

# Trend and Volatility Analysis of the Per Capita Remittances of OFW'S Across Various Continents

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## Abstract

The study analyzed the trends and volatility of the cash remittances of the overseas Filipino workers in the past decade. Simple trend and volatility inference in time series analysis was performed. Results revealed that: aggregate cash remittances by the OFW's are increasing over time and remains relatively stable. However, per capita cash remittances of the migrant Filipino workers are declining in many countries which used to be the reliable sources of OFW cash remittances. Many Filipino migrant workers are "underemployed" because of the competition for jobs by other nationals. Implications of the findings to Philippine higher education and training are explored in the paper considering the serious "underemployment" uncovered in this study.

Keywords: trend analysis, volatility analysis, overseas workers, higher education

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## 1. INTRODUCTION

Hailed as heroes of the new generation, the overseas Filipino Workers (OFW) contributes a hefty \$14.0 billion dollars to the national economy (NEDA, 2012). Yet recent events have demonstrated the volatility of this national resource with conflicts arising in the Middle East, economic recession in the United States, and piracy in Africa. This paper aims to explore the trend and volatility of the remittances of land-based and sea-based OFW's across continents over the last decade with the end-in-view of providing policy safety nets for these overseas workers.

The number of Overseas Filipino Workers (OFW) has increased from 638,343 in the 1998's to 810,991 in 2007 (POEA, 2008) with a corresponding rise in dollar remittance of \$4,922,349 in 1998 to \$12,213,565 in 2007. Since their number have increased, the hard realities of the difficulties and dangers faced by our overseas workers are often ignored. In fact, while a significant number of our OFW's have

returned to the Philippines for fear of their lives in some conflicts areas, an equally significant number of Filipinos sought jobs elsewhere in the world. Favorite places for greener pastures include the United States, Canada and European countries where currencies have higher peso values and where the work conditions are perceived to be favorable and pleasant. Towards the form of the century, specifically in the late 1990's, economic recession suddenly halted the exodus to these places. Political as well as socio-economic conditions of the various work destinations of Filipino overseas workers served to drive the volatility of their dollar remittances.

The implication of an unstable revenue source on the growth targets and national economic planning are far-reaching. It is of course, far more difficult to set out long term development goals given that OFW remittances could be highly volatile and fluctuating. More disturbing, however, is the fact that in some instances the volatility of the remittances are

accompanied by downward trends.

An analysis based on sheer value of OFW remittances will tend to obscure some social-economic phenomena that are operant under the situation. For instance, while remittances may actually show an upward trend, it is quite probable that the per capita remittances are in a downward shift. The implication is that more and more Overseas Filipino Workers are accepting lower pays abroad than what they used to receive. If this were the case, then several key questions on the value of education and training of our Filipino workers can be raised.

This paper attempts to explore the phenomena.

## 2. DATA and DATA SOURCE

Data for cash remittances and overseas deployment of Filipino workers were obtained from the Philippine Overseas Employment Administration (POEA) covering the years 1998 to 2008 as posted by the agency on their official website. The data were likewise validated by cross-referencing with the database of the National Economic Development Authority (NEDA).

## 3. RESULTS

The remittances of the land-based OFW from 1998 to 2007 are provided in Table 1 across various continents. The corresponding trend analysis is displayed in Figures 1-4:

**Table 1. Land based OFW remittances**

Year	Continents						
	Asia	America	Oceania	Europe	Middle East	Africa	Others
1998	401419	4001587	13512	329317	60682	506	115326
1999	645566	4920687	87336	457671	263004	1898	418388
2000	831779	4000022	21360	534675	594198	4450	63966
2001	1049551	3300327	21188	406194	711918	3600	538493
2002	1116336	3537768	34793	889094	1242809	3959	61397
2003	828743	3237101	44217	947515	1161755	11285	49619
2004	823224	3821533	40185	1127317	1227099	3387	42696
2005	1060723	5213221	50662	1280501	1409286	4367	887
2006	1217547	6034926	81692	1570421	1896690	9923	819
2007	1273024	6844536	114242	1807238	2158784	14895	846

