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Contents

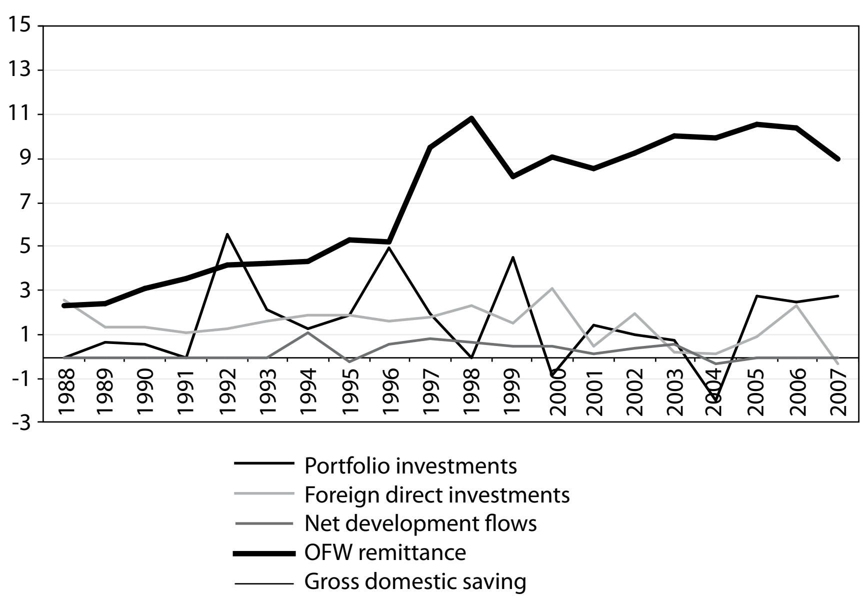
Abstract

As one of the world's largest recipients of remittances, the Philippines received remittances roughly 12% of its gross domestic product in 2008. Remittances have become the single most important source of foreign exchange to the economy and a significant source of income for recipient families. Using the instrument variable estimation technique, this study examines the role of remittances in increasing household consumption and investment and thereby their potential for rebalancing economic growth and creating long-term human and capital investment. The results indicate that remittances negatively influence the share of food consumption in the total expenditure. However, unlike previous studies, the estimations show that remittances to the Philippines do not have a significant influence on other key items of consumption or investment such as spending on education and health care. A further analysis using logistical regression shows that remittances help to lift households out of poverty. Remittances thus may help in fighting poverty in the Philippines but not in rebalancing growth, especially in the long run.

I. Introduction

Migrant remittances transferred to families in home countries directly become part of household budgets that can be spent on basic needs, serve as extra funds either for increasing consumption of durable and nondurable goods, or used for savings. Remittances may also serve as capital for starting businesses. Thus, such overseas cash flows raise the standard of living of recipient families. As one of the world's largest recipients of remittances, the Philippines received roughly 12% of its gross domestic product (GDP) through this channel in 2008. These flows have become the single most important source of foreign exchange to the economy (Figure 1) and a significant source of income for recipient families. Out of the households that received remittances in third quarter of 2009, 93% spent part of it for food and other household needs, 72% for education, and 63% for medical expenses (Bangko Sentral ng Pilipinas 2009). While remittances shielded the economy during crisis situations in the past, the current global economic crisis has brought a new challenge to the role of remittances. The 1997 crisis mainly affected the Asian region while the current one is affecting countries all over the world, including those sending remittances. Weak global demand for goods and services and slower economic growth, along with consequent rise in unemployment in host countries, has put the demand for Filipino workers and their remittance transfers at risk.

Figure 1: Sources of Foreign Exchange for the Philippines (as percent of GDP)

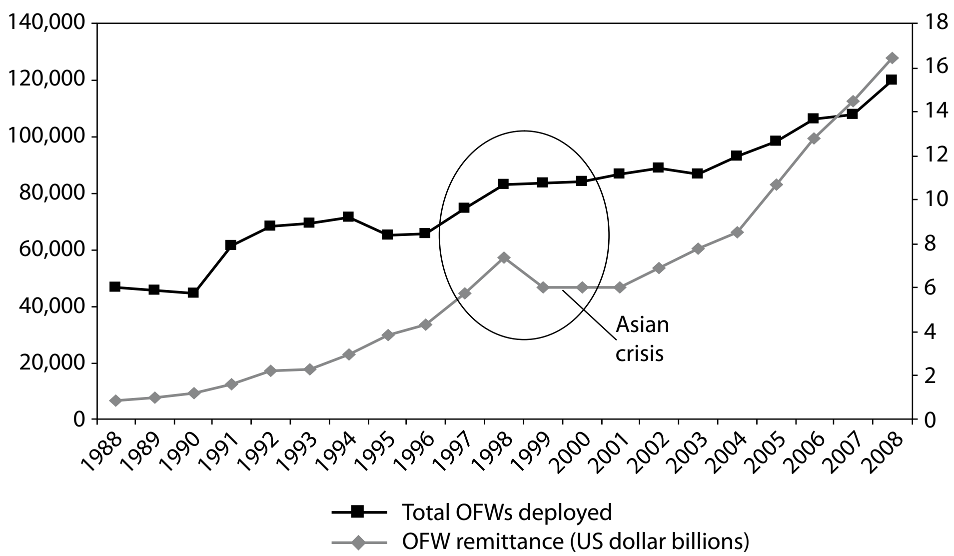


Source: Authors' estimate using data from Bangko Sentral ng Pilipinas (2009).

Currently almost 10% of the Philippine population lives outside the country—as observed at any given time in the last decade (estimates by the Commission on Filipinos Overseas, various years). This has led to an influx of remittances that have helped support domestic production and consumption, and have pushed foreign exchange reserves to an all-time high of US$38 billion at the end of 2008. For a country previously saddled by "fiscal deficits, external debts, trade imbalances and few foreign direct investments" (Pernia 2008, 6), remittances have helped finance domestic and foreign needs without negatively affecting the foreign exchange reserves.

The Asian financial crisis in 1997 weakened remittance inflow from 1998 to 2001 (Figure 2). However, the current crisis weakens global demand for goods and services and places demand for Filipino labor at risk, leading to lower remittance inflows. With almost a generation of Filipinos now fully adapted to a remittance-fed economy, such a scenario does not look positive. In this context, this paper analyzes the role of remittances in augmenting household consumption, investments, and therefore in rebalancing growth. The paper will also look at the role of remittance in reducing poverty incidence.

Figure 2: Total Overseas Migrants and Remittances in the Philippines



Source: Bangko Sentral ng Pilipinas website, available:www.bsp.gov.ph, downloaded 10 September 2009.

The rest of the paper is organized as follows. The next section discusses the sources and pattern of remittances based on migration patterns. Section III presents a review of literature on the effects of remittances on household consumption and investment. This is followed by Section IV on statistical details and Section V on methodological notes and empirical estimations using household data. Conclusions are then summarized in the last section.

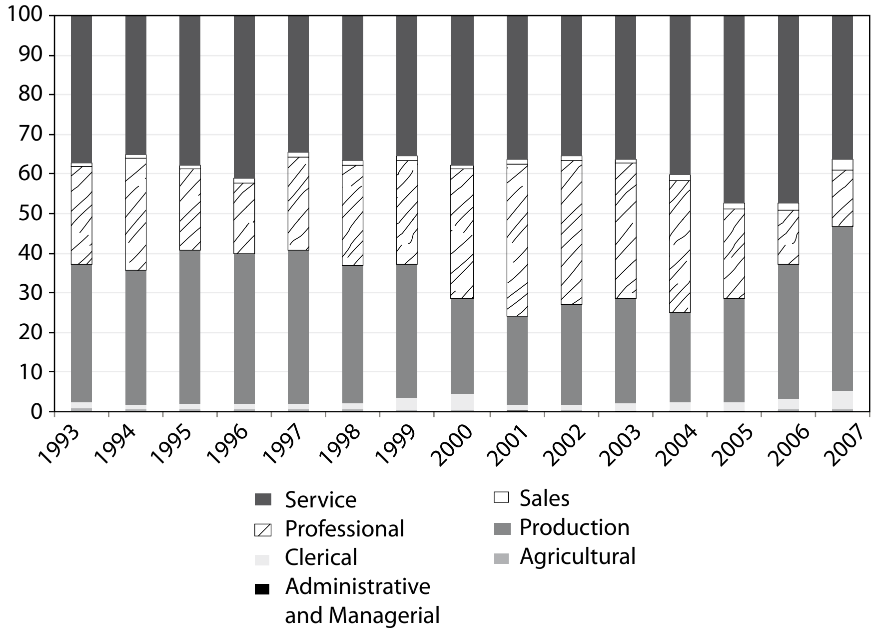
II. Patterns of Migration and Remittance Flows

Toward the end of 2010, the Philippines will have completed a generation of international migration and remittance experience. In the early years of temporary migration, demand for workers was generally for low-skilled and technical workers. In the early 1970s, the Philippines's labor export strategy benefited mostly the middle- and low-skilled workers sent to the oil-rich countries of the Middle East. With the changing global economic landscape, the demand for Filipino labor subsequently followed the growth of individual labor-importing countries. For instance, the growth of tiger economies in Asia led to an increase in the demand for professional workers in the 1990s and also for domestic workers. Similarly, social patterns in the United States (US) and western countries in general required a significant number of nurses and caregivers, creating a large demand for them.

