Economic Impact of International Migration and Remittances on Philippine Households: What We Thought We Knew, What We Need to Know

Aniceto C. Orbeta Jr.

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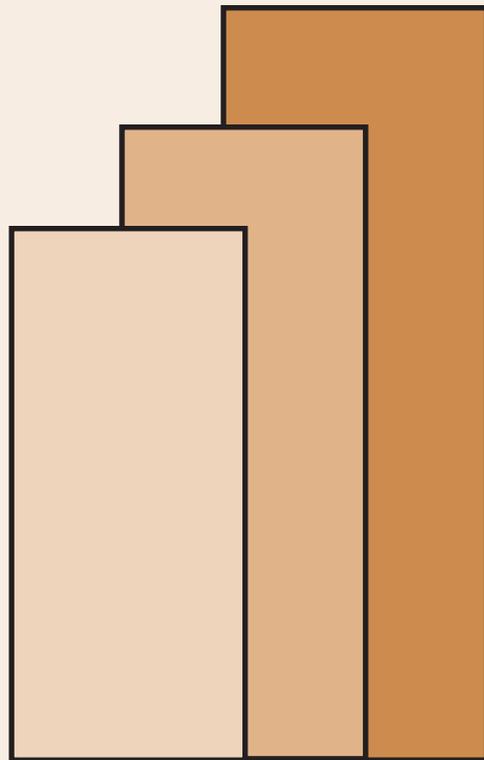
Aniceto C. Orbeta, Jr.
Philippine Institute for Development Studies
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Abstract

Several studies on the impact of international migration and remittances on household outcomes have been released recently. Many were found to have conflicting results. This paper attempts to shed light on the conflicting results by reviewing the empirical studies that use large scale and nationally representative data sets from the Philippines. The focus on these types of studies was deliberate so that sample size problems are minimized and particular attention can be given to the methodologies used in appreciating the results. The main purpose of the review is to highlight the differences in the methodologies employed and their implications on the results.

Keywords: International Migration, Remittances, Household Outcomes, Philippines

Economic Impact of International Migration and Remittances on Philippine Households: What we thought we knew, what we need to know[1]

Aniceto C. Orbeta, Jr.[2]
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1.   Introduction

International migration continues to be an important component of Philippine development and much more so among households with migrant workers the proportion of which is steadily increasing. As testimony to the importance of international migration, the Philippines is known to have one of most elaborate system of institutions managing migration flows in the world. This is hardly surprising given not only the volume of migrants but also the impact of the remittances on the economy in general and migrant households in particular. Estimates of the migration stock as of December 2007 puts Filipino migrants at 8 million or about 10 percent of the population (Commission on Filipino Overseas).[3] Remittance inflow is estimated to be 14.4 US dollars in 2007 or about 9 percent of GNP (Bangko Sental ng Pilipinas).[4] This is clearly understated given the extent of flows through the informal channels. This is also bigger than the contribution of many traditional industries. As an offer of gratitude for their help in keeping the economy afloat in times of economic crises, overseas Filipino workers (OFWs) are often officially referred to as modern heroes. Finally, as if to dramatize the impact of OFWs some villages are already named after destination countries of original inhabitants, e.g. Little Italy. Research on the impact of migration on different aspects of the Philippine economy has started to pour in. There is therefore a need to take stock and appreciate the knowledge we already have and what issues we still seek to understand on the impact of migration and remittances on Philippine households.

Owing to the potentially wide coverage, the discussions in this paper confined to the economic impact[5] of migration and remittances on households. It further limits its coverage to studies that use large scale nationally representative datasets which are expected to provide more generalizable and presumably more reliable results. The review appreciates the results with attention to the methodologies used in the analyses. This perspective is important especially in assessing conflicting results. Understandably,

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[1] An earlier version of this paper has been presented in the conference on "Turning Transnational? International Migration and Development Prospects in the Philippines," Pan Pacific Hotel Manila, 19-20 November, 2007. This will also appear as an article in the conference proceedings.

