Migrants' Remittance and Happiness

Evidence from Shanghai (China)

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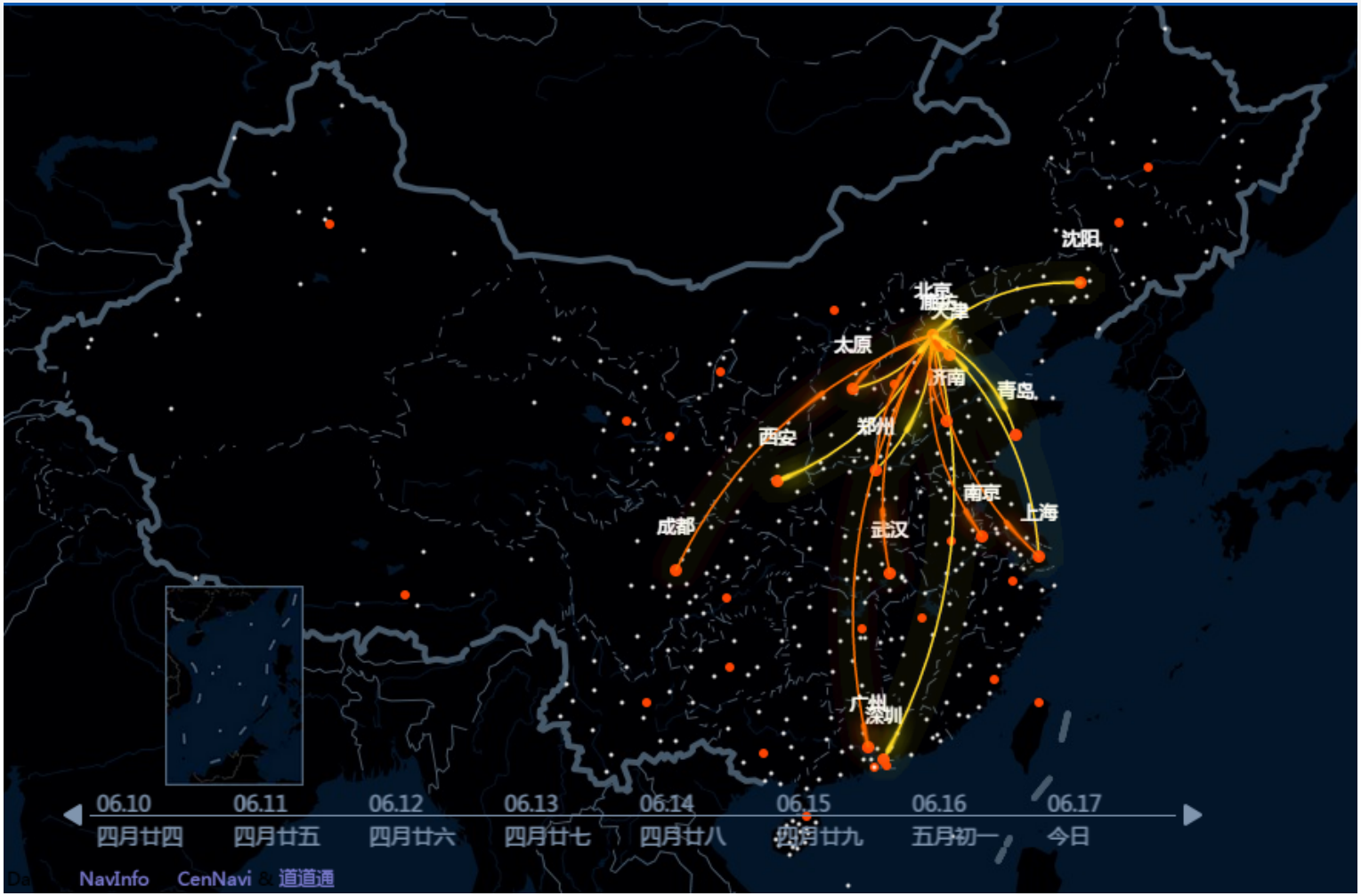
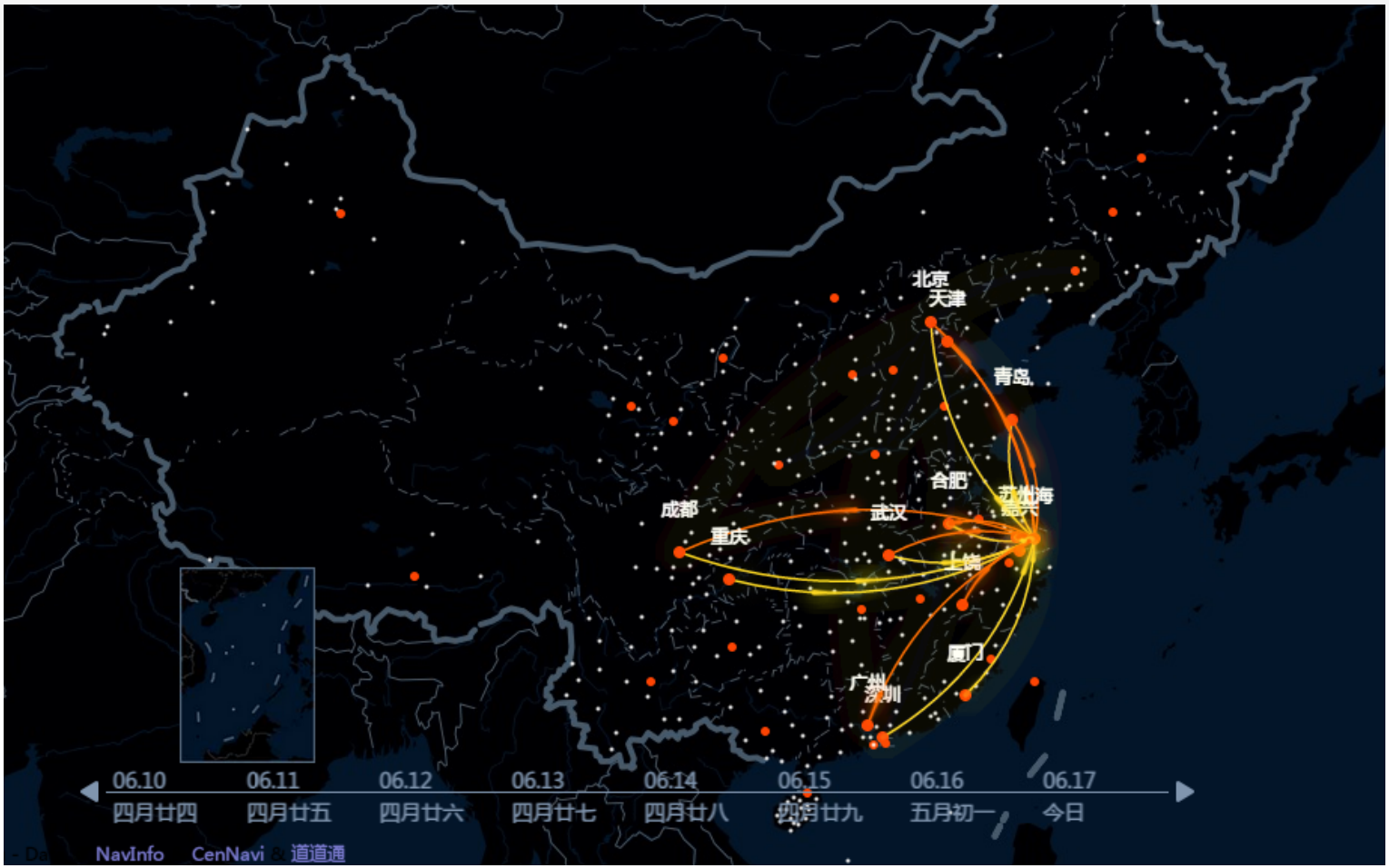