In recent years, however, there has been a substantial decline in the professional category, especially compared to the condition in 2006. Meanwhile, demand for services workers (of which around 70% are domestic workers and caregivers) remained robust. The surge in production workers, on the other hand, was propelled mainly by the construction boom in the Middle East and some parts of Asia, like Singapore and Macau, China. Construction workers and ordinary laborers comprised around 26% of total production workers in 2008 as against only 19% in 2000. The global demand for Filipino workers is summarized through new hires data from the Philippine Overseas Employment Administration (POEA), presented in Figures 3 and 4. These data suggest that the bulk of the current batch of workers has shifted to lower skilled and lower income work. The significant relative decline in the new hiring of professionals reveals that the lower salaried services and construction workers are supporting the sustained level of remittance inflows.

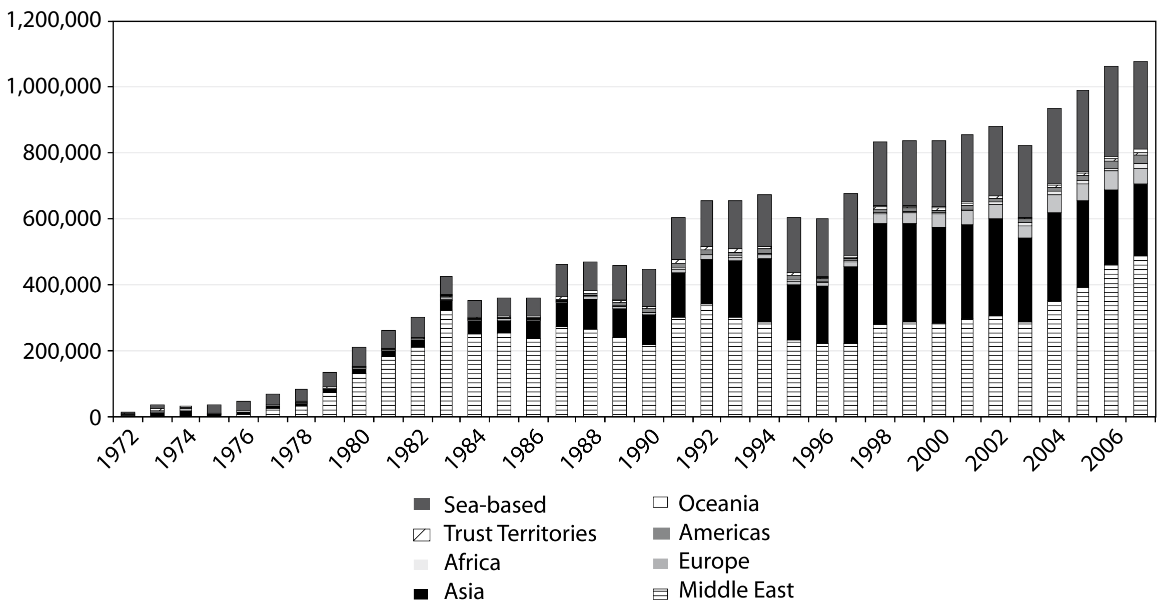
Thus, it can be deduced that the Philippines has started to be affected by changing global demand as early as 2006. Prior to the global crisis in 2008, demand for Filipino workers started to move away from professionals to other worker categories, as can be seen from the increased number of deployed domestic and production workers (Table 1). The decrease in demand for professionals will have an effect in the domestic economy, but it is not expected to be as large if domestic workers and production workers are affected by the crisis. Most professionals are generally flexible in finding other work opportunities and have the potential to become permanent residents, unlike domestic and production workers who have fixed contracts and are susceptible to fluctuations of business of their employers. Production workers, in contrast, are directly hit by the crisis since they are mostly involved in export industries and construction projects in receiving countries. This is validated by the impacts of closing down of factories in Taipei,China; hotels in Macau, China; and construction delays in the Middle East. On the other hand, most domestic workers are virtually shielded from the crisis because most of their employers have gotten used to a lifestyle with domestic help. Besides, the pay of these workers is relatively affordable despite the crisis. This was also the lesson of the 1997 crisis when the demand for this group remained the same.

Figure 3: Deployed New-hire Overseas Workers, 1993–2007 (percent)



Source: Authors' estimates from Philippine Overseas Employment Administration data, available: www.poea.gov.ph, downloaded 10 September 2009.

Figure 4: Destinations of Overseas Workers, 1972–2006



Source: Authors' estimates from Philippine Overseas Employment Administration data, available: www.poea.gov.ph, downloaded 10 September 2009.

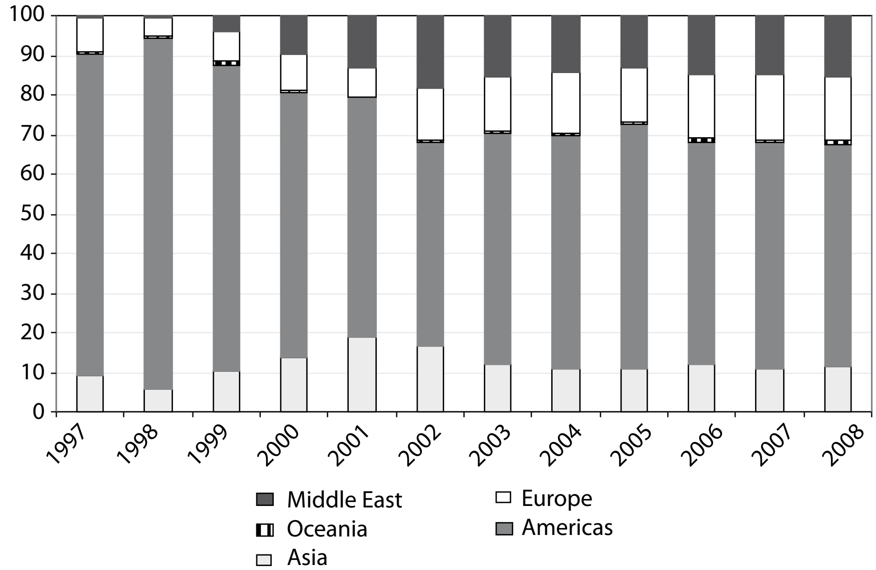
Table 1: Deployed Overseas Workers by Skills and Gender, 2007

Skill Group	Male	Female	Total	Share (%)
Domestic helpers and related household workers	2959	44919	47878	15.6
Production and related workers	15277	10640	25917	8.5
Caregivers and caretakers	1070	13329	14399	4.7
Service workers	5026	5294	10320	3.4
Waiters, bartenders, and related workers	3677	5599	9276	3
Plumbers	9168	19	9187	3
Nurses, professional	1137	8041	9178	3
Laborers/general helpers	6145	1172	7317	2.4
Electrical workers	6942	38	6980	2.3
Cleaners and related workers	927	5373	6300	2.1
Total	160046	146337	306383	100

Source: Department of Labor and Employment.