[2] Senior Research Fellow, PIDS, email: aorbeta@mail.pids.gov.ph. This paper has benefited from the comments of EditaTan and Estella Go and participants in the conference. All remaining errors, however, remains the sole responsibility of the author.

[3] Alternative estimate provided in Ratha and Xu (2008) puts the estimate at around 3.6 million as of 2005.

[4] This estimate, while based mainly on flows through the banking system, adjusts for estimated remittances through informal channels. Alternative estimate for 2007 provided in Ratha and Xu (2008) puts the estimate at around 17 billion or about 12 percent of GDP as of 2007.

[5] Those interested on the social impacts is referred to the paper of Asis also in this volume.

differences in analytical results can arise because of varying definitions and coverage, but more importantly this can also result from differences in analytical methodologies which are valid only under specific assumptions. Making explicit the assumptions behind the methodologies is what this paper focuses on, and with this background, the reader is then guided in making his own assessment of the research results.

The paper is organized as follows. First, a review of the methodologies for identifying the impact of migration and remittances on household welfare is presented section 2. This is followed by the review of empirical findings arranged according to the following household outcomes: (a) expenditures, both total and shares of specific items, (b) human capital investments, (c) labor supply, (d) household investments, and (e) poverty. The last section summaries and identifies research issues.

2.   Review of methodological issues

The validity of the claims of any study is dependent on the data and methodology used in the analyses. Since as mentioned earlier we have limited this study to those using large scale nationally representative data, the review will then focus on methodological issues. This section discusses the methodological issues surrounding the analyses of the impact of migration and remittances on household welfare. It provides a review of methodologies used in order to highlight what the assumptions are required to make the analyses valid.

Comparison of means or proportions. A common method used in determining the impact of migration (or remittances) is the comparison of means or proportions of outcomes of interest for migrant and non migrant households. This method assumes that migrant and non migrant households are randomly assigned as in a controlled experiment or equivalently that their characteristics (particularly those that are expected to affect the outcome of interest) are identical. This is hardly so. When characteristics are different, the outcomes are expected to be different apart from the once arising from the difference in migration status (or receipt of remittances). It would be difficult then to be certain whether the differences observed is because of the difference in migration status (receipt of remittances) or because of the difference in some other characteristic.

Multivariate models. To control for the differences in characteristics, multivariate models are used. Besides the migration variable which is designed to capture the differences between households with and without migrant, other explanatory variables are added to control for the differences in these relevant characteristics. The common specification (e.g. McKenzie, 2005) used is

(1) $Y_i = \alpha + \beta * M_i + \lambda' \mathbf{X}_i + \varepsilon_i$

where
Y   = outcome of interest
M   = dummy for the presence of migrants in household (or household receiving remittances); 1= yes, 0=otherwise
X   = vector of other relevant migrant and/or household characteristics

The problem with this specification is that often the variables that are determinants of the outcomes of interest (Y) are also the same determinants of the migration (or remittance) variable (M). If they are, then the error term is related to the explanatory variable M, i.e., there is an endogeneity problem. Ignoring this problem and using estimation procedures that do not correct for this problem (e.g. OLS) will result in inconsistent estimates.

Instrumental Variables. To correct for the endogeneity problem, instrumental variables (IV) estimation is often used. This will yield consistent estimates in the presence of endogeneity. The basic problem with instrumental variables is finding the right instrument – a variable that affect migration or remittances but does not directly affect the outcomes of interest except the effect though migration or remittances. Emerging to be the popular instrument for migration is past migration streams [Woodruff and Zenteno (2001), Mckenzie (2005), Lokshin et al. (2007)]. The justification is that past migration streams have network effects that facilitate current migration streams and being product of past decision it is exogenous to current migration flow. This variable, however, cannot be effectively used as instrument for remittances. Doing so is tantamount to assuming that all effects of migration are only through remittances – a strong assumption to make. Exchange rate shocks between destination countries and origin countries have the important property of being positively correlated with remittances and being exogenous to households – two properties of a good instrument (Yang, 2008; Yang and Choi, 2007; Yang and Martinez, 2005). Yang (2008) finds that the elasticity of exchange rate shocks on remittances is 0.60. The exchange rate shocks are obviously not within the control of the migrant household and hence exogenous. Yang and Martinez (2005), in particular, used either the exchange rate shock directly as the proxy variable for remittances or as an instrument for the remittance variable.

