preferences.⁶ As shown in Table 1, while many people responded consistently to inward greenfield investment and inward M&A, some people agreed with greenfield investment but opposed M&A and there is a correlation between the two. Considering possible endogeneity, we apply a bivariate probit model that allows correlation between error terms for the preferences of both inward and inward greenfield investments. For individuals $i = 1, 2, 3, \dots, n_j$, let U_i^N be the utility obtained from restricting inward FDI and U_i^Y be the utility obtained from inward FDI. Individuals oppose inward FDI when

⁶ Since the questionnaire has five levels of answers, an ordered logit model can also be applied, but we focused on the results from binary choice model because there were no major changes in the main results and the results were easy to interpret.

the utility from restricting inward FDI is greater than that from inward FDI, expressed as a $U_i^N > U_i^Y$. The difference between the two sets of utility $U_i^N - U_i^Y$ is considered a latent variable, y_i^* , and is assumed to be linearly related to the independent variables X_i for inward greenfield (GR) and inward M&A:

$$y_{i,GR}^* = X_i\beta + e_i,$$

$$y_{i,GR} = \begin{cases} 1 : \text{Disagree, if } y_{i,GR}^* > 0 \\ 0 : \text{Agree or Neither, if } y_{i,GR}^* \leq 0 \end{cases} \quad (1)$$

$$y_{i,MA}^* = X_i\beta + u_i$$

$$y_{i,MA} = \begin{cases} 1 : \text{Disagree, if } y_{i,MA}^* > 0 \\ 0 : \text{Agree or Neither, if } y_{i,MA}^* \leq 0 \end{cases} \quad (2)$$

In the estimation, the maximum likelihood method is used, assuming the conditions of $E[e_i] = E[u_i] = 0$, $Var[e_i] = Var[u_i] = 1$, $Cov[e_i, u_i] = \rho$. For individual characteristics, the variables displayed in Table 3 were introduced into the model as independent variables, X_i .

To interpret the impact of individual attributes on inward FDI preferences, marginal effects corresponding to the probability of choosing a combination of the two preferences were computed. The probability of these combinations is as follows: (1) for both types ($\Pr[y_{i,GR} = 0, y_{i,MA} = 0]$); (2) for M&A but against greenfield ($\Pr[y_{i,GR} = 1, y_{i,MA} = 0]$); (3) for greenfield but against M&A ($\Pr[y_{i,GR} = 0, y_{i,MA} = 1]$); and (4) against both types ($\Pr[y_{i,GR} = 1, y_{i,MA} = 1]$). Table 3 shows the marginal effects of each attribute on the probability of choosing a combination of these two preferences.

3.2. Impact of basic attributes

In this survey, gender, age, and family status were the basic attributes of individuals. First, the estimated results for gender did not show statistically significant marginal effects. This result differs from the results of previous studies in which women tended to be more protectionist across countries in terms of trade policy preferences. Regarding age, according to Tomiura et al. (2016), people older than retirement age tend to agree with import liberalization, suggesting that older people are more conscious of their interests as consumers and take a position in favor of imports. However, the results regarding inward FDI are different, and older adults are more negative about inward FDI. This may reflect the fact that people become more conservative as they age, but a comparison of columns [2] and [3] shows that there is a difference between greenfield investment and M&A. Older people are more likely to agree with greenfield investments but disagree with accepting M&A investment. For example, people in their 60 s are approximately 15% more likely to choose this option than those in their 20 s⁷. The dummy variable indicating singleness is not statistically significant. As the dynasty model shows, those who use a long-term perspective up to the next generation are expected to think positively about inward FDI; however, the estimation results show no significant difference. It is noteworthy that the relationship between family status and preferences for inward FDI cannot be confirmed, although older people are strongly inclined toward a conservative attitude.

⁷ The reason why the older people showed the attitude of the main body is that they show a conservative attitude toward inward investment due to aging, or because the current elderly people witnessed acquisitions by foreign funds during the Heisei recession. It is difficult to distinguish between the two in this analysis.

Table 3
Marginal effect of each attribute based on bivariate probit.

