

# Workers' Remittances and Economic Growth in the Philippines

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## ABSTRACT

This paper considers the present issues surrounding the role of workers remittances and its contribution/effect on economic growth and development. In particular, this paper focuses on how such remittances have been able to spur development and growth. As a case study, the paper focuses on the Philippines, one of the countries in the world with a long history of sending workers abroad. In 2005, the Philippines received approximately US\$11Bn of remittances, almost 10% of its GDP. It ranks as the 3<sup>rd</sup> largest recipient of remittances in the world after India and Mexico. Along this line, the paper looks into the following areas: (a) remittance and overall growth, (b) linkages between remittances and microfinance, (c) tracing the contribution of remittances to countryside development, and (d) relationship between worker remittances and structural reform policies. We are also concerned at how these remittances have impacted the poor in general. This is important as the expected benefits have generally been unfelt at the level of the poor. We hypothesize that workers' remittance have not been properly utilized into productive and investment uses in the Philippines. There are strong anecdotal evidences that show that most of these resources are being used to fund conspicuous consumption. Hence, we would like to find ways where these resources can be harnessed into funding development needs of the country.

**Key words:** Remittances, Development, Migrant Workers

**JEL Classification:** E21, F2, G21, J61, O16

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## I. Introduction

The Philippine version of the diaspora is a well-known phenomenon that can be traced back to the early 1900s when the first group of migrants arrived in Hawaii as sugar plantation workers (Ramos, 2006). As the centennial of this event unfolds, the number of Filipinos living and working abroad has reached roughly 10% of the total estimated population of 85 million (Commission on Filipino Overseas, 2004). Called Overseas Filipino Workers (or OFWs), they are recognized as modern heroes in the Philippines. No doubt their remittances have shielded the economy from the wild swings of the Asian Financial Crisis in the late 1990s and have fueled the surge of the country's foreign reserves to an all-time high of US\$21Bn as of end-September this year.

Contextualizing this phenomenon on a global scale, the 2005 Global Development Finance Report of the World Bank identifies the Philippines as the 3<sup>rd</sup> largest remittance-receiving country after Mexico and India. The same report also shows that these three countries also exhibit strong remittance growth over the past eight years. Undoubtedly, these data validate the observation that remittance now plays a major role in the development finance of developing countries.

However, there is a need to validate how these remittances affect the overall development process of the remittance recipient countries. Considering that these are private flows, there has been no standard public policy on how these funds can be utilized for development. In particular, it will be interesting to answer how remittances have increased incomes, reduced poverty and contributed to balance development through its multiplier effects.

Recent literature has posited that there exist positive relationships between remittance and economic growth, capital accumulation and poverty reduction of recipient countries. Though the results seem varied, most of them utilized cross country data and therefore there is a need to validate it further into country specific case studies. On a micro-basis, a number of household level studies and surveys have been done before and some stylized facts can be deduced from them (Chami et al., 2003). However, a gap still persists on the country level. Thus, this study attempts to contribute to the country-specific case study literature by exploring how a remittance-recipient country like the Philippines has made use of its remittances for development purposes.

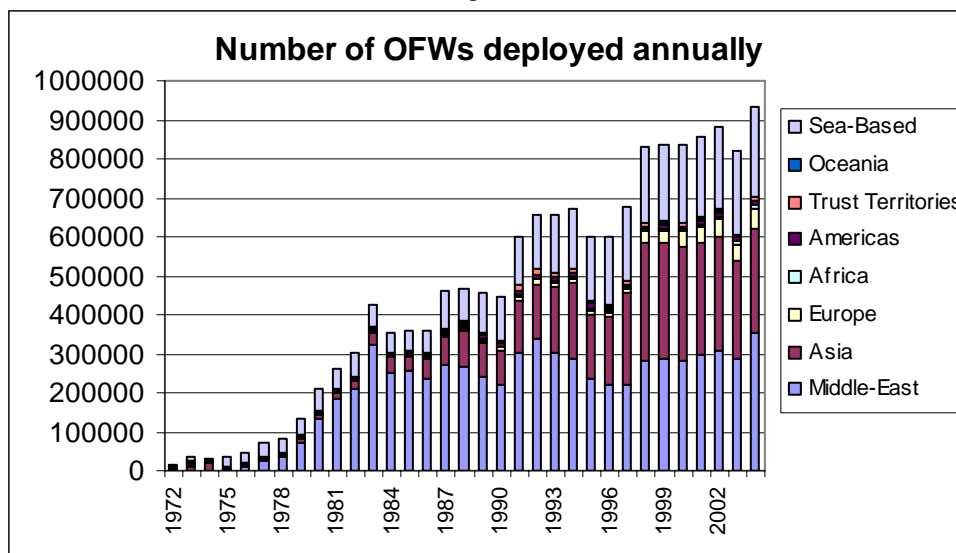
The paper will look into both the national and regional impact of remittances in the economy. The paper will be divided into five sections. The next section gives a general description of the OFW; the third, considers the macroeconomic impact of remittances; the fourth section discusses the regional effects; and the fifth section summarizes and concludes.