Natural Experiment. Yang (2008), Yang and Choi (2007), and Yang and Martinez (2005) used foreign exchange shock arising from the Asian financial crisis as a natural experiment to identify the causal effect of remittances on household outcomes. It was reported that the crisis brought about the rise of the US dollar and the currencies of the main Middle Eastern destination countries by as much as 50% against the Philippine peso. They used variations in the size of the exchange rate shock, which is expected to be different for each destination country, before and after the crisis to determine the impact of migration on household outcomes in the migrant's origin household. The appreciation of the migrant's destination country currency against the Philippine peso is a positive income shock for the migrant's origin household which should increase remittances. As mentioned earlier, Yang (2008) finds that the elasticity of exchange rate shocks on remittances in 0.60.

Matching. Another way of estimating causal effect is matching. The idea is to find household(s) that has no migrant workers (or not receiving remittance) that is virtually identical to the household based on relevant characteristics that has a migrant worker (or receiving remittance). In essence, the procedure tries to mimic the randomized experiment result by matching through observable characteristics rather than random assignment. Due to the dimensionality problem, the most common application uses

propensity score matching rather than direct matching methods (Rosenbaum and Rubin, 1983, Rosenbaum and Rubin, 1985). Under certain assumptions (see Rosenbaum and Rubin, 1983), propensity score matching achieves the properties of direct matching. It should also be noted that since matching can only be done through observable characteristics, unobservable factors are not controlled for in the analysis.

Unobserved household characteristics. Unobserved household characteristics that play important roles on outcomes of interest (e.g. motivation, ability, attitudes toward risk and concern for children) are also a problem. If one can assume that these characteristics are time-invariant and one has panel data, one can use first-differences to neutralize the effects of these variables. Yang (2008), Yang and Choi (2007) and Yang and Martinez (2005), for instance, used a panel household survey data to purge any association between exchange rate shocks and time-invariant household characteristics. When time-invariance is not tenable as an assumption, one has no other recourse but estimate a dynamic model assuming appropriate data is available.

3. Impact of Migration and Remittances on Household Outcomes

3.1 Migration, Remittances and Household Expenditures

Remittances are additions to household income and are expected to alter household expenditures. This effect is not only limited to the total consumption expenditure but is also expected affect the distribution across the different expenditure items as well. Thus, the interest is not only to find out whether general consumption expenditure increase with migration or remittances but also to find out if expenditure pattern is altered in desired ways. The basic expectation from economic theory is that remittances increases income and is expected to increase the demand for normal goods. The estimation results show mixed results. Simple comparisons of levels and expenditure shares show positive impact on total consumption expenditures (implying lower savings given income) of remittances. It also shows higher expenditure shares in housing education, recreation services and durable goods in remittance receiving households compared to non-receiving households. Comparison of expenditure elasticities between remittance-receiving and remittance non-receiving households shows higher expenditure elasticities in remittance receiving households in housing, education, health care, durables, transportation and communications but lower elasticities for food regularly eaten outside the home, alcohol and tobacco. These differentials in expenditure elasticities between remittance-receiving non-receiving household are also found to vary across the range of expenditure shares. However, another multivariate model estimate of the impact of remittances on total expenditures also show insignificant impact contrary to results mentioned earlier even if it also found to result in increases in expenditure on education and durable goods.

