

Article

Does Return Intention Affect Remittance Behavior ? New Insights from the Case of the Filipino Migrants in Japan

Mishaël Joy Barrera^{1*}Usman Alhassan²Kazuo Inaba³**Abstract:**

We investigate the effect of migrants' return intention on their remittance behavior, focusing on Filipino migrants in Japan. While monetary remittances have long been studied, migrants' non-monetary contributions, such as physical capital goods, technical knowledge, and skills, remain underexplored. By exploiting a novel dataset that captures these non-monetary remittances and employing the ordered and bivariate probit regressions, we find that a migrant's decision to remit depends on a combination of several factors, including their duration of stay in Japan. Specifically, we find evidence suggesting that migrants who plan to return to the Philippines are more likely to remit higher monetary and non-monetary contributions, with return intention having a greater influence on the former. Two motivations drive this inclination: altruistic desires for family and cultural ties and strategic economic foresight to facilitate reintegration and enhance consumption upon return. Important policy implications are discussed in the paper.

Keywords: *return intention, remittances, non-monetary remittances, migrants, Filipino*

1. Introduction

Remittances play a crucial role in providing financial support and improving the economic well-being of many households. They augment household income for consumption, savings, or capital for starting businesses, thereby raising the recipients' standard of living.

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However, remittances also induce dependency and conspicuous expenditure and decrease engagement in economic activities among some recipients (Amuedo-Dorantes, 2014). Despite their debated impacts, remittances to developing countries have continued to increase in magnitude and stability, becoming larger than foreign direct investment (FDI) and official development assistance (ODA) in several countries. In a developing country like the Philippines, remittances have increased by about 550% between 2000 and 2022, placing the country as the fourth highest receiver of over \$38 billion in 2022, about \$27 billion higher than FDI and ODA combined (Ratha et al., 2023; World Bank, 2024).

While these monetary transfers have continued to surge, the non-monetary contributions by migrants to their home countries have received less academic scrutiny, in part due to measurement challenges since they are largely transmitted outside the financial sector. Non-monetary remittances in the form of consumption and capital goods, knowledge, and migrants' lived experiences are crucial in contributing to the well-being of receiving households and migrant-sending communities (Abubakar & Folawewo, 2019). The duration of migration often exposes migrants to technical knowledge from work experience and the availability of exportable goods that are not found in their home countries, thus increasing bilateral trade volumes. A significant component of these non-monetary remittances is the transfer of tangible goods such as clothes, machineries, food, and electronics, either used or new, from the host to the migrant origin countries. In the case of Filipino migrants, non-monetary transfers have continued to soar, beginning with the shipping of 'balikbayan' boxes filled with clothes, food, sweets, and other gifts to their families in the Philippines in the 1970s (Lawless, 2004). Recent data estimates that over 400,000 boxes are sent every month, especially during festive periods (Shyong, 2018).

Although remittances often flow from migrants to assist their families in their home countries due to altruistic tendencies (Rapoport & Docquier, 2005), Lucas and Stark (1985) theorize that migrants also remit for self-interest purposes, including remitting to invest in the home country, preparing for return migration, or gaining future benefits from the household. Notably, the possibility of return migration is considered by the migrant, where the decision to return depends on accumulating sufficient income and or knowledge in the host country. This condition enables the migrant to engage in economic activities that would generate and ensure a stable, positive source of income at home. Thus, migrants' return intention, among other factors, remains a crucial determinant for remitting to the home country, regardless of the motives behind such intention. However, Carling and Petersen (2014) and de Haas and Fokkema (2011) contend that only a handful of migrants ever get to return as soon as planned. For several migrants, the possibility of assimilating into their host countries delays or alters their intention to return (Barbiano di Belgiojoso, 2016). This raises the question of how return intention affects remittance behaviors, especially among migrants who continue to stay in their host countries for a long time.

Scholarly attempts to understand the return intention-remittances nexus have yielded limited and contentious insights. For instance, several studies have argued that return intention is positively associated with monetary forms of remittances, suggesting that migrants who intend to return home are more likely to remit in preparation for such eventual return (Galor & Stark, 1990; Makina, 2013). Piracha (2011) further adds that migrants tend to remit more the longer they stay in the host countries. Similarly, Sioson (2017) finds a positive association between return intention and remittances among the Filipino migrants in Nagoya, Japan. Two limitations are discernable from the existing literature. First, existing studies have primarily focused on monetary remittances while ignoring the impact of return intention on non-monetary transfers, despite their transformative potentials, allowing returning migrants to establish alternative income streams, thereby mitigating the potential economic disruptions associated with the cessation of regular cash remittances.

Second, the case of Filipinos in Japan has remained largely understudied despite their unique migration history to Japan (see Almonte, 2001; Anderson, 1999), their cultural ties to their home countries, and their size relative to other migrant groups. Beginning with the initial inflow in the 1970s, mainly to the Japanese entertainment sector (Balgoa, 2017), the number of Filipinos has recently increased to over 277, 341, making them the fourth largest registered foreign nationals in the country under various visa categories (Japanese Ministry of Justice, 2020). Regardless of their initial plans to return, the majority are now permanent and long-term migrant women with Japanese spouses. An important feature of these migrants remains their connections to the Philippines through both monetary and non-monetary (through ‘*balikbayan*’ boxes) transfers. While the tradition of sending ‘*balikbayan*’ boxes has been studied in destinations like Canada and the United States (Patzner, 2018; Alburo, 2005; Mata-Codesal, 2012), the unique experience of the Filipino migrants in Japan in terms of these non-monetary remittances deserves its particular attention.