The major source of remittance remains the US. This is partly because most banks in the Middle East use the clearing system in US banks, making the source traceable to the US. Nonetheless, there is a discernible plateau in remittances from the Americas (Figure 5). On a per country basis, remittance inflows reveal the extent of the global recession. Latest data from the Bangko Sentral ng Pilipinas shows that for 2009, there are at least five countries expected to exhibit a double-digit remittance decline from 2008, i.e., Hong Kong, China (minus 21 percent); Taipei,China (–40); US (–11); Italy (–18); and Kuwait (–33). These percentage declines, however, are aptly covered by increases in other countries, notably those from Europe, such as Germany (50%), Norway (89%), The Netherlands (89%), Sweden (59%), and Greece (56%). Similarly, Saudi Arabia remittances are expected to increase by 10%. Nonetheless, there is still cause for concern since the shares of these new countries are still relatively small and they are not the regular markets for Filipino workers. The countries exhibiting declines in remittance inflows have been the top labor markets for the Philippines in the last two decades. Based on their consistency in the top five labor-importing countries annually from 1993 to 2007, the major labor-importing countries are Saudi Arabia; Hong Kong, China; Singapore; Qatar; Kuwait; and Taipei,China. A sustained decline in remittance inflows will mean an eventual decline in overall remittances.

Figure 5: Origins of Overseas Filipinos' Remittances (percent)



Source: Bangko Sentral ng Pilipinas website, available:www.bsp.gov.ph, downloaded 10 September 2009.

The previous discussion focused on demand for workers based on new hires data. This part looks into the stock of workers. Table 2 shows the percentage of permanent and temporary migrants in 2004 and 2007. It can be seen that the bulk of permanent Filipino workers are in the US and about half of the temporary ones are based in the Middle East. Permanent migrants composed 40% of the total migrants, while temporary migrants contributed about 50%. The rest are considered undocumented. The permanent migrants in the US are generally affected by the crisis as some of them lost their jobs. But this may not make them return home. The effect of the crisis has however been reflected in the remittance inflows from the US, which is expected to decline by 11% in 2009. The temporary migrants concentrated in the Middle East are mainly domestic and low-skilled production workers in the construction sector. This suggests that any significant decline in the deployments will be due to two factors: a recession in the Middle East and a decline in demand for domestic workers. Except for the United Arab Emirates, Middle East economies have not gone into recession, sustaining their demand for low-skilled workers.

Table 2: Stock Estimates of Overseas Filipino Workers, 2004 and 2007 (percent)

	Permanent	Temporary
As of December 2004		
Africa	0.01	1.54
East Asia	2.88	29.59
Middle East	0.07	31.90
Europe	5.47	13.28
US	84.38	17.21
Oceania	7.18	1.80
Sea-based	—	4.68
Total	100	100
As of December 2007		
Africa	0.05	1.69
East Asia	5.79	18.07
Middle East	0.11	49.73
Europe	7.72	13.44
US	79.72	8.57
Oceania	6.61	2.05
Total	100	100

Source: Commission on Filipinos Overseas.

Box 1: Government Response to Help Displaced Overseas Workers

Given the spate of displacements of Filipino workers, the government has established the Filipino Expatriate Livelihood Support Fund (FELSF) to provide them with alternative livelihood. The FELSF is handled primarily by the Overseas Workers Welfare Administration and the National Reintegration Center for OFWs (NRCO).

The NRCO was established in 2007 as an agency of the Department of Labor, and serves as the frontline office to provide social and economic assistance to returning migrant and displaced workers. As a result of the current displacements, especially since December 2009 with the flows of returning factory workers from Taipei,China, NRCO was asked to handle the provision of reintegration services. These services include job matching for both local and overseas markets and the FELSF. The former is the most sought-after, which is reflected in the request to be redeployed to another country.

As of 15 June 2009, the FELSF has served 7,762 displaced workers and provided economic loans worth P150 million. Some workers were referred to other overseas job placements. Moreover, from January to March 2009, the Comprehensive Livelihood and Emergency Employment Program (CLEEP) and FELSF were included in the strategies for the Philippine labor sector to mitigate the impact of the global economic crisis on Filipino workers.

The Philippine Overseas Employment Administration has forged agreements with Qatar; Saudi Arabia; Canada; Australia; Japan; Republic of Korea; and Taipei,China to hire Filipinos to partly fill up their labor requirements (Remo 2009).

III. Effects of Remittances on Recipient Households—International Evidence

Two contrasting views regarding the effects of labor migration and remittances on the economy of the labor-sending country are presented in this section. The optimistic perspective views labor migration and remittances as mechanisms for economic development, while the pessimistic view perceives migration and its accompanying remittances as an "illness" that weakens the economy (Cattaneo 2005).

The benefits that families derive from remittances largely depend on how and where they spend the remittances. Adams (2007) in a review of findings from recent research suggests that households receiving international remittances spend less at the margin on consumption goods (like food) and more on investment goods (like education and housing). Cattaneo (2005) notes that remittances are typically spent on investments in physical assets and in human capital, such as education and health, which can stimulate growth. Households receiving international remittances also tend to invest more in entrepreneurial activities. Therefore, remittances may stimulate the economy by boosting aggregate demand and output through increased consumption and investment expenditures of recipient households and their multiplier effects.

Education and health are two factors that augment human capital development, thereby contributing to long-term growth. Ratha et al. (2007) opined that to the extent that remittances finance education and health and increase investment, remittances could have a positive effect on economic growth. A study on Pakistan (Mansuri 2007) observes that remittances have a positive and significant effect on child education and health, including a gender-equalizing effect, as the gains for girls are appreciably greater than those for boys. Moreover, with better access to schooling, children in remittance-recipient households tend to work substantially fewer hours. A study on the Philippines (Yang 2005) finds that households whose overseas workers experienced favorable exchange-rate shocks (during the Asian financial crisis) were able to reduce child labor, increase educational spending, improve child schooling, and afford higher ownership of durable goods.

In Latin America, the effect of remittances on the educational attainment of children is generally restricted to children with low levels of parental schooling. Acosta, Fajnzylber, and Lopez (2007) find that remittances increase educational attainment of children with a low level of parental schooling in a sample of 11 Latin American countries. In El Salvador, remittances prolong a child's education (Edwards and Ureta 2003). In Mexico, Lopez-Cordova (2004) finds that as the fraction of remittance-receiving households increases, child illiteracy and school attendance among children aged 6–14 years old improves. Adams (2006) shows that in Guatemala remittance-receiving households spend less on consumption and more on education than households that do not receive remittances.

Edwards and Ureta (2003) compare the impacts of remittances and other income on education in El Salvador and conclude that remittances greatly reduce the hazard of children leaving school. Yang (2004) shows that remittances lead to higher spending on education, more schooling, and less child labor in the Philippines. However, Mckenzie (2006) finds that migration lowered educational attainment of children, which he attributes to parental absence arising from current migration.

Migration and remittances are also found to positively affect the health status of recipient families, e.g., by improving nutrition and access to health care (Yang 2003). De and Ratha (2005) find that remittances have a significant positive impact on the weight of children under five in Sri Lanka. In Mexico, Hildebrant and McKenzie (2005) find that Mexico–US migration improves child health outcomes, i.e., lower infant mortality rates and higher birth weights. The study identifies two channels of the effect: one is the health improvements brought about by increases in income and another is that having a migrant family member is associated with an increase in the level of health knowledge among the mothers. Acosta, Fajnzylber, and Lopez (2007) find that remittances improved children's health, particularly in low-income households, in Nicaragua and Guatemala. World Bank (2006) arrives at similar conclusions.

Several studies have found that remittances increase savings and investment in physical capital. Recipient households often consider remittances to be transitory income. Therefore, they save a larger proportion of remittance receipts (often in the form of investment in real estate) than other income. In addition, remittances ease liquidity constraints and serve as insurance for many recipient households, inducing them to invest in business ventures and take entrepreneurial risks. Adams (1991) finds that in rural Egypt, remittance-receiving households have a higher propensity to invest than those households that do not receive remittances. Adams (1998 and 2002) shows that in rural Pakistan, the propensity to save out of remittance receipts is much higher than that for most other forms of income (including agricultural income and rental income) and remittance receipts have a greater positive effect on accumulation of rural assets than labor income. Brown and Walker (1995) conclude that in Tonga, remittance-receiving households have a much higher savings rate than those that do not receive remittances; and that in Samoa and Tonga, a significant proportion of remittance receipts is used for business and farm investment. Brown and Leeves (2007) find that in Fiji and Tonga, remittance-receiving households are able to restructure their income sources away from traditional subsistence activities toward more market-oriented business ventures. EBRD (2006) presents the results of a business survey conducted in 2005 in Albania, Bosnia-Herzegovina, Georgia, Moldova, and the former Serbia and Montenegro, which show that a small but important share of remittance inflows to these countries is used to finance investment and enterprise creation. Woodruff and Zenteno (2001) estimate that remittances account for about 20% of the capital invested in microenterprises in urban Mexico and the figure is higher for female-owned businesses. World Bank (2006) estimates that growth of remittance inflows led to a 2% increase in the share of domestic investment to GDP in Latin American countries from 1991 to 1995, and 2001 to 2005.

