

THE DETERMINANTS OF OVERSEAS FILIPINOS' REMITTANCES: SOME PRELIMINARY FINDINGS

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This paper is ...

- the 1st half of the 1st part of a two-part study

Part 1: motivations behind remittances

- if labor income is exogenous
- if labor income is endogenous

Part 2: consequences of remittances

- for consumption expenditures
- for investment outlays
- for household welfare

Outline of presentation



- Economic significance of remittance inflows
- Motivations behind remittances
 - ▣ Who sends, when, how much, and why?
- Data set, variables, specifications
- Findings

Economic significance of remittances



- large marginal value, given recipient-countries' economic circumstances
 - ▣ high poverty and inequality (of incomes and opportunities)
 - ▣ high income volatility and low saving rates vs. liquidity and credit constraints
 - ▣ endemic market imperfections, especially in credit and insurance markets

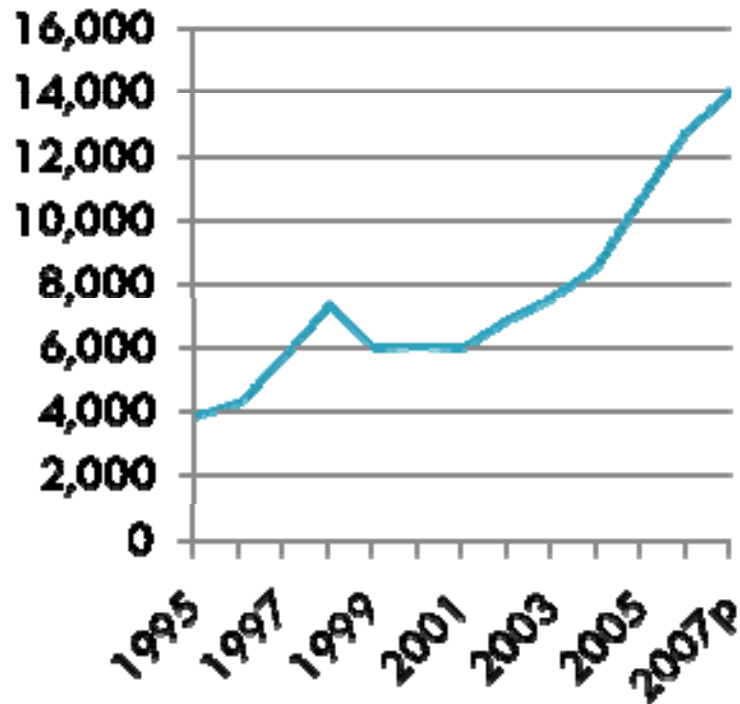
Economic significance of remittances



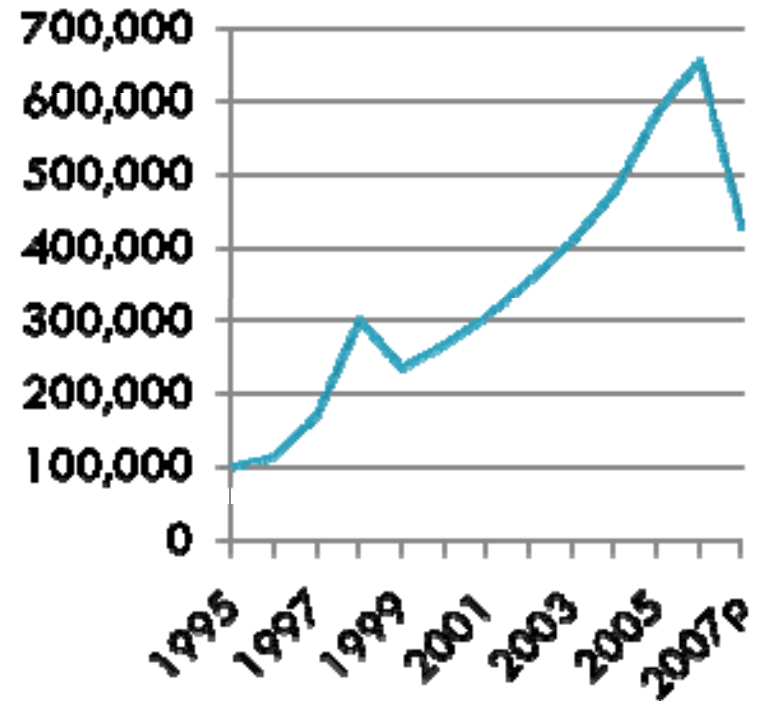
- a resource for recipient-households
 - 22.1% of households received transfers from abroad (FIES, 2003)
- a major source of foreign exchange

