Remittances and Consumption Smoothing

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Introduction

Income Smoothing: In an open economy, household consumption should not fluctuate with local business cycles because the flow of investment and money. Common sources of finance are FDIs, portfolio investment, foreign aid and remittances.

•This is rarely observed, most countries only experience 20-30% consumption smoothing and are vulnerable to local business cycle fluctuations (Hadzi-Vaskov,2006)

•Remittances may smooth consumption as migrants remit money to their families in times of economic hardship (Ratha, 2003).

•This behavior has been documented by studying remittance behavior after hurricanes (Yang, 2005).

Remittances: The past four decades have seen a continuous rise in the amount of remittances, which are estimated to be worth 443 billion dollars in 2008. (World Bank, 2010)

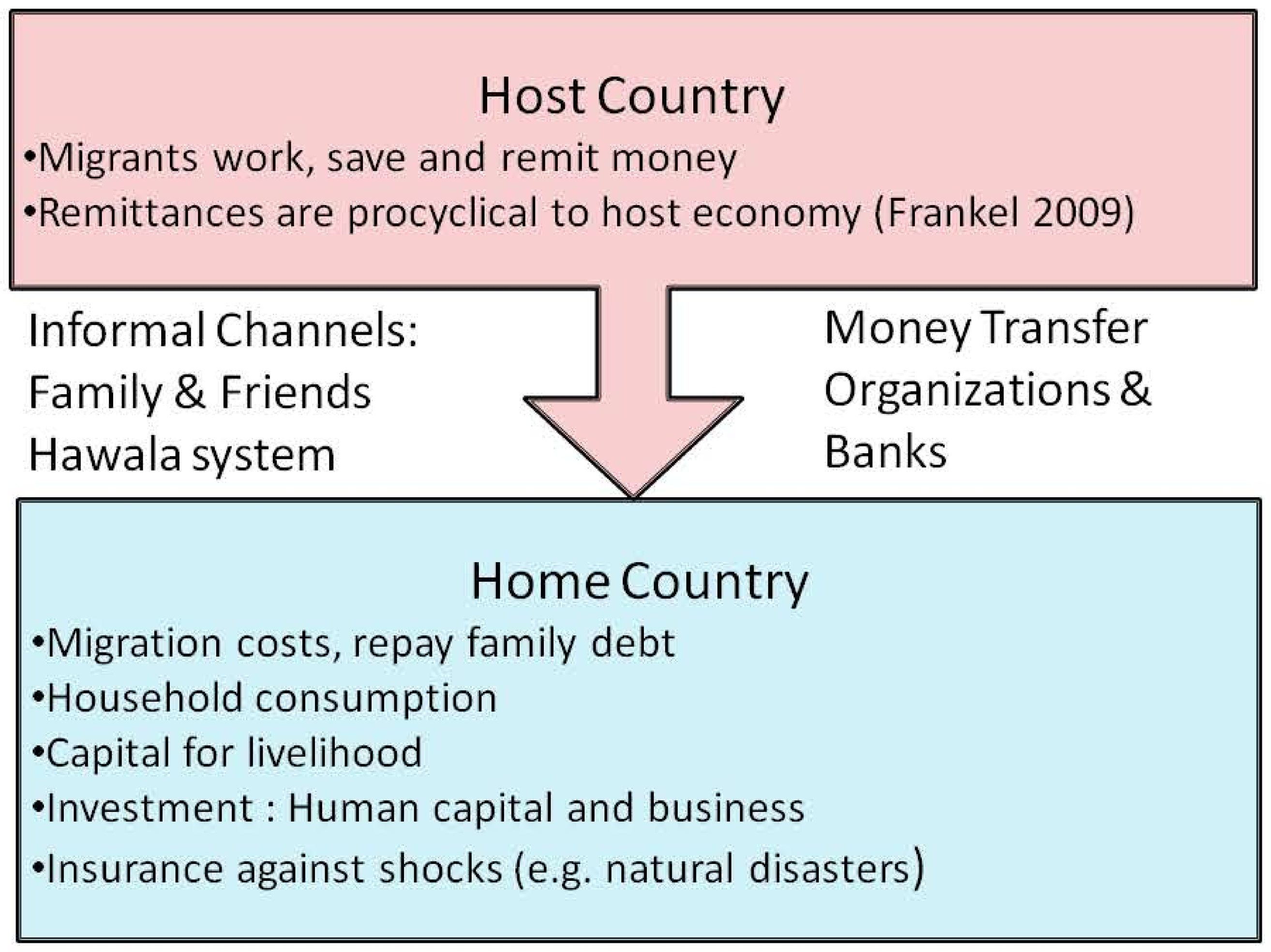

Figure 1: Remittances flows from host to home countries

•Remittances are a more stable source of funding and foreign exchange than FDI, portfolio investments and foreign aid.

•The flow of remittances are counter-cyclical to the home country economy (Frankel, 2009, & Hadzi-Vaskov, 2006)