Although remittances accrue directly to households with migrant members, families that do not receive remittances can also benefit indirectly from these transfers, thus promoting local development through spillovers. First, increased consumption of migrant households can generate multiplier effects. If recipient families increase their household consumption of local goods and services, this will benefit other members of the community through an increase in demand, which stimulates local production, thereby promoting job creation and local development. Adelman and Taylor (1990) estimate that every dollar Mexico receives from migrants working abroad increases its gross national product by US$2.69–3.17. Van Doorn (2003) estimates that remittances sent to Bangladesh have a multiplier effect of 3.3 on gross national product, 2.8 on consumption, and 0.4 on investment. However, the multiplier effect of remittances can be substantially reduced by supply inelasticities as shown by Taylor (1999) and Yunez-Naude et al. (1998). Insofar as supply is inelastic, increased expenditures of recipient households financed by remittances push prices up and adversely affect well-being of nonrecipient households. Second, remittances are also found to prop up formation of small-scale enterprises, thereby promoting local development. Workers' remittances ease credit constraints and provide working capital for the recipients to engage in entrepreneurial activities. This results in job creation and enhances the development of the remittance-receiving locality. Woodruff and Zenteno (2001), utilizing survey data for 12,005 microenterprises owned by 11,823 individuals in 44 urban areas in Mexico, find a large positive impact of remittances on microenterprise development.

Remittances may also contribute to the creation of new social assets and services and community physical infrastructures such as schools, health centers, roads, and other community projects. This is where the role of migrant associations comes in. These associations usually pool their resources and send them to their home communities (Ghosh 2006). According to Sorensen and Pedersen (2002), they may serve as platforms that bring significant development in the communities, benefiting both migrant and nonmigrant families. At the community level, remittances are found to affect the distribution of income. Ravanilla and Robleza (2003) apply decomposition analysis to investigate the contribution of remittances to total income inequality in the Philippines. Dakila and Dakila (2006) analyze the effect of remittances to the Philippines through a computable general equilibrium model and show that the main beneficiaries of remittances are the middle class. Tullao et al. (2007) showed that the proportion of employed workers in families receiving remittances in the Philippines is lower than those that did not. They opined that the benefits of migration will be reaped by the more educated and families with ability to pay. This will contribute to widening of income inequality.

Although labor migration and remittances provide households with considerable benefits, there are also substantial economic and social costs associated with it. On the economic side, one curious issue is the extent to which family members in remittance-recipient households reduce their work effort—a moral hazard effect on labor supply. Migration may generate dependency behavior at the household level (Meins 2007). Overseas remittances as pointed out by Bridi (2005) do promote idleness on the part of the recipients. Chami et al. (2005) argue that migration may create a moral hazard problem by inducing disincentives to work among migrant household members. There is evidence of a decline in labor force participation among remittance recipients—more among females than males—in El Salvador (Acosta 2006) and in the Philippines (Rodriguez and Tiongson 2001; Tullao, Cortez, and See 2007), with the gender effect depending on whether the wife or the husband is the recipient (Cabigen 2006). However, this appears to be matched by an increase in entrepreneurial activities, such as microenterprises for women and self-employment for men (Acosta 2006; Yang 2004; Rozelle, Taylor, and DeBraw 1999).

Further on the negative side, remittances can reduce labor supply by raising reservation wages of remittance recipients (Acosta 2006; Azam and Gubert 2006; Bussolo and Medvedev 2007; Kim 2007; World Bank 2006). This can push wages up and lead to appreciation of the real exchange rate. However, the decline in labor supply resulting from outward migration and remittances is often compensated by a rise in labor productivity due to investments financed from remittances (Lucas 1987; Taylor, Rozelle, and deBrauw 2003).

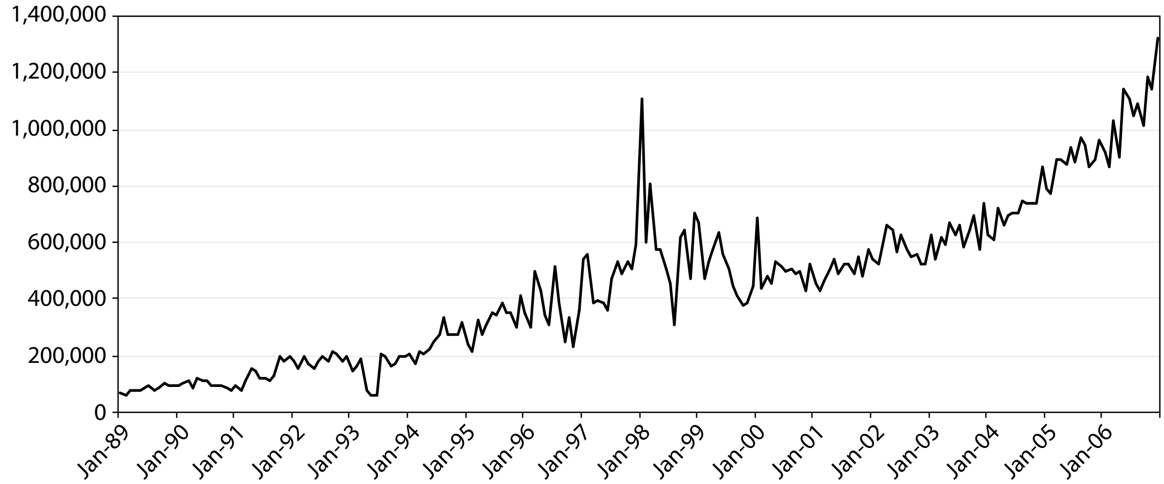
While the economic costs and benefits of labor migration are relatively well known, this does not seem to be true of the psychosocial costs to migrants and their families. One early study (Fasick 1967) finds that the children of migratory agricultural workers in the US suffer from severe educational retardation as they have to substitute for the work of their absent parents. Similarly, a Mexican study (McKenzie 2006) points out some unfavorable effects of migration, such as on child care (less breastfeeding and uncompleted schedule of vaccines). Another Mexican study (Aguilera-Guzman et al. 2004) notes that the children of migrants are more susceptible to such problems as drug abuse and absenteeism or dropping out of school. A Caribbean study (Crawford-Brown and Rattray 2002) finds that children left behind are likely to suffer from such emotional and psychological problems as depression, withdrawal, and running-away behavior due to the lack of parental contact and supervision.

Rodriguez (2000) writes that migration has unfavorable effects on the sender's family in the form of broken families, fatherless children, and other problems as a result of parental absence. Furthermore, remittances can also cause family tensions within households with migrants. Women are increasingly migrating as the main economic providers, or "breadwinners" for their households. Paid domestic work is increasingly performed by women who left their own countries and communities, and often their families. Domestic service drew not only women from poor socioeconomic classes, but also women of relatively high status in their own countries. In the developed world, the combination of women's increased participation in the workforce and the failure to develop family-friendly labor policies and childcare options has led to a growing demand for migrant women.

IV. A Statistical Profile of Remittances and Households

Utilizing data from the 2000, 2003, and 2006 Family Income and Expenditure Survey (FIES), this section analyzes the role of remittances in household consumption, investments, and poverty reduction. The 3-year data capture changes in the world economy and the corresponding changes in the demand for Filipino workers. First, the period preceding these 6 years was beset by the Asian financial crisis and reflected the change in demand. Second, monthly remittance levels recovered only beginning 2003 after the monthly highs of 1997. Also, it is unlikely that the monthly levels of remittances will go back to the pre-2006 levels even with flat growth for 2009 (see Figure 6).

Figure 6: Monthly Remittance Flows ('000 US dollars)



Source: Bangko Sentral ng Pilipinas website, available:www.bsp.gov.ph, downloaded 10 September 2009.