Remittance inflows, 1995–2007

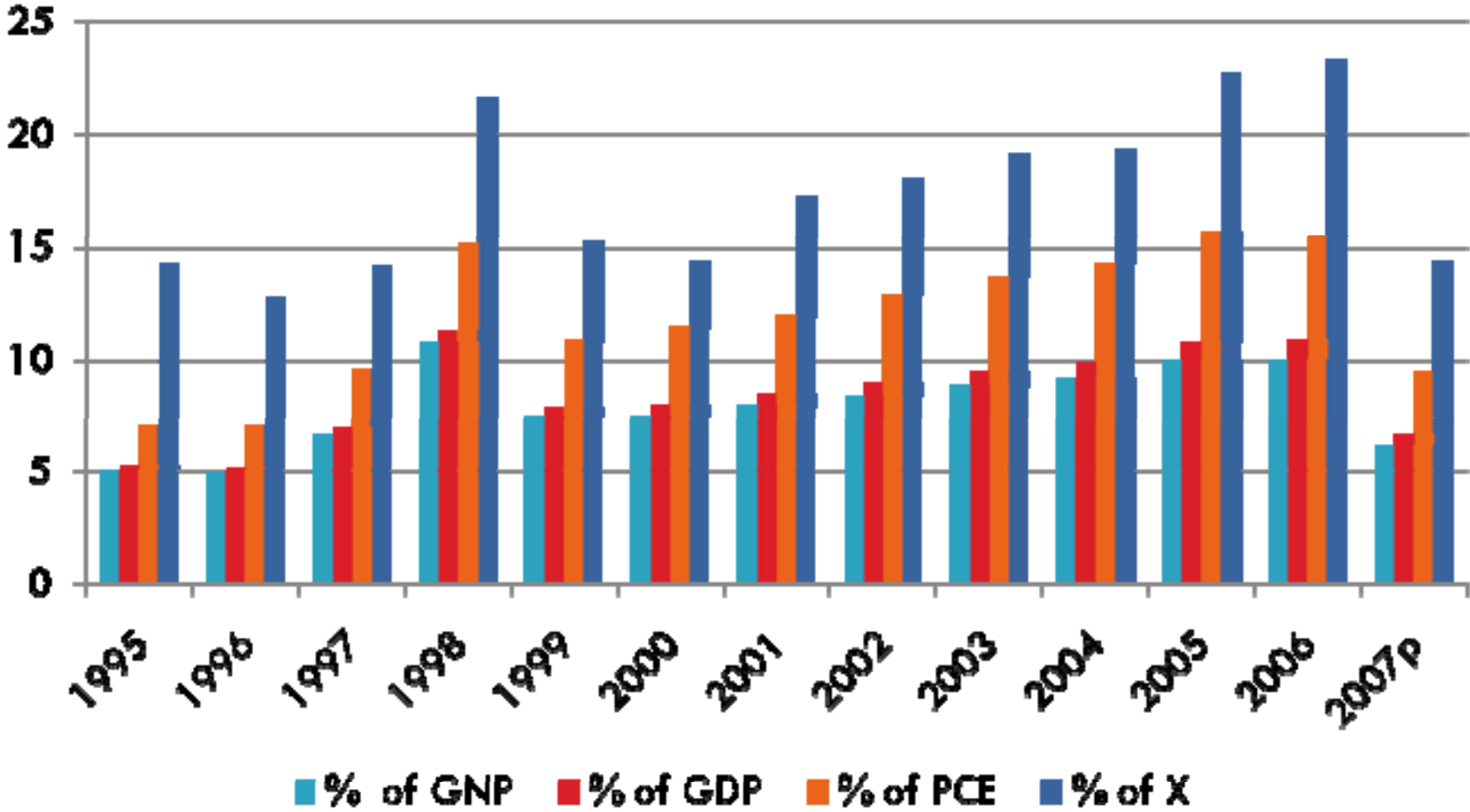
Transfers through banks (in US\$1,000,000, nominal terms)



Transfers through banks (in PhP1,000,000, nominal terms)



Remittances vs. GNP, GDP, PCE, X



Motive 1: Altruism

- Mutual care between OW and HH
- OW transfers to HH increase as
 - ▣ OW's income increases
 - ▣ OW's degree of concern for HH increases
 - ▣ HH's income/resources decrease
 - ▣ HH's degree of concern for OW decreases
- Main testable hypotheses
 - ▣ When HH resources increase, OW transfers do not increase.
 - ▣ A \$1 increase in OW's income and a \$1 decrease in HH resources increases OW transfers by exactly \$1.