Tullao, Cortez and See (2007) did simple comparisons of the level of consumption between households receiving and not receiving remittances. They also estimated Engle functions relating expenditures shares and total expenditures plus controls for other household characteristics for remittance-receiving and remittance non-receiving

households separately. The simple comparisons show higher consumption expenditure for remittance-receiving households. It also finds higher allocation for housing, education, health care and recreation services. The proportion of household with amenities such as TV, refrigerator, washing machine is, as expected, higher among household receiving remittances. The expenditure elasticities generated from the Engle function estimates substantially validated the results from the simple comparisons, i.e. higher expenditure elasticities for those with remittance income for housing, education, health care, durables, and transportation and communications.

Tabuga (2007) estimates the impact of remittances on household expenditures using the FIES 2003 and the Engle curve formulation relating shares of expenditure to total expenditures/income augmented by household characteristics and a remittance receipt dummy. A distinct contribution of this paper are quantile regression runs which provide estimates of the impact remittance on the range of expenditure shares rather than just the mean impact given by OLS. The study finds that with remittances, households allocated more to consumer goods and leisure. It finds that remittance induces households to spend more on education, housing, and durable goods. It also finds that it does not induce households to spend more on vices like tobacco and alcohol and on food regularly eaten outside.

The quantile regression estimates show that the impact on expenditure share on food is negative but in addition the impact for those with higher expenditure share is a larger negative - 2.5 times those the with smallest. This means that remittance receipt causes larger negative change for those with larger food share (poorer households) compared to those with smaller (richer households) food share. A similar pattern is found for food regularly eaten outside and gifts. For education, health, consumer goods, fuel, communication, and household operations, and durables the study finds larger positive impact of remittance receipt for those with large expenditure share. For housing and minor repair, leisure, the expenditure impact of remittances is about even across different expenditure shares.

Using the exchange rate shocks as indicator for changes remittances, Yang (2008) finds no indication that total consumption expenditure[6] is affected by changes in remittances. He, however, finds positive impact on potentially investment-related disbursement, particularly, education and on ownership of durable goods, particularly, television and vehicles.

Except for the disagreement on total consumption expenditures, the studies appear to agree on the positive impact of remittances on expenditure on specific household goods. As argued earlier, the simple comparisons in Tullao, Cortez and See (2007) assumes that migrant and nonmigrant households are identical expect for their migration status. To the extent that this is not so, will bias the result of the comparisons. The expenditure elasticities computed from the Engle curve calculation both in the Tullao, Cortez and See (2007) and Tabuga (2007) will be also affected by the endogeneity of migration /

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[6] This is net of expenditures on education, durable goods or capital investment in household enterprises which he considers investment.

receiving remittances to the same variables affecting expenditure shares. OLS estimation in the presence of endogeneity will yield inconsistent estimates. Only Yang's (2008) is free from these problems.

3.2   Migration, Remittances and Human Capital Investments

Human capital investment is an important development concern. It is widely recognized as an important pathway for getting out of poverty and at the same time considered as one of the direct measures of or among the basic ingredients for achieving personal well-being. Research comparing the expenditure shares on education and health shows higher expenditure shares for migrant receiving households compared to non-receiving ones. Expenditure elasticities are also found to be higher for remittance-receiving households. These indicate that migration and remittances redound to higher human capital investments.

Comparing the share of education to total household expenditures Tullao, Cortez and See (2007) finds that household receiving remittances have higher share compared to those without remittance income. The computed expenditure elasticities from the Engle curve estimates are also found to be higher in remittance-receiving households compared to those who have none. This indicates larger responses on education expenditures to changes in income among remittance-receiving households.

Tabuga (2007) also finds positive impact of remittances on expenditure elasticities on education and medical care using Engle curve estimates. In addition, her quantile regression estimates shows the differential response to be increasing the higher the share of the education and health on household expenditures. Since richer households are known to spend more on education and health, this result indicates that remittances maybe contributing to rising inequality on human capital expenditure across households.

Using an entirely different approach, Yang (2008) finds also positive impact of remittances (indicated by favorable exchange rate shock) on education investments. In particular, he finds positive impact on education expenditures with an elasticity of 0.55. Furthermore, he finds that remittances increase the likelihood of being a student as the main activity and decrease the hours worked in the past week for children 10-17 years. Interestingly, he finds gender differences in the responses – the increase in likelihood of being a student significant only for girls and while decline in hours worked is significant only for boys.