## II. Historical Growth and Occupational Structure of OFWs and Remittances

### a. Waves of Deployment

Deployment of Filipino workers abroad started to gain national importance in the early 70's. Recorded annual deployment has reached new highs of almost a million deployed in 2005. More than 70% of these are land-based and the rest are sea-based. It is a well-known fact that the Philippine government has played major role in overseas employment. This is substantiated by the existence of two major government agencies, the Philippine Overseas Employment Administration (POEA) and the Overseas Workers Welfare Administration (OWWA), created to facilitate, regulate and ensure overseas employment.

Figure 1



Long-term data shows that bulk of the workers were initially sea-based and in the Middle East. By the late 1980s, the emergence of the tiger economies in Asia, shifted direction of deployment into countries like Hong Kong, Singapore and Taiwan (See Figure 1). It can be noted also that part of the shift in the direction of deployment is the shift in the occupational structure. In the early 1970s, most of the workers were production and construction workers in the Middle East. The shift to Asia was mainly due to the increase in service workers, primarily domestic help. In late 1990s to the present, the occupational structure is again shifting towards to the professionals and highly skilled workers (See Figure 2).

We can observe three occupational waves in the deployment of OFWs. These waves reveal substantial information about the nature and quality of workers and the amount they are sending. Firstly, we can observe that the pattern of deployment follows global economic development. Note that in the 1970s it was the construction boom in the Middle East and Northern Africa fueled by the petro-dollars. In the 1980s, the rising affluence of the Asian tiger economies led to the opening of domestic help and

blue collar opportunities; while in the 1990s to the present, the knowledge economy and the aging population of the developed countries called the higher educated professionals and technical workers. Second, despite the changing demand pattern towards worker quality and higher skills, the number of OFWs has grown steadily as is their remittance per worker. These clearly show the variety of skills available in the Philippines. It is apparent from Figure 2 that the reason for the increasing remittance per worker is the rising share of professionals and the relatively steady share of service workers. From approximately US\$2,000 per worker in 1988, per worker remittance has reached almost US\$11,000 in 2005 or more than 500% increase. Lastly, as observed by Burgess and Haksar (2005), this diversity of occupational structure and source has contributed greatly to the stability of remittance flows.

Figure 2

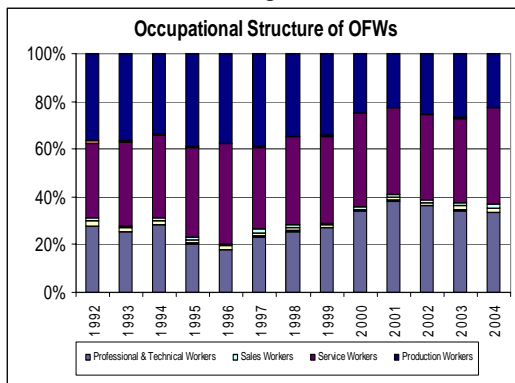
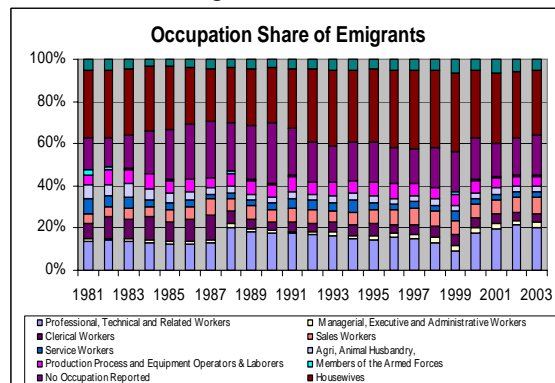


Figure 3



## b. Sources of Remittances

Another interpretation of the stability of remittance flows to the Philippines is the increasing shares of highly paid professionals to total OFW deployed. This can be explained by the bulk of remittances actually come from the Americas where a number of doctors and nurses are currently based. In addition, data on the occupational structure of Filipino emigrants or permanent migrants also register a significant share from the same group (see Figure 3). However, it is important to note that data on the sources of remittance show inconsistency. Consider Figure 4 which shows data gathered by the Bangko Sentral ng Pilipinas (BSP) and Table 1 which reveals data gathered from the Survey of Overseas Filipinos conducted by the National Statistics Office (NSO).