Migration to Shanghai



Migration Flow Data

Introduction

- The migrants have much contribution in the process of China's economic development, they cannot fullly share the achievement of development;
- Constrained by the household registration system, some family members are left behind;
- Migrants will send some money back to support the home family;
- Increasing analysis the welfare of the "silent group";
- This paper is to understand the relationship between the remittance and wellbeing (happiness).

Scope of Remittance (Luo 2007)

Remittance: all the net source transfer including

- Money or commodities send back to the home family through post office or bank + money bring back.
- Money or commodities deliver to the home family by acquaintance.
- All the payment during the home family visit.
- All the payment during the home family's visit.
- Donation to hometown.

Evidence from International Migration(WB 2013)

- Remittances to developing countries were an estimated $404 billion (+3.3%);
- Including those to high-income countries $542 billion;
- γ(developing country) = 2%, γ(low income country) = 6%, where $\gamma \equiv$ Remittance/GDP;
- Tajikistan (52%), Kyrgyz Republic (31%);
- Nepal and Moldova (both 25%);
- Samoa and Lesotho (both 23%).

Characteristics of Chinese Migants (Li 2004)

1. Highest ratio (remittance/home income);
2. Altruism by nature?
3. Thrift (consume as less as possible)?
4. Remittance and saving are similar?
5. Lower income region, higher remittance
6. Remittance and migrant has narrow the income gap btw the poor region and the rich, while deepen the income gap btw the "migrant" area and "non-migrant" area.

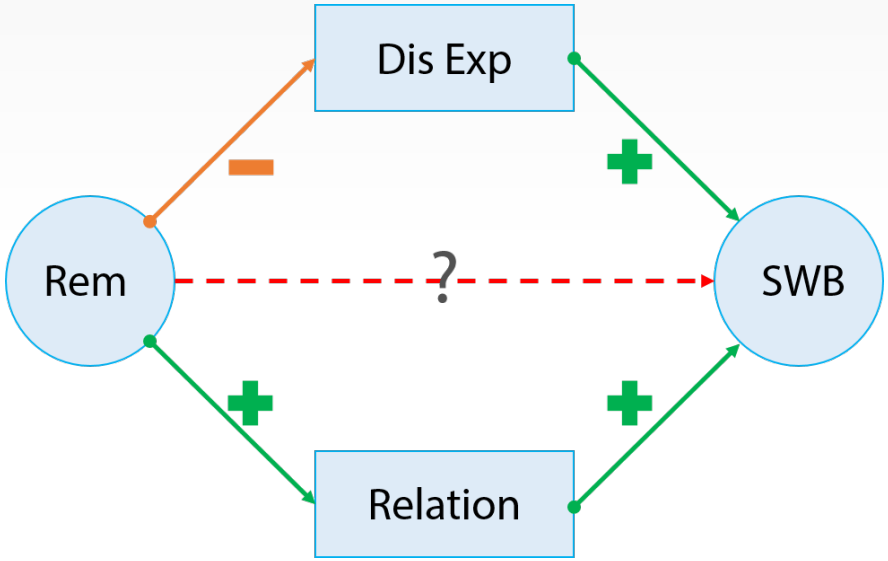
Motivation of Remittance (Lucas & Stark 1985)

1. Pure Altruism;
   - spending money on other people have a more positive impact on happiness than spending money on oneself (from Dunn, Aknin, Norton 2013).
2. Pure Self-Interest;
   - aspiration to inherit;
   - ensure home careful maintenance of their assets;
   - the intent to return home, fixed assets or social assets (relationship) investment.
3. Tempered Altruism or Enlightened Self-Interest;
   - viewing remittances as part of an intertemporal, mutually beneficial contractual arrangement between migrant and home.

