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Remittances and their impact of poverty: the case of Albania¹

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Remittances and their impact on poverty: the case of Albania

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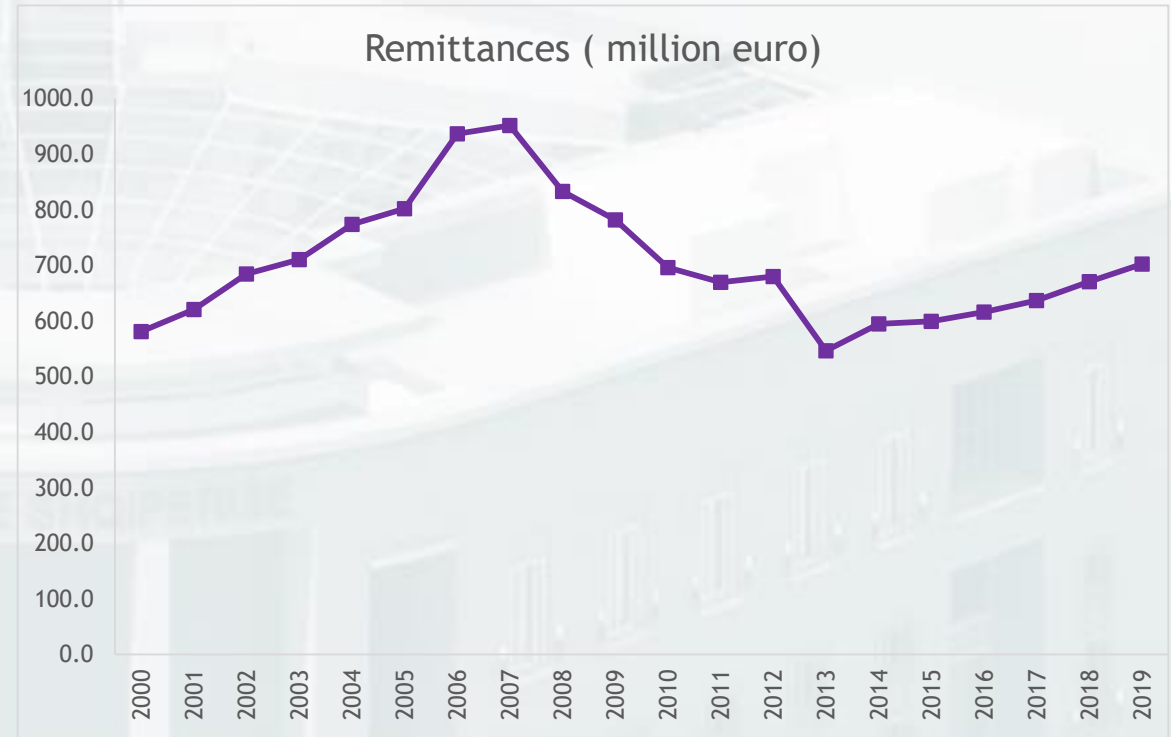
Outline

- I. Introduction
- II. Methodology & Data
- III. Preliminary Results
- IV. Conclusions

I. Introduction

- At the beginning of this century, UN estimated that 2.8% of the world's population or about 174 million people live and work outside their country of birth (UN, 2019).
- In 2019, the number of international migrants is estimated 272 million people or 3.5 % of world population (UN, 2019).
- India continued to be the largest country of origin of international migrants
 - India had the largest number of migrants living abroad (17.5 million), followed by Mexico and China (11.8 million and 10.7 million respectively).
 - The top destination country remained the United States (50.7 million international migrants).
- International remittances increased to USD 689 billion in 2018.
 - The top 3 remittance recipients were India (USD 78.6 billion), China (USD 67.4 billion) and Mexico (USD 35.7 billion).
 - The United States remained the top remittance-sending country (USD 68.0 billion) followed by the United Arab Emirates (USD 44.4 billion) and Saudi Arabia (USD 36.1 billion).

I. Introduction



Source: Bank of Albania

- Albania is a country in South-Eastern Europe, with 2.83 million people, where migration is a very widespread and well-known phenomenon, especially after the ex-post communism.
- 1.21 million people or 42.7 % of total Albanian population live outside Albania (UN, 2019).
- Remittances in Albania constitute at one of the largest foreign exchange inflows coming from abroad and are an important source of financing the balance of payments.
- On average during the period 2008-2019, remittances are estimated at 11.7% of GDP (Bank of Albania, 2019).