Put together, there remains a gap in scholarly understanding of how the intention to return among the Filipino migrants affects their remittance behaviors, especially among the now permanent or long-term dwellers in Japan. Thus, this study seeks to provide insight into the Filipino migrants’ return intention-remittance behavior nexus, considering both monetary and non-monetary transfers. Furthermore, we examine the effect of return intention differential between short- and long-term Filipino migrants. Using a unique primary data collected from Filipino migrants residing in Japan, we find evidence suggesting that migrants who plan to return are more likely to remit higher monetary remittances, confirming the findings of the extant studies. One of our unique findings entails the positive effect of return intention on non-monetary contributions, especially among long-term migrants in Japan. This finding suggests that for the Filipino migrants who intend to eventually return home, sending non-monetary remittances, especially in the form of used goods, is crucial for keeping familial ties with their non-migrant relatives and preparing for eco-

conomic engagements upon return. Thus, our findings make distinct additions to the literature on return intention and remittances.

The remainder of the paper is organized as follows. The next section reviews the literature on return intention and remittance behavior. Sections 3 and 4 introduce the data and research methodology and present an analysis of the empirical estimations. The last section concludes and discusses policy implications.

2. Return Intention and Remittance Behavior

While there has been significant research on return migration and remittances that focus on migrants who have physically returned to their homeland (Collier et al., 2018; Dustmann & Metres, 2010; Merkle & Zimmermann, 1992), there is scant empirical evidence related to migrants' return intentions while still residing abroad. The concept of "intent" in the context of migrants' decisions to either stay or return has been met with skepticism, primarily due to the common occurrence where the expressed intention to return often remains unrealized (Carling & Pettersen, 2014; de Haas & Fokkema, 2011). Despite this skepticism, scholars recognize the significance of considering intent as a crucial factor in understanding the actual outcomes of whether migrants choose to stay or return. Carling and Pettersen (2014) argue that intentions alone do not guarantee corresponding actions and should be seen as a necessary but not sufficient criterion for action. In essence, the skepticism surrounding the fulfillment of migration intentions does not diminish the importance of intent in understanding migration dynamics. Intentions are acknowledged as crucial elements that, while not determinative of actions, significantly influence the trajectories of migrants' decision-making.

Return behavior varies, and the decision to return can be voluntary or involuntary. Some migrants intentionally desire to return to their home countries after achieving their goals related to savings, investments in land and housing acquisition, financial assets, and micro-enterprises. Kang and Latoja (2022) identify several factors that affect the migrant's probability of return, including education levels, financial accumulation, adverse unemployment situation, and age. Haug (2008) adds depth to our understanding by suggesting that as migrants establish stronger social ties in their host countries, their inclination to return diminishes. This observation underscores the complex relationship between social integration and migration intentions. That is, successful integration often leads to increased productivity and opportunities in the host country compared to the migrants' countries of origin, thereby reducing the likelihood of return (de Haas & Fokkema, 2011). This behavior is supported by the theory of assimilation on immigrant integration, which argues that migrants will gradually assimilate into host communities, leading to a decline in their transnational ties

(Castles & Miller, 2003). On the contrary, Snel et al. (2006) find that Moroccan and Antillean migrants who are poorly assimilated into Dutch society show more transnational movement. Thus, migrants' return intentions are shaped by their attachments to their home and host countries (Barbiano di Belgiojoso, 2016).

Accordingly, migrants' return intentions represent their attitude to the migration experience that can affect behaviors other than the return itself (Carling & Pettersen, 2014). A number of studies have focused on how a migrant's return intention influences their transfer behavior (Wolff, 2015; Bollard et al., 2011). Galor and Stark (1990) argue that migrants who intend to return to their home country after a period of time, referred to as temporary migrants, tend to remit more money than permanent migrants. This finding has been confirmed by empirical studies conducted by Amuedo-Dorantes and Pozo (2006), Dustmann and Mestres (2010), and Makina (2013). These studies indicate that the intentions of returning play a significant and positive role in explaining the probability and amount of remittances sent by migrants. In the case of Filipino migration studies, Sioson (2017) presents empirical evidence on transnational practices among Filipino residents in Nagoya, Japan, and examines how these practices influence their intention to stay permanently. According to the study, Filipino migrants who send remittances and have savings in the Philippines are more likely to return home.

Furthermore, migrants intending to eventually return home may be motivated by the prospect of leveraging the knowledge, skills, and experiences acquired abroad to initiate entrepreneurial ventures in their home countries (Williams, 2018), which can lead to a higher likelihood of sending larger remittances back home. Piracha (2011) asserts that migrants who decide to return have a higher likelihood of remitting for investment purposes and tend to remit more as the time spent abroad increases. Additionally, Osili (2007) further argues that an increase in a migrant's expected income in the event of return migration will lead to higher remittance transfers to the origin family. Thus, a migrant's intention to return home becomes a pivotal factor influencing their actions, creating a scenario where their migration is not solely about fulfilling immediate familial needs but is also aligned with a broader vision for their future.

Despite understanding the influence of migrants' return intention on their remittance behavior, a prevalent limitation in the existing literature is the monetary-centric focus on migrants' transfer behavior. Barrera et al. (2024) describe the duality in a migrant's remittance portfolio, which not only includes cash transfers but also encompasses non-monetary forms of remittances such as physical capital goods, skills, and technical knowledge. Furthermore, empirical findings show that sending non-cash remittances such as food increases during commodity shortages (Tevera & Chikanda, 2009) and is utilized for investment purposes as long as there are available surplus resources (Abubakar & Folawewo, 2019). Beyond physical goods, Földes (2020) highlights that while cash remittances aim to ensure

the well-being and financial stability of the migrant's parents, non-monetary remittances, such as remittances in kind, hold more profound meaning as expressions of care. Thus, non-monetary remittances are significant in maintaining familial relationships and nurturing emotional connections between migrants and their families in the origin countries (Földes, 2020; McCallum, 2022).

