We investigate the effects of altruism on migrants’ decisions to send money home and on their households’ decisions to invest or to consume those remittances. Previous studies have devoted extensive attention to migrants’ altruism toward recipients and little to recipients’ altruism toward migrants. We find that the migrant sends larger remittances home when he feels more altruistic toward other household members, while he may send nothing if he feels less altruistic. We also find that other household members in the home country likely consume rather than invest remittances if they are highly altruistic toward the migrant. Our results may partially explain why countries receiving large remittances do not always make large investments, and suggest that altruism among household members does not necessarily enhance a country’s development and growth through remittances.

Keywords: Migration, Altruism, Remittances, Consumption, Investment

JEL Classification: D10, D64, F22, F24, J61

* An earlier draft of this paper was presented at the 9th International Conference of the Japan Economic Policy Association held in Tokyo, November 2010. I am grateful to Ryokichi Chida and other participants for their valuable comments. I also thank the anonymous referees of this journal for their constructive comments. Financial support by the Japan Society for the Promotion of Science is gratefully acknowledged. Needless to say, any remaining errors are my responsibility.
이민자의 송금과 송금액 지출에 대한 이타주의의 역할

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이 논문은 이민자의 본국 가족에 대한 송금 시 이타주의의 영향과 본국 가족의 송금액 지출, 즉 투자와 소비에 관한 의사결정 시 이타주의의 영향에 대해 조사하고 있다. 기존 연구는 이민자의 본국 수령인에 대한 이타주의에만 관심을 기울였을 뿐 본국 수령인의 이민자에 대한 이타주의에 대해서는 거의 관심을 기울이지 않았다. 본고에서는 다음을 밝혀 있다. 우선 이민자가 본국 가족에 대해 이타적이면 이민자는 가족에게 고액의 송금을 하는 한편, 이민자가 가족에 대해 별로 이타적이지 않으면 송금을 하지 않을 가능성이 높다. 또한 만약 본국 가족이 이민자에 대해 매우 이타적이면 그 가족은 송금된 돈을 투자가 아니라 소비에 지출할 가능성이 높다. 이러한 결과는 거액의 송금을 받는 국가가 왜 반드시 거액의 투자를 실시한다고 할 수 없는지에 대해 일부 설명하고 있다. 또한 가족 구성원 간 이타주의는 송금이 반드시 한 국가의 개발이나 성장에 기여한다고 할 수 없음을 시사한다.

핵심용어: 이민, 이타주의, 송금, 소비, 투자
JEL 분류: D10, D64, F22, F24, J61
I. Introduction

We investigate how altruism influences migrants’ decisions to send money home and the role altruism plays in determining how other household members in the home country spend those remittances. We present a simplified, two-country model in which a household member working abroad as a migrant sends remittances to other household members in the home country. We demonstrate that the migrant’s altruism toward other household members increases the amount of remittances, whereas their altruism toward him may induce them to consume remittances rather than invest them. We infer from our results that altruism among household members may hamper the home country’s pursuit of development and growth through the sending and spending of remittances.

Numerous studies have found diverse motives among migrants for sending remittances home (Lucas and Stark 1985; Stark 1995; Rapoport and Docquier 2006; Ruiz and Vargas-Silva 2009).1) Those motives include altruism, self-interest, coinsurance between migrants and other household members, and repayment of loans. Of these, altruism is considered a major motive. Altruism alone cannot explain why migrants send remittances home, yet remittances cannot be satisfactorily explained without invoking altruism. Although results are mixed, many studies have investigated the effects of altruism on the sending of remittances (Secondi 1997; Agarwal and Horowitz 2002; VanWey 2004).

Developing economies seek to expand and grow, and policymakers regard remittances as a source of external financing for attaining those objectives. However, many developed economies restrict inflow of immigrants (Boeri and Brücker 2005; Facchini and Mayda 2008). Accordingly, developing economies seek to increase remittances and ensure that they are invested.