As remittances evidently provide an alternative source of income, it is of interest to find their impact on households that receive them and those that do not. The FIES datasets are used to capture the difference between remittance-receiving households and the nonreceiving ones. Among recipients, the average family size is generally larger and the number of employed members fewer than nonrecipients (Table 3). This perhaps brings into play higher dependency ratio as a factor in generating remittances. Additionally, remittance-receiving households have more extended family members than those that are not. This validates the observation that migrant families have relatives who assume parental or guardian roles in the absence of one or both parents (Box 2). Data for 2006 shows that the average annual income of a household receiving remittances is about P254,000, exceeding the average income of nonreceiving remittance households by 73%. The latter depend significantly more on wages and entrepreneurial income (Figure 7). Remittance-receiving households earn more from their investments and have higher savings rate than nonremittance households. However, there are observational evidences showing remittance-receiving families as having difficulties managing their savings (Box 2). Moreover, families that receive cash from abroad spend appreciably larger shares of expenditure on education, health, durable goods, transport and communications, and housing by lowering the share on food expenditure (Figure 8).

Table 3: Main Characteristics of Households, 2000, 2003, and 2006

2000

National per Capita Income Decile	Family Size		Number of Employed Members		Household Type	
	R	NR	R	NR	R	NR
First	6.5	6.7	1.5	1.7	1.2	1.2
Second	6.4	5.9	1.5	1.7	1.3	1.2
Third	6.3	5.5	1.7	1.7	1.3	1.2
Fourth	5.9	5.2	1.6	1.7	1.3	1.2
Fifth	5.9	5.1	1.7	1.8	1.4	1.2
Sixth	5.4	4.9	1.5	1.8	1.4	1.2
Seventh	5.2	4.8	1.5	1.8	1.4	1.2
Eight	5.0	4.6	1.5	1.9	1.4	1.3
Ninth	4.7	4.4	1.4	1.9	1.4	1.3
Tenth	3.9	3.9	1.4	1.9	1.3	1.2

2003

National per Capita Income Decile	Family Size		Number of Employed Members		Household Type	
	R	NR	R	NR	R	NR
First	6.8	6.3	1.8	1.7	1.2	1.2
Second	6.3	5.5	1.7	1.7	1.2	1.2
Third	5.8	5.1	1.7	1.8	1.2	1.2
Fourth	5.5	4.7	1.7	1.8	1.2	1.2
Fifth	5.3	4.6	1.7	1.8	1.3	1.2
Sixth	5.1	4.4	1.7	1.8	1.3	1.2
Seventh	4.9	4.3	1.7	1.9	1.3	1.2
Eight	4.8	4.2	1.8	1.9	1.3	1.2
Ninth	4.4	3.9	1.8	1.9	1.3	1.2
Tenth	3.7	3.5	1.7	1.9	1.3	1.2

2006

National per Capita Income Decile	Family Size		Number of Employed Members		Household Type	
	R	NR	R	NR	R	NR
First	6.9	6.4	1.8	1.8	1.3	1.2
Second	6.6	5.5	1.8	1.9	1.3	1.2
Third	5.8	5.1	1.7	1.8	1.3	1.2
Fourth	5.5	4.7	1.8	1.8	1.3	1.2
Fifth	5.2	4.5	1.7	1.9	1.3	1.2
Sixth	5.1	4.4	1.7	1.9	1.3	1.2
Seventh	4.8	4.4	1.8	1.9	1.4	1.2
Eight	4.6	4.2	1.7	1.9	1.4	1.2
Ninth	4.3	4.0	1.7	2.0	1.4	1.3
Tenth	3.7	3.5	1.7	1.9	1.3	1.2

R = households receiving transfers/remittances from abroad; NR = households not receiving transfers from abroad.
Household type: 1 = single family; 2 = extended family; 3 = with two or more nonmembers.
Source: Authors' estimates from Family Income and Expenditure Surveys 2000, 2003, and 2006.

Box 2: Responses of Migrant Households to Social and Economic Situations

Dealing with Parental Absence

For some time now, the Philippines has been enduring what is called the social costs of migration, especially for families with parents who had to go overseas and leave their children behind. Family members rely on international communication to keep their families together. Sociologists have noted the resilience of Filipino families in dealing with this situation. For example, relatives of the parent/parents who went abroad, such as aunts or grandparents, help take care of the children left behind. In case the mother is away, anecdotal evidence and some qualitative studies show that female children do household responsibilities. Some husbands left behind also do family-rearing roles usually done by their wives. As regards managing remittances, there is a gender bias in favor of women. Recent studies show that among Filipino migrants in Italy, for example, remitters usually trust women family members left behind to take control of the remittance money and the trusted woman is not always the wife, but can be the mother or sister of the remitter (International Organization for Migration 2009a). The mothers and sisters left behind are also the trusted remittance recipients for Filipino migrants in Malaysia (International Organization for Migration 2009b).

Dealing with Savings

Some case studies have found that households receiving remittances have a hard time saving some of their remittances, especially if the remittance-receiving household has more family members or relatives. In this context, financial literacy programs for overseas Filipinos and their families have proven to be an important intervention to address the remittance management practices of migrants and their families. Equipping them with knowledge and skills to help them manage their remittances is one means to help mitigate the social costs of migration.[1]

Dealing with Currency Fluctuations

The effects of the current global economic recession on remittance flows to the Philippines show that Filipino migrant remitters try to send as much remittance as possible so that families left behind will somewhat maintain their current economic standard. Remitters are also watchful of developments such as a stronger currency, and tend to send more remittances to keep pace with the prices of goods (Javellana-Santos and Santiago 2007).