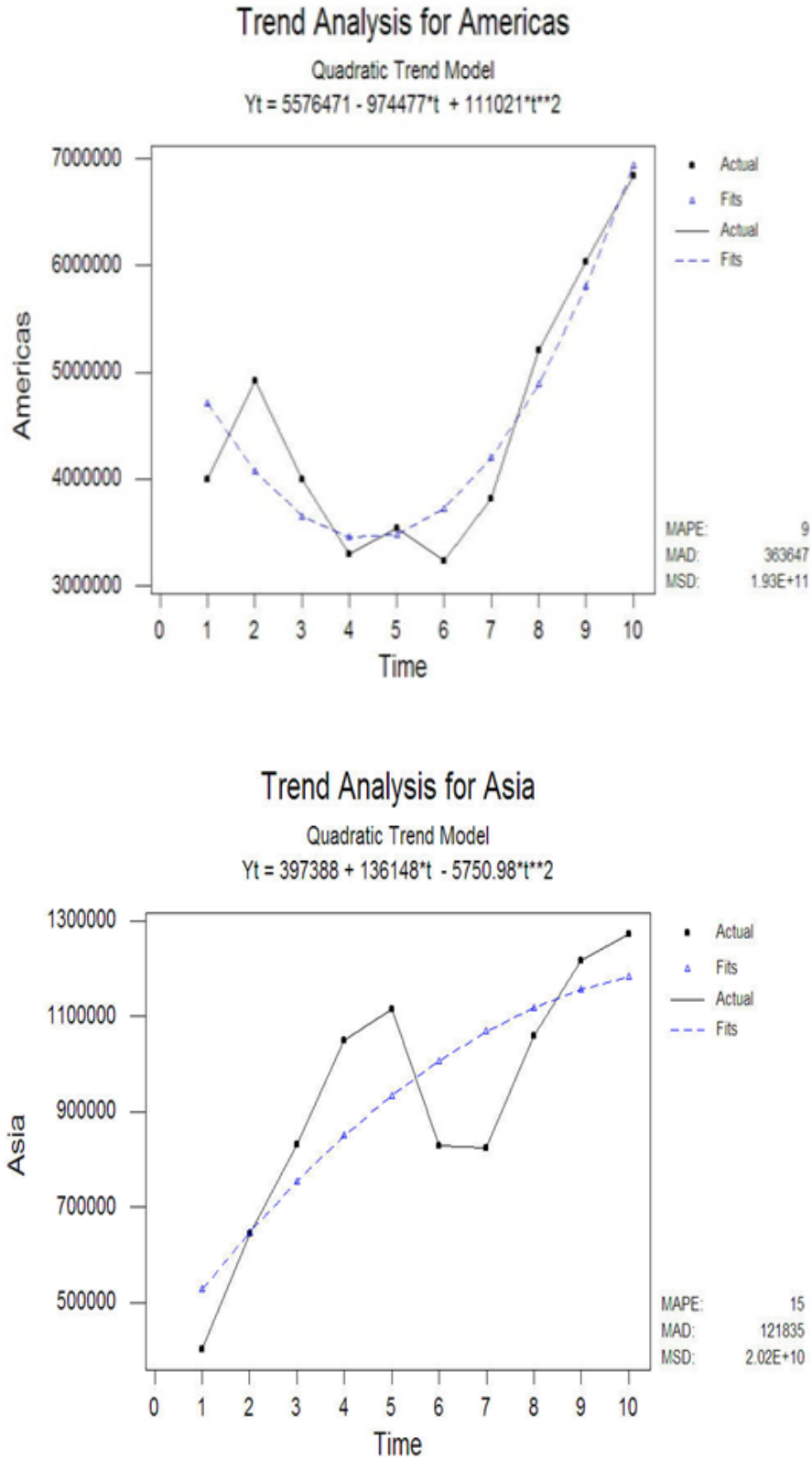


Figure 1. Trend analysis of land based OFW remittances in Asia and America

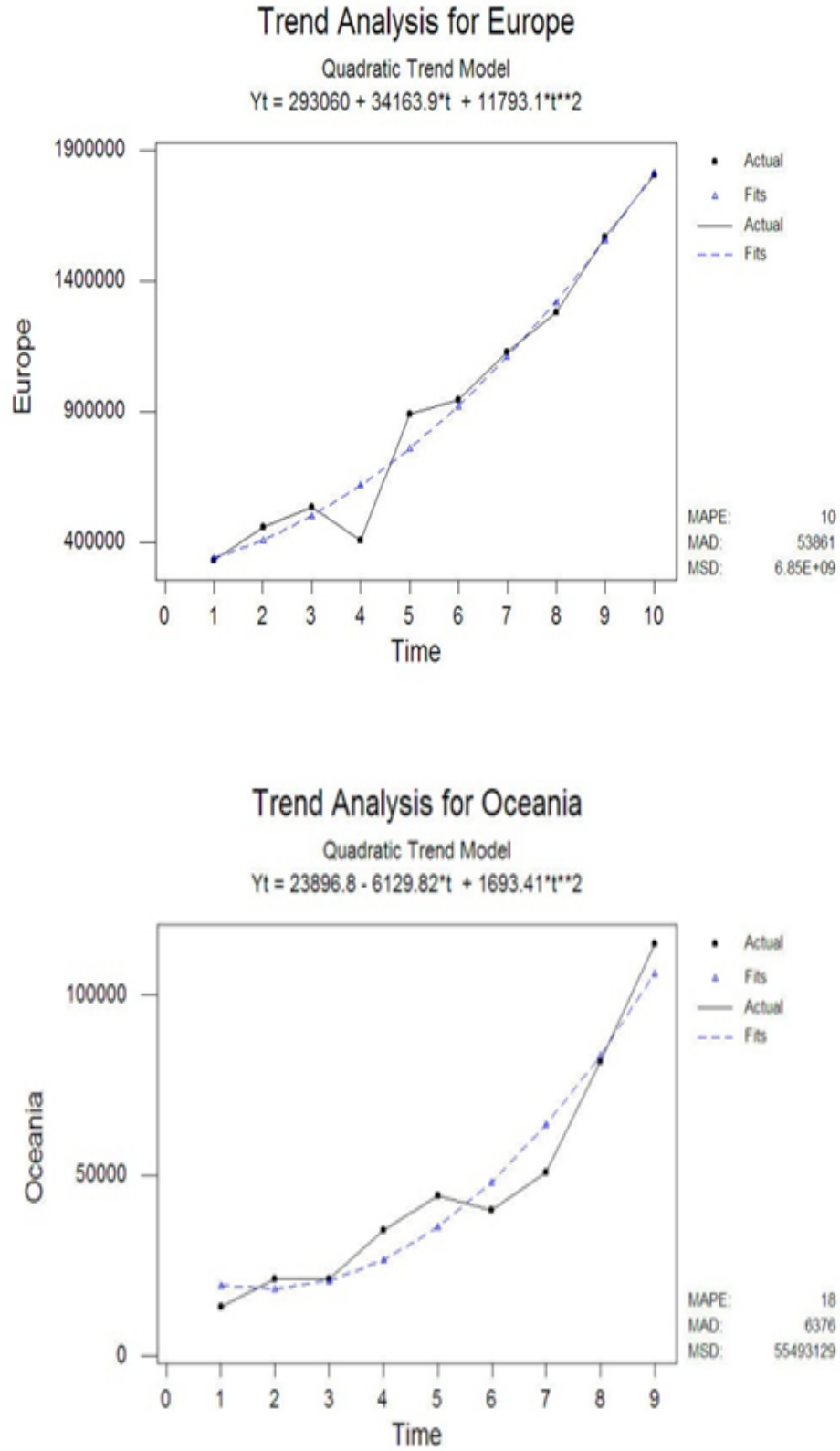


Figure 2. Trend analysis of land based OFW remittances in Europe and Oceania