A number of studies have investigated whether remittances support development

1) Earlier, Mincer (1978) introduced altruism into the migration analysis and explained the effects of family ties on decisions to migrate, not on the amount of remittances. Tcha (1995a, 1995b, 1996) studied this issue further.
and growth, i.e. building the foundation for continuous increases in the country’s GDP and realization of continuous increases in the country’s GDP.\(^2\) Chami et al. (2005) found a negative correlation between remittances and GDP growth and deduced that remittances are not a source of capital for economic advancement. According to Barajas et al. (2009), migrants’ remittances have, at best, no impact on economic growth. They infer that this is partly because remittances serve not as investments but as social insurance to help family members purchase life’s necessities. Their result is consistent with findings by Adams and Page (2005) that migration and remittances significantly reduce poverty in developing countries. These arguments suggest that remittances may be effective for reducing poverty or improving specific area of the country, but they do not necessarily bring about a country’s development and growth in a straightforward manner.\(^3\)

On the other hand, De Haas (2005) argues that migrant households often display a higher propensity to invest than non-migrant households. According to this argument, remittances may contribute to development and growth. Although controversies over this issue seem endless, it appears that altruism contributes to development and growth of the labor-sending country through remittances. It is easy to understand that a household member working abroad, being more altruistic sends larger remittances to other household members in the home country.\(^4\) Moreover, even if a large fraction of those remittances

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2) For studies on this issue other than those referred to in this text, see Massey and Parrado (1994), Durand et al. (1996), Taylor (1999), Woodruff and Zenteno (2001), Koc and Onan (2004), and Semyonov and Gorodzeisky (2008). Empirical research into migration often encounters data availability problems. For this reason, data tend to be limited to specific areas or periods. Accordingly, results are likely to differ.

3) However, one study argues against such an inference. Focusing on regions of the Philippines, Ang (2009) derived that the regional effect of remittances is weaker than their national impact.

4) Shimada (2010a) discussed this issue. In addition, remittances are related not only to altruism but also to fees for sending and receiving them, and fees are usually set by private companies. Shimada (2010b) showed that remittances can be maximized by transferring the sending fee from the migrant to other household members without manipulating the fees, and thereby without affecting interests of the agents involved.
were spent on consumption, increases in their amount would enhance the recipient country’s investment and assist economic growth.

However, does altruism always have positive effects on development and growth through remittances? The answer depends on both the amounts sent home and how those remittances are spent. Altruism is central to both considerations.

Previous studies of remittances have focused mainly on migrants’ altruism, and they implicitly assumed that altruism relates only to sending remittances. They have not considered the case where all household members may feel altruistic toward each other and that their altruism may affect the disposition of remittances received by other household members. From empirical studies, we confirm mutual altruism among family members. MacDonald and Koh (2003) derived that transfers from parents to adult children are motivated by simple altruism, in contrast to other studies that support compensatory altruism or exchange motives. According to Osili (2007), transfers to the family are motivated by altruistic considerations. Moreover, Cai (2003) concluded that family ties—in other words, factors related to mutual altruism—are strong and significant in explaining the amount of remittances. We also find theoretical studies that assume mutual altruism. In his theoretical analysis (chapter one of Stark 1995), Stark assumed that a father and a son are altruistic toward each other when the father has to apportion a fixed quantity of corn between them.

The existence of recipients’ altruism toward migrants leads us to infer that recipients’ altruism also affects sending and spending of remittances through its effects on the utilities of recipients and migrants. It is easy to envision that recipients determine how they spend remittances in order to maximize their utility, and that this depends on their altruism toward migrants as well as on migrants’ altruism toward recipients. Accordingly, altruism seems related to both sending and spending remittances.

We attempt to demonstrate the effects of altruism on recipients’ decisions to spend remittances as well as the effects of altruism on migrant’s decisions to send remittances. We attempt to clarify whether altruism is always effective in
attaining development and growth by utilizing remittances. To our knowledge, potential effects of altruism on other household members’ decisions concerning the use of remittances have never been adequately examined. Our analysis builds on previous analyses, but it extends them by examining the role of altruism in spending remittances.

We demonstrate that migrant’s altruism is likely to increase his remittances home, whereas recipients’ altruism may induce them to consume remittances rather than invest them. Therefore, altruism among household members does not necessarily contribute to development and growth through remittances.

This paper proceeds as follows: Section 2 models a simplified two-country economy. Section 3 examines the effects of migrant’s altruism on the amount of remittances. Section 4 examines the effects of other household members’ altruism on how they use remittances. Section 5 provides concluding remarks.