Building on the discussion thus far, it becomes evident that a significant gap exists in our understanding of migrants' remittance behavior, particularly regarding the often-neglected dimension of non-monetary remittances. Hence, this study endeavors to bridge this gap by offering a comparative analysis of how a migrant's monetary and non-monetary remittance behaviors are shaped by their intention to return. By considering the influence of return intentions in the framework of analysis, the study seeks to discern how migrants' future plans and aspirations shape their remittance behavior, thereby contributing to a more comprehensive understanding of transnational mobility.

3. Data and Methodology

3.1. Data Collection and Description

This study utilizes micro-level primary data from a survey of Filipino migrants in Japan, conducted from August to October 2023 using a structured questionnaire initially pre-tested in July 2023. Given the absence of a comprehensive list of Filipino migrants in Japan, the research relied on non-probability sampling techniques, specifically convenience and snowball sampling, to identify and recruit participants. A total of 323 respondents participated in the survey, with the majority coming from the Chubu, Kanto, and Kansai regions, home to most Filipinos in Japan (Ministry of Justice Japan, 2018). The final instrument is administered online using the Qualtrics survey platform to minimize error and researcher bias. The final questionnaire captured information on respondents' socio-demographic profile, return intention, remittance behavior, and business ownership and intention.

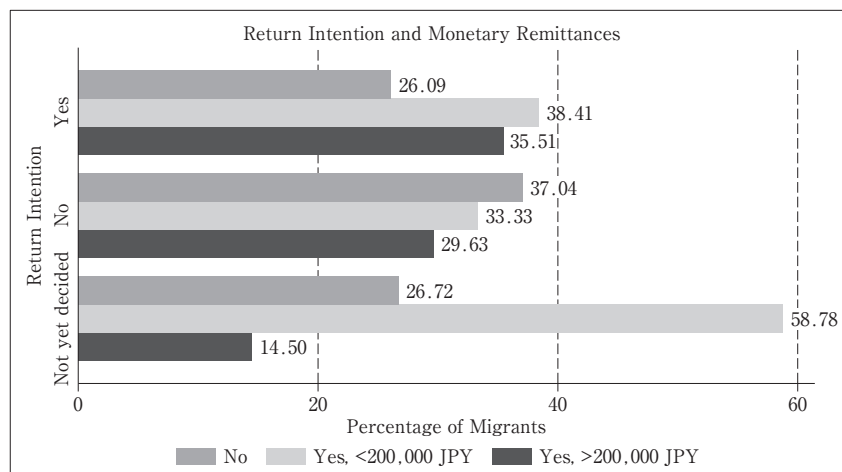
Notably, to measure return intention, our primary explanatory variable, respondents are asked, *'Do you intend to return/move back to the Philippines, to live there permanently, at some or any time in the future ?'*. We encode the responses as 'Yes', 'No', and 'Not yet decided' with values of 1, 2, and 3, respectively, assigned to each category. Furthermore, to look into the migrants' remittance behavior, respondents are asked about their monetary and non-monetary remittance transfers. For instance, individuals are asked to indicate how much they have sent in total over the past 12 months with the responses coded 'No remittance' (1), 'Less than 200,000 JPY' (2), and 'More than 200,001 JPY' (3) for monetary remittances. For non-monetary remittances, we use a binary indicator of 'Yes' (1) and 'No' (0), where respondents are asked to indicate if they sent physical goods or got involved in

Table 1. Descriptive statistics.

Variables	Description	Mean	Std. dev.	Min	Max
Dependent Variables					
Non-monetary remittances	=1 if the migrant sent goods and shared knowledge and skills to household; =0 otherwise	0.66	0.48	0	1
Monetary remittances	=1 if the migrant did not send monetary remittances; =2 if migrant sent less than 200,000 JPY; =3 if migrant sent more than 200,001 JPY	1.88	0.67	1	3
Control Variables					
Intention to return	=1 if with intention to return; =2 without intention to return; =3 not yet decided	2.26	0.73	1	3
Age	=1 if 20-30 years old; =2 if 31-40 years old; =3 if 41-50 years old; =4 if 51-60 years old; =5 if 61 or over	2.16	1.01	1	5
Marital status	=1 if married; =0 if otherwise	0.53	0.50	0	1
University education	=1 if completed university education or higher; =0 if otherwise	0.604	0.490	0	1
Sex	=1 if female; 0=otherwise	0.625	0.485	0	1
Average monthly income	=1 if less than 100,000 JPY; =2 if 100,001 JPY-200,000 JPY; =3 if 200,001 JPY-300,000 JPY; =4 if 300,001 JPY-400,000 JPY; =5 if 400,001 JPY-500,000 JPY; =6 if more than 500,001 JPY	2.42	1.21	1	6
Present occupation	=1 if unemployed/if dependent/retired/student; =2 if skilled worker/factory worker; =3 if services/entertainer; =4 certified care workers; =5 self-employed/business; =6 skilled professional	3.121	1.90	1	6
Length of stay in Japan	=1 if less than 11 years; =2 if between 11-15 years; =3 if more than 15 years	1.55	0.84	1	3
N		323			

household decision-making by sharing technical knowledge and information.

Table 1 provides the descriptive statistics of the data collected and utilized in the empirical analysis of the study, offering insights into the demographic characteristics of the participants. The data reveals that a significant majority comprises middle-aged females who are married and have completed tertiary education. Moreover, a substantial portion of the participants falls under the category of skilled labor, primarily employed in manufacturing companies, with a monthly income ranging from 100,001 to 200,000 JPY. Regarding remittances, most participants transfer less than 200,000 JPY and actively send non-monetary remittances. Although most of the respondents expressed their intention to return to the Philippines, a considerable number remain undecided and uncertain about their future.