	[1] ConGR=0 ConMA=0	[2] ConGR=1 ConMA=0	[3] ConGR=0 ConMA=1	[4] ConGR=1 ConMA=1
Generation: 30 s	-0.0778*** [0.0257]	0.00629 [0.00640]	0.0381** [0.0194]	0.0333*** [0.0118]
Generation: 40 s	-0.153*** [0.0266]	0.00932 [0.00660]	0.0744*** [0.0204]	0.0688*** [0.0129]
Generation: 50 s	-0.180*** [0.0292]	-0.00292 [0.00632]	0.123*** [0.0229]	0.0596*** [0.0142]
Generation: 60 s	-0.238*** [0.0316]	-0.00172 [0.00689]	0.151*** [0.0254]	0.0892*** [0.0167]
Generation: 70 s	-0.250*** [0.0366]	-0.00923 [0.00686]	0.187*** [0.0308]	0.0721*** [0.0193]
Female	0.00424 [0.0173]	-0.00555 [0.00358]	0.0128 [0.0140]	-0.0115 [0.00960]
Single	-0.00713 [0.0192]	-0.00273 [0.00382]	0.0117 [0.0155]	-0.00188 [0.0104]
Have a child	0.0121 [0.0200]	0.00598 [0.00407]	-0.0236 [0.0162]	0.00553 [0.0109]
College degree	-0.0078 [0.0161]	0.00156 [0.00338]	0.000257 [0.0131]	0.00599 [0.00904]
Income: 0	0.014 [0.0237]	-0.00211 [0.00495]	-0.00252 [0.0201]	-0.00933 [0.0126]
Income: 2~4 million JPY	-0.0237 [0.0212]	-0.00275 [0.00422]	0.0217 [0.0174]	0.00477 [0.0120]
Income: 4~6 million JPY	-0.00625 [0.0278]	-0.00187 [0.00571]	0.00888 [0.0229]	-0.000766 [0.0155]
Income: 6~8 million JPY	-0.0282 [0.0363]	0.0043 [0.00845]	0.0042 [0.0298]	0.0197 [0.0217]
Income: 8~10 million JPY	0.0890** [0.0439]	0.00318 [0.0121]	-0.0621* [0.0365]	-0.0301 [0.0221]
Income: 10 million JPY or more	0.0258 [0.0453]	0.0135 [0.0149]	-0.046 [0.0386]	0.00665 [0.0265]
Income declined due to COVID-19	-0.0199 [0.0169]	0.00087 [0.00351]	0.00907 [0.0140]	0.00993 [0.00946]
Nikkei	0.0482** [0.0205]	-0.000738 [0.00483]	-0.027 [0.0177]	-0.0205* [0.0110]
Homeowner	0.0375** [0.0171]	2.97E-05 [0.00342]	-0.0217 [0.0139]	-0.0158 [0.00968]
Shareholder	0.00841 [0.0170]	-0.0143*** [0.00331]	0.0366** [0.0149]	-0.0308*** [0.00893]
Executives	0.0159 [0.0708]	0.0123 [0.0173]	-0.0447 [0.0618]	0.0164 [0.0393]
Managers	-0.00258 [0.0547]	0.00465 [0.0101]	-0.0132 [0.0471]	0.0111 [0.0295]
Non-managers	0.0111 [0.0501]	0.0180* [0.0104]	-0.0551 [0.0406]	0.0261 [0.0272]
Non-regular workers	0.0211 [0.0476]	0.00904 [0.00857]	-0.0394 [0.0391]	0.00928 [0.0246]
Self-employed, sole proprietor, freelance	-0.000857 [0.0485]	0.0125 [0.00955]	-0.0357 [0.0405]	0.0241 [0.0260]
Professional, technical	0.0106 [0.0697]	0.0108 [0.0160]	-0.0379 [0.0594]	0.0165 [0.0393]
Student	0.00926 [0.0459]	0.011 [0.0104]	-0.0377 [0.0379]	0.0174 [0.0254]
Unemployed (in search of employment)	-0.0432 [0.0386]	0.00437 [0.00676]	0.0111 [0.0324]	0.0278 [0.0221]
Domestic helper	-0.0148 [0.0362]	0.000139 [0.00527]	0.00873 [0.0300]	0.00589 [0.0182]
Desire to be hired by a foreign affiliate & imprinting of vultures	0.0226 [0.0240]	-0.00319 [0.00476]	-0.00616 [0.0207]	-0.0133 [0.0117]
No desire to be hired by a foreign affiliate & no imprinting of vulture funds	-0.0563** [0.0222]	0.00836* [0.00475]	0.0111 [0.0185]	0.0368*** [0.0119]

(continued on next page)

Table 3 (continued)

	[1] ConGR=0 ConMA=0	[2] ConGR=1 ConMA=0	[3] ConGR=0 ConMA=1	[4] ConGR=1 ConMA=1
No desire to be hired by a foreign affiliate & imprinting of vulture funds	-0.0942*** [0.0237]	0.00687 [0.00483]	0.0353** [0.0155]	0.0520*** [0.0130]
Experience traveling abroad	0.0155 [0.0157]	-0.00321 [0.00336]	-0.000161 [0.0131]	-0.0121 [0.00875]
Experience studying abroad	-0.0155 [0.0304]	-0.00415 [0.00600]	0.0213 [0.0266]	-0.00162 [0.0172]
Experienced in overseas business trips and assignments	0.0228 [0.0217]	-0.00372 [0.00445]	-0.00327 [0.0187]	-0.0158 [0.0114]
Status-quo bias	0.0265* [0.0147]	0.00305 [0.00305]	-0.0239* [0.0122]	-0.00559 [0.00814]
Loss aversion	-0.0428*** [0.0144]	-0.00776*** [0.00298]	0.0470*** [0.0123]	0.00361 [0.00802]
Time preference rate : 105,000 yen	-0.0935*** [0.0289]	-0.0141* [0.00757]	0.0906*** [0.0223]	0.017 [0.0148]
Time preference rate : 110,000 yen	-0.122*** [0.0281]	-0.0125* [0.00749]	0.103*** [0.0214]	0.0319** [0.0146]
Time preference rate : 120,000 yen	-0.0994*** [0.0263]	-0.0082 [0.00715]	0.0772*** [0.0193]	0.0305** [0.0132]
Patriot	-0.0899*** [0.0162]	-0.00193 [0.00320]	0.0565*** [0.0137]	0.0353*** [0.00959]
Home bias	-0.0954*** [0.0155]	0.00707** [0.00319]	0.0389*** [0.0130]	0.0494*** [0.00792]
No wish to receive vaccination	-0.0879*** [0.0204]	0.0128*** [0.00493]	0.0119 [0.0161]	0.0631*** [0.0132]
Go to national elections	-0.0949*** [0.0170]	-0.000681 [0.00366]	0.0589*** [0.0134]	0.0367*** [0.00885]
SNS as a source of daily news	-0.00902 [0.0163]	0.00710** [0.00362]	-0.014 [0.0132]	0.0159* [0.00928]