II. The Model

We assume a two-country economy consisting of a home country and a host country, and we focus on a representative household in the home country. One member of the household has migrated to the host country to work while other household members remain in the home country. Although household members feel altruistically toward each other, we assume that the degree of migrant’s altruism toward other household members differs from the degree of other household members’ altruism toward him. The migrant may send part of his income home as remittances.

Income earned by the migrant in the host country is denoted by $\bar{W}_M$, which is given exogenously and is a positive constant. Remittances sent by him are denoted by $R (< \bar{W}_M)$. The amount is determined by the migrant to maximize his utility. 5) He spends the remainder of his income in the host country. Other

5) This paper addresses only the case in which the migrant and other household members
household members’ total income and spending is denoted by $W_H$. They spend the remittances they receive either on investment or on consumption. We assume polar cases in which all remittances are invested or all are consumed.  

Recipients choose between investment and consumption based on which bestows higher utility. In the former case, $W_H$ equals income earned by investing remittances, and in the latter case $W_H$ consists of income earned under no investment and remittances.

The migrant’s direct utility stems from his spending, which equals his income minus remittances, and assumed to be $\ln(W_M - R)$. Following Poirine (2006), we specify utility functions to obtain a practical solution. Since the migrant feels altruistic toward other household members, his utility $U_M$ depends on their utility, $U_H$, and on his own direct utility.

$$U_M = (1 - \beta_M) \ln(W_M - R) + \beta_M U_H,$$

where $\beta_M, 0 < \beta_M < 1$, measures the degree of his altruism toward other household members in the home country. Similarly, other household members’ utility depends on their own direct utility, assumed to be $\ln(W_H)$, and on the migrant’s utility, since they also feel altruistic toward him.

$$U_H = (1 - \beta_H) \ln(W_H) + \beta_H U_M,$$

where $\beta_H (\neq \beta_M), 0 < \beta_H < 1$, measures the degree of other household members’ behave non-cooperatively.

6) This is a simplified assumption. Ryokichi Chida and a referee suggested that by assuming the fraction $p$ is spent on investment and the fraction $1-p$ on consumption and by making $p$ endogenous we can show more precisely how altruism affects the manner in which remittances are spent. However, it is not certain whether the optimal fraction can be solved explicitly for any given degree of altruism.
altruism toward the migrant. These utility functions can be solved as,

\[
U_M = (1 - \alpha_M)\ln(W_M - R) + \alpha_M \ln W_H, \\
U_H = (1 - \alpha_H)\ln W_H + \alpha_H \ln(W_M - R),
\]

where \( \alpha_M = \beta_M(1 - \beta_H)/(1 - \beta_M \beta_H) \), \( \alpha_H = \beta_H(1 - \beta_M)/(1 - \beta_H \beta_M) \). The more altruistic the migrant feels toward other household members, the more he values their direct utility \( (\partial \alpha_M/\partial \beta_M > 0) \). Similarly, the more altruistic that other household members feel toward him, the more they value his direct utility \( (\partial \alpha_H/\partial \beta_H > 0) \). We use this to derive our main results.

We assume that production in the home country occurs according to the following technology:

\[
Y_H = A_H N_H, \quad A_H = W_H + h I_H, \quad W_H > 0,
\]

where \( Y_H \) is the home country’s output, \( A_H \) reflects its labor productivity, \( N_H \) is its employment, and \( I_H \) is its investment. \( W_H \) and \( h \) are given exogenously and are constants, although we are going to consider the effects of exogenous changes in \( h \). Investment raises labor productivity and thereby increases wages (earned income for other household members). This increase in wages is assumed to exceed the amount of the investment—i.e. \( h > 1 \). Given this technology, the earned income available for spending by other household members in the home country is \( W_H + h I_H \).

Per our assumption stated earlier, other household members expend all remittances on either investment or consumption. If they invest all remittances \( (I_H = R) \), their earned income is \( W_H + h R \). On the other hand, if they consume all remittances \( (I_H = 0) \), their earned income is only \( W_H \), and \( W_H \) equals
\( \bar{W}_h + R \). Assuming \( h > 1 \), other household members’ spending is always larger if they invest rather than consume remittances. Moreover, larger values of \( h \) imply that investment is more profitable and that other household members’ income available for spending is much larger than their income when remittances are consumed. As we will see, however, this does not suggest that other household members always prefer to invest their remittances.