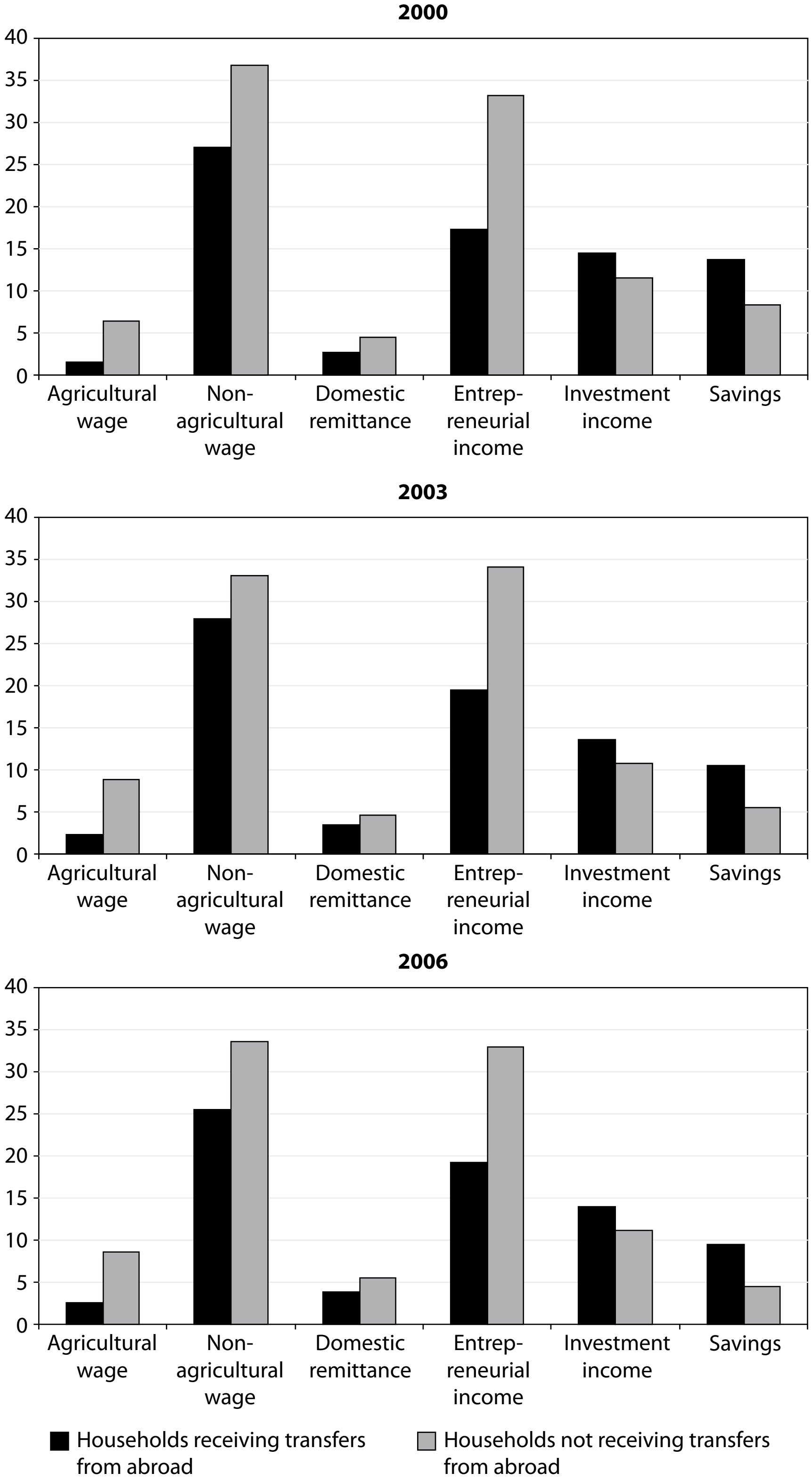
Dealing with Displacements

Returning migrants due to job displacement or nonrenewal of contract usually try to continually secure a stable source of income by going back to the POEA to look for new contracts. They also contact relatives and friends in the countries where they just came from for possible redeployment. Others try to set up a small business—with or without the capacity to engage in business.[2] Unfortunately, some of them, in particular young workers staying in host countries for only a few months who had their contracts cancelled, had incurred debts from loans to pay placement fees and other migration-related costs (Opiniano and de la Paz 2009). Government support like the NRCO provides livelihood loans for them but there is no guarantee that the assistance received is what the returning migrants want.

1 If migrant families encounter some problems, some remittances received from abroad are even used to spend for items or services (e.g., counselling) to address family-related issues (Capili and del Castillo 2006).

2 Since 2005, the Overseas Workers Welfare Administration (OWWA) has implemented a Livelihood Development Program for OFWs. Through conduit financial institutions, OWWA hands out enterprise loans of at least PhP150,000 to returning overseas workers (in particular, members of OWWA who paid a US$25 membership fee per contract), with interest rates of 3% monthly.

Figure 7: Sources of Income for Recipient versus Nonrecipient Households (percent)



Note: Total income = wages and salaries + other income + entrepreneurial income.
Other income = net share of crops + cash receipts from abroad + cash receipts from domestic + rental from nonagriculture + interest income + pension + dividends + rental income + gifts + income from sustenance activities + other necessities.

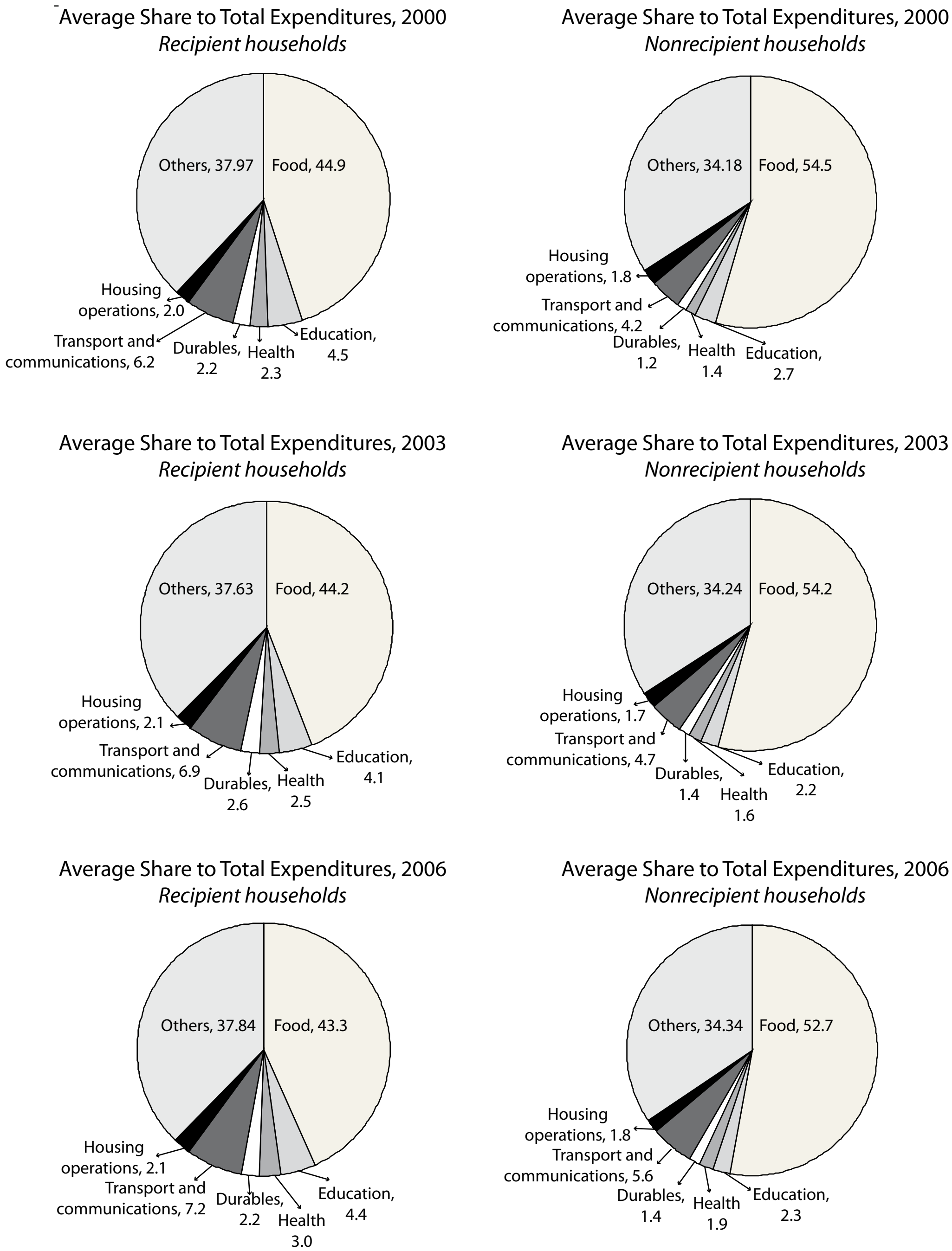
Source: Authors' calculations based on Family Income and Expenditure Surveys 2000, 2003, and 2006.

A remittance-receiving household's allocation for nonfood expenditures such as education, health, and others is almost twice that of a nonremittance household. This seems that remittance-receiving households spend more in human resources than those households that do not receive remittances. By increasing household investment in human and physical capital, remittances have the potential, at the aggregate macroeconomic level, to rebalance growth toward domestic demand and to create long-term growth.

The percentage of households receiving remittances was 18% in 2000, 21% in 2003, and 23% in 2006, with the increase reflected across all income classes (Table 4). However, if this is broken down by quintiles, less than 10% of lower income households receive remittances. The proportion increases consistently through the higher income quintiles, exceeding 35% for the fifth quintile in all the three surveys. By 2006, the percentage of recipients from the lowest quintile had increased to about 7% from about 4% in 2000 and 5% in 2003. This increase coincides with deployment data showing that the increase in temporary migrants in recent years is mostly from domestic/service workers and not from professionals.

Among the higher income quintiles, the biggest share of income is at 15% received by the fifth quintile in 2006. If this is converted to a monthly flow per household, it is estimated to be around US$120. In contrast, the poorest quintile received only 1.3% of income from abroad. What may be of more significance to poorer households are domestic remittances, which come mainly from internal migration of domestic helpers and other service workers from rural areas to urban centers. Poorer households tend to receive a relatively higher percentage of income from this internal flow. This reveals that internal migration and remittance generates more welfare than international migration among the poorer households. This same view was earlier espoused by Pernia (2008). Similarly, entrepreneurial income constitutes close to 40% of income received by these households—twice the share for the fifth quintile. This is explained mainly by the lack of formal income sources among them. The main source of income for those belonging to the higher quintiles is nonagricultural wage.

Figure 8: Shares of Household Expenditure among Remittance Recipient and Nonrecipient Households (percent)



Source: Authors' estimates from Family Income and Expenditure Surveys 2000, 2003, and 2006.