Note: “ConGR=1” indicates opposition to accepting greenfield investment, and “ConMA=1” indicates opposition to M&A. Fixed effects for prefectures and industries are controlled for, although the results are omitted. *, **, and *** are 10%, 5%, and 1% significance levels, respectively.

3.3. Impact of economic attributes

People with higher educational backgrounds and annual incomes were expected to agree to inward FDI, but the statistical significance of these individual economic attributes was generally low. The marginal effect of the university graduate dummy variable was insignificant and the difference between university graduates and other educational backgrounds could not be confirmed. Annual income is based on people earning less than 2 million yen, the largest number of people in the sample, and the classification in which a statistically significant difference is observed from this category is less than 80–10 million yen. People with relatively high incomes are approximately 9% more likely to agree with inward FDI than those with lower annual incomes. It can be confirmed that the negative marginal effect is significant at the 10% level, even for the preference of agreeing or neutralizing inward greenfield investment but disagreeing with inward M&A from the results shown in column [3] in Table 3. However, such a tendency is not found in the category of an annual income of 10 million yen or more, and it is not sufficient to show a robust relationship between annual income and preference for inward FDI. The marginal effect of the dummy variable that takes the value of 1 for those who reported their income had decreased due to the pandemic was not statistically significant. There was no significant effect of individuals’ labor market attributes, such as educational background and annual income, on inward FDI preferences,

but the degree of economic literacy seems to have a positive effect on the understanding of FDI. If people subscribed to “*Nihon Keizai Shimbun (The Nikkei)*” daily, they were expected to view inward FDI positively owing to their economic literacy. Consistent with this idea, subscribers were about 5% more likely to favor inward FDI, regardless of the type of investment.

We also included dummy variables indicating whether the participants own a house and stocks (including investment trusts) of Japanese firms. Those who own a home tended to favor accepting inward FDI more positively than those who do not. This reflects the economic stability of the asset holdings. However, stockholders’ preferences are complicated. As shown in column [3], stockholders do not oppose inward greenfield investment but oppose inward M&A. There is a possibility that the negative image of the respondent’s stock-owning firms being acquired by foreign capital predominates over the positive impact of economic stability as a stockholding asset. Regarding the difference in employment type, we introduced dummy variables for each employment type, treating unemployed (not seeking employment) as the base category, but statistically significant differences were not found. In addition, although omitted from the estimation results table, industry affiliation dummy variables were added to the right-hand side of the model. Only a limited number of industries show statistically significant signs. People engaged in industries where competition with foreign countries is fierce may have a negative opinion about inward FDI.

3.4. Impact of non-economic attributes

This study focused on unconscious biases through people’s experiences as a non-economic attribute. One of the experiences that gave rise to negative views about inward FDI was the experience of the so-called vulture fund during the Great Heisei recession. For people who knew about the acquisition of LTCB by Ripplewood, or who had subscribed to novels and watched dramas and movies that modeled vulture funds, dummy variables that identify the experience of contacting this media information interacted with the intention to work with foreign affiliates were introduced into the model. The reference group is “desire to be hired by a foreign affiliate and no imprinting of vulture funds.” As shown in the results in column [4], those who do not have the desire to work for a foreign-affiliated company show a negative attitude toward accepting FDI, regardless of whether it is greenfield investment or M&A. In addition, imprinting of vulture funds has led to a reluctance to inward M&A. From the results of column [3], those who have “no desire to be hired by foreign affiliates and have experience of being imprinted with vulture funds” are in favor of or neutral to inward greenfield investment but oppose inward M&A. In contrast, those who have “no desire to be hired by a foreign affiliate and do not have experience of being imprinted with vulture funds” are not likely to choose specific preference. As expected, those who have been imprinted with vulture funds among those who are not willing to work for a foreign-affiliated company indicate a strong rejection of inward M&A. Overseas experience was also examined by introducing dummy variables for travel, study abroad, and overseas posting, but these variables were statistically significant.