The migrant usually has incomplete information about how other household members spend remittances. However, we avoid complications via the simplifying assumption that the migrant always knows how recipients spend his remittances. In particular, if other household members invest (consume) remittances, then the migrant knows they expend his remittances on investment (consumption). 7)

III. Sending Remittances

In this section, we establish how the migrant’s altruism affects his decisions about remittances. We specify how remittances are used, and we determine their amount under two circumstances: when all remittances are invested and when all are consumed.

If the migrant expects remittances to be invested and other household members actually do invest them, his utility function can be expressed as,

\[
U_M = (1 - \alpha_M) \ln(\bar{W}_M - R) + \alpha_M \ln(\bar{W}_H + hR) \quad (\equiv U_{M_{in}}).
\]

Assuming that \( \bar{W}_M = k\bar{W}_H \), where \( k \) is a constant and \( k > 1 \), that is, income

---

7) In practice, information between migrants and other household members tend to be asymmetric. Chami et al. (2005) assumed an economy in which the migrant cannot observe the recipient’s effort level directly, which gives rise to a moral hazard problem between the migrant and the recipient.
earned in the host country is \( k \) times as large as income earned in the absence of investment in the home country, we differentiate Equation (1) with respect to remittances.

\[
\frac{dU_{M_{inv}}}{dR} = \frac{h}{(kW_H - R)(W_H + hR)} \left\{ -R + \left( \alpha_M k - \frac{1 - \alpha_M}{h} \right) \frac{W_H}{R} \right\}.
\]

Accordingly, if \( \alpha_M k - (1 - \alpha_M)/h \leq 0 \), i.e. \( \beta_M \leq (1/h)(1/k)/\{1 - \beta_H + (1/h)(1/k)\} \), then \( dU_{M_{inv}}/dR < 0 \). In this case, the migrant maximizes his utility by not sending remittances. That is,

\[
R_{inv}\bigg|_{\beta_M \leq (1/h)(1/k)/\{1 - \beta_H + (1/h)(1/k)\}} = 0.
\]

In contrast, if \( \alpha_M k - (1 - \alpha_M)/h > 0 \), i.e. \( \beta_M > (1/h)(1/k)/\{1 - \beta_H + (1/h)(1/k)\} \), then the migrant sends a positive amount home.

\[
R_{inv}\bigg|_{\beta_M > (1/h)(1/k)/\{1 - \beta_H + (1/h)(1/k)\}} = \left( \alpha_M k - \frac{1 - \alpha_M}{h} \right) \frac{W_H}{R}.
\]

Equation (2) suggests the migrant may not send any remittances home if he feels less altruistic toward other household members. Even in this case, however, he will send a certain amount if investment is profitable or if the income difference is large.8) In other words, even if the migrant is less altruistic, he likely sends remittances when other household members can earn larger income by investing them or when he can earn a relatively larger income working in the host country.

8) If \( h \) is large or if \( k \) is large, then \( \beta_M > (1/h)(1/k)/\{1 - \beta_H + (1/h)(1/k)\} \) is more likely, since \( \partial[(1/h)(1/k)/\{1 - \beta_H + (1/h)(1/k)\}] / \partial h < 0 \) and \( \partial[(1/h)(1/k)/\{1 - \beta_H + (1/h)(1/k)\}] / \partial k < 0 \).
Equation (3) suggests that a more altruistic migrant sends larger remittances. In addition, given any degree of his altruism, he sends larger remittances if investment is more profitable or if the income difference is larger.

We now move on to the case in which the migrant expects his remittances home to be consumed, and other household members actually spend them for that purpose.

The migrant’s utility function can be expressed as,

\[ U_M = (1 - \alpha_M) \ln(W_M - R) + \alpha_M \ln(W_H + R) = U_{M,con}. \]  

(4)

By differentiating Equation (4) with respect to remittances,

\[
\frac{dU_{M,con}}{dR} = \frac{1}{(kW_H - R)(W_H + R)} [-R + \{\alpha_M k - (1 - \alpha_M)\}W_H],
\]

we find that if \( \alpha_M k - (1 - \alpha_M) \leq 0 \), i.e. \( \beta_M \leq (1/k)/(1 - \beta_H + 1/k) \), then \( dU_{M,con}/dR < 0 \).