Motive 2: Exchange

- Transfers-for-services
- OW transfers to HH
 - ▣ increase as services contracted increase
 - ▣ react ambiguously to increases in HH's pre-transfer income
 - ▣ decrease as economic conditions in home country worsen
- Other issues
 - ▣ HH income may have different effects on the likelihood and amount of remittances (vs. altruism).
 - ▣ Public transfers may increase remittances (vs. altruism).

Motive 3: Strategic

- To keep wages in destination countries from falling, less skilled workers are prevented from seeking overseas employment.
 - ▣ Remittances are “bribes” to less skilled workers and overseas employment “police.”
- Incredible, but ...
- Cited as reason for high productivity reputation of Filipino nurses and of government control of overseas employment in the Philippines.
- Not testable in a household framework.

Motive 4: Insurance

- HH insures against income volatility by diversifying its labor portfolio.
 - ▣ The premium consists of the HH's share of migration costs.
 - ▣ Remittances represent OW repayments to the HH.
 - ▣ Because insured, HH members may no longer work (moral hazard and dependency).
- The likelihood of OW remittances
 - ▣ increases with HH income volatility
 - ▣ increases the more risky assets are owned by the HH
- The likelihood and amount of OW remittances
 - ▣ are not affected by the OW's distance and time away from the HH
 - ▣ are not affected by the number of OW HH members

Motive 5: Investment



- HH invests in the education and migration of members to increase income (not reduce income volatility).
 - ▣ Remittances represent dividends of these human capital investments.
- The amount of remittances has an inverse U-shaped relationship with HH income.

Motive 6: Inheritance

- Bequests as HH enforcement mechanism of the insurance or investment contract
- The likelihood of remittances
 - ▣ first increases then decreases as the number of other migrant-worker HH members increases
- The amount of remittances
 - ▣ increases with HH assets and income
 - ▣ increases with probability of inheriting
 - ▣ increases with OW's wealth and income
 - ▣ decreases with OW's degree of risk aversion

Data sets



- 2003 Survey of Overseas Filipinos
- merged with the 2003 Family Income and Expenditures Survey
- Estimation problem
 - ▣ Only 2888 observations
 - Too many strata with one PSU cases
 - precluded design-consistent estimation methods
 - ▣ Solution: regard the sample as drawn from an unknown distribution and apply bootstrap methods

Variables

- Dependent variables
 - ▣ Remittance indicator
 - ▣ Amount of remittance
- Explanatory variables
 - ▣ Characteristics of OW
 - Relation to HH head
 - Gender
 - Marital status
 - Age
 - Educational attainment
- Explanatory variables (continued)
 - Work experience abroad
 - Time away from home
 - Type of visa
 - Occupation in host country
 - ▣ Location and living standard of host country

Variables



- Explanatory variables
 - ▣ Characteristics of HH of origin
 - Labor income (endogenous?)
 - Asset income
 - Number of other overseas-worker HH members
 - Characteristics of HH head
 - Gender
 - Age
 - Age composition of remaining HH members
 - Location of HH residence