It is also noteworthy that the influence of behavioral bias was strongly manifested. In particular, those with loss aversion and those with high time preference tend to oppose inward FDI, and as shown in the results in column [3], in particular, they favor or are neutral about inward greenfield investment but oppose inward M&A. The fact that people who are more sensitive to potential losses than benefits do not support the acceptance of M&A s may be because M&A by foreign capital reminds people of loss. Even if inward M&A benefit everyone in the long run, those with a high time preference may not change their opposition. These results indicate that loss aversion and high time preference rates are associated with people’s repulsion toward inward M&A.

Another interesting result is that those who did not wish to be vaccinated tended to oppose inward FDI. Given that vaccination has a

positive externality that reduces the probability of infection by others, it is suggested that such a low evaluation of externalities is related to a sense of refusal of inward FDI. Other statistically significant attributes show that conservative ideas, such as home bias and pride in home, increased the probability of opposition to inward FDI, as expected. It is noteworthy that the effect of such a conservative attitude is robust while controlling for the impact of aging, which is expected to enhance conservatism. It was also revealed that those who answered that they would go to national elections had a negative opinion about inward FDI. The results in the first column [1] show that those who attend national elections are approximately 10% less likely to choose for or neutral for any type of inward FDI. Those who chose social networking services (SNS) as a source of daily economic and social news are expected to be susceptible to fake news and likely to have a negative attitude toward inward FDI. There is a high probability of choosing the opposition, although the significance level is at the 10% level.

For a robustness check, we also examined ordered logit specification using the original responses for the following five choices: 1 “agree”; 2 “somewhat agree”; 3 “neither”; 4 “somewhat disagree”; and 5 “disagree.” In [Appendix Table A2](#), for each attribute, the results corresponding to the option with the greatest marginal effect are in bold. As shown in the results from the bivariate probit model, we can once again see the attributes that have different effects on the pros and cons of inward greenfield investment and inward M&A. For example, concerning generation dummy variables, the older the generation, the more likely it is to take a neutral position for greenfield entry, but for M&A the probability of choosing “somewhat disagree” is high. The same result applies to the vulture dummies. People who do not desire to be hired by a foreign affiliate and are imprinted with the image of vulture funds tend to be neutral against greenfield entry, but oppose inward M&A. Regarding risk-aversion dummy variables, the difference is even more pronounced. Those who prefer risk aversion are more likely to agree with greenfield investment but prefer to reject M&A. The time preference rate is not associated with greenfield investment but is strongly related to M&A, and those with a high time preference rate show a negative attitude toward acquisitions by foreign capital. These results are consistent with those presented more concisely by the bivariate probit model, which allows a correlation between both preferences.

3.5. Economic literacy matters for the impacts

As indicated by the base results, non-economic factors are strongly related to people’s attitudes toward inward foreign investment. One interesting question is whether it is possible to mitigate the protectionist effects of non-economic factors. For example, the impact of unconscious bias caused by imprinting a negative image on foreign capital may differ depending on the degree of economic literacy. We examine whether such an unconscious bias leads people to reject inward investments, regardless of the degree of economic literacy, or whether it is a dominant bias for people with weak economic literacy. This is examined by dividing the sample into two groups according to whether or not they subscribed to *the Nikkei* newspaper used as a proxy variable for economic literacy and comparing the impacts of covariates between the two groups.

[Table 4](#) displays the results obtained from the two groups split on economic literacy. There were 4127 non-subscribers and 741 subscribers to *the Nikkei* newspaper. Similar to [Table 3](#), the marginal effects corresponding to the probability of choosing a combination of the two preferences are shown in the first four columns for the non-subscribers and in the following four columns for the subscribers. The estimation results show the following three notable findings from the comparison of the two groups. First, the dummy variable indicating having children is not significant in the full sample (see [Table 3](#)) or the sample with weak economic literacy, but it is statistically significant for those with economic literacy, indicating a positive attitude toward investment acceptance. People with economic literacy may have a long-term perspective

that takes into account descendant generations, as the dynastic model suggests. Second, we found that the influence of unconscious bias differs depending on the presence or absence of economic literacy, and is dominant for people with lower economic literacy. For example, the protectionist effect due to the unconscious bias based on imprinting of vulture funds is not observed in people with economic literacy, but the effect remains prominent in people with weak economic literacy. As seen in column [3], people who have “no desire to be hired foreign affiliates and have experience of being imprinted with vulture funds” are likely to choose in favor of or neutral to inward greenfield investment but oppose inward M&A while such tendency is not observed for those who have “no desire to be hired by a foreign affiliate and do not have experience of being imprinted with vulture funds”. Similar results were obtained for the status quo bias, loss aversion and the time preference rate. People with status quo bias, those with loss aversion and those with high time preference tend to favor or are neutral about inward greenfield investment but oppose inward M&A. Third, it became clear that conservative factors such as patriotism and home country bias lead to reluctance to inward foreign investments, regardless of whether they have economic literacy. It is difficult to change the negative attitude toward inward investment, which is guided by nationalist thinking, by fostering economic literacy.