In this case, the migrant maximizes his utility by not sending remittances. That is,

\[ R_{con} \bigg|_{\beta_M \leq (1/k)/(1 - \beta_H + 1/k)} = 0. \]  

(5)

In contrast, if \( \alpha_M k - (1 - \alpha_M) > 0 \), i.e. \( \beta_M > (1/k)/(1 - \beta_H + 1/k) \), then the migrant sends a positive amount home.

\[ R_{con} \bigg|_{\beta_M > (1/k)/(1 - \beta_H + 1/k)} = \{\alpha_M k - (1 - \alpha_M)\}W_H. \]  

(6)

9) \( \partial R_{inv} \big|_{\beta_M > (1/k)/(1 - \beta_H + 1/k)} \partial \beta_M > 0 \).

10) \( \partial R_{inv} \big|_{\beta_M > (1/k)/(1 - \beta_H + 1/k)} \partial h > 0 \).
As in the previous case, Equation (5) suggests that a less altruistic migrant may not send remittances home. However, he will do so if the income difference is large. Equation (6) suggests that remittances which are consumed also increase with the degree of the migrant’s altruism toward other household members, and that the income difference positively affects remittances, given any degree of the migrant’s altruism.

Comparing Equations (2) and (5), it becomes clear that a migrant more likely sends remittances home when they are invested than when they are consumed, since $(1/h)(1/k)/(1-\beta_H + (1/h)(1/k)) < (1/k)/(1-\beta_H +1/k)$. Moreover, comparison of Equations (3) and (6) reveals that when a migrant is sufficiently altruistic to send remittances in either case i.e. $\beta_M > (1/k)/(1-\beta_H +1/k)$, remittances under any given degree of his altruism are larger when they are invested than when they are consumed.

On the other hand, effects of a migrant’s altruism on remittances are smaller when they are invested than when consumed. This can be understood by comparing its effects on remittances, i.e. $\partial R_{\text{inv}}[\beta_M > (1/k)/(1-\beta_H +1/k)]/\partial \beta_M < \partial R_{\text{con}}[\beta_M > (1/k)/(1-\beta_H +1/k)]/\partial \beta_M$. The migrant’s altruism is less effective in increasing remittances when they are invested than when they are consumed.

Let us summarize the results presented in this section. First, the migrant does not necessarily send remittances home. Second, the amount he sends and the influence of his altruism on sending remittances differ, depending on whether other household members invest or consume them. Third, in either case, however, his altruism encourages him to send remittances home.

IV. Spending Remittances

In this section, we establish how other household members’ altruism toward the migrant influences their utilization of his remittances. We first calculate
other household members’ utility when remittances are invested and when they are consumed. We then compare utilities to determine for which purpose other household members actually will expend the remittances. Throughout this section, we assume the migrant worker is always sufficiently altruistic to send remittances home—i.e. \( \beta_M > (1/k)/(1-\beta_M + 1/k) \).

When other household members invest remittances, their utility function can be expressed as,

\[
U_H = (1-\alpha_H)\ln(W_H + hR_{inv}) + \alpha_H \ln(W_M - R_{inv}) (\equiv U_{H_{inv}}).
\]

(7)

Substituting Equation (3) into Equation (7), other household members’ utility is determined as:

\[
U_{H_{inv}} = \ln(W_H) + (1-\alpha_H)\ln(\alpha_M) + \alpha_H \ln(1-\alpha_M) + \ln(1+kh) + \alpha_H \ln(1/h).
\]

(8)

In contrast, when other household members consume remittances, their utility function takes the form,

\[
U_H = (1-\alpha_H)\ln(W_H + R_{con}) + \alpha_H \ln(W_M - R_{con}) (\equiv U_{H_{con}}).
\]

(9)

Substituting Equation (6) into Equation (9), we determine other household members’ utility as:

\[
U_{H_{con}} = \ln(W_H) + (1-\alpha_H)\ln(\alpha_M) + \alpha_H \ln(1-\alpha_M) + \ln(1+k).
\]

(10)

From Equations (8) and (10), we observe that other household members’ utility in the two cases differs by,
\[ U_{H_{\text{inv}}} - U_{H_{\text{con}}} = \ln(1 + kh) - \ln(1 + k) + \alpha_H \ln(1/h). \] (11)

The first two terms on the right-hand side of Equation (11) are positive, but the third term is negative; therefore, the sign of the right-hand side cannot be determined generally. In other words, other household members neither always invest nor always consume remittances.