Chinese Social Behavior and Relationship Network (Li & Luo 2013)

- Rational behavior and instrumental reductionism (Economics)
- Mixed sources of action (Social Network Theory):
  - not only a rational choice based on pure self-interest,
  - includes the of trusted cooperation and obedience of power(status).
- Trust, unity, cooperation, obedience is the opposite of the interests of the individual, at least, is the opposite short-term personal interests;
- Rational calculation theory cannot fully explain the economic and social phenomenon.
- The interpretation of the social network theory framework is not based on a single interest motivation this most fragile foundations, but emphasize social behavior motivation.

Mechanism



Differential Mode of Association (Fei 1947)

- Relationship is a Chinese to be put in accordance with the brioche into circle from far to near, like a stone into the water to form water lines, layer by layer spread outward from a hydrophilic and hydrophobic;
- The second is the relationship between different circles will apply different interaction law.
- Different interpretation of altruistic and selfish

Personal Utility

- Suppose the migrant maximizes his own utility with respect to the amount remitted (r):

$$u_m = u\left[c_m(w-r), \sum_{h=1}^{n} a_h u(c_h)\right] + \sum_{h=1}^{n} b_h V(r/n) \tag{1}$$

  where w is the migrant's wage, c_m is his consumption, a_h are altruism weights attached to various household members, and n is the household size. b_h are the weights attached to different household memebers which measures the affinities of relationship.

- Consumption per capita can be assumed

$$c_h = c(y + \frac{r}{n}, n) \tag{2}$$

- The migrant choose a level of r to maximize (1) subject to (2).

Data

1. Survey on Migrant Workers in Shanghai (SMWiS)-2011;
   - work in Shanghai with rural registration;
   - employee older than 16;
   - exclude non-economic activity population (students);
   - 1186 observations;
   - cover the 18 counties in Shanghai;
   - immigrate from 26 provinces;
2. Rural-to-urban migration in China and Indonesia(RUMiC)-2008/2009
   - 8000 rural households, 5000 urban households, 5000 rural-to-urban households.
   - 9 provinces and 15 cities;
   - include characteristcs, education, infomation of family members left behind, expenditure in detail.

Subjective Well-Being

In SMWiS (2011):

- Life satisfaction index: range from 1-10;

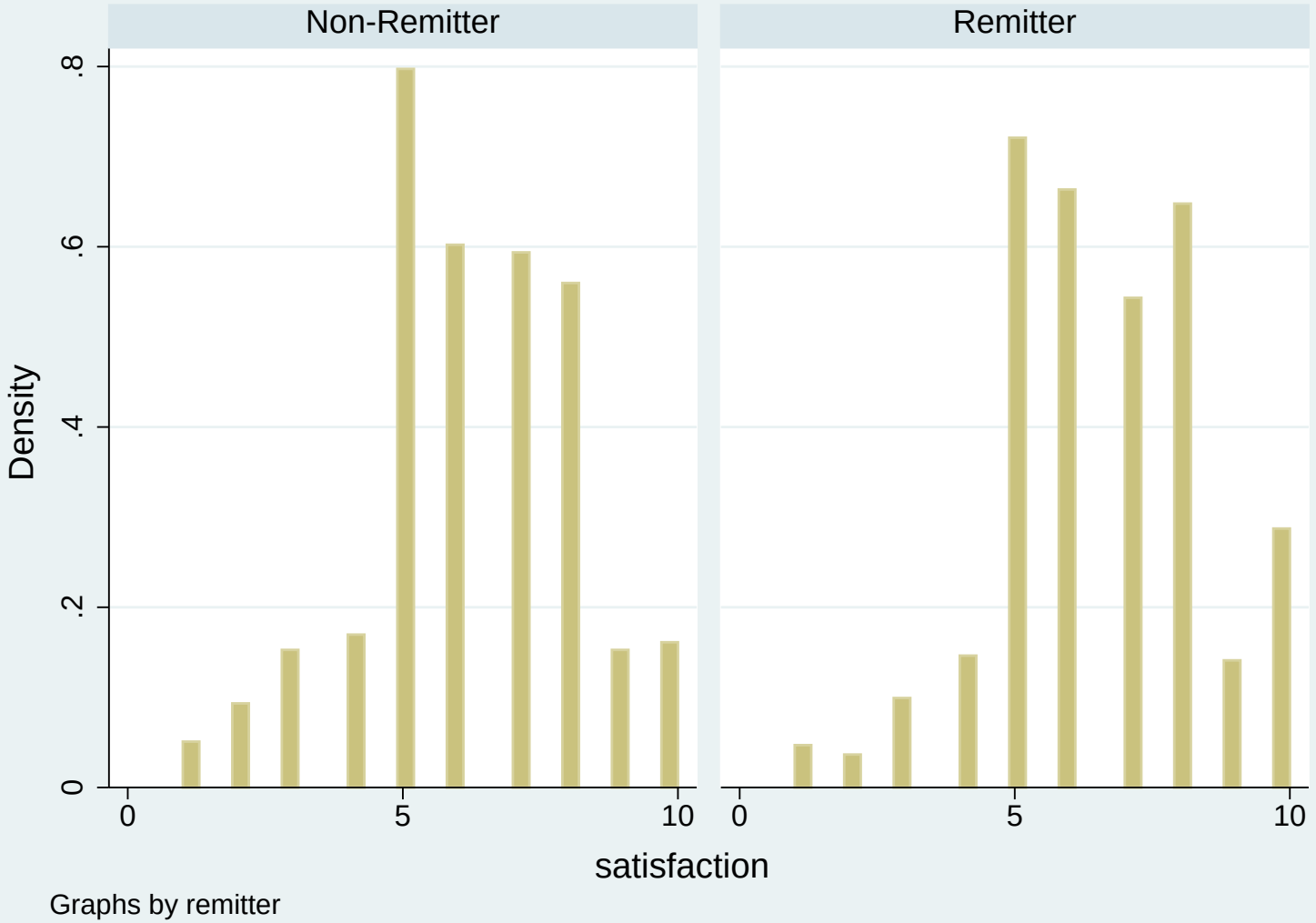
In RUMiC (2008):