As earlier indicated, the estimating an Engle curve with a remittance dummy as one of explanatory variable without correction for the endogeneity of the remittance dummy will results in inconsistent estimates. Even if we did not find conflicting results as all estimates points to a positive impact of migration on education expenditures, inconsistent estimates are by nature giving us coefficients that are suspect. In order to be confident on the estimates, the endogeneity issue needs to be addressed. Yang (2008) was able to deal with this problem by using a natural experiment.

3.3   Migration, Remittances and Labor Force Supply

The impact of migration on the labor supply (labor force participation and labor hours) of
family members left behind is an important consequence issue for migration. The often
cited issue is whether migration is generating a culture of dependence among those left
behind expressed in terms of delay in joining the labor force or being pickier in the job
they apply or choose. It is well known from economic theory that since leisure (e.g., not
working or working less hours) is a normal good, higher remittance income will not only
increase the demand for consumption goods but the demand for leisure as well. Whatever
labor supply responses households will have to migration and remittances can be
considered as outcomes of rational decisions. If the dependence claim can be
substantiated, this will mean inefficiency resulting into negative impact on current and
future growth of output. To show this one needs to compare identical households except
for their migration status. Papers analyzing this phenomenon reviewed here have
conflicting results. This is likely the result of the difference in methodology and focus.
The first two studies used simple comparisons of proportions while the three other studies
employed multivariate methods. The studies employing both simple comparisons and
those employing multivariate studies controlling for other variables affecting labor supply
decisions have conflicting results. This means that the impact of migration and
remittances on labor supply decisions is not a settled issue, to say the least.

Tullao, Cortez and See (2007) studied the impact of remittances on labor force
participation and employment. Comparing the labor force participation and employment
rates of households receiving to those not receiving remittances, they find that labor force
participation rates and employment rates are generally lower. The paper mentions the
FIES as the primary data source but did not describe clearly how labor force participation
and employment rates were computed (see also comments in Ducanes and Abella,
2007a). It should be noted that data in the FIES are at the household rather than at the
individual level. It is therefore difficult to ascertain whose labor force participation or
employment is being compared. The testing for the significance of the difference in the
comparisons could have validated whether the observed differences are statistically
significant or not. Unfortunately, this was not done by the authors.[7]

Attempting to improve on the comparison done in Tullao, Cortez and See (2007),
Ducanes and Abella (2007a) compared the labor force participation and unemployment
rate of households with and without OFWs using a several rounds of the LFS. This time
they clarified that they are dealing with working age household members and using the
presence of OFWs rather than the receipt of remittances as the indicator of migration.
They found that the labor force participation rates of member of households with and
without OFWs are virtually same. They have argued further that if one removes those
going to school[8] from the sample, the labor force participation of those with OFWs is
consistently be higher. They have pointed out that if one considers that households with

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[7] A keen observer could have done this unfortunately the standard errors of the estimates are not provided.
[8] Going to school should not be considered as a form of dependence.

OFWs are richer, one would expect lower labor force participation rate from households with OFWs according to the well-know backward bending labor supply curve (see Rodriguez and Tiongson, 1991). The authors pointed out that this result strengthen the argument against the claim that migration lowers the labor supply of household members remaining behind.

Turning to studies that employ multivariate methods, Rodriguez and Tingson (2001) used probit analysis to study the impact of the presence of OFWs and the receipt of remittances on the labor force participation of non-migrant relatives in the household. Using data from households in Metro Manila[9] in 1991, they found that households with migrant workers tend to have lower labor supply. Estimates indicate the labor force participation declines by up to 18.5 percentage points for man and only 5.7 percentage points for women if migrants have tertiary education. They have explained that this is a rational response of migrant relatives having increased income and thereby demanding more leisure. Furthermore, the authors find that an increase in remittances lead to both men and women reducing their working hours. The effect, however, is small and slightly stronger for men than for women. An additional thousand pesos in per-capita remittances reduces the chance of working by 0.2 percentage points for women and 0.3 percentage points for men.