However, we also observe that,

\[ \lim_{\beta_H \to 0^+} (U_{H_{\text{inv}}} - U_{H_{\text{con}}}) = \ln(1 + kh) - \ln(1 + k) > 0, \]

\[ \lim_{\beta_H \to 1^-} (U_{H_{\text{inv}}} - U_{H_{\text{con}}}) = \ln(1/h + k) - \ln(1 + k) < 0, \] and

\[ \frac{\partial (U_{H_{\text{inv}}} - U_{H_{\text{con}}})}{\partial \beta_H} < 0, \]

suggesting there exists a \( \beta_H \) that makes \( U_{H_{\text{inv}}} - U_{H_{\text{con}}} \) equal to zero.\(^{11}\) Let us denote such \( \beta_H \) by \( \hat{\beta}_H, \) \( 0 < \hat{\beta}_H < 1. \)

Accordingly, in the case where \( 0 < \beta_H < \hat{\beta}_H, \) other household members attain greater utility by investing remittances and thus will invest them. In contrast, where \( \hat{\beta}_H < \beta_H < 1, \) they attain greater utility from consumption and thus will consume remittances.\(^{12}\) In this case, other household members do so not because investment is less profitable; this result holds even when \( h \) takes larger values.

We intuitively understand these results as follows: Other household members’ direct utility is greater and migrant’s direct utility is smaller when remittances

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11) Notice that \( \lim_{\beta_H \to 0^+} \alpha_H = 0 \) and \( \lim_{\beta_H \to 1^-} \alpha_H = 1. \)

12) The conditions involved in the migrant sending remittances and that other household members spending remittances on consumption are not always consistent. However, there exist cases where the migrant sends remittances and other household members consume them.
are invested than when they are consumed, since \( R_{\text{inv}} > R_{\text{con}} \). In a case where other household members feel less altruistic toward the migrant, their direct utility dominates in their utility. To attain higher utility, other household members invest remittances because this induces the migrant to send a larger amount of money and enables other household members to spend a larger amount of money. In another case where other household members feel highly altruistic toward the migrant, the migrant utility is dominant in their utility. To attain higher utility, other household members consume remittances because this induces the migrant to send a smaller amount of money and enables him to spend a larger amount of money to attain higher utility in the host country, which in turn increases other household members’ utility. Moreover, when investment is more profitable — i.e., \( h \) is larger — \( R_{\text{inv}} \) is even larger. In such a case, the migrant’s utility is much less than when remittances are consumed. Accordingly, other household members are much more likely to consume remittances if they feel highly altruistic toward the migrant.

Comparison of other household members’ utility in these two cases reveals to us that they likely will invest remittances when they are less altruistic toward the migrant, whereas they likely will consume remittances when they are very altruistic toward him.\(^{13)}\) This result has been derived without invoking insufficiency of profitable investment opportunities in the home country.

Our results will gain reality if we consider the following example: Assume parents who are highly altruistic toward their son working as a migrant in the host country. Assume also that the son is also highly altruistic toward his parents. Although they need his financial support, parents care greatly about him, and feel happier when the son is happy than when they themselves are happy.

Accordingly, parents wish to raise their son’s utility in the host country. In

\(^{13)}\) Future research needs to measure the relative scale difference between the impact of migrant’s altruism on the amount of remittances and the impact of other household members’ altruism on the amount of remittances invested or consumed.
addition, parents are aware that the son tends to lead a harsh life in the host country. He spends only a small portion of income earned in the host country, and sends the rest home. In such a case, his utility in the host country derived from spending income after sending remittances will be very small.

For these reasons, parents do not want to induce the son to send large remittances.