Empirical models

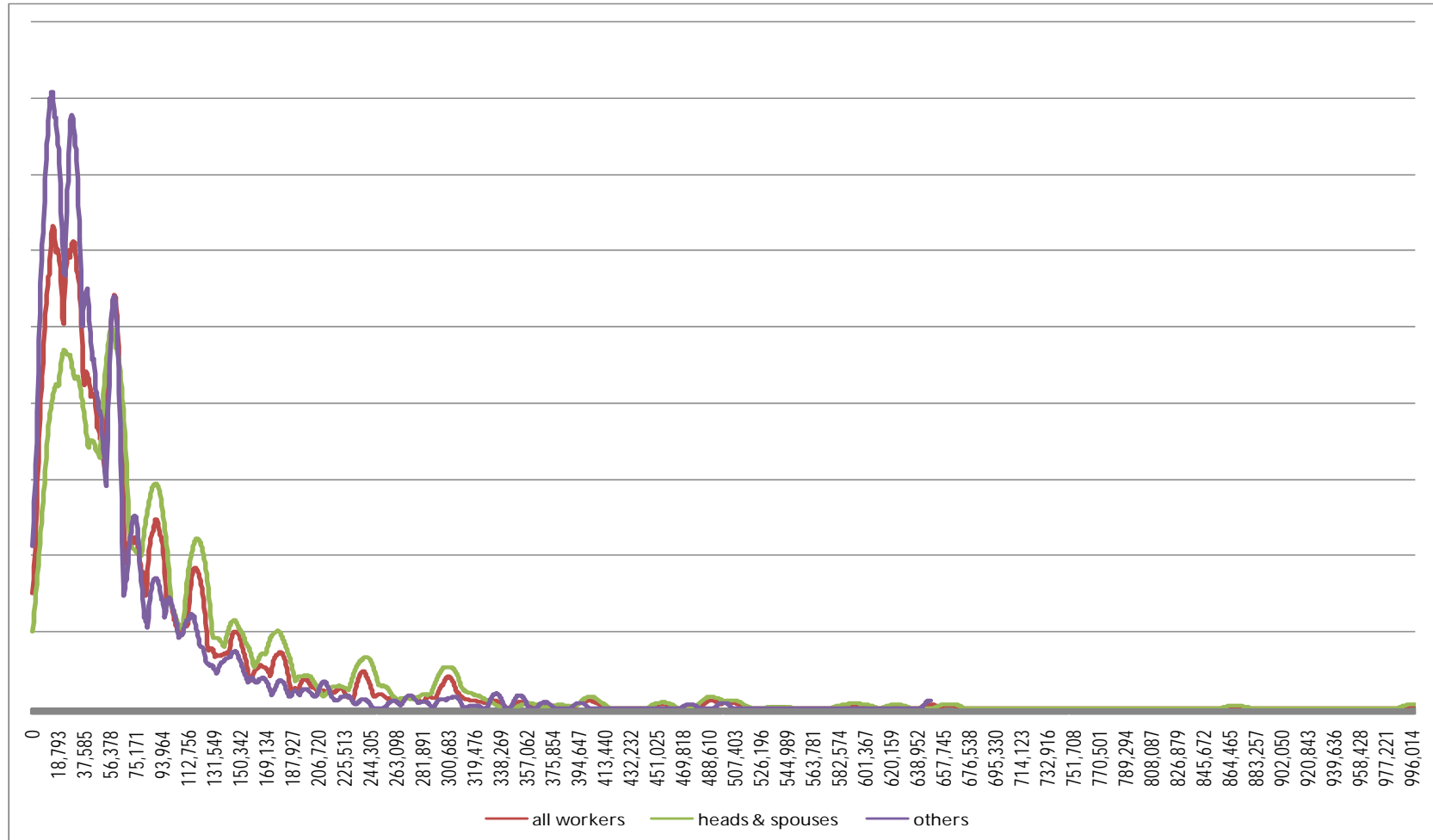
- Probit model to estimate likelihood of remittances
- OLS to estimate $\ln(\text{amount of remittances})$
 - ▣ does not control for possible endogenous selectivity
- Tobit model to estimate both likelihood of remittances and $\ln(\text{amount of remittances})$
 - ▣ constrains coefficients in two equations to be equal
- Heckman's selectivity model
 - ▣ controls for endogenous selectivity without coefficient restrictions
 - ▣ but goodness of results depends on error of selection equation having a standard normal distribution