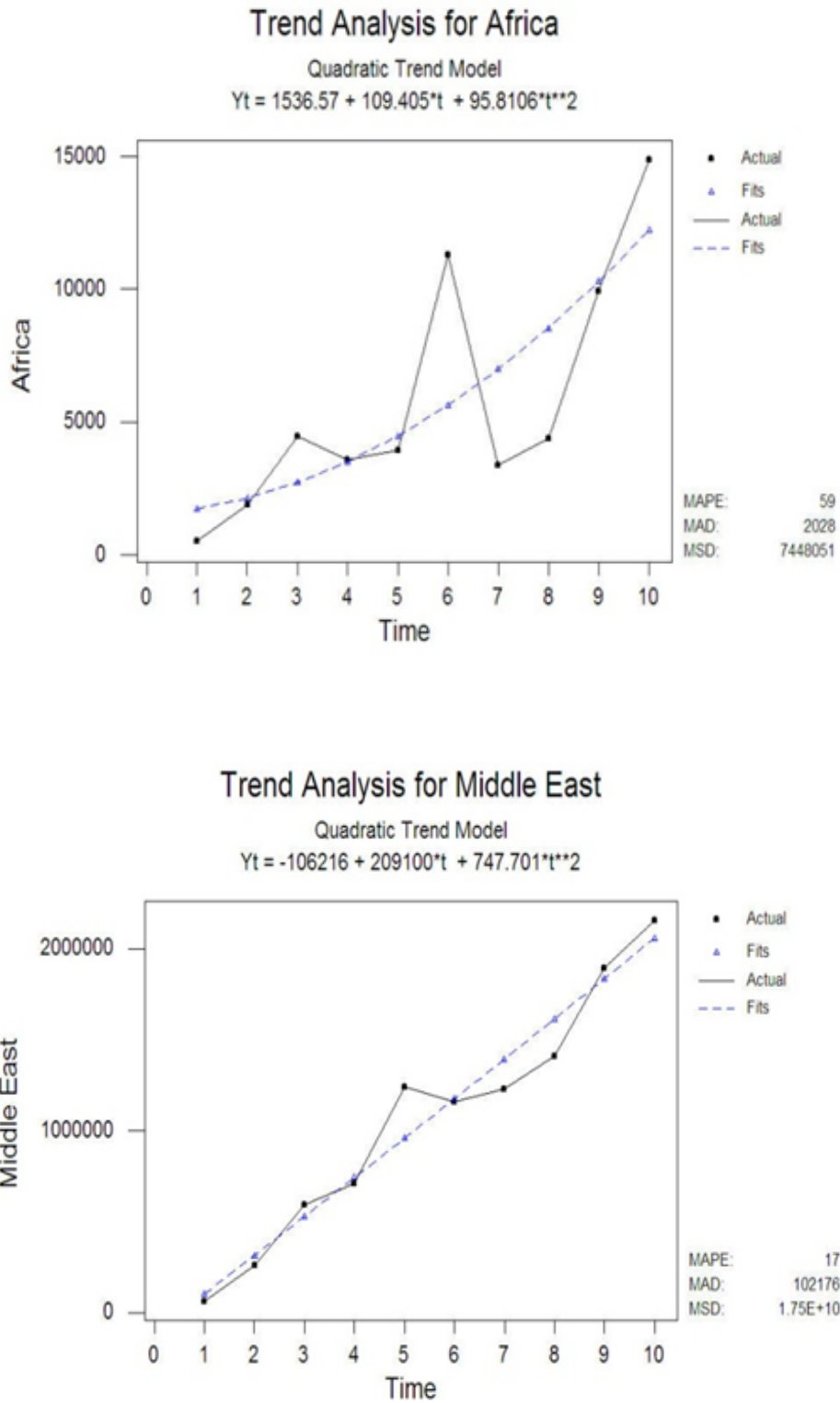


Figure 3. Trend analysis of land based OFW remittances in Africa and Middle East

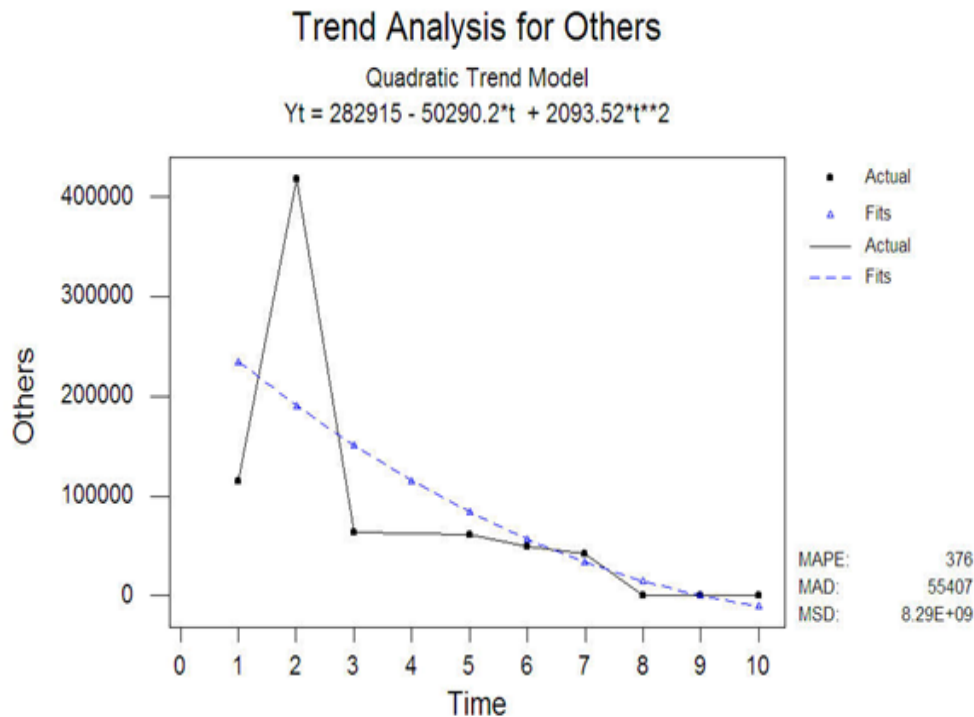


Figure 4. Trend analysis of land based OFW remittances for other countries

All cash remittances by OFW's show an upward polynomial trend except in the cases of OFW's deployed in continents other than America, Asia, Africa, Middle East and Oceania. For these countries (labeled others), the cash remittances show a definite downward trend.