While Rodriguez and Tiongson (2001) was not particular about who's labor supply decision is affected by migration but lumped together nonmigrant household members, Cabegin (2006) focused her study on the impact of the migration on the labor supply decision of the non-migrating spouse of prime age, i.e. 25-54 years old. The study used matched data of the 2003 FIES, LFS and SOW. She finds that indeed migration significantly alters the labor supply decision of the non-migrating spouse and that the mechanisms are different for the wives compared to the husbands. She finds the impact of the presence of children is more pronounced for wives while it is larger remittances that have larger effects for husbands.

Using results from the multinomial probit estimates[10], she finds that with the presence of school age children (7-14 years) wives in migrant households are 28% less likely to hold a full-time job and 26% more likely to be unemployed compared to wives in non-migrant households. There is no significant difference on the impact for husbands in migrant and non-migrant households. The presence of young working age children (15-24 years) results in a 12% higher probability of self-employment and 19% lower probability of full-time employment for wives in migrant compared to non-migrants households. Again there is no significant difference for husbands between migrant and non-migrant households. Finally, no significant differential impact was found of the presence of pre-school age children (less than 7 years) for migrant and non-migrant households. In the case of remittances, higher contribution to household income decreases the husband's

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[9] Rodriguez and Tiongson (1991) argued that due to computational cost of matching the Survey of Overseas Workers (SOW), the Labor Force Survey (LFS) and the Family Income and Expenditure Survey, they were constrained to confine their sample to the National Capital Region (NCR). They agued that the NCR anyway has the highest incidence and accounts for most of the migrants overseas (p715).

[10] She also has estimates on selection corrected estimates for labor force participation and hours worked.

participation in full-time employment. An increase of wife's contribution to household income by P10,000 reduces the likelihood of taking a full-time job by 12% and increases the likelihood of non-employment by 6% compared to non-migrant households. On the other hand, an increase in husband's contribution by P10,000 will result in a decline in the likelihood of wives taking on full-time employment by 4% in migrant households compared to non-migrant households.

Yang (2008) used the Asian financial crisis as a natural experiment to study the impact of remittances (here indicated by a change in the exchange rate) on several household outcomes including total hours worked by all household members. He finds that increases in remittances have no impact on total hours worked although there is significant positive impact on hours worked on self-employment. A one percentage favorable exchange rate shock causes hours worked on self-employment to rise by 1.6 hours (or 19%) per week. This is opposite the effect found in Rodriguez and Tiongson (1991) and agrees with Cabegin (2007) on the issue of self-employment.

The results of simple comparison of labor force participation rates in Tullao, Cortez and See (2007) and Ducanes and Abella (2007) has to be appreciated in the light lack of control for other variables that affect labor supply decisions. Rodriguez and Tiongon (2001) and Cabegin (2007) have dealt with this particular weakness by controlling for these variables in a multivariate setting. However, these studies have failed, as Rodriguez and Tiongson (2001) recognized, to control for the endogeneity of the migration variable which results in a inconsistent estimates. Unless these methodological issues are dealt with there is no assurance that the results that we have now are reliable. These studies are leaning towards a negative impact of migration and remittances on labor force participation. Yang (2008), on the other hand, finds that the total labor force participation of remaining household members are not affected but there is an increase in hours work for self-employment. It should be noted that since Yang (2008) is using exchange rate shocks as natural experiment to proxy for remittances, then the exogeneity of the exchange rate shock is assured.