- 12 questions of the General Health Questionnaire to construct the GHQ-12 measure of mental health;
- GHQ-12 is one of the widely used SWB measures in economics and psychology;
- It is closer to being medically conventional than direct questions about “life satisfaction” or “happiness” but is highly correlated with a direct report of overall life satisfaction or happiness.

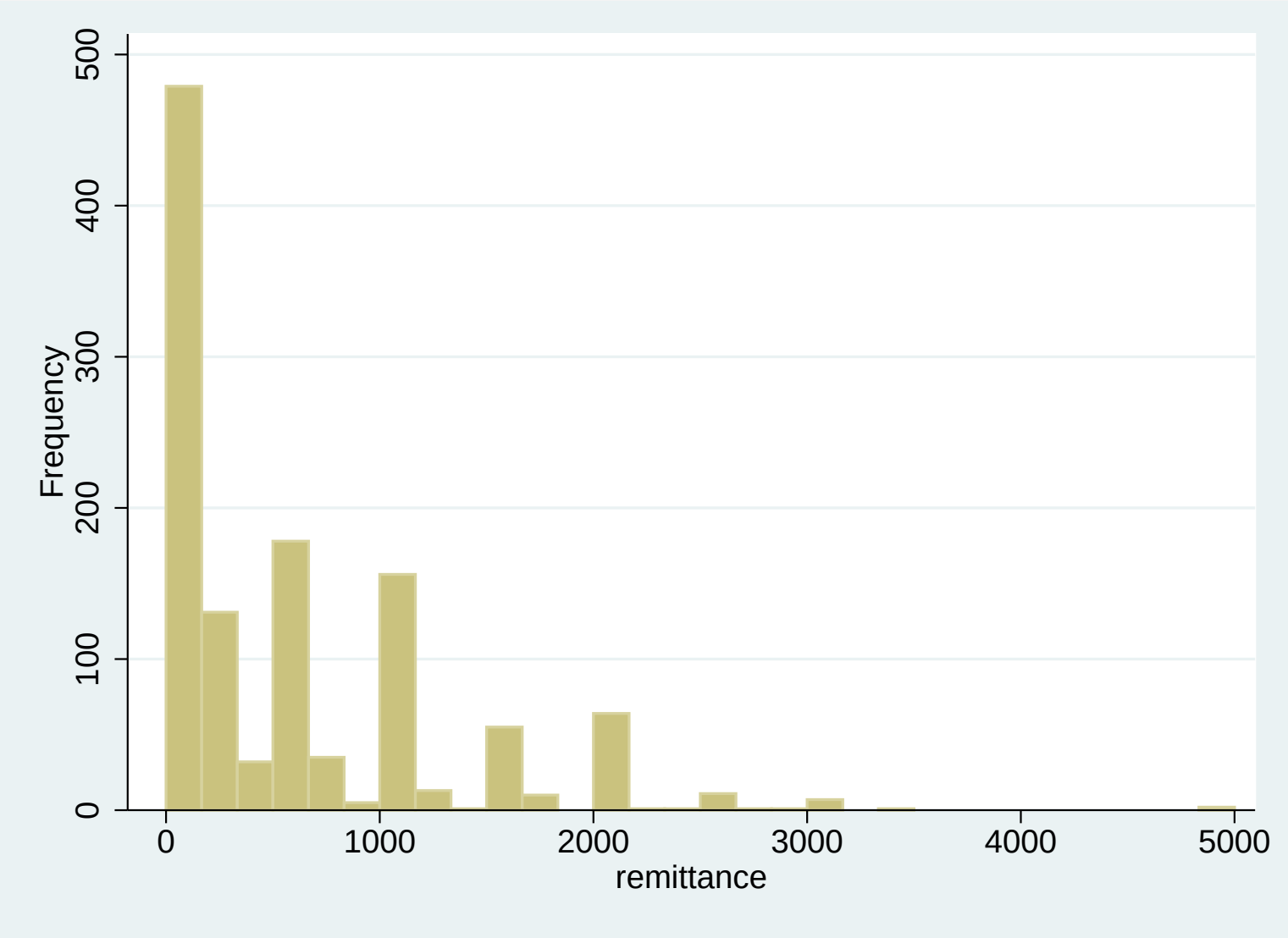
Summary Statistics

	All (N=1186)				Remitter		Non-Remitter(N=448)	
VARIABLES	mean	sd	min	max	mean	sd	mean	sd
satisfaction	6.39	1.92	1.00	10.00	6.52	1.91	6.18	1.92
female	0.37	0.48	-	1.00	0.35	0.48	0.42	0.49
edu	3.56	1.18	1.00	6.00	3.53	1.11	3.62	1.28
marriage	1.82	0.48	1.00	4.00	1.88	0.46	1.71	0.50
parents_exp	0.35	0.48	-	1.00	0.34	0.47	0.39	0.49
n_children	1.06	0.85	-	4.00	1.15	0.82	0.92	0.88
age	33.79	9.72	16.00	64.00	34.49	9.24	32.65	10.39
live_alone	0.16	0.36	-	1.00	0.16	0.37	0.15	0.36
wage_sat	2.58	0.78	1.00	5.00	2.60	0.78	2.55	0.76
wage_compare_friends	2.44	0.90	1.00	5.00	2.49	0.91	2.35	0.89
wage_compare_sh	1.80	0.87	1.00	5.00	1.86	0.89	1.71	0.83
years_since_in_sh	8.12	5.55	0.08	36.00	8.61	5.68	7.32	5.25
relation	4.59	0.59	0.50	5.00	4.62	0.56	4.54	0.62
relation_home	5.14	1.24	-	10.00	5.23	1.21	4.95	1.28
ave_wage	2,725	1,093	100	10,000	2,850	1,146	2,518	965
hh_wage	4,384	2,214	-	20,000	4,535	2,147	4,137	2,301
hh_surplus	1,920	1,564	-	16,500	1,853	1,526	2,031	1,621
remittance	544	679	-	5,000	875	672	-	-
remittance_ave	331	509	-	5,000	532	557	-	-
remittance_ratio	0.14	0.18	-	1.50	0.22	0.19	-	-