A reason for this inconsistency can be traced to the fact that the Central Bank records all inflows without distinction if the sending party is an OFW or an immigrant, while the NSO Survey primarily targeted OFWs. This disparity is clarified in the stock of Filipinos overseas (as of 2004) which reveals that about 40% of Filipinos abroad is permanent or immigrant status (see Table 2). Approximately 85% of these immigrants reside in the United States and Canada. This is why Mellyn (2003) cautions that data on this aspect is misleading because the Philippine diaspora is geographically and demographically complex.

Figure 4

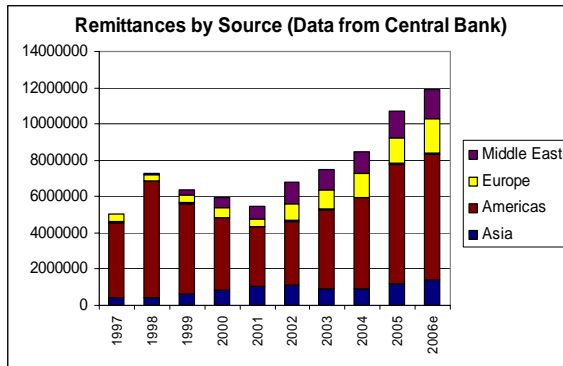


Table 1

|                | In % |
|----------------|------|
| Africa         | 2.3  |
| East Asia      | 25.2 |
| Southeast Asia | 5.1  |
| Middle East    | 37.0 |
| Australia      | 2.1  |
| Americas       | 12.8 |
| Europe         | 14.6 |

From Survey of Overseas Filipinos

Table 2

|             | <u>Permanent</u> | <u>Temporary</u> |
|-------------|------------------|------------------|
| 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%            |
| Seabased    | -                | 4.68%            |
| -----       |                  |                  |
| Percent to  |                  |                  |
| Total       | 39.40%           | 60.6%            |

Source: Commission on Filipinos Overseas

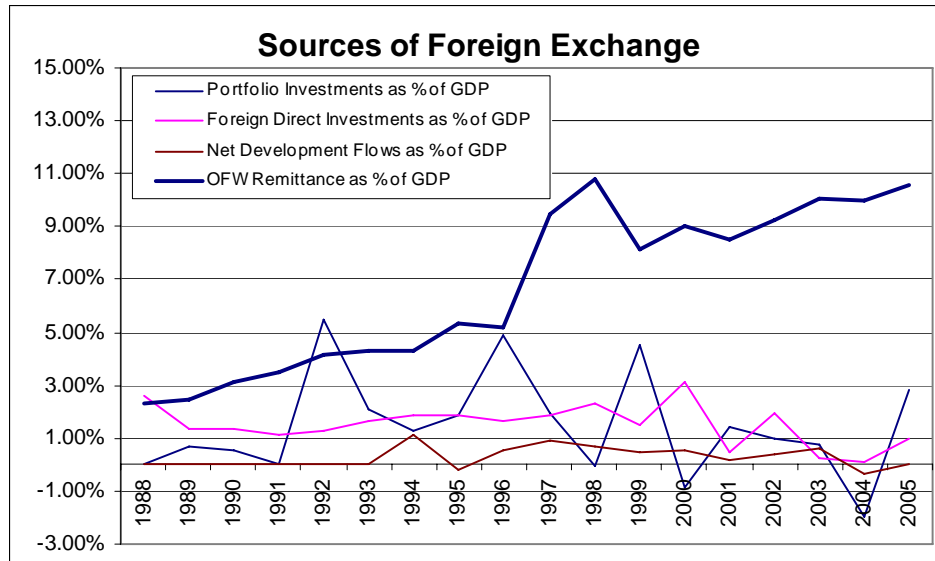
### III. Macroeconomic Impact of Remittances to Philippine Economy

Global studies on the effect of remittances to economic growth have shown mixed results. For instance, Chami et al. (2003) found that remittance have a negative effect on economic growth. Adams and Page (2005), on the other hand, found that remittances have a positive effect on poverty reduction. A recent study on the Philippines by Burgess and Haksar (2005) validated the findings of Chami that there is negative correlation between growth of remittance and economic growth.