3.6. Generational examination

As shown in the results of [Table 4](#), regardless of economic literacy, there seems to be a deep-rooted relationship between conservatism and the reluctance to accept inward FDI, especially M&A. Conservative stances also differ between generations. A further question here is, at what age are the effects of these non-economic attributes particularly prominent? In this case, we focused on the non-economic attributes for which the statistical significance was remarkable for the subsamples by age group, and we computed the marginal effect of each attribute on the probability of choosing the combination of the pros and cons of inward greenfield investment and inward M&A in the same way as in [Table 3](#). [Table 5](#) displays the results by generation for all explanatory variables with high statistical significance among the non-economic attributes.

First, it became clear that attitudes toward inward FDI based on experience differed from generation to generation. The repelling of inward FDI by negative images due to vulture funds is observed for people in their 50 s and above. Among them, the negative impact for those in their 60 s is outstanding, and those who have a negative image of foreign capital are 15% more likely to choose the combination of a positive attitude toward inward greenfield investment and a negative attitude toward inward M&A, as shown in the column of “ConGR = 0, ConMA = 1.” It seems that the more the generation that witnessed the acquisition by a foreign fund during the Heisei recession as a full-fledged member of society, the stronger the impact. There are also generational differences in the impact of overseas experience; for example, the impact of studying abroad was also noticeable in those in their 60 s, and those who studied abroad were 23% more likely to agree with inward FDI.

Behavioral bias also has different effects across generations. The rejection of inward M&A due to loss aversion was particularly pronounced in those in their 50 s. In addition, people with high time preference rates were more likely to oppose inward investment, especially M&A, in almost any generation, but it appears that the middle-aged and elderly generations were more sensitive than the younger generation. People with higher time preferences who are older tended to take a stricter view of inward FDI. A similar tendency is seen in the home bias regarding domestic products, and middle-aged and elderly people tend to have a stronger negative view of inward M&A. By contrast, people in their 20 s are affected by loss aversion and high time preference rates, but there is no relationship between their devotion to conservatism and their preferences for inward FDI. Negative attitudes toward inward FDI by those who do not wish to receive COVID-19 vaccinations or who go to

Table 4
Sample split on economic literacy.