Figure 1. Return intention and monetary remittance behavior.

Furthermore, responses from the survey participants highlight interesting correlations between return intention and remittance behavior. For instance, Figure 1 shows that a significant proportion of migrants who intend to return and those who are still undecided are sending less than 200,000 JPY in remittances. In contrast, most of those with no intention to return are not sending any remittances. This pattern suggests that return intentions play a critical role in shaping the financial support migrants provide to their home countries. Specifically, those planning to return may prioritize maintaining financial connections with their families and communities, while those without return plans might not feel the same obligation or necessity to remit funds.

Regarding non-monetary transfers, Figure 2 reveals that the practice of sending non-monetary forms of support is widespread among the Filipino migrants, regardless of their return intentions. This feature indicates that these migrants maintain strong transnational ties through various forms of support, irrespective of whether they plan to return to their home country or not. This behavior underscores the enduring connection and commitment of Filipino migrants to their families and communities in the Philippines, highlighting the importance of remittances beyond mere financial transactions.

Examining the remittance behavior of the Filipino migrants in Japan in relation to their return intentions and length of stay reveals distinct patterns. Figure 3 shows that migrants who intend to return and have stayed less than 11 years or more than 15 years predominantly send less than 200,000 JPY, while those who have stayed between 11 to 15 years tend to send more than 200,000 JPY. Conversely, among migrants with no intention to return, those who have stayed less than 11 years or more than 15 years mostly do not send remittances, but those within the 11-15-year range are more likely to remit over 200,000 JPY. Those without any return intentions, especially in the early and later stages of their stay, may not feel the same obligation or necessity to send remittances, possibly focusing

Figure 2. Return intention and non-monetary remittance behavior.

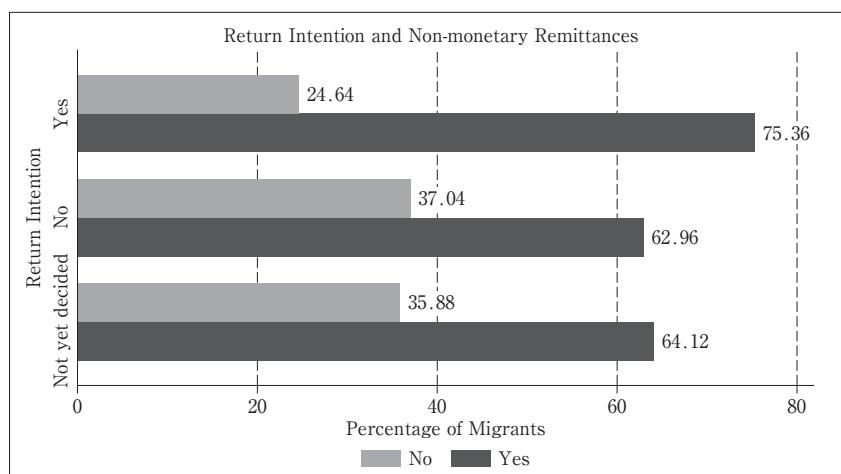
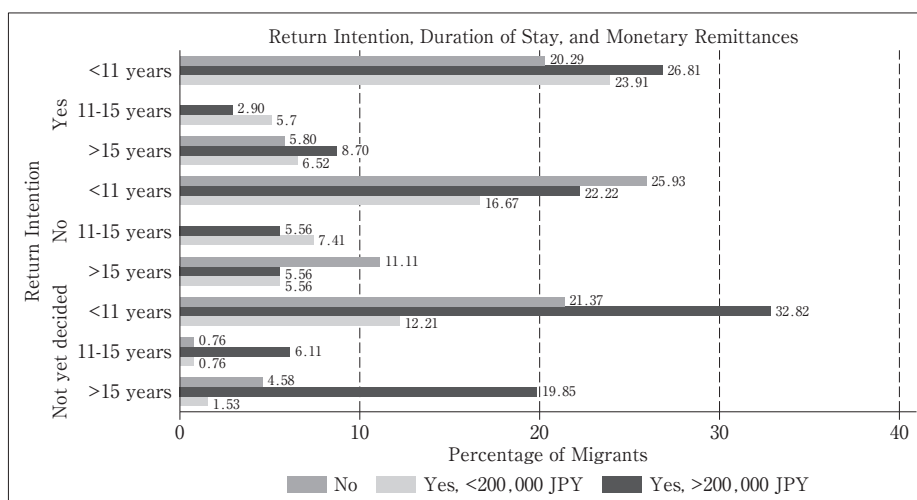
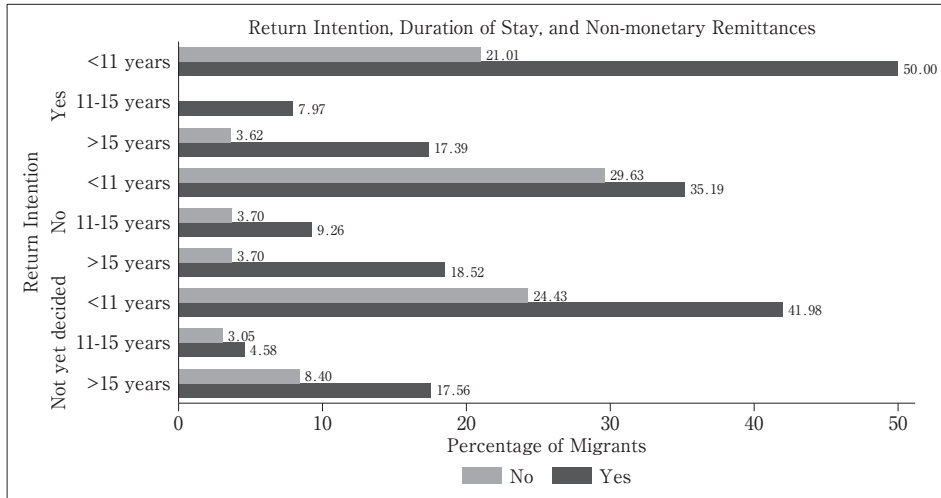


