COMMENTS ON
LUETH, ERIK AND MARTA RUIZ-ARRANZ,
"MACROECONOMIC DETERMINANTS
OF WORKERS' REMITTANCES"

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Comments on Lueth, Erik and Marta Ruiz-Arranz,

"Macroeconomic Determinants of Workers' Remittances,"

by

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- Contributions of the paper:

(1) A unique bilateral remittance data set
(2) A gravity model applied to the determinants of remittance flows
(3) Several interesting findings

- My comments on the paper:

(1) Estimation results seem to be consistent w/ altruism
(2) Data and econometrics
(3) Internal inconsistency
(4) Limitations of the macro-analysis

(5) Other minor comments (will skip)

(1) Altruism and the necessity of a theory

- It has been emphasized that altruism may be less of a factor than commonly believed.   Yet, estimation results seem to be consistent w/ altruism!!   A theory is need to interpret empirical results properly

- Robust negative coeff. on log per capita GDP, i.e., $\log y_i$, can be interpreted as altruism.

- Suppose a standard private transfer model by Becker (1974) JPE, Cox (1987) JPE, and others:
  - Under altruism, remittances from j to i so that: $U'(C_j)=U'(C_i)$,
  - *Cet. par.*, budget constraints: $C_j=y_j-R_{ij}$, $C_i=y_j+R_{ij}$.
  - Hence, $U'(y_j-R_{ij})=U'(y_j+R_{ij})$.
  - Now, Suppose CARA utility function.   Then, we have: $\gamma_j(y_j-R_{ij})=\gamma_i(y_i+R_{ij})$ and thus,

$$R_{ij} =[\gamma_j/(\gamma_j+\gamma_i)]y_j - [\gamma_i/(\gamma_j+\gamma_i)] \, y_i$$

<u>Technical note</u>:

- Yet, is altruism perfect (and Pareto efficient)?　Probably NOT according to the int'l consumption risk-sharing literature [Lewis (1996) JPE etc.]

- In fact, <u>we can derive the gravity equation for remittances from the full consumption risk-sharing model</u>.　Such an econometric model has been formulated by Ichimura, Sawada and Shimizutani (2006) in the context of the Chuetsu earthquake.　In other words, this model is similar to the one developed by Fafchamps and Lund (2003) JDE but w/o the aggregation assumption.

  - <u>Citation</u>: Ichimura, Hidehiko, Yasuyuki Sawada, and Satoshi Shimizutani (2006), "Risk-Sharing against an Earthquake: The Case of Yamakoshi Village," a paper presented at the Japan Statistical Society 75th Anniversary Symposium," Recent Advances in Applied Econometrics," on September 24, 2006 at University of Tokyo.

(2) Data and econometrics

● Under-reporting bias of remittances suspected

➢ Example: "*Mangyongbong 92,*" a cargo-passenger ship between Japan and North Korea

"There is a suspicion of illegal remittances from Japan to North Korea using Mangyongbong 92"

- From minutes of a meeting at MOF < http://www.mof.go.jp/singikai/kanzei_taiwa/gijiroku/ka150423.htm>

- Disaster variables unclear and problematic
  - An indicator variable for "earthquake, floods or windstorm" seems to be constructed using EM-DAT database. But these variables should be included simultaneously. Also, need to add more disaster variables & intensities (rather than 1/0 variable).
  - Earthquake damages are highly localized, so need alternative aggregate shock variables to test altruism w/ macro-data

Table 1 Number of Natural Disasters by Type of Triggering Hazards: Regional Distribution 1995-2004

	Hydro-meteorological disasters						Geological disasters		Biological disasters	
	Floods	Wind Storms	Droughts and related Disasters	Landslides	Avalanches	Waves and Surges	Earthquakes and Tsunamis	Volcanic Eruptions	Epidemics	Insect Infestations
Africa	277	70	123	11	0	0	18	4	346	14
America	269	298	205	43	1	1	51	23	48	2
Asia	444	326	229	97	16	6	193	13	154	3
Europe	180	86	156	7	10	0	28	2	37	1
Oceania	35	68	37	8	0	0	9	6	10	3
World	1205	848	750	166	27	7	299	48	595	23

Source: EM-DAT: The OFDA/CRED International Disaster Database. <http://www.em-dat.net> UCL - Brussels, Belgium

- <u>Endogeneity bias</u> considered
- <u>Sample selection</u> bias suspected: Data is from only "11 (recipient) countries" in Asia and Europe over 1980-2004 (200 country pairs and 1650 obs).
- <u>Identifications:</u>
  - ➢ In Page 9: "However, depreciation of the home country's currency reduces remittances as less dollars buy the same goods basket as before the depreciation."
  - ➢ In page 15: "Remittances fall when the exchange rate weakens"
  - ➢ Really?   Is the natural experiment in 1997 anomaly?