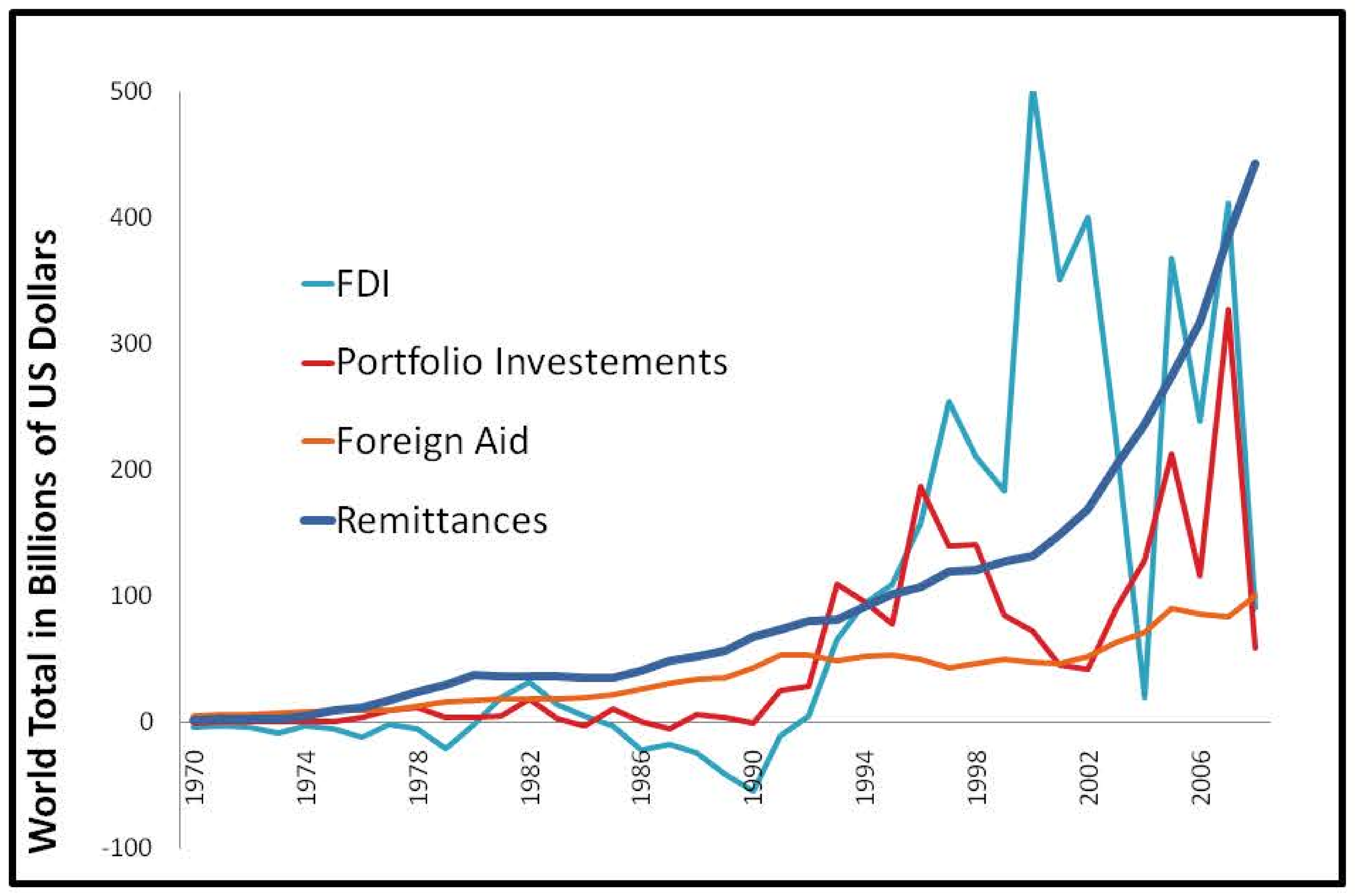

Figure 1: Remittance, investment and aid flows from 1970 to 2008

Data and Methods

Data on GDP, consumption, aid and investments are taken from the World Bank Global Development Finance dataset. Remittance data are taken from the same source but are based on the IMF statistical balance of trade yearbook.

Variables: All variables labeled with the prefix d_ are the difference of the log of the a country's growth minus the log of world average growth at time t for the indicated measure.

consumption: Household consumption per capita

GDP: GDP per capita

remittance: total remittances divided by GDP

FDI: net FDI flow divided by GDP

aid: Aid received by the country divided by GDP

invest: Portfolio investments divided by GDP

Method: Following Hadzi-Vaskov (2007) we estimate the following equation using a fixed effects panel data anaylsis:

$$d\_consumption = \alpha + \beta\ d\_GDP + e$$

β is a measure how GDP changes affect household consumption and the smoothing that occurs can be measured as (1-β.) By adding interaction variables, we are then able to parse out smoothing effects of control variables as the coefficient of *d_GDP* becomes:

$$\beta_1 + \beta_2\ d\_control$$

In this study, we control for remittance, FDI, portfolio investments and foreign aid.

Results

DEPENDENT VARIABLE d_consumption				
VARIABLES	(1)	(2)	(3)	(4)
d_GDP	0.504***	0.451***	0.538***	0.523***
	(0.0534)	(0.0574)	(0.0561)	(0.0511)
time trend	-.0158***	-0.0080**	-0.0085**	-0.0085***
	(0.00339)	(0.00326)	(0.00343)	(0.00323)
d_GDP*d_remittance	-0.0478**			
	(0.0228)			
d_GDP*d_aid		-0.0527**		
		(0.0210)		
d_GDP*d_FDI			0.0164	
			(0.0160)	
d_GDP*d_invest				3.012
				(3.852)
Constant	0.682***	0.587***	0.582***	0.586***
	(0.0976)	(0.0900)	(0.0972)	(0.0912)