Figure 3. Return intention, duration of stay, and monetary remittance behavior.



more on establishing their lives in Japan. Interestingly, migrants who are undecided about returning generally send less than 200,000 JPY. These findings highlight how both return intentions and length of stay influence remittance behaviors, with residents within the mid-range period (11 to 15 years) showing higher remittance activity regardless of their return intentions.

Analyzing the non-monetary remittance behavior of the Filipino migrants in Japan, Figure 4 illustrates a noteworthy feature; most migrants tend to send non-monetary forms of support regardless of their return intentions or length of stay. This inclination to remit non-monetary items persists among migrants whether they plan to return, remain permanently, or are undecided about their future. The consistency of this behavior suggests that non-monetary remittances play a crucial and enduring role in maintaining familial ties and

Figure 4. Return intention, duration of stay, and non-monetary remittance behavior.

supporting communities in the migrants' home country. Unlike monetary remittances, which vary significantly with return intentions and duration of stay, non-monetary remittances seem to reflect a sustained commitment to providing tangible support and resources, regardless of the migrants' long-term plans.

3.2. Empirical Methodology

In modeling migrants' monetary remittance transfers in response to their return intention, we use an Ordered Probit (Oprobit) framework, given that our monetary remittance data is coded in an ordered form, following Collier et al. (2011). The equation for the migrant's level of monetary remittances is expressed as:

$$R_i^M = \beta_0 + \beta_1 r_i + \beta_2 X_i + \varepsilon_i \quad (1)$$

where R_i^M is a categorical random variable representing monetary remittances, coded 1 if no remittances were sent, 2 if the migrant remits less than 200,000 JPY, and 3 for remittances above 200,001 JPY; r_i reflects the migrant's intention to return to the Philippines; and X_i is a vector of the migrant's socioeconomic characteristics shown in Table 1. Assuming standard normal errors, we derive consistent estimates of β through maximum likelihood estimation (MLE). The interpretation of the regression parameters' signs allows for ascertaining whether the intention to return, among other factors, is associated with an increase in the level of remittances.

On the other hand, to examine the migrant's propensity to remit to the home country in non-monetary forms, we measure such remittance decision as a binary choice and apply the Probit estimation technique. Thus, the Probit model estimated is described in the functional form:

$$Prob (R_i^N=1 | r, X) = \delta(r'\beta, X'\gamma) \quad (2)$$

where β is the coefficient for the migrant's return intention (r), γ is a vector of coefficients for other explanatory variables (X), and δ the standard normal distribution. The observable variable R_i^N is binary and takes value 1 when the migrant sends non-monetary remittances and 0 otherwise.

4. Empirical Results and Discussions

The following results present how migrants' return intention affects their remittance behavior for monetary and non-monetary forms of remittances.

4.1. Return Intention and Monetary Remittance Behavior

Table 2 presents the results of the return-monetary remittances nexus for the Filipino migrants in Japan using the Oprobit estimation technique. Columns 1a and 1b show the effects of return intention and other covariates on remittance transfers alongside their standard errors. In columns 2a and 2b, we include an interaction term between migrants' age and educational attainment to isolate the effect of highly educated older migrants from the less educated. Notably, from both columns 1 and 2, migrants with an intention to return are more inclined to remit higher levels of monetary remittances, which are significant at a 1% level. This result aligns with the findings of Collier et al. (2011), Pinger (2010), Brzozowski et al. (2017), and Dustmann and Metres (2010), demonstrating that migrants deciding to return exhibit a higher probability of remitting, with increased remittance amounts corresponding to a longer duration spent abroad.

In this case, it can be argued that the 'temporary' nature of the migration activity potentially affects the migrant's remittance behavior in their desire to maintain or strengthen their social and economic ties to secure their future reintegration, access to resources, or social status in the origin country. Carling and Pettersen (2014) argue that return migration can be affected by the migrant's strong ties to the home country. Alternatively, our finding may indicate their desire to invest in productive or financial assets that can generate income when they return. Collier et al. (2011) assert that temporary migration is a strategic approach that enables individuals to accumulate savings overseas to invest back home. As a result, migrants who have a well-planned investment strategy, upon return, exhibit a greater propensity to remit money.

Furthermore, obtaining a college degree does not significantly influence a migrant's remittance behavior. Additionally, the age variable is significantly negative for individuals within the 51-60 age group, a result in contrast with previous studies on remittance be-

Table 2. Estimation results on migrant's return intention and level of monetary remittances.