The Financial Crisis as a Natural Experiment:
Remittances to the Philippines in USD, 1977-2003
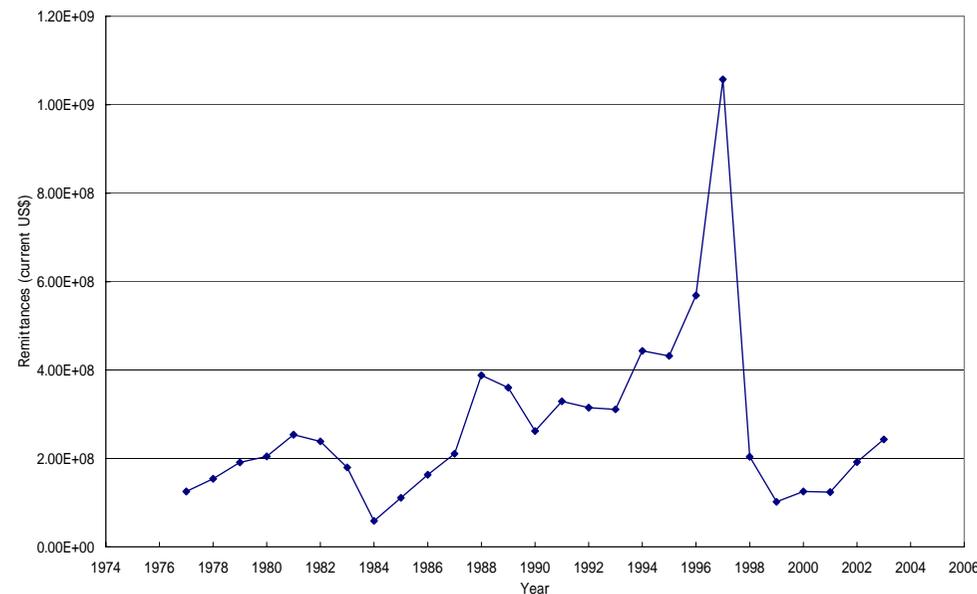
Source: Yasuyuki Sawada and Jonna P. Estudillo (2006), "Trade, Migration, and Poverty Reduction in the Globalizing Economy: The Case of the Philippines," UNU-WIDER Research Paper 2006/58 < http://www.wider.unu.edu/publications/rps/rps2006/rp2006-58.pdf>

(3) Internal Inconsistency

● Remittances are NOT necessarily positively correlated w/ real GDP.

● From gravity equation, the effect of GDP on remittances is (based on Table 6):

$$1.623 \log Y_{it} - 3.137 \log (Y_{it}/L_{it}) \qquad = \quad \underline{1.514} \log Y_{it} + 3.137 \log L_{it}$$

● So, this NEGATIVE correlation is inconsistent with the co-integration equation result for Sri Lanka.

(6) <u>Limitations of the macro-analysis</u>

- It is said that, in order to enhance positive impact of remittances, policies should be directed at reducing transaction costs, promoting financial sector development, and improving the business climate.

- This policy is likely to generate an adverse distributional impact because:
  - ➢ In the Philippines, for example, the transfer income from abroad of the poorest of the poor, who belonged to the lowest income decile, was less than 1% of the total income, whereas the transfer income of the highest income decile was about 14% of the total income in 2000 (Table below).   This implies that the ultra poor were excluded from remittance.

- w/macro analysis, we cannot discuss heterogeneity and distributional aspects of remittances

Share of transfer income from abroad in total income, by income decile, the Philippines, 2000

	I Poorest	II	III	IV	V	VI	VII	VIII	IX	X Richest
Share (%)	0.62	1.04	1.77	2.59	3.46	5.29	6.72	9.18	11.85	13.70
Standard deviation	4.73	5.97	8.17	10.00	11.82	15.43	17.11	20.51	23.18	25.04

Source: Yasuyuki Sawada and Jonna P. Estudillo (2006), "Trade, Migration, and Poverty Reduction in the Globalizing Economy: The Case of the Philippines," UNU-WIDER Research Paper 2006/58 < http://www.wider.unu.edu/publications/rps/rps2006/rp2006-58.pdf>

Other points:

- Better make a separate paper for the section on Sri Lanka

- In page 8, "we do not find evidence that remittances increase following a natural disaster in the home country."   This is inconsistent with studies by Dean Yang (2006).   Also, inconsistent with Kang and Sawada (2005, Developing Economies; 2007, forthcoming in JDS) for the Korean financial crisis.   But consistent with Sawada and Shimizutani (2005) for the Kobe earthquake <http://www.e.u-tokyo.ac.jp/cirje/research/dp/2005/2005cf314.pdf> .

- Page 9:   For the robustness checks of the role of financial development, Ross Levine's financial development indicators can be used. <http://www.econ.brown.edu/fac/Ross_Levine/Publications.htm>

- Page 10:   Alternative broader measures of governance including political risks can be used in addition to ICRG for the robustness checks.   Examples are: CPIA, Kaufman index, # of assassinations (Bunside=Dollar, 2000, AER), index of ethnic fractionalization (Bill Easterly HP), Freedom house, Gastil index, etc.

- Many citations are missing in the reference section.   For example, Porter and Rey (2005) in page 6; Bluedorn (2005) & Yang (2006) in page 8; Dolado and others (1990) in page 14