For our purposes, we consider the impact of remittance on growth via the route of foreign exchange sources. This is important especially for developing countries saddled by “fiscal deficits, external debts, trade imbalances and few foreign direct investments” (Pernia, 2006) one of which is the Philippines. Since remittance has consistently grown within the said environment, its impact on growth can be considered substantial and it is possible that effect on the macro-economy is large. It also takes into consideration the observation that remittances serve as income-insurance policy at the macro-level because

its stream is detached from domestic sources (Taylor, 2006). Towards this end, we consider the relationship between GDP growth, remittance growth, investment growth and other sources of foreign exchange such as foreign direct investments, portfolio investments, and official development assistance (ODA) (see Figure 4).

Figure 4



We consider a model with the following specifications:

$$\Delta GDP_t = a_0 + a_1 \Delta I_t + a_2 \Delta WR_t + a_3 \Delta ODA_t + \dots + \varepsilon_t \quad (1)$$

where  $\Delta GDP$  is the real change in the economy,  $\Delta I$  is the change in gross domestic capital formation,  $\Delta WR$  is the change in workers remittances. This model basically followed the framework of Burgess and Haksar (2005) with the inclusion of variables representing sources of foreign exchange inflows. However, instead of using growth in per capita income, we simply used the real change in the economy. Using OLS regression, results show that economic growth has a positive and significant correlation with remittance growth. Details of the results are found in Appendix 1 in which we used data from 1988 to 2004. This result contradicts the findings of Burgess and Haksar though we acknowledge that there is a possibility that there exists endogeneity between the two main variables of interest. Nonetheless, this confirms the general observation that the resiliency of Philippine economic growth can be attributed partly to remittance growth. Lastly, this finding is an interesting departure from the cross-country finding that remittance has a negative correlation with economic growth. This should encourage other researchers to consider a country per country validation of the effects of remittances. We suspect that results will vary and existing generalizations may not hold true.

#### IV. Regional Impact of Remittances

The observation that remittances have been the source of economic growth in the Philippines is almost common knowledge. However, a notion exists that while this maybe true at the national level, it may not be the case across the regions in the country. It is strongly possible that ramifications differ at the national, regional and even at the local levels. Hence, among recipient countries, there is a need to clearly answer the question: “Where are the remittances going and how are they contributing to a more distributed growth?” It maybe noted that despite almost after four decades of remittance and OFW deployment, the Philippines’ poverty level remains at a high 30% as of 2003. This worsens when broken down into regions (see Table 3).

Table 3

| Region             | Poverty Incidence of Population (%) |      | Region             | Poverty Incidence of Population (%) |      |
|--------------------|-------------------------------------|------|--------------------|-------------------------------------|------|
|                    | 2000                                | 2003 |                    | 2000                                | 2003 |
| <b>PHILIPPINES</b> | 33.0                                | 30.4 |                    |                                     |      |
| <b>NCR</b>         | 7.6                                 | 7.3  | <b>Region VII</b>  | 36.2                                | 28.4 |
| <b>Region I</b>    | 35.1                                | 30.2 | <b>Region VIII</b> | 45.1                                | 43.3 |
| <b>Region II</b>   | 30.4                                | 24.5 | <b>Region IX</b>   | 44.8                                | 49.4 |
| <b>Region III</b>  | 21.4                                | 17.7 | <b>Region X</b>    | 43.8                                | 44.3 |
| <b>Region IV-A</b> | 19.1                                | 18.8 | <b>Region XI</b>   | 33.1                                | 34.4 |
| <b>Region IV-B</b> | 45.2                                | 47.9 | <b>Region XII</b>  | 46.8                                | 38.4 |
| <b>Region V</b>    | 52.6                                | 48.4 | <b>CAR</b>         | 37.6                                | 31.2 |
| <b>Region VI</b>   | 44.4                                | 39.1 | <b>ARMM</b>        | 59.8                                | 53.1 |
|                    |                                     |      | <b>Region XIII</b> | 50.9                                | 54.2 |

Source: National Statistical Coordination Board  
 NCR is the National Capital Region  
 CAR is the Cordillera Autonomous Region  
 ARMM is Autonomous Region of Muslim Mindanao