Independent Variables	Level of monetary remittances			
	(1)		(2)	
	Coefficient	SE	Coefficient	SE
Return intention (reference: not yet decided)				
Yes	0.441***	0.144	0.462***	0.147
No	-0.003	0.221	-0.009	0.224
Tertiary education (completed=1)	0.192	0.155	-0.916	0.635
Age (reference: 20-30 years old)				
31-40 years old	-0.097	0.188	-0.409	0.262
41-50 years old	0.131	0.261	0.113	0.305
51-60 years old	-0.645**	0.327	-0.728*	0.411
61 or over	-0.521	0.444	0.064	0.430
Tertiary education x Age (reference: 20-30 years old)				
31-40 years old			0.823	0.674
41-50 years old			1.368**	0.655
51-60 years old			0.981	0.682
61 or over			1.121	0.734
Sex (female=1)	0.141	0.146	0.127	0.148
Marital status (married=1)	-0.344*	0.170	-0.353*	0.173
Length of stay (reference: <10 years)				
11-15 years	0.806***	0.248	0.811***	0.250
>15 years	0.283	0.234	0.249	0.236
Average monthly income (reference: <100,000 JPY)				
100,001-200,000 JPY	0.395**	0.176	0.463**	0.184
200,001-300,000 JPY	1.178***	0.262	1.274***	0.268
300,001-400,000 JPY	0.844**	0.346	0.884**	0.346
400,001-500,000 JPY	0.601	0.458	0.676	0.464
>500,001 JPY	0.814*	0.467	0.941**	0.476
Present Occupation (reference: unemployed/student/retired)				
Skilled labor/Factory worker	0.715***	0.217	0.708***	0.221
Services/entertainment	0.778**	0.356	0.595	0.392
Certified Care worker	0.891**	0.302	0.821**	0.303
Self-employed/own business	0.917*	0.474	0.984*	0.497
Skilled professional	0.111	0.261	0.025	0.269
/cut1	0.556**	0.278	0.438	0.289
/cut2	1.955***	0.285	1.850***	0.296
Wald Chi2	73.70		74.12	
Prob>Chi2	0.0000		0.0000	
Pseudo R2	0.0984		0.1044	
Obs	323			

***Significant at 1%, **5%, and *10% level.

havior (Brzozowski et al., 2017; Dustmann & Mestres, 2010). However, the interaction term with tertiary education is significant at a 5% level for migrants within the 41–50 age bracket in column 2a. This result suggests that migrants who have completed tertiary education within 41–50 years are more likely to send higher amounts of remittances. These migrants are more likely to have higher incomes and better job opportunities in the host country, which enables them to send more remittances to their families or communities in their country of origin (Ilahi & Jafarey, 1999). Moreover, this positive effect of education on remittances is more substantial for migrants in their prime working age, between 41 and 50 years old. They have more financial resources and stronger motives to remit, making them ideal candidates for remittance payments.

On the contrary, married migrants are less likely to remit compared to unmarried migrants, which is explained by the likelihood that many Filipino migrants in Japan may have Japanese spouses and already established families. In such cases, married migrants may prioritize fulfilling financial responsibilities within their household, including covering domestic expenses and directly supporting their family's needs, reducing the capacity for remitting to the home country. Invariably, married migrants may have less disposable income to send back to their country of origin than unmarried migrants with fewer dependents or lower living costs.

Moreover, time spent abroad positively affects the remittance behavior of the Filipino diaspora in Japan. This result is consistent with the findings of Mahuteau et al. (2010), who argue that a longer period spent abroad can increase remittance flows. The coefficient of 11–15 years of stay is significant and positive compared to the base category (below 10 years), suggesting that, over time, the fixed costs of settlement decrease, and the accumulated experience and skills acquired by migrants contribute to higher earnings and remitting. However, the significant effect crowds out for migrants beyond 15 years of residence in Japan.

Looking at the effect of income and labor force status on the migrant's remittance behavior, the finding is in line with existing empirical studies where wage earners are more likely to send higher amounts of remittances than those who are not in the labor force, such as students, dependents, and retired (Osili, 2007; Collier et al., 2011; Mahuteau et al., 2010). This is unsurprising, as higher earnings and stable employment are strong determinants of a migrant's remittance behavior (Amuedo-Dorantes & Pozo, 2023; Ratha, 2003). The following sections examine the effect of return intention on the probability of sending non-monetary remittances.

4.2. Return Intention and Non-Monetary Remittance Behavior

Table 3 presents the results of the Probit model on the likelihood of remitting non-monetary forms of remittances. Model 1 shows the probability of sending non-monetary remit-

Table 3. Estimation results on migrant's return intention and likelihood of sending non-monetary remittances.

	Likelihood of sending non-monetary remittances			
	(1)		(2)	
Independent Variables	Coefficient	SE	Coefficient	SE
Return intention (reference: not yet decided)				
Yes	0.379**	0.181	0.376**	0.184
No	-0.0793	0.239	-0.0864	0.243
Tertiary education (completed=1)	-0.336*	0.187	-0.449**	0.199
Age (reference: 20-30 years old)				
31-40 years old	0.00943	0.203	0.148	0.213
41-50 years old	0.249	0.337	0.443	0.322
51-60 years old	0.196	0.414	0.217	0.415
61 or over	0.0112	0.606	-0.0705	0.605
Sex (female=1)	0.528***	0.175	0.557***	0.178
Marital status (married=1)	0.0115	0.185	-0.362*	0.215
Length of stay (reference: <10 years)				
11-15 years	0.0125	0.318	-0.731*	0.431
>15 years	-0.110	0.338	-1.067**	0.450
Married x Length of stay (reference: <10 years)				
11-15 years			1.321**	0.598
>15 years			1.386***	0.459
Average monthly income (reference: <100,000 JPY)				
100,001-200,000 JPY	0.543***	0.204	0.556***	0.205
200,001-300,000 JPY	0.365	0.276	0.456	0.287
300,001-400,000 JPY	0.478	0.346	0.605*	0.357
400,001-500,000 JPY	0.575	0.553	0.804	0.554
>500,001 JPY	0.931*	0.501	1.014*	0.521
Present Occupation (reference: unemployed/student/retired)				
Skilled labor/Factory worker	-0.319	0.238	-0.360	0.243
Services/entertainment	-0.00518	0.466	-0.164	0.479
Certified Care worker	-0.405	0.365	-0.460	0.380
Self-employed/own business	-0.303	0.547	-0.510	0.548
Skilled professional	-0.0317	0.285	-0.0404	0.298
Constant	-0.0407	0.311	0.0804	0.313
Wald Chi2	33.01		47.37	
Prob>Chi2	0.0461		0.0020	
Pseudo R2	0.0832		0.1112	
Obs	323			