Observations	1,901	1,595	1,404	1,430
R-squared	0.258	0.205	0.203	0.206
Number of id	132	117	95	95

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Discussion

The results obtained are consistent with the study conducted by Hadzi-Vaskov (2006)

•Partial consumption smoothing is achieved by countries

•The negative coefficient associated with remittances suggests that it contributes to income smoothing. This coincides with the idea that migrants remit money to their families when they experience income shocks. Also, it can be seen as an altruistic behavior in part of the migrant and migration as a form of insurance for households.

•This also resonates with Frankel's (2009) finding that remittances are counter-cyclical to the receiving country's economy.

•As expected, the coefficient associated with aid is also negative and has a slightly greater magnitude

•The FDI flows and portfolio investments do not seem to contribute to income smoothing.

Further Research

• **Using updated bilateral datasets** - currently, data from the IMF is considered to be the most reliable estimates of remittances. However, new bilateral datasets have recently been compiled which may be used to for further investigations. (Lueth & Ruiz-Arranz, 2008)

•**More controls and estimation methods** – controls such as emigration rates, exchange rate regime and migration costs can be considered and tested. Data for some of these variables are available.

• **Estimating correlations between country GDPs** - Frankel (2009) recognized that remittances are procyclical to the sending country's economy. Thus, remittances are good household income insurance if migrants go to countries that do not experience shocks in tandem with their home countries.

References

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