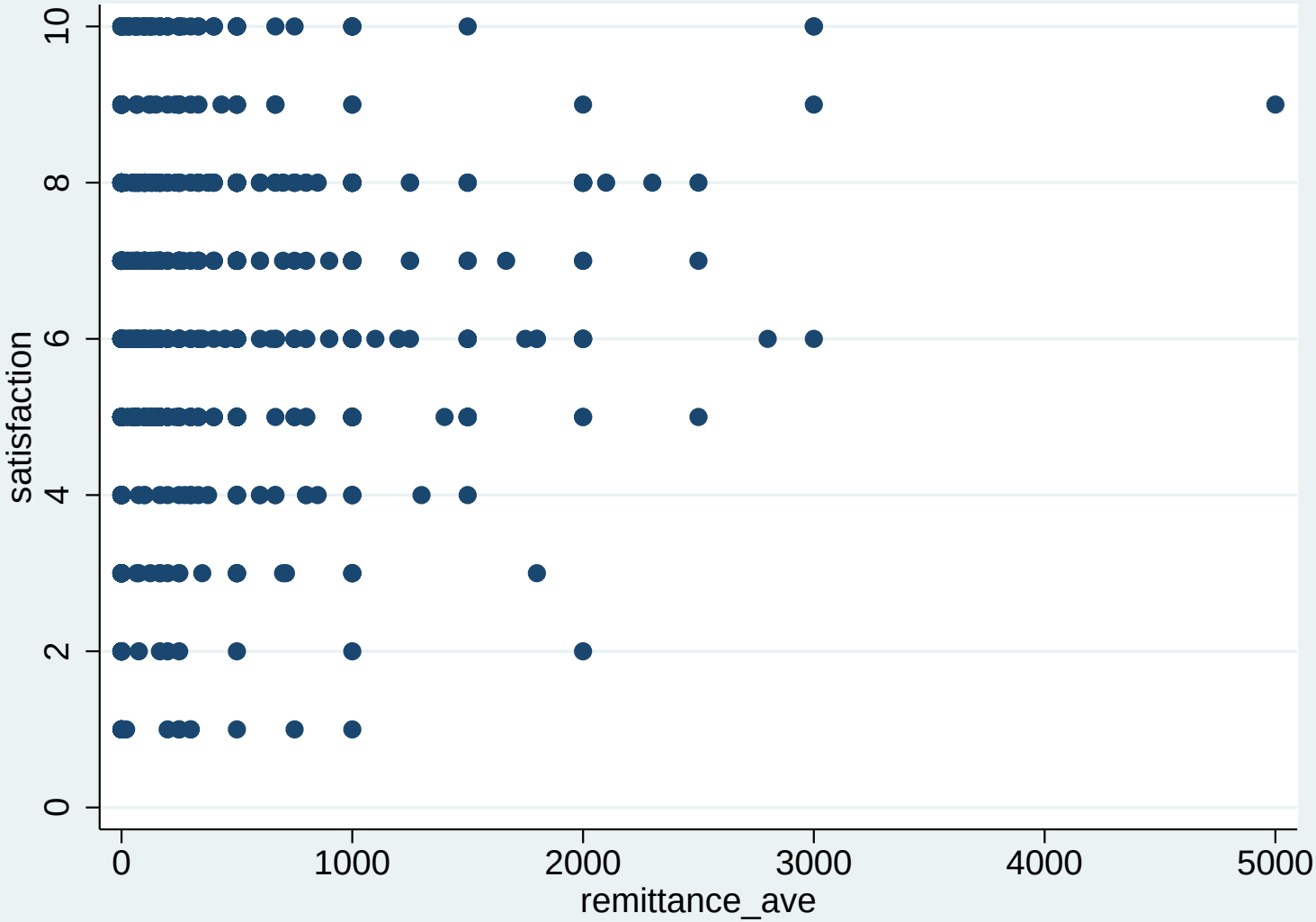
Life Satisfaction



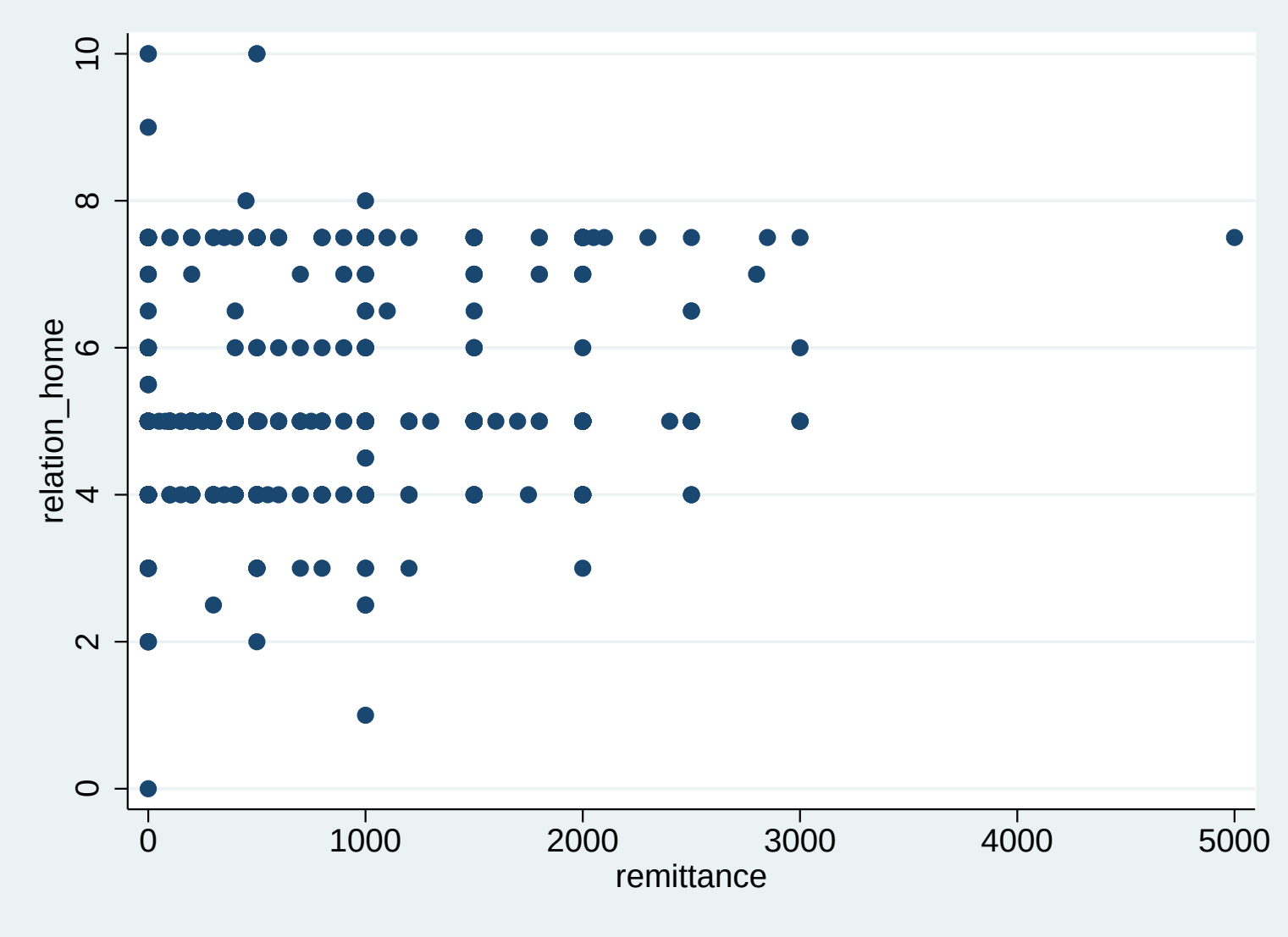
Remittance


Frequency
0
100
200
300
400
500
0
1000
2000
3000
4000
5000
remittance

Remittance V.S. Life Satisfaction



Remittance V.S. Relation(home)



Subjective Well-Being and Remittance

Empirical Model:

$$SWB_{ip} = \alpha + \mathbf{X}_i\beta + \gamma r_i + f_p + \varepsilon_i \quad (3)$$

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
age	-0.015	-0.031	-0.024	-0.025	-0.024	-0.025
age2	0.000	0.000	0.000	0.000	0.000	0.000
female	0.237	0.300*	0.365**	0.382***	0.389***	0.389***
educated	-0.774*	-0.781*	-0.373	-0.395	-0.396	-0.391
married	0.553***	0.536***	0.547***	0.526***	0.527***	0.529***
live alone	-0.014	-0.036	0.009	-0.007	-0.033	-0.007
n_children	-0.049	-0.033	-0.021	-0.021	-0.019	-0.019
years_since_in_sh	0.0614***	0.0566***	0.0572***	0.0561***	0.0562***	0.0567***
wage_compare_friends			0.483***	0.477***	0.477***	0.481***
wage_compare_sh			0.231***	0.221***	0.221***	0.220***
ave_wage		0.121*	-0.022			
remittance				0.0677		
remittance_ave					0.1120	
remittance_ratio						0.2360
Constant	6.350***	6.354***	4.716***	4.710***	4.697***	4.701***
Observations	1,017	1,017	911	910	910	909
R-squared	0.059	0.063	0.147	0.147	0.147	0.147