***Significant at 1%, **5%, and *10% level.

tances based on migrants' return intentions and socioeconomic characteristics. In model 2, we include an interaction of marital status and the migrants' length of stay in Japan. Our results reveal that migrants who intend to return are more likely to send non-monetary remittances to their families back home. The point estimates are significant at the 1% level in columns 1 and 2. Such non-monetary transfers may be in the form of consumption

goods, such as clothes, food, sweets, and other gifts; capital goods, such as machinery, equipment, tools, or vehicles; or the transfer of intangible assets, such as skills and knowledge gained from working abroad. While this aspect of remittances has not yet received much attention, it is interesting to note that migrants view this as contributing to the well-being of their families and communities back home. This inclination may stem from their aspiration to prepare for future reintegration, make investments, or contribute positively to their origin country. Sending consumption goods might be a means for migrants to express affection, gratitude, or generosity towards their relatives or friends. In the case of the Filipino diaspora, sending 'balikbayan' boxes filled with clothes, food, sweets, and other gifts to their families in the Philippines serves as a means of reconnecting with their roots and homeland, albeit symbolically (McCallum, 2022), and in preparation for their eventual return to the home country.

To understand the migrant's behavior regarding non-monetary remittances, other determinants such as sex, level of education, income, and marital status interacted with length of stay abroad provide interesting and novel insights. The sex variable is significantly positive at 1%; that is, being a female increases the likelihood of sending non-monetary remittances by 55.7%. This result corroborates with Camposano (2012), who argues that the act of sending goods by the Filipino migrant women in Hong Kong to their families back in the Philippines is a gendered process that reconnects these migrant women back into the emotional economy of the household.

Furthermore, obtaining a college degree significantly and negatively influences the probability of sending non-monetary remittances. The argument might be that better-educated migrants are less likely to be affected by social pressure to remit (Dustmann & Mestres, 2010). Within the context of the Filipino diaspora in Japan, the study reveals a diverse demographic profile. Although most respondents are wage earners with stable income sources, a notable subset comprises students pursuing post-graduate degrees. This segment of the sample, typically in their late 20s or early 30s, faces a distinct financial scenario. Unlike their employed counterparts, these students are not obligated or pressured to send remittances to their families in the Philippines, as they rely on scholarships and income from part-time jobs. Additionally, we find a positive and significant interaction between marital status and length of stay in Japan. The interaction term suggests that as the length of stay abroad increases, the likelihood of sending non-monetary remittances by married migrants increases.

4.3. Additional Findings: The moderating role of migration duration

The preceding results show that a migrant's return intention significantly influences remittance behavior for both monetary and non-monetary forms. However, to better understand the remittance behavior of Filipino migrants, where the majority are female perma-

Table 4. Estimation results on migrant's return intention, remittances, and duration of stay.

<i>Independent Variables</i>	Monetary Remittances (1)		Non-Monetary Remittances (2)	
	Coefficient	SE	Coefficient	SE
Return intention				
Yes	0.382**	0.178	0.082	0.210
No	-0.079	0.274	-0.354	0.290
Return intention x Length of stay				
Yes x 11-15 years	0.613	0.463	—	—
Yes x >15 years	0.080	0.330	0.844*	0.476
No x 11-15 years	0.988*	0.598	0.748	0.710
No x >15 years	-0.214	0.547	1.295**	0.596
Constant			0.119	0.319
/cut1	0.529*	0.281		
/cut2	1.937***	0.289		
Wald Chi2	74.91		37.65	
Prob>Chi2	0.0000		0.0377	
Pseudo R2	0.1033		0.0955	
Controls	Yes		Yes	
Obs	323		312	

Note: ***Significant at 1%, **5%, and *10% level; Return intention (*reference: not yet decided*); Length of stay (*reference: less than 10 years*)

1)
 nent residents, we explore the moderating role of their migration duration on the effect of return intention on remittances and present the results in Table 4. Model (1) of Table 4 provides the estimation results for monetary remittances, showing that migrants who have lived in Japan for 11-15 years and have no plans of returning are more likely to send higher levels of cash remittances. This behavior suggests that migration duration significantly influences migrants' remittance behavior. Even though the possibility of return is very low, migrants are still linked to their home country through sending remittances. This result contrasts with Dustmann and Mestres (2010), who argue that temporary migrants are likely to remit more as their family members stay in their home country. In the case of the Filipino migrants, they exhibit a strong attachment to their familial ties in their home country, resulting in a sustained pattern of remittance behavior despite being settled in their host country.

Furthermore, an interesting result shows that, regardless of whether they intend to return or not, migrants are more inclined to send non-monetary remittances after living in Japan for more than 15 years. Aligned with this prevailing demographic, the result suggests that sending goods is a traditional practice for most Filipino diaspora in Japan. These individuals who have spent considerable time abroad are perceived to have achieved greater economic stability and have integrated into the host society. This pattern suggests that, with prolonged residence in Japan, migrants tend to transition from primarily financial sup-

port to the more traditional practice of sending goods. It implies a deeper connection to cultural practices and solidifying ties to the home country.