Other estimation issues

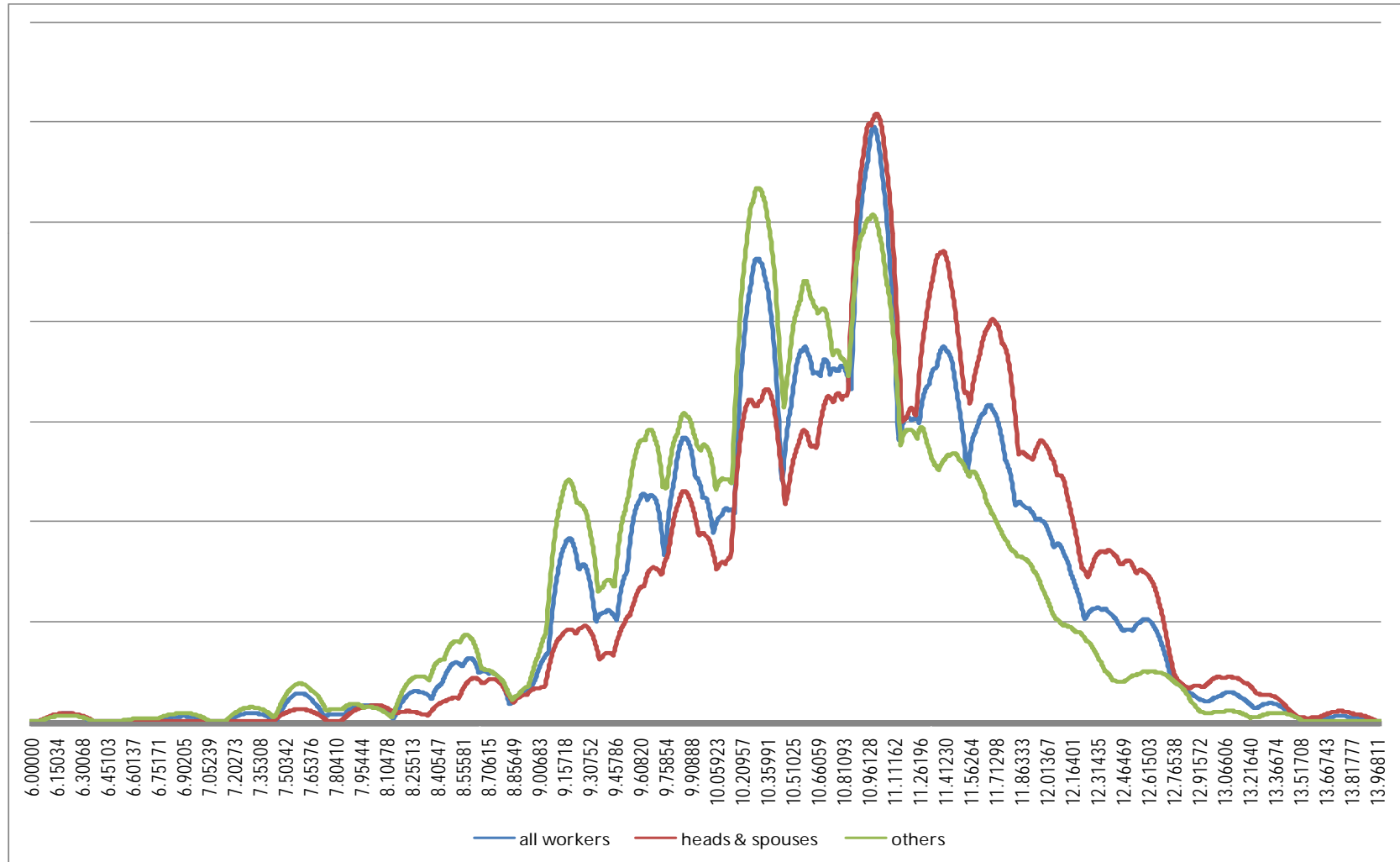


- Bootstrap standard errors were generated based on 10,000 replications
- Three regression samples
 - ▣ Pooled
 - ▣ OWs who were HH heads or spouses of HH heads
 - ▣ OWs who were neither HH heads nor spouses of HH heads
- $\ln(\text{remittances})$ to approximate normal distribution

Kernel densities of remittances



Kernel densities of $\ln(\text{amount of remittance})$



Summary of estimation results



- Likelihood of remitting and amount of remittance are explained by different sets of factors.
 - ▣ does not warrant the use of the Tobit model
- No evidence of sample selectivity

Summary of findings

- Higher likelihood of remitting is associated with
 - ▣ OW's work experience abroad
 - ▣ shorter time since OW last left the HH
 - ▣ OW being in America or Western Europe
 - ▣ lower HH labor income
 - ▣ fewer other OWs in the HH
 - ▣ having a female HH head
 - ▣ the HH not being located in Mindanao
- Larger remittance amounts are associated with
 - ▣ OWs who are HH heads or spouses
 - ▣ male OWs
 - ▣ OW educational attainment
 - ▣ OW's work experience abroad
 - ▣ shorter time since OW last left the HH
 - ▣ high occupational status
 - ▣ the host country being in Africa, but not in the Middle East

Interpretation of findings



- Altruistic motive finds support in
 - ▣ OWs who are HH heads or spouses, have high income (education, occupation, work experience, host country location), left HH more recently
 - ▣ HHs with lower labor income, have female heads
- Exchange motive finds support in
 - ▣ OWs who are HH heads or spouses, **male**, have high income (i.e., higher capacity to pay for services)

Interpretation of findings



- Investment motive finds support in
 - ▣ OWs who have high educational attainment
- Inheritance motive finds weak support in
 - ▣ number of other OW HH members

Conclusions



- Estimation results support a variety of remittance motives
 - ▣ usual with cross-section data
 - ▣ mixed motives can exist within a group of OWs, but even within a person
 - ▣ panel data can provide additional information on timing/frequency/regularity of remittances
- Need to test for endogeneity of HH labor income