3.4   Migration, Remittances and Household Investments

How households spend the remittances they receive is of considerable concern. A number of studies on international migration concluded that remittances are primary consumed and not invested. If this is true then the prospects for future growth may be jeopardized. There is therefore an interest in finding out of what uses remittances households received are put into. If one considers investments as the inverse of consumption given income, then the conflicting results on expenditures discussed earlier also means conflicting results on household investments. Considering studies on direct household investments expenditures, the estimated impact is mixed. No impact was found on investment income and number of investments activities but there is positive impact on new entrepreneurial activities particularly capital intensive ones, i.e., transportation and communication and manufacturing.

Only one study was found directly analyzing the impact of migration and remittances on household investment activities. Using the Asian financial crisis as a natural experiment which resulted in the rise by as much as 50% of the value of currencies of destination countries against the Philippine peso, Yang (2008) studies the impact of this exogenous shock on household investment income, overall entrepreneurial activity and on 11 specific entrepreneurial activity types.

He finds that there is neither clear impact on household entrepreneurial income nor on overall entrepreneurial activity. However, he finds positive impact on starting new entrepreneurial activities but no impact on exit from old entrepreneurial activities. Furthermore, he finds that there are discernable impacts on specific entrepreneurial activities. In particular, of the 11 specific activity types he finds positive impact on entrepreneurial activities in transportation / communications and manufacturing or the capital-intensive types. A one standard deviation increase in exchange rate shock was found to increase entry into transportation / communication and manufacturing by 1.2 and 0.9 percentage points, respectively. He explained this by arguing that perhaps entrepreneurial activities in these sectors are dampened by credit constraints so positive income shocks from remittances have enabled households to make the necessary investments.

Even if Yang (2008) is employing valid estimation techniques yielding believable estimates, is merely scratching the surface of the issues relating migration and remittances on household direct investments. There is a need to explore this area further and find out if there is a basis for the oft cited claim that remittances are mostly spent on consumption rather than investments. On the basis of the results in Yang(2008), there appears to be none.

3.5   Migration, Remittances and Poverty

Alleviating poverty is a global concern and also the centerpiece program of all administrations in this country. Given these, the impact of migration and remittances on poverty is obviously of interest for policy makers. The three studies reviewed here, even if using different methodologies are consistent in showing the negative impact of migration and remittances on poverty incidence in households.

Yang and Martinez (2005) finds that remittances (indicated directly by exchange rate shocks or using exchange rate shock as instrument to remittances) reduces poverty incidence although not poverty depth as measured by poverty gap[11]. They find that a 10 percent favorable change in the exchange rate leads to a 0.6 percent (or 2.8 from instrumental variables estimation) decline in the poverty incidence in migrant households. In addition, they also find evidence of spillovers to non-migrant households as poverty incidence among them also declined with favorable exchange rate changes. The identified channels through which this happens are two fold: (a) rise in the gifts from migrant households to non-migrant households; and (b) general increase in economic activity arising from remittances. They qualify that the gifts do not appear to be large

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[11] Measured in levels and as a percentage to the poverty threshold.

enough to explain the reductions in poverty so they presume that the general increase in economic activity plays a larger role.

The impact of transfer (which includes remittances) and nontransfer incomes on measures of poverty both at the household and provincial levels using pooled time-series cross-section FEIS data from 1985 to 2000 was analyzed by Sawada and Estudillo (2005). They find that increases in both transfer and nontransfer income decreases poverty. In addition, they found that transfer income is more important than nontransfer income at the household level and the other way around at the provincial level analysis. They have argued that provincial aggregation may have dampened the nuances present in household level analysis.

Using FIES 1997 and APIS 1998, Ducanes and Abella (2007b) traced the movements of a panel of households by poverty status. They find that families with OFWs are able to climb up the income ladder quite rapidly – on average about 6 percentage points in the income distribution in a period of one year. In addition, they find that a significant number of those who are able to climb are poor. They have also pointed out that those poor households who most successfully crossed over from poverty were those with migrants that have more education.

