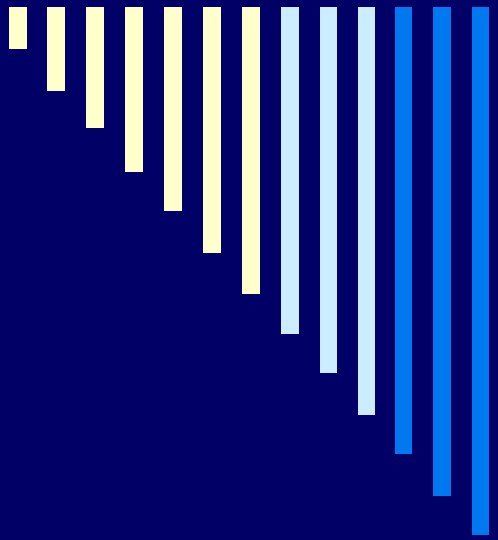

Productive Remittances in Comparative Perspective

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Objectives:

- To investigate which are the variables related with labor remittances from the U.S.
- To compare the productive use of remittances
- To study and compare the use of remittances at the household level

Background

- Data from household surveys in the region suggest that:
  - Remittances can reduce poverty
  - Help smooth household consumption
  - Ease working capital constraints on farms and small-scale entrepreneurs
  - Lead to increase household expenditures in education and health among other items

Source: World Bank 2006

Background

- The estimated flow of remittances to Latin America and the Caribbean is about 45.9 billion (MIF-IADB 2008)
- However, annual rate of growth of remittances has diminished since 2006
- Potential explanations:
  - Migration and time cycle
  - Economic downturn in U.S.
  - Changes in law enforcement

Literature Review

- Massey and Parrado (1994)
  - A large proportion of remittances are spent in food and maintenance, followed by housing.
  - Migrant savings are used more frequently for investment in business enterprises.
- Durand, Parrado and Massey (1996)
  - Multiplicative positive effect of remittances

Literature Review

- Durand, Kandel, Parrado and Massey (1996)
  - Analysis of the determinants of migrant remittances using household, community and national level data
  - Remitters are agents making logical decisions to improve their own and their families well-being given changing circumstances

Literature Review

- Sana and Massey (2005)
  - Remittances are associated with social structures that differ among countries.
    - Remittances in Mexico follows the patterns predicted by the NELM
    - Remittances in the Dominican Republic were determined by lack of opportunities and need

Methods

- Data:
  - Costa Rica, Dominican Republic, Guatemala*, Haiti*, Mexico, Nicaragua, Peru, Puerto Rico*
  - Individual, household and Country level data

Dependent Variables

- Whether a migrant household head sent remittances
- Whether a household received remittances
- Whether remittances were invested
  - Real estate, business, vehicles, land
  - Human capital, housing, tools, food and maintenance,
- This analysis is restricted to remittances at this point.

Logistic Regression of the Likelihood that a Migrant Sent Remittances

Parameter	Estimate	Standard Error	Pr > ChiSq
Intercept	**1.5389**	0.6086	0.0114
Age	0.0164	0.0219	0.4561
Age squared	-0.0002	0.000217	0.3665
Married (=1)	**0.8591**	0.1472	<.0001
Years of Education	**-0.0374**	0.0151	0.013
Head and Spouse migrating	**-1.2014**	0.1628	<.0001
Months of US experience	**-0.00222**	0.000556	<.0001
Dependency (Workers/Nonworkers)	7.81E-10	8.97E-10	0.3842
Number of amenities	**-0.0796**	0.0384	0.0382
Montly wage during last trip	6.76E-06	6.17E-06	0.2732
Expenses on food and rent while in the US	0.0001	0.000149	0.4995
Federal tax withheld (=1)	-0.00845	0.1266	0.9467
Exchange rate	0.000852	0.00704	0.9036
Real growth rate of the per capita GDP	**-0.0721**	0.0288	0.0124
Puerto Rico	**-0.6465**	0.206	0.0017
Dominican Republic	**0.6084**	0.2702	0.0244
Nicaragua	-0.2086	0.2681	0.4365
Costa Rica	-0.1393	2.5908	0.9571
Peru	-0.9342	0.6075	0.1241

n=2,071; Likelihood ratio ChiSq=236.27

Use of remittances according to the remitter

- I collapsed the options in 4 categories:
  - Consumption
  - Investment: physical and financial capital
  - Human capital
  - Housing

Logistic Regression of the Likelihood that a Household Received Remittances

Parameter	Estimate	Standard Error	Pr > ChiSq
Intercept	**-1.8725**	0.3605	<.0001
Characteristics of the Household head			
Sex (Male=0)	**0.2211**	0.073	0.0025
Age	-0.00876	0.0132	0.5058
Age squared	0.00016	0.000117	0.1719
Years of Education	**-0.0263**	0.00686	0.0001
Employed (Unemployed=0)	**-0.2888**	0.0789	0.0003
Parent (No Parent=0)	0.2864	1.0743	0.7898
Household Composition			
Numbers of members with US experience	**0.1452**	0.0113	<.0001
Dependency (Workers/Nonworkers)	-1.68E-10	5.24E-10	0.7488
All children are under 13 years	-0.3589	1.0703	0.7374
All or some children teenagers	-0.1125	1.0707	0.9164
All children adults	0.0729	1.073	0.9459
Macro level Variables			
Exchange rate	**0.0132**	0.00378	0.0005
Real growth rate of the per capita GDP	**-0.125**	0.014	<.0001
Dominican Republic	**1.2365**	0.1008	<.0001
Nicaragua	**-0.4158**	0.1041	<.0001
Costa Rica	**-5.0077**	1.3698	0.0003
Peru	**-0.2412**	0.1468	0.1003
Haiti	**2.3571**	0.2336	<.0001

n= 12,352; Likelihood ratio ChiSq=680.66

Use of remittances

- Real Estate
- Vehicles
- Business
- Land

Conclusions

- Remittances of sensitive to changes in national level indicators: exchange rate and real economic growth
- The expenditure profiles are different by country
- Migrants are rational agents that continuously adapt their strategies to changing circumstances

Additional steps

- Use bootstrap techniques for Guatemala and Haiti
- Create indexes that account for changes in social structures (gender empowerment, fertility levels)
- Include variables that account for differences in levels of development at the community or national level
- Include variables at the community level (METROCAT)

Additional steps

- To include a similar analysis for savings and discuss differences in remittances and savings.
- To compare remittances and savings using bivariate analysis