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
	Non-subscribers to <i>The Nikkei</i>				Subscribers to <i>The Nikkei</i>			
	ConGR=0	ConGR=1	ConGR=0	ConGR=1	ConGR=0	ConGR=1	ConGR=0	ConGR=1
	ConMA=0	ConMA=0	ConMA=1	ConMA=1	ConMA=0	ConMA=0	ConMA=1	ConMA=1
Generation: 30 s	-0.0847*** [0.0278]	0.0069 [0.00655]	0.0396* [0.0210]	0.0382*** [0.0132]	-0.0388 [0.0603]	-0.000117 [0.00123]	0.0374 [0.0578]	0.00148 [0.00680]
Generation: 40 s	-0.153*** [0.0285]	0.0107 [0.00685]	0.0684*** [0.0219]	0.0733*** [0.0143]	-0.206*** [0.0736]	-0.000453 [0.00120]	0.198*** [0.0707]	0.00858 [0.00920]
Generation: 50 s	-0.175*** [0.0317]	-0.00466 [0.00629]	0.126*** [0.0248]	0.0544*** [0.0156]	-0.163** [0.0720]	0.00112 [0.00176]	0.141** [0.0687]	0.0210* [0.0114]
Generation: 60 s	-0.245*** [0.0343]	0.00159 [0.00728]	0.140*** [0.0272]	0.104*** [0.0190]	-0.202** [0.0796]	-0.000763 [0.00116]	0.201*** [0.0773]	0.00116 [0.00735]
Generation: 70 s	-0.261*** [0.0399]	-0.00657 [0.00728]	0.180*** [0.0334]	0.0875*** [0.0223]	-0.169* [0.0912]	-0.000862 [0.00115]	0.174* [0.0894]	-0.00351 [0.00592]
Female	-0.0104 [0.0189]	-0.00507 [0.00381]	0.0202 [0.0150]	-0.00476 [0.0108]	0.0906** [0.0425]	-0.000211 [0.000314]	-0.0829** [0.0412]	-0.00755* [0.00404]
Single	-0.0153 [0.0210]	-0.00304 [0.00403]	0.0174 [0.0167]	0.000993 [0.0118]	0.0233 [0.0496]	-0.000192 [0.000375]	-0.0193 [0.0477]	-0.00382 [0.00522]
Have a child	-0.00554 [0.0220]	0.00363 [0.00429]	-0.00724 [0.0175]	0.00914 [0.0124]	0.113** [0.0495]	0.000765 [0.000644]	-0.117** [0.0476]	0.00255 [0.00573]
College degree	-0.007 [0.0175]	0.00468 [0.00367]	-0.00929 [0.0141]	0.0116 [0.0101]	-0.00682 [0.0442]	-0.00104 [0.000798]	0.0183 [0.0418]	-0.0105 [0.00644]
Income: 0	0.0166 [0.0251]	-0.0014 [0.00543]	-0.00568 [0.0210]	-0.00955 [0.0140]	-0.0285 [0.0881]	-0.0000969 [0.000161]	0.031 [0.0868]	-0.00236 [0.00396]
Income: 2~4 million JPY	-0.0347 [0.0229]	-0.00273 [0.00448]	0.0272 [0.0185]	0.0103 [0.0135]	0.0288 [0.0620]	0.0000723 [0.000229]	-0.0293 [0.0608]	0.00043 [0.00500]
Income: 4~6 million JPY	0.00285 [0.0308]	-0.0025 [0.00620]	0.00543 [0.0250]	-0.00577 [0.0175]	-0.00631 [0.0727]	0.000158 [0.000285]	0.00259 [0.0711]	0.00356 [0.00592]
Income: 6~8 million JPY	-0.0293 [0.0404]	0.00443 [0.00963]	0.00366 [0.0335]	0.0212 [0.0249]	-0.00367 [0.0891]	0.000455 [0.000675]	-0.00464 [0.0861]	0.00785 [0.0101]
Income: 8~10 million JPY	0.106** [0.0527]	-0.00421 [0.0134]	-0.0546 [0.0474]	-0.0470* [0.0258]	0.104 [0.0845]	0.00238 [0.00249]	-0.117 [0.0804]	0.0112 [0.0122]
Income: 10 million JPY or more	0.0218 [0.0594]	-0.0113 [0.00934]	0.0217 [0.0530]	-0.0322 [0.0295]	0.0729 [0.0877]	0.031 [0.0206]	-0.167** [0.0747]	0.0626* [0.0324]
Income declined due to COVID-19	-0.0187 [0.0185]	0.00282 [0.00391]	0.00239 [0.0152]	0.0135 [0.0108]	-0.0119 [0.0424]	-0.000156 [0.000302]	0.0135 [0.0408]	-0.00142 [0.00434]
Homeowner	0.0295 [0.0187]	-3.12E-04 [0.00369]	-0.0156 [0.0151]	-0.0137 [0.0109]	0.0447 [0.0439]	-0.000819 [0.000728]	-0.0313 [0.0415]	-0.0126* [0.00704]
Shareholder	0.00913 [0.0189]	-0.0120*** [0.00346]	0.0314* [0.0166]	-0.0285*** [0.0102]	-0.0132 [0.0390]	-0.00146 [0.000971]	0.0287 [0.0374]	-0.0140** [0.00604]
Executives	0.0297 [0.0816]	0.0314 [0.0273]	-0.0969 [0.0666]	0.0358 [0.0496]	-0.123 [0.157]	-0.0365 [0.0368]	0.239* [0.137]	-0.0803 [0.0518]
Managers	0.0366 [0.0592]	0.0188 [0.0135]	-0.075 [0.0484]	0.0196 [0.0334]	-0.164 [0.135]	-0.0365 [0.0368]	0.281** [0.113]	-0.0808 [0.0519]
Non-managers	0.0109 [0.0542]	0.0217** [0.0108]	-0.0681 [0.0430]	0.0355 [0.0305]	0.00908 [0.120]	-0.0361 [0.0371]	0.102 [0.0986]	-0.0747 [0.0539]
Non-regular workers	0.0374 [0.0508]	0.0109 [0.00852]	-0.0566 [0.0411]	0.00829 [0.0266]	-0.094 [0.132]	-0.029 [0.0403]	0.142 [0.111]	-0.019 [0.0712]
Self-employed, sole proprietor, freelance	0.000723 [0.0525]	0.0149 [0.00997]	-0.0467 [0.0435]	0.0311 [0.0290]	0.00267 [0.112]	-0.0355 [0.0371]	0.101 [0.0901]	-0.0684 [0.0546]
Professional, technical	-0.0133 [0.0784]	0.0217 [0.0200]	-0.0563 [0.0641]	0.0479 [0.0487]	0.0283 [0.145]	-0.0365 [0.0368]	0.0917 [0.126]	-0.0834* [0.0506]
Student	0.0116 [0.0500]	0.0101 [0.0103]	-0.0398 [0.0413]	0.018 [0.0285]	0.0619 [0.0960]	-0.0154 [0.0291]	-0.0124 [0.0773]	-0.0341 [0.0428]
Unemployed (in search of employment)	-0.0435 [0.0406]	0.00512 [0.00682]	0.00637 [0.0349]	0.0321 [0.0240]	-0.0271 [0.123]	-0.0163 [0.0283]	0.0506 [0.0927]	-0.00716 [0.0575]
Domestic helper	-0.0141 [0.0382]	0.00138 [0.00519]	0.00336 [0.0318]	0.00933 [0.0197]	0.0204 [0.115]	-0.0352 [0.0349]	0.0827 [0.108]	-0.068 [0.0423]
Desire to be hired by a foreign affiliate & imprinting of vultures	0.00676 [0.0257]	-0.0029 [0.00487]	0.00413 [0.0224]	-0.00798 [0.0128]	0.187** [0.0801]	-0.00145 [0.00179]	-0.154** [0.0756]	-0.0317* [0.0174]
No desire to be hired by a foreign affiliate & no imprinting of vulture funds	-0.0692*** [0.0231]	0.00970** [0.00478]	0.0137 [0.0191]	0.0458*** [0.0126]	0.0594 [0.0903]	-0.00164 [0.00178]	-0.0294 [0.0862]	-0.0283 [0.0175]
No desire to be hired by a foreign affiliate & imprinting of vulture funds	-0.111*** [0.0251]	0.00869* [0.00503]	0.0375** [0.0107]	0.0646*** [0.0144]	0.0683 [0.0833]	-0.00147 [0.00176]	-0.0412 [0.0782]	-0.0256 [0.0175]
Experience traveling abroad	0.0127 [0.0169]	-0.00184 [0.00347]	-0.00189 [0.0140]	-0.00895 [0.00961]	-0.00799 [0.0447]	-0.00134 [0.00107]	0.0216 [0.0422]	-0.0123 [0.00759]
Experience studying abroad	-0.051 [0.0369]	-0.00661 [0.00630]	0.0501 [0.0330]	0.00752 [0.0219]	0.066 [0.0508]	0.000236 [0.000565]	-0.0649 [0.0486]	-0.00133 [0.00565]
Experienced in overseas business trips and assignments	0.00545 [0.0256]	-0.00731 [0.00450]	0.0191 [0.0222]	-0.0172 [0.0137]	0.0806** [0.0408]	-0.000201 [0.000326]	-0.0736* [0.0395]	-0.00679* [0.00412]
Status-quo bias	0.0274* [0.0160]	0.00449 [0.00321]	0.0284** [0.0132]	-0.00345 [0.00915]	-0.00628 [0.0385]	-0.0000585 [0.000297]	0.00673 [0.0371]	-0.000394 [0.00416]
Loss aversion	-0.0459*** [0.0158]	-0.00790** [0.00317]	0.0490*** [0.0133]	0.00478 [0.00902]	-0.0487 [0.0379]	-0.000466 [0.000351]	0.0527 [0.0367]	-0.00349 [0.00398]
Time preference rate : 105,000 yen	-0.0797** [0.0278]	-0.0149* [0.00655]	0.0835*** [0.0210]	0.0111 [0.0132]	-0.102 [0.0603]	-0.000734 [0.00123]	0.105 [0.0578]	-0.00247 [0.00680]