In terms of volatility of cash remittances, the most volatile or unpredictable are those emanating from Others (R-squared = 49%). Remittances from Africa, Europe, and Oceania are quite stable (R-squared over 95%) while those from Asia and America are moderately stable (R-squared over 85%).

### Per Capita Remittance

Figures 5-8 show the per capita remittance trends over the various continents by the OFW's.

Trend analysis revealed that while the cash remittances generally obeyed an upward

polynomial trend, per capita remittances in America, Oceania and Others reflect a downward trend. This means individual OFW contributions in these countries have significantly dipped over the last five years. There are two possible reasons of the observed downward trends for the per capita remittances of OFW's in these countries: (a) the remunerations of OFW's in these countries have lowered, or (b) more OFW's went to these countries but the total aggregate remittances remained constant.

Volatility of per capita remittances of the OFW's are seen to be high in Africa, Oceania and America with the highest volatility ratings noted for Oceania and America. This means that individual remittances of OFW's in these three continents are very unstable while those from the Middle East and Europe remained relatively stable (larger and significant R-squared values).

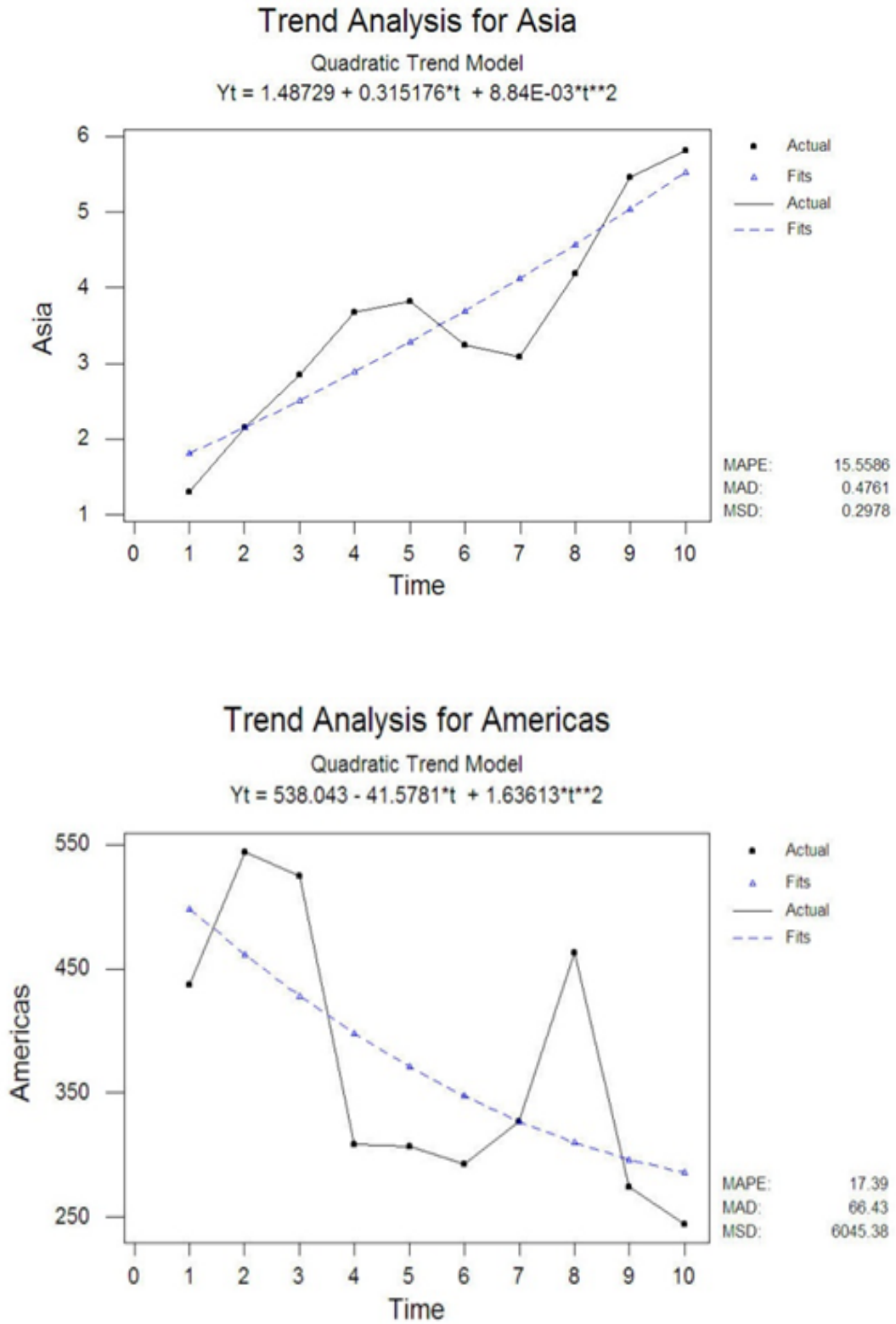


Figure 5. Trend analysis of per capita remittances of the OFW in Asia and America

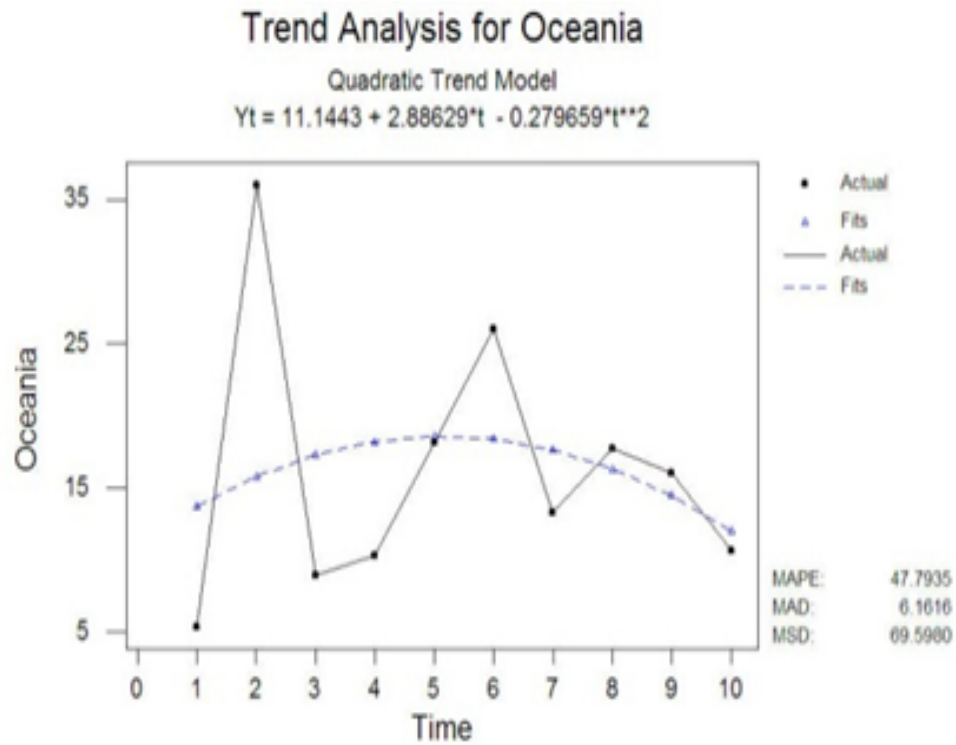
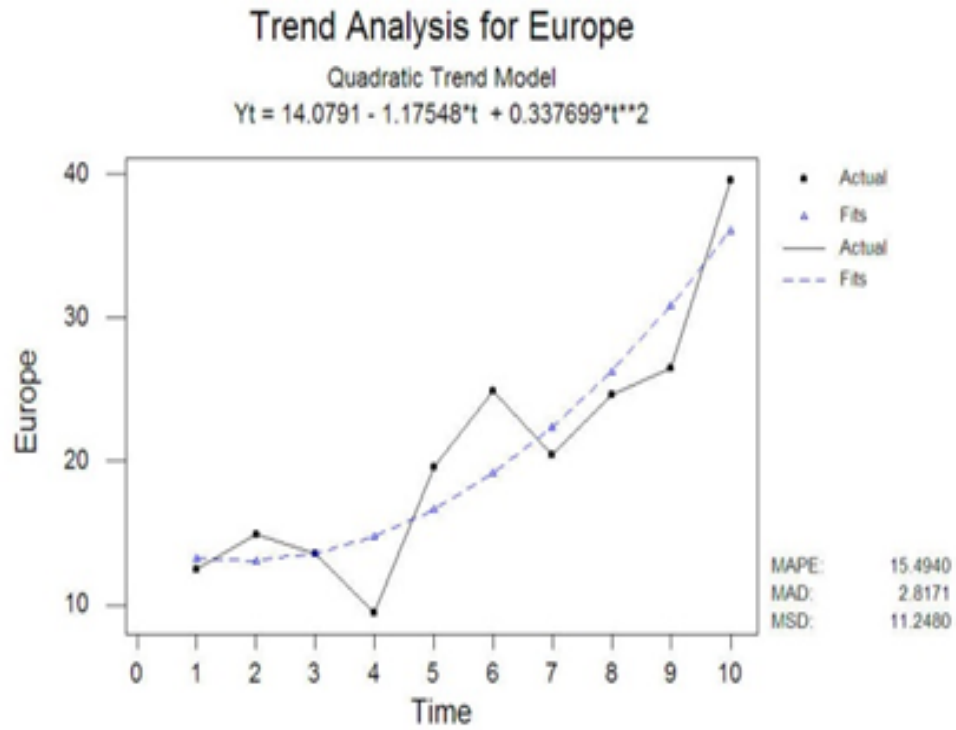