Table 4: Percentage Shares of Household Income by Source and Savings, 2000, 2003, and 2006

	Quintiles				
	1	2	3	4	5
2000					
Percent of households receiving cash from abroad (18.05% overall)	4.30	9.19	15.81	24.48	35.23
Average annual income (pesos)	32,242	57,835	90,244	148,270	374,621
Percent share to annual income					
Cash received from abroad	1.10	2.29	4.36	7.87	11.63
Agricultural wage	12.11	9.10	4.80	1.80	0.42
Nonagricultural wage	13.61	24.61	37.19	47.61	50.44
Domestic remittances	8.21	4.93	3.83	2.57	1.54
Entrepreneurial income	40.13	39.35	31.79	22.88	18.35
Income from investments*	9.83	10.71	12.02	13.22	14.43
Savings	-4.89	3.02	8.89	14.54	23.73
2003					
Percent of households receiving cash from abroad (20.72% overall)	4.98	11.48	19.79	30.86	43.79
Average annual income (pesos)	34,696	62,357	95,857	154,811	392,382
Percent share to annual income					
Cash received from abroad	0.86	2.06	4.51	8.47	13.76
Agricultural wage	14.60	11.15	5.99	2.51	0.69
Nonagricultural wage	12.49	24.83	36.63	45.16	47.33
Domestic remittances	6.93	4.97	4.11	3.22	1.62
Entrepreneurial income	40.53	37.44	30.76	23.56	19.21
Income from investments*	9.76	10.10	11.27	12.47	13.91
Savings	-5.87	2.39	7.19	12.73	20.80
2006					
Percent of households receiving cash from abroad (23.30% overall)	7.08	13.86	22.69	33.46	44.09
Average annual income (pesos)	41,543	72,802	111,324	180,580	455,481
Percent share to annual income					
Cash received from abroad	1.30	2.72	5.49	9.75	14.74
Agricultural wage	14.51	10.95	6.04	2.27	0.47
Nonagricultural wage	12.11	23.47	36.11	44.74	46.70
Domestic remittances	8.31	5.74	4.83	3.75	2.11
Entrepreneurial income	38.71	37.37	29.35	22.10	18.33
Income from investments*	10.5	10.5	11.5	12.8	14.3
Savings	-7.06	1.03	6.16	10.94	20.49

*Investments is the summation of interests from deposits, dividends, rental income, and pensions.
Source: Authors' estimates from Family Income and Expenditure Surveys 2000, 2003, and 2006.

V. Empirical Analysis

If households invest their remittance in productive assets, it contributes to their future income, thus introducing an intertemporal, long-run effect. On the contrary, if they spend remittance receipts mainly for conspicuous consumption, possible longer-term benefits are jeopardized. A number of studies have examined the impact of remittances on households in the Philippines. Tabuga (2007) looked into the effect of remittances (as a dummy variable) on the expenditures of Filipino households using the 2003 FIES. Based on a censored Tobit model and quintile regressions, the study found that remittances increase consumption of goods and leisure, including spending on education, housing, medical care, and durable goods. Similarly, Tullao, Cortes, and See (2007) note that remittances lead to higher human capital investments in education and health. Pernia (2008), using data in 2000 and 2003 and employing a remittance dummy as well, supported these findings. His results revealed that remittances enhance household savings and spending on education and health care. A logit regression showed that the share of remittances in household income raises the likelihood of a household getting out of poverty. Yang (2005) took a slightly different angle by focusing on the impact of the Asian financial crisis through exchange rate shocks. Using first differenced regressions he found that appreciation of a migrant's currency against the Philippine peso leads to increases in household remittances received from overseas. The shocks lead to greater child schooling, reduced child labor, and increased educational expenditure. Moreover, favorable exchange rate shocks also promote self employment and lead to greater entry into relatively capital-intensive enterprises by migrants' origin households.

In general, these studies do not take into account the reverse causality occuring, for instance, when international remittances help reduce household poverty but at the same time, the level of poverty may also influence the amount of remittances received by a household. Similarly, while remittances can be expected to influence household expenditure shares of different items (i.e., food), the causality can be in the reverse direction as well. For example, whether a household receives remittance or not may itself depend on the level of expenditure on food in the absence of remittances. Thus, ignoring reverse causality in analyzing the impact of remittances on households might lead to erroneous conclusions. For such reasons it has become a common practice in recent remittances research to test for endogeneity or to assume that endogeneity exists especially when using household survey data. A common solution to eliminate the bias arising from this issue is to use instrumental variables. If a test for endogeneity reveals that there is a relationship between remittances and household income, for instance, instrumental variable techniques can be used to control for such endogeneity bias arising from omitted variables and reverse causation. Instrumental variable techniques are thus used to measure the net effect of remittances upon expenditure, income, and poverty indicators, or other variables of interest (Ozden and Schiff 2006).

This section analyzes the relationship between remittances and household expenditure on consumption and investment in the Philippines to evaluate the extent to which the propensity to spend differs between different items. The objective of this exercise is to see if remittance as a source of income is important to households in influencing different components of their expenditure. This study uses 2006 household level data to examine the impact of remittances on household expenditure share on food, education, health, housing, adult goods (tobacco and alcohol), gifts, leisure activities, and other items.

A. Methodology

A reduced form equation is used to estimate the effects of remittances on household expenditures. Share of expenditure on each item is assumed to be a linear function of the logarithm of the total per capita consumption expenditure, dependency ratio, sex and education of the household head, a dummy variable indicating if the household is a remittance receiving household, and an interaction term dummy times logarithm of total per capita consumption expenditure.

The functional form is written as follows.

$s_i = \beta + \beta_m$ *log(total per capita consumption expenditure)* + β_{remit} *(remit)* + β_{rm} *(remit x log(total per capita consumption expenditure))* + β_{dr} *(dependency ratio)* + β_{hsex} *(sex of household head)* + β_{hedu} *(education of household head)*

where s_i is the share of expenditure on a particular item of household's budget and *remit* is a dummy variable taking the value 1 for households receiving remittances and value 0 for others.

Estimating such an equation using the ordinary least squares method, as in most of the previous studies, is likely to yield biased coefficient estimates due to bidirectional causality between the dependent variable and the remittance dummy. In order to account for this endogeneity we identified instrumental variables for the remittance dummy and used a two stage least squares procedure to estimate the model.

A good instrumental variable, one that is correlated with the explanatory variable but uncorrelated with the outcome variable, can eliminate the biases that arise from this endogeneity. In practice, however, selecting a good instrumental variable in remittances work can be difficult. For example, if remittance is the explanatory variable and expenditure is the outcome variable of interest, the challenge is to find an instrumental variable that is correlated with remittances but exogenous to expenditure. In the current exercise, several instruments were considered for the remittance dummy. Those that turned out to be suitable were household asset holdings such as ownership of cars, televisions, and refrigerators, and the ratio of entrepreneurial income to total income.[1]

B. Results

The results of the first stage ordinary least squares test, in general, show that the instruments are strong with a 10% level of significance. The results of the test for the null hypothesis whether the instruments and the model are correct show the instruments to be valid for most of the equations. The estimated results are given in Table 5.

[1] For example, Brown (2008) considers wealth as an instrumental variable that ensures longer-term financial security and provides an indicator of the permanent income compared to the observed transitory income or expenditure in the household survey year. Unlike time-series or panel data, cross-sectional data cannot capture high levels of volatility in transitory income that moves households in and out of poverty over time.