(continued on next page)

Table 4 (continued)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
	Non-subscribers to <i>The Nikkei</i>				Subscribers to <i>The Nikkei</i>			
	ConGR=0	ConGR=1	ConGR=0	ConGR=1	ConGR=0	ConGR=1	ConGR=0	ConGR=1
	ConMA=0	ConMA=0	ConMA=1	ConMA=1	ConMA=0	ConMA=0	ConMA=1	ConMA=1
Time preference rate : 110,000 yen	[0.0310]	[0.00806]	[0.0240]	[0.0162]	[0.0904]	[0.00130]	[0.0870]	[0.0108]
	-0.127***	-0.0144*	0.110***	0.0315*	-0.0275	-0.000136	0.0267	0.000947
Time preference rate : 120,000 yen	[0.0300]	[0.00792]	[0.0229]	[0.0162]	[0.0904]	[0.00133]	[0.0868]	[0.0113]
	-0.107***	-0.0076	0.0782***	0.0367**	-0.00462	-0.000599	0.0106	-0.00534
Patriot	[0.0279]	[0.00762]	[0.0205]	[0.0146]	[0.0852]	[0.00131]	[0.0818]	[0.0106]
	-0.0913***	-0.00347	0.0605***	0.0342***	-0.0867**	0.000326	0.0763**	0.0101*
Home bias	[0.0179]	[0.00338]	[0.0152]	[0.0108]	[0.0409]	[0.000420]	[0.0389]	[0.00590]
	-0.0822***	0.00596*	0.0315**	0.0447***	-0.122***	0.000355	0.110***	0.0108***
No wish to receive vaccination	[0.0172]	[0.00342]	[0.0142]	[0.00907]	[0.0358]	[0.000333]	[0.0346]	[0.00374]
	-0.0993***	0.0139***	0.0112	0.0741***	-0.0324	0.00015	0.0282	0.00404
Go to national elections	[0.0221]	[0.00533]	[0.0174]	[0.0149]	[0.0563]	[0.000533]	[0.0539]	[0.00733]
	-0.0993***	-0.00339	0.0666***	0.0361***	-0.0183	0.000132	0.0155	0.00273
SNS as a source of daily news	[0.0182]	[0.00389]	[0.0141]	[0.00989]	[0.0526]	[0.000344]	[0.0509]	[0.00476]
	-0.00867	0.00656*	-0.0134	0.0156	-0.0316	0.000172	0.0273	0.00411
	[0.0180]	[0.00392]	[0.0144]	[0.0106]	[0.0401]	[0.000330]	[0.0384]	[0.00450]

Note: “ConGR=1” indicates opposition to accepting greenfield investment, and “ConMA=1” indicates opposition to M&A. Fixed effects for prefectures and industries are controlled for, although the results are omitted. *, **, and *** are 10%, 5%, and 1% significance levels, respectively.

national elections are significant in the active generation in their 30 s, 40 s, and 60 s, suggesting that mechanisms behind an aversion to inward FDI may differ between generations.