Although the son is highly altruistic toward parents, he is not unconcerned about his well-being after his return to the home country. As a result, the son will send smaller remittances if he knows that remittances are consumed, whereas he will send larger remittances if he knows that remittances are invested. This is because the consumption of remittances by parents is less likely to increase the home country’s future productivity and son’s future income after his return, whereas investing them is likely to lead to a future gain to the son.

Therefore, parents tell the son that they are going to consume remittances and they actually do so to induce him to send smaller remittances. This increases parents’ utility through increases in son’s utility in the host country.14)

To put it briefly, by letting the son know that parents will consume the remittances, he sends smaller remittances, and this increases the son’s utility in the host country and thereby parents’ utility.

We infer from our results that if all members of a household, including migrants working abroad, feel highly altruistic toward each other, migrants likely will send large remittances, but family back home likely will spend the money on consumption.15) Therefore, we conclude that altruism will not

14) Money is not being thrown away by parents even if it is spent on consumption. The same amount of money gives the same utility in our model, whether it is invested or consumed. It is true that the use of money by parents changes the amount of money sent by the son, but it is the amount that determines parents’ utility.

15) Since $\frac{\partial \alpha_u}{\partial \beta_m} < 0$, as other household members are more altruistic toward the migrant, the amount of remittances is smaller in both cases. That is, $\frac{\partial R_{m}^{a} \beta_m > 0}{\beta_m > (\alpha (\beta_m + (\alpha (\beta_m + (\alpha (\beta_m + \alpha)))) \beta_m < 0}$, $\frac{\partial R_{m}^{c} \beta_m > 0}{\beta_m > (\alpha (\beta_m + (\alpha (\beta_m + (\alpha (\beta_m + \alpha)))) \beta_m < 0}$ (see Equations 3 and 6). However, this does not dictate that remittances are smaller if other household
necessarily enhance development and growth in the home country through remittances. Our result may partially explain why countries that receive a large amount of remittances do not always achieve the desired economic growth.

To summarize the results in this section, how other household members spend remittances depends on their altruism toward the migrant. If their feelings are highly altruistic, other household members likely will consume rather than invest remittances. This suggests that altruism is not necessarily conducive to development and growth.

V. Concluding Remarks

Altruism is a major reason why migrants send money home, and many studies have examined the effects of migrants’ altruism on the amount of remittances. Although previous results are inconclusive, remittances cannot be explained independent of migrants’ altruism. However, the effects of recipients’ altruism on remittances have received little attention until now. In particular, there have been almost no studies on the influence of recipients’ altruism on their use of remittances. This remained an odd phenomenon because other household members expend remittances to maximize their utility, and their utility depends on how altruistic they are toward the migrant.

We found that the migrant’s altruism increases his remittances home whether they are invested or consumed by other household members. Our study differs...
from previous ones in that we have specified the use of remittances to examine the effects of migrant’s altruism on their amount. We also found that other household members’ altruism can induce them to consume remittances rather than invest them. Even if investing raises their income, other household members will consume remittances if they feel highly altruistic toward the migrant.

Many developing economies seek to increase remittances, and we found that migrants’ altruism positively influences the amount of remittances. However, our results also suggest that altruism and the resulting remittances do not necessarily support growth in these economies.

Accordingly, the government of a people who are highly altruistic toward each other among household members must implement policies that channel remittances into growth-enhancing activities.
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시마다 아키라(島田 章)

시마다 아키라(島田 章)는 현재 나가사키(長崎) 대학 경제학부에서 조교수로 재직하고 있다. 연구분야는 거시경제학, 노동경제학, 국제노동이동 이론이며, 주요 연구 논문은 다음과 같다. “Reducing the Inflow of Unskilled Foreign Workers” (South-Eastern Europe Journal of Economics, 2004), “Foreign Worker Participation in Labor Markets and the Economy’s Welfare” (Journal of Policy Modeling, 2005), “International Migration of Labor, Efficiency Wages, and Monetary Policies” (Journal of Economic Integration, 2007), “The Transfer of the Remittance Fee from the Migrant to the Household” (Journal of Economic Integration, 2010). 또한 국제노동이동 이론에 관한 학술서를 세 권 출판하였다.