##### a. Remittance causing poverty?

Anecdotal evidences would show that despite the disparities in regional poverty, there is a common belief that remittances have multiplier effects in terms of education, health, housing, entrepreneurship, financial institution among others (Suki, 2005). Looking at some of these variables, we can establish relationships that verify or disprove such anecdotal evidences. Firstly, consider the regional breakdown of where OFWs come from. Most OFWs are from Regions I, III, IV, VI, XI and NCR. These are the regions that have lower poverty rates. This proves the point raised by Taylor (2006) that those who are migrating and working abroad are not the poor. Hence, while we can generally agree that there are multiplier effects, the data on the Philippines show that instead of leveling the regional poverty levels, it probably contributes to its worsening. In Figure 5, it can be opined that there exists an inverse relationship between regions that send OFWs and their poverty levels supporting the

hypothesis that the poor are less able to migrate (Pernia, 2006). Thus, what may be suspect as fact from this observation is that since most of the OFWs are from relatively affluent regions, they maybe worsening inequality among regions.

Similarly, data shows that the remittance sending regions are also those that have urbanized. Using data on the percentage of workforce in agriculture (Figure 6) and the number of residential building starts (Figure 7), we can generally establish two general facts, i.e., remittance has fueled the growth in housing constructions and that regions that have large agricultural workforce will not likely send OFWs abroad. The above information seem to validate the observations that remittances reinforces the problems of poverty in labor exporting countries (Rivera, 2006) and that it leads to conspicuous consumption in recipient countries such as building houses (Ballard 2003) and not in productive investments.

Figure 5

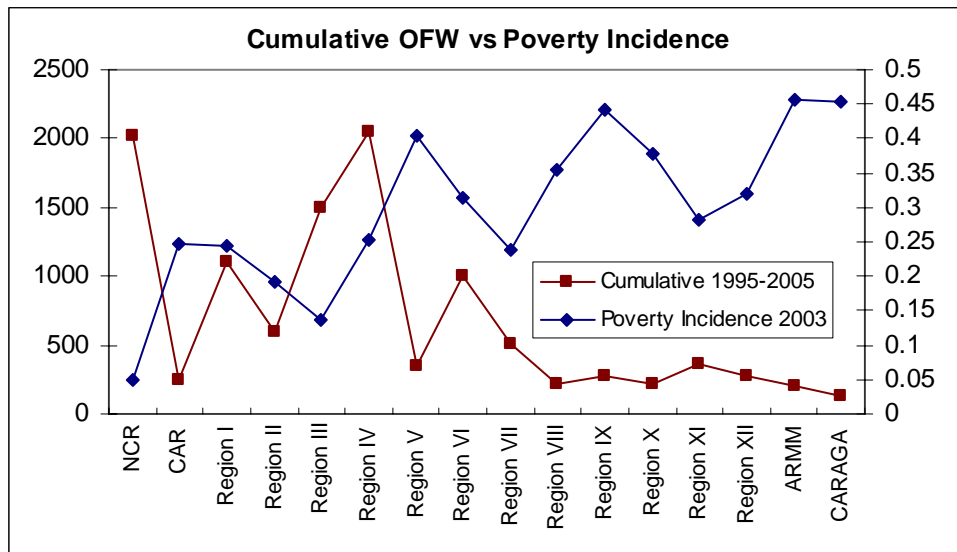


Figure 6

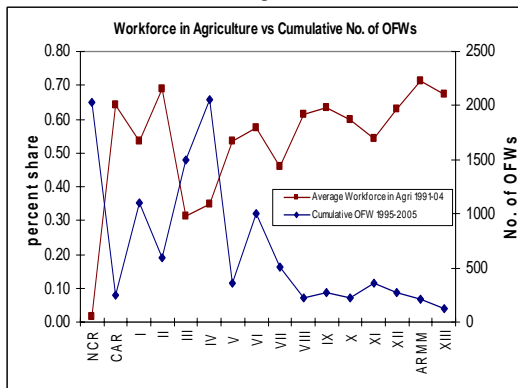
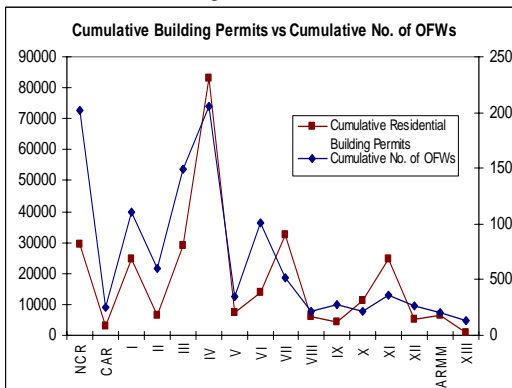


Figure 7



The above information is telling us is that based on pure correlation alone, remittance may take a longer time to reach the poorest of the poor through the multiplier effects.