4. Conclusions

Promotional measures have been taken with the recognition that accepting inward FDI increases economic growth in many countries. Domestic consensus-building is indispensable for promoting inward FDI policies, but many people oppose the acceptance of foreign capital as well as the opening of markets to foreign countries. In particular, tenacious opposition to M&A, rather than greenfield investment, is observed across countries. This study sought to empirically elucidate the reason for this by using individual preferences for inward FDI and personal attributes collected through a unique questionnaire survey.

The results show that the effects of non-economic attributes are more pronounced than those of economic attributes. It was predicted that individuals with higher skills, whose demand is expected to increase relatively owing to inward FDI, are more likely to support it, but the impact of these labor market attributes is fairly limited. However, among the non-economic attributes, several factors with remarkable effects were found. For example, those who have a negative image of vulture funds are more likely to oppose inward FDI and, in particular, tend to have a negative attitude toward inward M&A. In addition, loss aversion and high time preference rates are also related to opposition to inward FDI, and people with such behavioral bias tend to oppose Japanese companies to be acquired by foreign capital, even if they agree to accept greenfield investment. Further, we found that the unconscious bias caused by imprinting a negative image on foreign capital affects the views of those with relatively weak economic literacy. This is also true for those with status quo bias, loss aversion, and high time preference rates. Negative attitudes toward the acceptance of foreign investment due to such biases may be improved through economic literacy training. In addition, people’s negative attitudes toward inward M&A due to these non-economic factors differ by their generation. For example, the impact of vulture funds is more pronounced for people who have come into contact with the news about acquisitions by foreign funds during the Heisei recession when they were full-fledged members of society. This result suggests that experience-based unconscious bias is not based on hearsay but on experience.

Conservative thinking also has an effect, with more conservative people having stronger opposition. Conservative thinking also reflects the effects of age. Older people are more likely to oppose inward FDI, and they may have become more conservative based on their own experiences, leading to a reluctance to engage in inward FDI. There are

also some results to consider regarding the advancement of domestic consensus building on FDI promotion policies. Those who answered that they go to national elections have deep-rooted opposition to inward FDI. In reality, not all people who say they “go” to vote actually vote because the turnout of national elections is lower. Nevertheless, the higher the degree of political interest, the stronger the opposition, as in the case of the debate on trade liberalization, which suggests that many people who favor or are neutral about the promotion of inward FDI are the so-called “silent majority.” To support domestic consensus building to promote inward investment, it is necessary to consider the ideal method for policy public relations based on non-economic factors, such as behavioral bias.

Although our study is the first to explore the factors that contribute to people’s antipathy toward inward FDI in Japan, it leaves an agenda for future research. While we conducted a survey in Japan, to what extent our findings can be generalized to other countries is a future research agenda. Chiang et al. (2020) conducted a survey experiment on how Japanese and Taiwanese responded to the news on Korea-China free trade agreement and found that both groups responded differently to the experiment. Chiang et al. (2020) show that exposure to the news of the Korea-China trade agreement decreased opposition to a trade agreement with China by six percentage points in Taiwan, while opposition increased by about eight percentage points in Japan. People’s opinions on international economic issues, especially in East Asian countries, may depend on the complex historical background and international relations of individual countries. It would be a promising future research agenda to conduct a survey experiment on inward FDI in Japan and other countries to see if there are differences in responses, as Chiang et al. (2020) did on trade agreements.

Another agenda for future research is to reduce framing-induced bias through survey experimental methods. In our survey, some questions, such as the one about whether they have read novels about vulture funds, may have given respondents a negative impression of foreign acquisitions. Naoi and Kume (2015) and Naoi (2020) discuss how to use a survey experiment without framing the respondents. Following Naoi (2020)’s recommendation that it is important to know as much as possible about the respondents’ predispositions prior to treatment, we asked about the respondents’ predispositions such as patriotism and home country bias and controlled for them in our regressions. Naoi (2020) further recommends that care must be taken in the wording and phrasing of the survey instrument to avoid cynical and partisan responses. Using pictures instead of sentences, Naoi and Kume (2015) try to avoid the potential framing issues. A more rigorous identification of causal effects through photographic survey experiments while avoiding framing would be a rich agenda for future research.

Declarations of interest

None.

Data availability

The authors do not have permission to share data.

Appendix A. Supplementary material

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.japwor.2023.101187](https://doi.org/10.1016/j.japwor.2023.101187).

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