Furthermore, the notion that economic stability and societal integration play critical roles in this shift adds a nuanced layer to our understanding of the dynamics of remittance behavior among the Filipino migrants in Japan. Thus, their prolonged stay and integration into society have afforded them valuable experiences, placing them in a favorable position to obtain goods that may be unavailable in their home country, along with skills unique to their overseas experiences. This process goes beyond the mere act of sending monetary support; it fosters economic and social development in their places of origin.

5. Conclusions

This paper examines the determinants of monetary and non-monetary remittances among the Filipino migrants in Japan. Specifically, it analyzed how return intentions affect the remittance behavior of migrants. Using a novel dataset from a survey of the Filipino migrants living and working in Japan, our findings conform the hypothesis that the decision to remit in monetary and non-monetary forms is influenced by the migrant's intention to return to the home country. That is, migrants intending to return are more inclined to remit higher levels of monetary remittances and have a higher propensity to send non-monetary remittances. These effects are more pronounced for migrants who have settled in their host country.

The interplay between migrants' intention to return and their remittance behavior, whether monetary or non-monetary, remains a crucial avenue for exploration. Focusing on the Filipino diaspora in Japan, this research has shed light on a unique context, emphasizing the migrants' behavior in sending non-monetary remittances in addition to the conventional monetary forms. Although the study does not contend that having intentions to return necessarily excludes intentions to stay, it underscores the significance of exploring the unique experiences of the Filipino migrants in Japan. This group presents a compelling case study due to the predominance of permanent and long-term migrant women who have married Japanese men. Despite their successful integration into Japanese society, these migrants maintain strong transnational ties, as evidenced by the findings indicating continued positive remittance behavior. The phenomenon observed among the Filipino migrants in Japan challenges the conventional assumption that successful integration diminishes migrants' connections to their countries of origin. Despite their settled status in Japan, these migrants continue to send remittances back home, with a notable emphasis on non-monetary forms rather than solely monetary ones. This behavior underscores their enduring ties and obligations to their families and communities in the Philippines.

Given these insights, a strategic policy recommendation is imperative. Policymakers ought to recognize and promote the diversification of remittance channels, with a particular emphasis on the potential of non-monetary remittances. This entails establishing clear guidelines and incentives for migrants to send technologically advanced equipment, machinery, and other tangible assets back to their home country, which can be beneficial in uplifting their standard of living. To facilitate this process, cooperation between the host and home countries is essential, streamlining customs processes and ensuring the smooth transportation of goods.

However, it is essential to acknowledge a limitation inherent in the study — the challenge of assigning a monetary value to non-monetary forms of remittances. While our survey effectively captures the binary coding of non-monetary contributions, quantifying the economic impact of these intangible exchanges remains elusive. Thus, future studies may explore an improved measurement of non-monetary transfers.

note

- 1) See Appendix: Table A.1. and Figure A.1.

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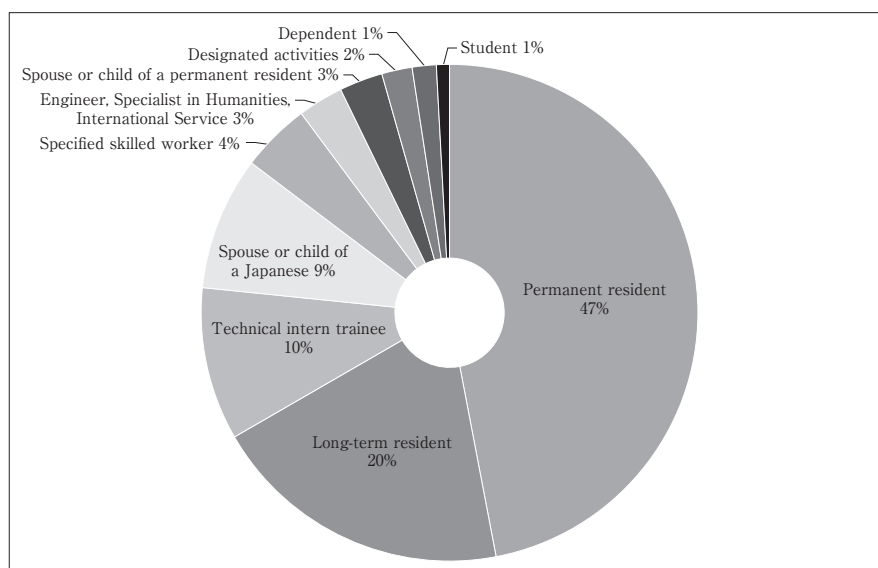
Appendix A

Table A.1 Age and gender distribution of Filipino migrants in Japan.

Age	Both Sexes	Male	Female
0 to 10	18,134	9,139	8,995
11 to 20	18,412	9,141	9,271
21 to 30	53,040	25,184	27,856
31 to 40	64,803	23,545	41,258
41 to 50	62,110	8,153	53,957
51 to 60	51,174	4,942	46,232
61 to 70	8,907	1,631	7,276
71 and above	761	197	564
Total	277,341	81,932	195,409

Source: Ministry of Justice, Immigration Services Agency, 2021 (Portal Site of Official Statistics of Japan, compiled by the authors).

Figure A.1 Status of residence of Filipino migrants in Japan.



Source: Ministry of Justice, Immigration Services Agency, end of December 2022 (e-Stat.co.jp, compiled by the authors).

note

- 2) *Notes:* “Technical Intern Trainee” indicates six different types of Technical Intern Trainee visa combined into one group. “Specified Skilled Worker” indicates Specified Skilled Worker 1 visa (there are yet no Filipinos with Specified Skilled Worker 2 visa). “Engineer, Humanities” indicates Engineer, Specialist in Humanities, International Services visa.