Figure 6. Trend analysis of per capita remittances of the OFW in Europe and Oceania



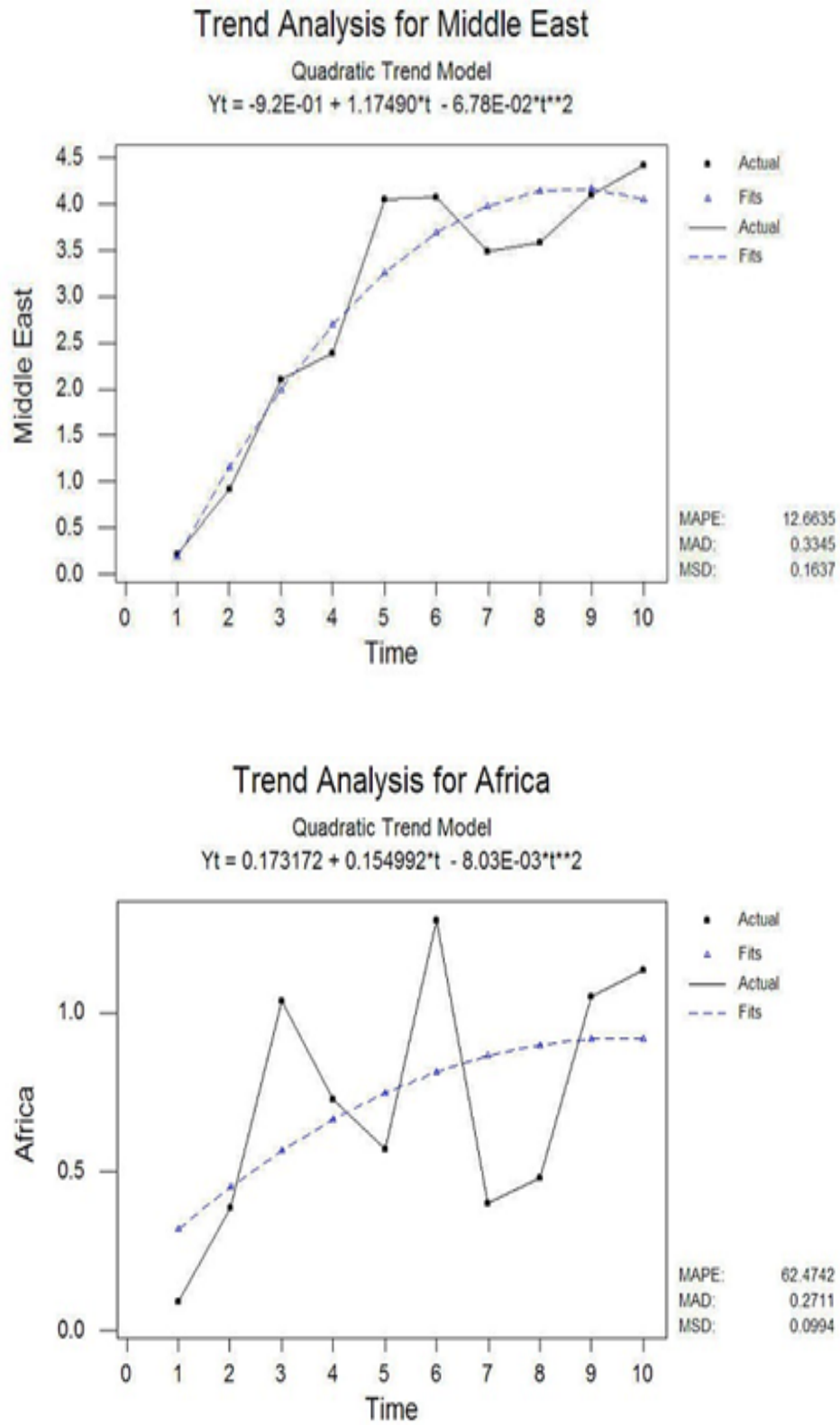


Figure 7. Trend analysis of per capita remittances of the OFW in Middle East and Africa