Subjective Well-Being, Remittance and Relation

Empirical Model:

$$SWB_{ip} = \alpha + \mathbf{X}_i\beta + \gamma r_i + RL_i + f_p + \varepsilon_i \quad (4)$$

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5
age	-0.0246	-0.0151	-0.0266	-0.0178	-0.0174
female	0.382***	0.383***	0.355**	0.346**	0.350***
married	0.526***	0.467***	0.506***	0.454***	0.442***
live_alone	-0.00729	0.0307	0.0261	0.0802	0.0728
n_children	-0.0207	-0.0287	-0.0236	-0.0308	-0.0324
years_since_in_sh	0.0561***	0.0564***	0.0538***	0.0539***	0.0536***
wage_compare_sh	0.221***	0.225***	0.216***	0.223***	0.219***
wage_compare_friends	0.477***	0.461***	0.476***	0.461***	0.459***
remittance	0.0677	0.0468	0.0795		0.0609
relation		0.380***		0.395***	0.392***
hh_expenditure			0.0611	0.0720*	0.0757*
Constant	4.710***	2.858***	4.673***	2.749***	2.759***
Observations	910	909	910	909	909
R-squared	0.147	0.159	0.148	0.16	0.161

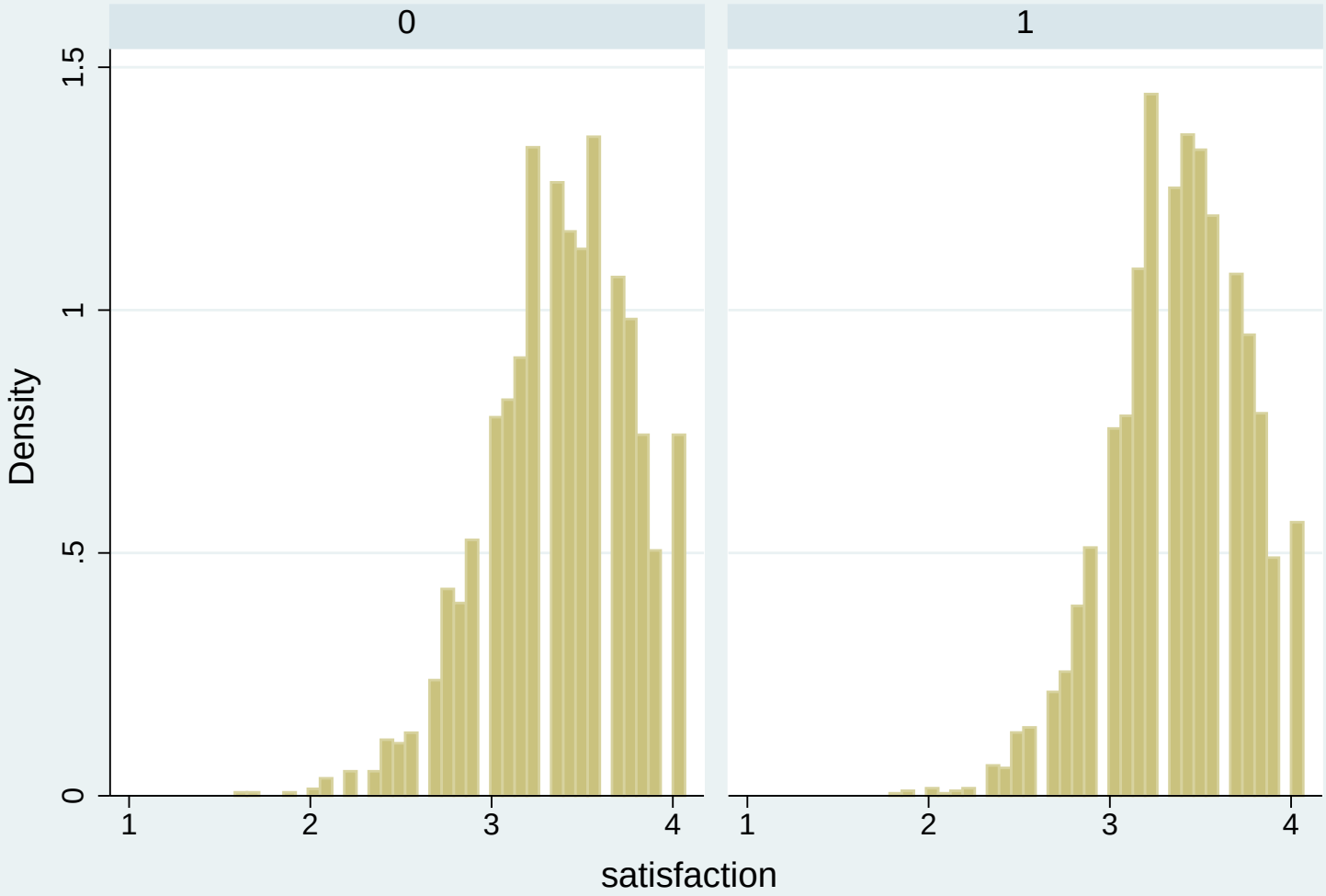
Relation(Home) with Remittance

Empirical Model:

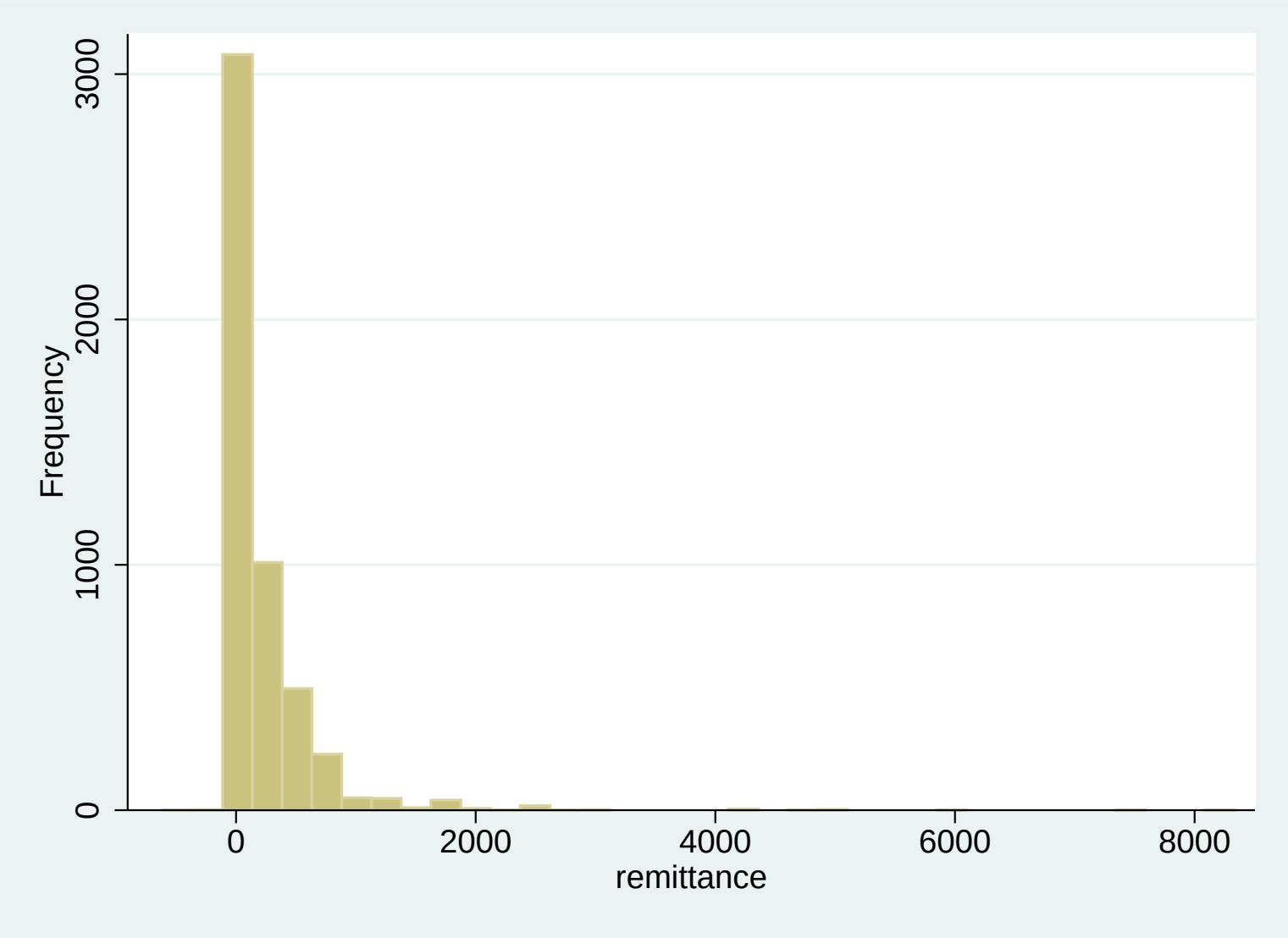
$$RL_i = \alpha + \mathbf{X}_i'\beta' + \gamma' r_i + f_p' + \varepsilon_i' \tag{5}$$

Dependent Var	Relation			Relation_Home		
Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
age	0.012	0.015	0.012	0.022	0.0345*	0.030
female	-0.035	-0.026	-0.031	-0.337***	-0.270***	-0.292***
divorced	-0.287***	-0.322***	-0.287***	-0.961	-1.818***	-0.958
live_alone	-0.140***	-0.115***	-0.150***	1.360***	1.402***	1.285***
n_children	-0.011	-0.019	-0.011	-0.001	-0.030	-0.018
family_members_sh	0.003	0.011	0.011	-0.174*	-0.132	-0.102
years_since_in_sh	-0.001	-0.001	-0.001	-0.002	-0.001	-0.002
remittance	0.0621***			0.205***		
remittance_ratio		0.262***			1.315***	
remittance_ave			0.093***			0.524***
Constant	4.494***	4.417***	4.474***	5.784***	6.219***	5.511***
Observations	1,162	1,157	1,162	745	742	745
R-squared	0.021	0.023	0.021	0.282	0.333	0.308

Facts From RUMiC



Facts From RUMiC



Empirical Results

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
age	-0.0258*	-0.0261*	-0.0250*	-0.0260*	-0.0255*	-0.0239*
female	-0.794***	-0.774***	-0.761***	-0.780***	-0.775***	-0.754***
never_married	-0.827***	-0.786***	-0.770***	-0.814***	-0.818***	-0.634***
health	1.802***		1.820***	1.804***	1.820***	1.797***
remittance		0.483**	0.529***			0.477**
remittance_inc_ratio				0.558		
remittance_exp_ratio					0.782	
hh_income						0.117*
Constant	38.54***	41.77***	38.34***	38.47***	38.40***	38.04***
Observations	4,920	4,920	4,920	4,912	4,919	4,920
R-squared	0.035	0.017	0.038	0.036	0.036	0.040

Some Concerns

1. How to deal with reverse causality?
2. Heterogeneity considerations, interaction terms.
3. Data problems?
4. Missing variables?
5. Does identity matters?
6. What about income inequality?