The overtime profile analysis in Ducanes and Abella (2007b) provides a reliable comparison under the assumption that migrant and non-migrant households are of identical observed and unobserved characteristics except for the migration or equivalently households are randomly assigned between migrant and nonmigrant status. When these are not the same, and they are expected to be so, the comparison between migrant and nonmigrant household will be difficult to interpret. The difference in poverty impact can be because migrants have higher latent observed capacities to earn (e.g. high education status, more earning assets, or unobserved capacities (e.g. risk taking behavior or entrepreneurial spirit)). The results of Sawada and Estudillo (2005) suffer from the problem of the endogeneity of transfer income. Transfers are known to be affected by the economic status of the recipient households. They even had pointed out that there was a marked increase in remittances in 1997 during the El Nino phenomenon. Yang and Choi (2007) found that roughly 60% of declines in household income are replaced by remittance inflows from overseas. Meanwhile, the validity of the analysis in Yang and Martinez (2005) emanate from the exogeneity of the exchange rate shocks which was found to be directly correlated with remittances. All questions about the validity of the exchange rate shocks as indicator for remittance flows is laid to rest with the IV estimation results which used the exchange rate shocks as instrument to remittances. In addition, the paper also controlled for the likely independent impact of the weather on poverty as El Nino coincidentally happened at the onset of the Asian financial crisis using rainfall data.

4.   Summary and Research Issues

The paper reviewed empirical studies that used large scale and nationally representative datasets for the Philippines. Particular attention was given to the methodologies used in

appreciating the results. Many of the conflicting results are traceable to the differences in the methodologies. Before one can be definite about impact of migration and remittances on household outcomes, methodological issues need to be addressed. This paper focuses on these issues to move the research on this area forward.

There appears to be a disagreement on the impact of remittances to total consumption expenditures with Yang (2008) saying no significant impact of remittances and others finding significant positive impact. The disagreements may be traceable from (a) differences in methodology; and (b) model specification issues. Majority of the studies used Engle curve estimation to establish the impact of migration on expenditures. Yang (2008) on the other hand relates changes in expenditures levels to changes in exchange rate shocks (a proxy for remittances). Studies using the Engle curve estimation failed to control for the endogeneity of remittance in the estimation. This is not a problem in the Yang (2008) study. Future research has to deal with the endogeneity issues. Nonetheless, there is general agreement on the positive impact of remittances on the expenditure share on many specific items such as education and durable goods.

The estimation results on the impact of remittances on human capital variables are consistently positive despite the lack of control for the endogeneity of the remittance variable. It remains to be seen whether this agreement is maintained when appropriate corrections are applied which should be the focus of future research on this area. It is also glaring that there is no study dealing with the health outcomes, another important component of human capital, impact of migration.

The results on the impact of migration and remittances on labor supply appear to have conflicting results. Most of the studies are leaning towards a negative impact. Yang (2008) and Ducanes and Abella (2007), on the other hand, both finds no significant impact on household labor supply and even finds positive impact on hours worked on self-employment and when students are removed from the sample, respectively. But perhaps establishing a significant impact of migration on labor supply is not as important as establishing inefficiencies -- that these changes are beyond what can be expected as a result of rationally buying more leisure given higher income which is admittedly is much more difficult to establish.

There is a dearth in analysis of the impact of migration and remittances on direct household investments. Yang (2008) has barely scratched the surface of the issues relating migration and remittances on household direct investments. There is a therefore a need to explore this area further and find out if there is a firm basis for the oft cited claim that remittances are mostly spent on consumption rather than investments.

The impact of migration and remittances on poverty incidence appears to be consistently negative even with infirmities in the specification of several studies. The impact on the depth of poverty is not as clear with preponderance of no significance in the results. If the negative impact of migration on poverty is firmly established then perhaps the focus of future research will be on determining the mechanisms that brings forth this result.

In summary, the main research issues in establishing the impact of migration and remittances on household welfare can be grouped into two: (a) improving specifications to deal with the endogeneity of migration and remittance and also unobservable factors; and (b) improving the depth of the analyses beyond surface issues, such as, in home investment, schooling and health issues. Besides deploying better estimation methods, we need longer and real panel data to deal with unobservable factors.

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