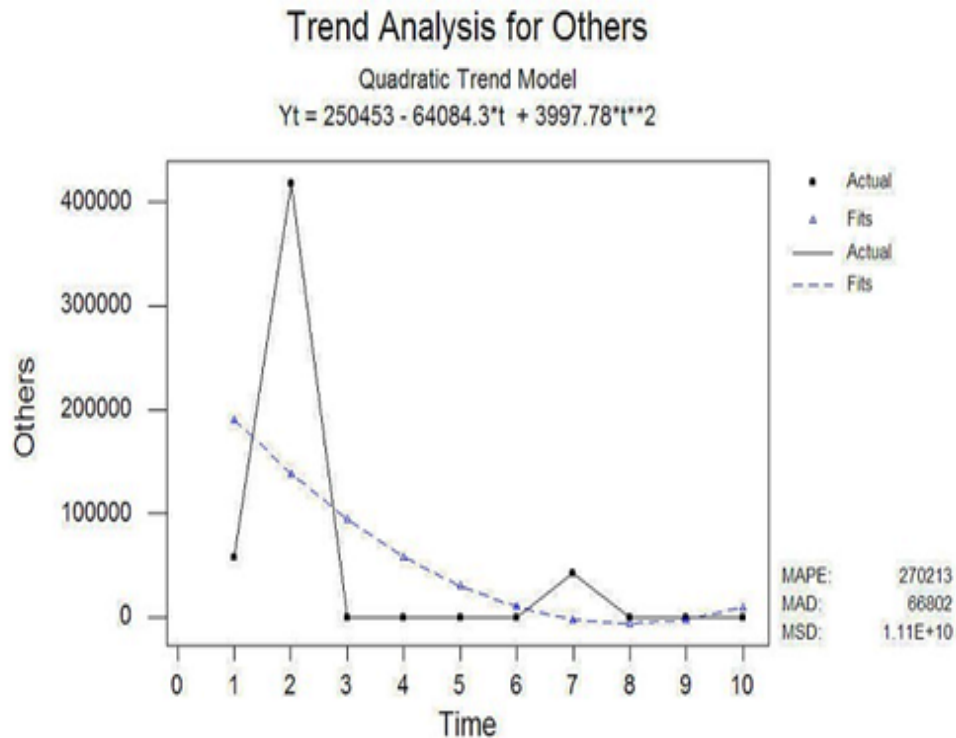


Figure 8. Trend analysis of per capita remittances of the OFW in other countries

#### 4. DISCUSSIONS

Aggregate cash remittances of OFW's across the various continents, generally, showed an upward polynomial trend remaining stable while increasing over the years with the exception of Oceania and Others. This is certainly re-assuring in so far as national economic planning is concerned because of the relative certainty of OFW remittances.

However, it is disturbing to find that the per capita remittances of OFW's showed a declining pattern particularly in America, Africa and Oceania. While the number of OFW's going to these places continue to increase, their individual remittances to the Philippine Government have been declining. This means that many of the professionals who go to these places to work are accepting remunerations less than what they used to receive (e.g. teachers getting jobs as domestic helpers; nurses getting jobs as nannies; engineers employed in hotels as

bellboys and others). The competition for job places afforded by other nationals (e.g. Indian, Chinese and others) is seen as a precipitating factor that forces many professional OFW's to take what they can get.

The implications of the findings to higher education are numerous. First, there is a need to reform higher education and training in the country if we are to compete globally. Outcomes-based or competency-based higher education is demanded by the international job market. Certifications for professional practice in other countries are often required of Filipino migrant workers. Second, there is a need to match higher education program offerings with what is demanded by the international labor market.

#### 5. CONCLUSION

Aggregate cash remittances by the OFW's

are increasing over time and remain relatively stable. However, per capita cash remittances of the migrant Filipino workers are declining in many countries which used to be the reliable sources of OFW cash remittances. Many Filipino migrant workers are “underemployed” because of the competition for jobs by other nationals.

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