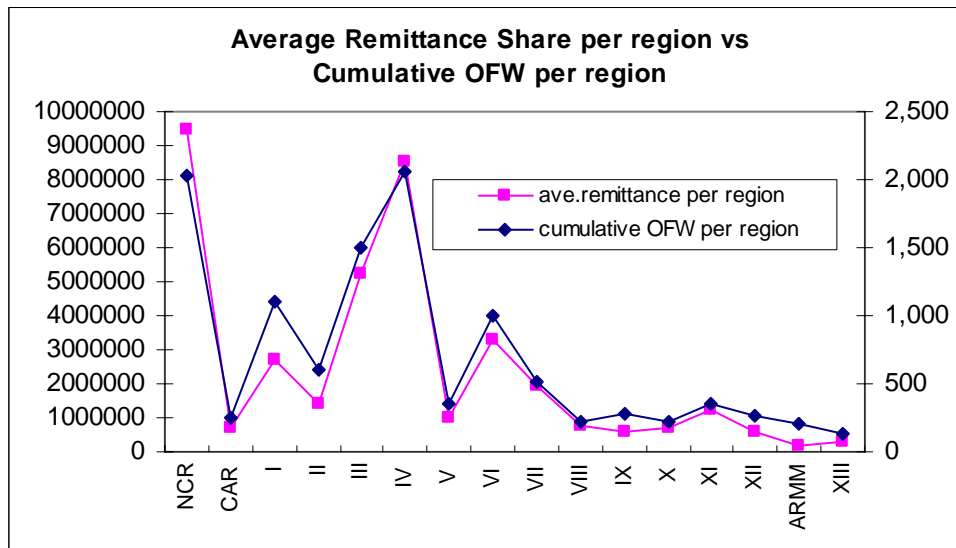


However, since remittances are private flows and they are directly received by beneficiary families, it is the how these families use their remittances that will hasten or slow down multiplication of benefits (Pernia, 2006). This is why the observation of Ballard (2003) that classifying remittances as development aid may mislead the understanding of aid, since the remitter sends it with a very specific personal purpose and not of a country-to-country character.

### b. Regional Models

In order to further verify the regional development impact of remittances, we hereto consider the common observation among analysts that it is the lack of attention to rural development that limits the translation of remittances into positive impacts to development. Along this line, we develop three models, i.e., regional labor productivity, regional percentage of labor force in agriculture and gross regional domestic product as dependent variables. Our control variables will be number of OFWs per region, number of banks per region and the participation rate per region. We used the number of OFWs per region as a proxy for the amount of remittances per region since the latter data is incomplete. Likewise, as validated by Figure 8, the number of OFWs per region and the amount of remittances per region are highly correlated.

Figure 8



We considered the number of banks per region as a measure of development. It relatively means that the formal financial channels are expanding and therefore it gives an indication that its expansion per region is being caused by increased economic activity. Moreover, the increasing number of banks represents potential access to investment capital. More importantly, the number of banks has probably risen steadily because more than 70% of remittances are now being coursed through the banking system (see Figure 9). Lastly, we consider the secondary education

participation rate per region as an indicator of the potential of the labor pool. It is also one of the basic factors for development.

Figure 9

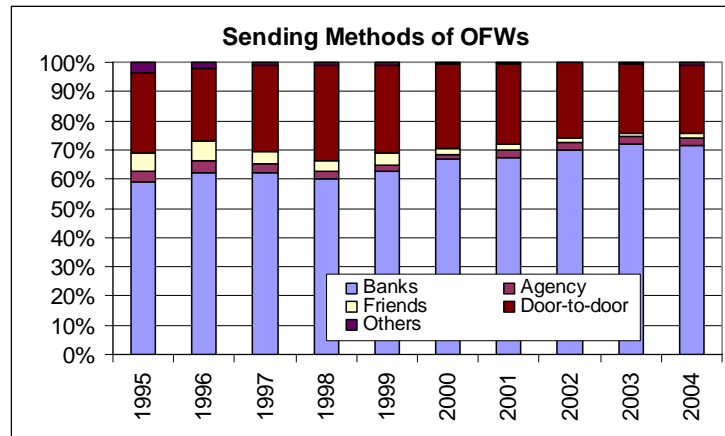
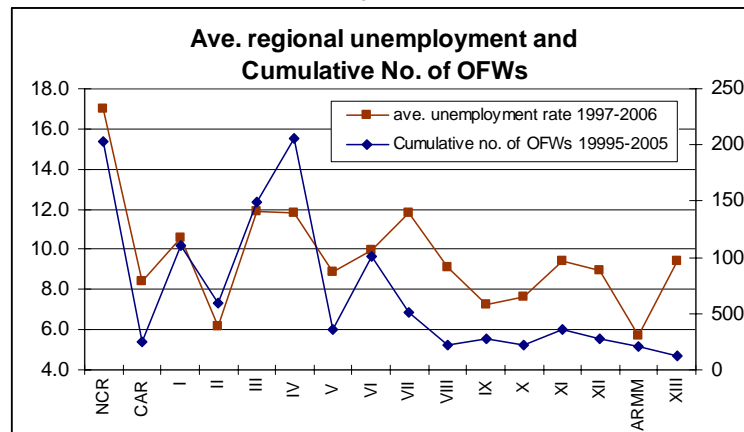