Table 5: Estimation Results

	Food	Education	Medical	Housing	Tobacco and alcohol	Consumer goods	Gifts	Leisure	Durable items	Household operations	Others
Total per capita consumption expenditure	−0.164***	−0.034	0.029	0.037	−0.016***	−0.009	−0.021	−0.024	0.001	0.010	0.192***
	−4.9	−1.1	1.3	0.9	−2.7	−0.7	−1.2	−1.3	0	0.3	2.9
Remittance dummy	−1.564*	−0.834	0.338	−0.011	−0.310*	−0.118	−0.847*	−0.786	−0.678	−0.138	4.947***
	−1.7	−1	0.6	0	−1.9	−0.4	−1.8	−1.5	−0.7	−0.2	2.8
Interaction term	0.139*	0.075	−0.03	0	0.027*	0.011	0.075*	0.07	0.061	0.011	−0.44***
	1.7	1	0.6	0	1.9	0.4	1.8	1.5	0.7	0.1	−2.8
Sex of household head	0.008	0.016**	0.004	−0.014	0.005***	−0.002	0.007	0.005	0.003	−0.005	−0.027*
	0.9	2.1	0.7	−1.4	2.9	−0.6	1.5	0.9	0.3	−0.5	−1.7
Education of household head	0	0.005***	−0.004***	−0.001	−0.001***	0.001*	−0.002***	−0.002*	−0.007***	0.004***	0.007***
	−0.1	4.4	−3.5	−0.8	−4.3	1.9	−3.1	−1.8	−3.9	3.0	3.0
Dependency ratio	−0.003	−0.01***	0.011***	0	−0.002***	−0.002**	0.002**	0.002	0.002	0.005	−0.005
	−1.2	−4.9	3.9	0.1	−4	−2.1	2.2	1.5	0.7	2.1	−1.2
Constant	2.15***	0.409	−0.283	−0.24	0.195***	0.157	0.253	0.314	0.916	0.104	−2.106***
	5.77	1.17	−1.13	−0.56	2.9	1.15	1.36	1.46	0.11	0.27	−2.85

*, **, *** indicate 10%, 5 %, and 1% level of significance, respectively.

The estimated results show that except for the food share equation, the fit is poor for most equations. In the food share equation the coefficient of the remittance dummy is statistically significant (at 10% level of significance) and negative, indicating that the share of expenditure on food is on an average lower for households receiving remittances. The coefficient on the interaction term is positive and significant at the 10% level of significance, indicating that the marginal propensity to consume food is higher for remittance-receiving households. However, unlike previous studies, our estimations show that remittances to the Philippines do not have a significant influence on other items of consumption or investment. In the case of medical expenditure, the remittance coefficient is positive but insignificant. On the other hand, the regression coefficient for the remittance variable is negative and insignificant for education and durable goods spending. In other words, our analysis does not support any evidence of remittances contributing toward human or physical capital development. This implies that these flows may not help in rebalancing growth toward domestic demand.

Lastly, we implemented a logistic regression of the impact of remittance to poverty directly. For this, we defined the probability of getting out of poverty based on the poverty income threshold of 2006. This was determined to be around P75,000 for a family of five or roughly P15,000 per annum. All the households receiving an income higher than P75,000 are considered out of poverty and labeled 1, and those below the poverty threshold labeled 0. We considered a number of independent variables including demographic variables. In this estimation, we expect that remittance will pull households out of poverty. In Table 6, the results show that the coefficient of actual remittance received is positive, indicating that remittance has a positive impact in pulling households out of poverty. Among other variables, the ratio of employed members to total members reflected a negative sign. It is expected that more working members in the household could contribute to improving the poverty situation. Meanwhile, the rural indicator consistently shows negative and significant results validating the observations that poor households tend to be located in rural areas.

Table 6: Estimate of Probability of Getting out of Poverty (2006 FIES; n = 38,483)

Logistic Regression	Coef.	Std. Err	Z	P>(z)
Remittance received	0.000069	0.000002	29.19	0.000
Age of household head	–0.006074	0.000881	–6.89	0.000
Educational attainment of household head	0.069925	0.002908	24.04	0.000
Ratio of employed members to household members	–0.472853	0.050296	–9.40	0.000
Wife employment indicator	–0.113302	0.024722	–4.58	0.000
Household type	–0.078692	0.028337	–2.78	0.005
Rural indicator	–0.065012	0.026683	–1.65	0.099
Household savings	3.204729	0.064482	49.70	0.000
Constant	0.649868	0.073516	8.84	0.000

Note: Educational attainment categories: 0 – no grade completed, 1 – elementary undergraduate, 2 – elementary graduate, 3 – high school undergraduate, 4 – high school graduate, 5 – college undergraduate, 6 – college graduate.
Type of household categories: 1- single family, 2 – extended family, 3 – with 2 or more nonmembers.
Remittance dummy (1 for recipient households, 0 otherwise), household characteristics, rural indicator (1 for agricultural household, 0 otherwise), savings indicator (savings as a share of total income).

Source: Authors' estimates.

VI. Summary and Conclusions

The Philippines is among the world's top recipients of remittances, which have contributed significantly to its foreign currency inflows in tranquil and turbulent times. These flows supported the economy during the normal and crisis situations in the past, and seem to remain so in the future. While developing Asia was at the epicenter of the 1997 financial crisis, the crisis did not touch migrant-hosting countries outside the region. However, the current global crisis has adversely affected economies the world over, including those sending remittances from outside Asia. This has brought a new challenge to the role of remittances through slowdown in economic growth and in the global demand for goods and labor, and spiraling unemployment in host countries. The jobs of Filipino workers and their remittance transfers are therefore at risk. In particular, demand for low-skilled workers may weaken if the global crisis drags on. In the short term, remittances may provide a safety net that could protect households from the current global economic crisis. Over a longer time period, these flows could supplement social protection systems and contribute to economic development by sustaining objectives such as those of the Millennium Development Goals. This paper analyzed the role that remittances play in the Philippine economy with a view to understanding the contribution that they make in supporting households, lifting domestic demand, and rebalancing growth.

Through the Philippines's labor export strategy, the profile of Filipino migrants has changed over time, from mostly middle- and lower-skilled workers to the oil-rich countries of the Middle East in the early 1970s; to an increase in demand for professional workers including nurses and caregivers in the 1990s following the growth of labor-importing tiger economies in Asia and changing social patterns in the West; to a substantial decline in the professional category in recent years from 2006. Lower salaried services and construction workers are currently supporting the sustained level of remittance inflows. The countries exhibiting declines in remittance inflows had been the top labor markets for the Philippines in the last two decades, namely, Saudi Arabia; Hong Kong, China; Singapore; Qatar; Kuwait; and Taipei,China. A sustained decline in their inflows will mean an eventual decline in overall remittances.

There is international evidence that households receiving remittances in general spend less at the margin on consumption goods like food and more on investment goods like education and housing. Although remittances accrue directly to households with migrant members, families that do not receive remittances can also benefit indirectly from these transfers, thus promoting local development through spillovers. These flows may also contribute to the creation of new social assets and services and community physical infrastructure such as schools, health centers, roads, and other community projects. However, there may also be substantial economic and social costs associated with these transfers.

This study utilized FIES 2000, 2003, and 2006 data to analyze the role of remittances in household consumption, investment, and poverty reduction. The data show that about one fifth of all Filipino households receive remittances, and this fraction has been rising over time. However, while less than 10% of lower income households receive remittances, the proportion increases with income. These flows from abroad contribute as much as 15% to the incomes of the highest income quintile but just over 1% for the poorest quintile. The recipient households generally have larger families and fewer employed members than nonrecipients, reflecting higher dependency ratio as a factor in attracting remittances. The latter depend significantly more on wages and entrepreneurial income. Remittance-receiving households also earn more from their investments and save more than their nonreceiving counterparts.

Previous studies on the effects of international remittances on household expenditures in the Philippines, in general, do not take into account the reverse causality that occurs when, for instance, remittances help reduce household poverty, but at the same time, the level of poverty may also influence the amount of remittances received by a household. Ignoring reverse causality in investigating the impact of remittances on households might lead to erroneous conclusions. This paper addresses this issue in analyzing the relationship between remittances and household expenditure on consumption and investment to evaluate the extent to which the propensity to spend differs between different items. To account for the endogeneity bias this paper identifies instrumental variables for remittances and uses a two stage least squares procedure to estimate the model.

The results show that it is only for food share that the coefficient of the remittance dummy is statistically significant. It is negative indicating that the share of expenditure on food is on average lower for households receiving remittances. Moreover, the marginal propensity to consume food is higher for remittance receiving households. Unlike the previous studies however, our estimations show that remittances to the Philippines do not have a significant influence on other items of expenditure, particularly investment spending on education, health care, and durable goods. In other words, the analysis in this paper does not support evidence of remittances contributing toward rebalancing growth by creating domestic demand.

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About the Paper

Alvin Ang, Guntur Sugiyarto, and Shikha Jha examine the role of remittances in supporting household income, consumption, and investment in the Philippines, and its potential for rebalancing growth and creating long-term human and capital investment. They find that although remittances negatively influence the share of food consumption, they have no significant effect on other key items of household expenditure like education and health care. Their analysis shows that although remittances may reduce poverty, there is not enough evidence to support that they can contribute toward rebalancing growth by creating domestic demand.

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