Figure 10



### b.1 Labor Productivity

In this model, we hypothesize that labor productivity has a positive relationship with the number of OFWs. This is being put forward because of the observation that the networks created by the OFWs to their home region is based on the hope that those left in the home country will be future OFWs themselves. Hence, we believe that those who are left behind will try their best so that they will be better candidates as OFWs in the future. The model is specified as follows:

$$LP_{rt} = a_0 + a_1 OFW_{rt} + a_2 Banks_{rt} + a_3 Part_{rt} + e_{rt} \quad (2)$$

Since this data set is a panel, we initially used pooled regression to find the random and the fixed effects. After which, we corrected for serial correlation using a generalized difference equation (GDE).

The random effects model show that the labor productivity is positively related to the number of OFWs per region and it is significant at the 5% level. However, using a first difference estimator for the fixed effects model, we find that all the independent variables are insignificant and their signs are inconsistent with our hypothesis.

### *b.2 Percent of Labor Force in Agriculture*

Taylor (2006) observed that “as per capita incomes grow, people leave the agricultural sector, and they move out of rural areas.” We would like to validate if such observation exists in the Philippines. In particular, the data on the percentage of the labor force in agriculture is used to represent such observation. Likewise, this data can also represent the economic structure of the regions. We can therefore test how the number of OFWs has contributed to the changing economic structure of the regions. Our hypothesis is that it this relationship is negative. The model is specified below:

$$PercAgri_{rt} = a_0 + a_1 OFW_{rt} + a_2 Banks_{rt} + a_3 Part_{rt} + e_{rt} \quad (3)$$

Both the random and fixed effects models yielded insignificant results. However, both models confirmed our hypothesis that there is an inverse relationship between the percent of labor force in agriculture and the number of OFWs per region, number of banks per region and educational participation rate.

### *b.3 Gross Regional Domestic Product*

This follows the specification of Pernia (2006) in which he considers the effect of OFW remittances on regional development. The difference is our use of number of OFWs instead of the amount of remittances. Similarly, our hypothesis is that the number of OFWs contributes positively to regional development.

We specify the model as:

$$GRDP_{rt} = a_0 + a_1 OFW_{rt} + a_2 Banks_{rt} + a_3 Part_{rt} + e_{rt} \quad (4)$$

Both the random effects and fixed effect models show that the number of OFWs has no significant impact on GRDP across regions, though its sign is consistent with our hypothesis that the relationship is positive. .

The details of the above results are summarized in Appendix 2, a to c.

## V. Summary and Conclusions

We have attempted to show the relationship between workers remittance and economic growth at the national and at the regional levels. Firstly, we must caution that there is lack of consistent data sets on the regions, particularly as regards levels and amounts of remittances. There is also a need to consider that possible actual amounts of remittances sent are far more than what is being reported in the official channels. Notwithstanding these limitations, we find that at the national level, remittances do influence economic growth positively and significantly. Later, we broke down our analysis at the regional level to confirm the national results. Here we find mixed results giving rise to our anecdotal observations that remittances do not positively affect economic growth. Though our findings are far from being conclusive, they give us indications that there is a need to further study and understand how remittances can be harnessed for development purposes.

These results generally confirm the observations of Taylor (2006) and Ballard (2003) that while remittance may contribute to economic growth, there is a need for correct policies and nurturing environment for it to be an effective engine of development. Taylor (2006) also adds that the same problems of basic infrastructure, access to credit and other underdevelopment concerns remain. They undoubtedly stymie efforts towards entrepreneurship. We confirm these observations to be generally true in the Philippines through the data correlation and the simple regression analysis we conducted.

Considering the arguments of Ballard (2003) on the entrepreneurial network of South Asian migration, this does not jive with the Philippine experience. From common knowledge, most of the OFWs that leave spent the 1<sup>st</sup> contract repaying debts and may actually start saving only after the 3<sup>rd</sup> contract is consummated. It is not farfetched that remittances have not really created and impacted small enterprise development. Though, there is enough capital available for that, the question lies in the entrepreneurial culture of the Filipinos. Data from the Department of Trade shows that during the period 2000-2003, the growth of small enterprises in the Philippines was flat. It is also observed that if OFWs do invest in small enterprises, they do invest in what seems to be an entrepreneurial fad in the Philippines called franchising. They are mostly seen in malls as food cart business. In addition, our econometric findings on labor productivity and the number of laborers in agriculture generally point to the weak link of remittances with that of entrepreneurs.

These observations also connect with the point of Ballard (2003) that remittances are causing sharp declines in agriculture production because they become unprofitable. This is what Ballard calls “Capital-rich, underdevelopment.” It seems that labor would rather wait for the opportunity to be an OFW than work in the farms. This is what seems to be the positive relationship between remittances and national and regional unemployment rates (see Figure 10).

What may be more worrisome is that if this trend remains unchecked, they will lead to the urban higher income members of society enjoying the benefits from the hard work sent remittance of the lower income majority. This is not farfetched as the main indicator of local development in the Philippines is the existence of an SM or a Robinson's mall. These mall developers are mainly located in the regions where there are large concentrations of OFWs.

In sum, we find that remittances have yet to be translated to value-added activities and investments which are more foundational sources of development and growth. Hence the expected multiplier effects even from consumer activities remain slow and unable to reach areas that need them the most.

As long as policy initiatives remain as they are, OFWs will continue to be limited in transforming their communities and regions. Their remittances will remain as records that help keep afloat the national government. In the final analysis, government has to pursue reforms that will help improve the domestic economy regardless of the source of investments. These reforms will surely help in creating new jobs and that are crucial in sustaining growth and reducing poverty and inequality among regions.

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Appendix 1. Change in Gross Domestic Product (OLS estimate)

Dependent Variable: Real GDP growth

|                             |                    |
|-----------------------------|--------------------|
| Constant                    | 9.864<br>(4.662)   |
| Remittance Growth           | 8.346**<br>(2.152) |
| Portfolio Investment Growth | -0.033<br>(-0.632) |
| FDI Growth                  | 0.286<br>(0.239)   |
| Investment Growth           | 2.052<br>(0.161)   |
| R Square                    | 0.902              |

t statistics in parenthesis, \*\* significant at 5%

Appendix 2a

| Model 1: Labor Productivity  | Random Effects        | Fixed Effects        |
|------------------------------|-----------------------|----------------------|
| Constant                     | 2.785**<br>(13.909)   | 0.294<br>(2.117)     |
| Number of OFW                | 1.933**<br>(17.545)   | -0.013<br>(-1.153)   |
| Number of Banks              | -1.461**<br>(-10.813) | -0.016**<br>(-3.176) |
| Secondary Participation Rate | 0.395**<br>(7.759)    | 0.000<br>(-0.068)    |
| R Square                     | 0.845                 | 0.102                |

Appendix 2b

Model 2: Percent of Employment in  
Agriculture

|                              | Random Effects       | Fixed Effects      |
|------------------------------|----------------------|--------------------|
| Constant                     | 0.353**<br>(13.764)  | -0.007<br>(-0.651) |
| Number of OFW                | -0.000<br>(-0.538)   | -0.000<br>(-0.923) |
| Number of Banks              | -0.000**<br>(-4.534) | -0.000<br>(-0.589) |
| Secondary Participation Rate | 0.000<br>(0.097)     | 0.008<br>(1.416)   |
| R Square                     | 0.499                | 0.05               |

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Appendix 2c

Model 2: GRDP

|                              | Random Effects        | Fixed Effects         |
|------------------------------|-----------------------|-----------------------|
| Constant                     | 2102.547<br>(1.925)   | 1360.157**<br>(2.342) |
| Number of OFW                | 10.005<br>(0.241)     | 72.522<br>(1.508)     |
| Number of Banks              | 116.901**<br>(27.244) | 54.754**<br>(3.201)   |
| Secondary Participation Rate | -15.037<br>(-0.336)   | 20.520<br>(0.703)     |
| R Square                     | 0.974                 | 0.12                  |