I. Introduction

- After the recent financial crisis household surveys are becoming an important and predominant source of micro-level data on household wealth for:
 - Collecting detailed information on households such as: demographic, socio-economic information on income, employment, consumption, assets, liabilities etc.
 - Analyzing different aspect of households patterns based on different group of households
- The aim of this article is to asses the importance of the remittances on Albanian households based on the micro data:
 - 2006, Migration Survey (Frashëri, 2007)
 - 2019, Albanian Household Wealth Survey (Dushku, 2019)

II. Methodology

- Albanian Household Wealth Survey (AHWS), introduced in 2019 by the Bank of Albania, was based on the methodology proposed by HFCS (Household Finance and Consumption Survey).
- The main purpose of Albanian Household Wealth Survey is to obtain detailed information on Albanian households, in terms of income, expenditures, real and financial assets of households, employment status and education level of all household members, etc.
- The relevance of micro data from AHWS :
 - Analyzing and evaluating various aspects of the transmission mechanism of monetary policy and financial stability.
 - Detailed assessment of the behavior of the household and its members.
 - Assessing and analyzing various macroeconomic policies as well as macroeconomic shocks.
 - Designing appropriate policies for monetary policy, financial stability, financial inclusion and financial education.

II. Methodology

Sample design of AHWS

Two-stage stratified sample (random selection)

Sampling frame

National population register

Stratification criteria

Region, population size

Primary sampling unit

312 (8+4 household)

Region

12

Panel component

No/in future

Excluded groups

Population in institutions, homeless

Oversampling of wealthy

No

Weighting procedure

the unit's probability of selection; coverage issues; unit non-response

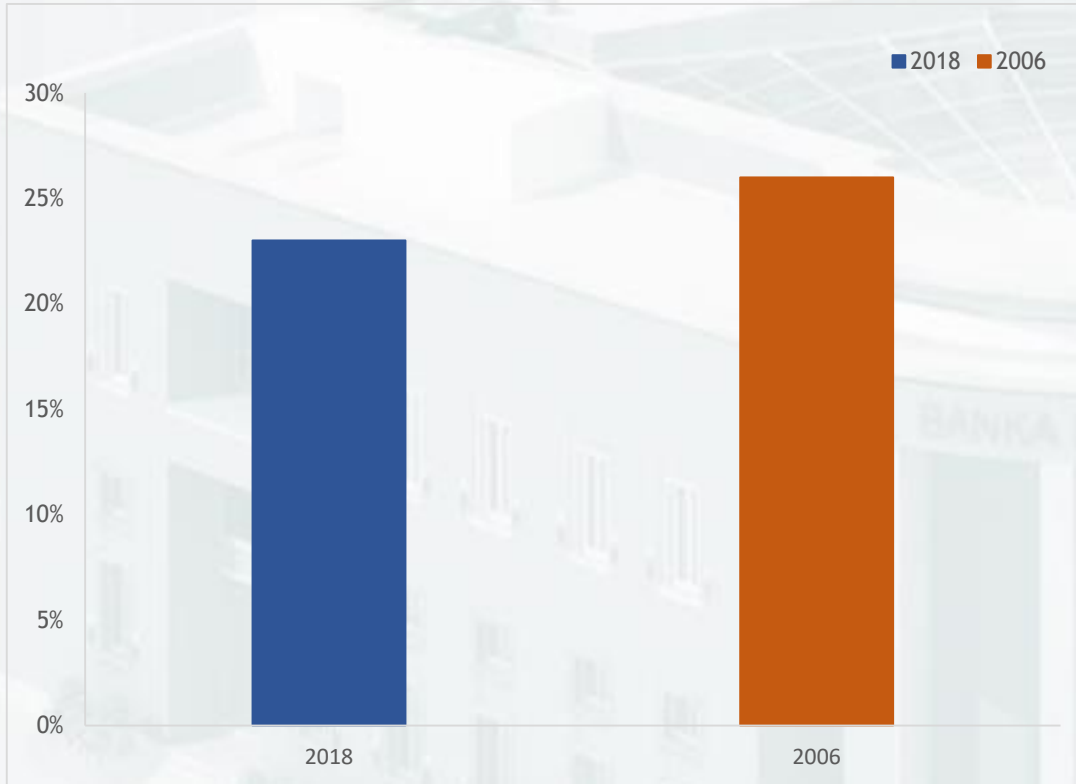
II. Methodology

Main questions in AHWS:

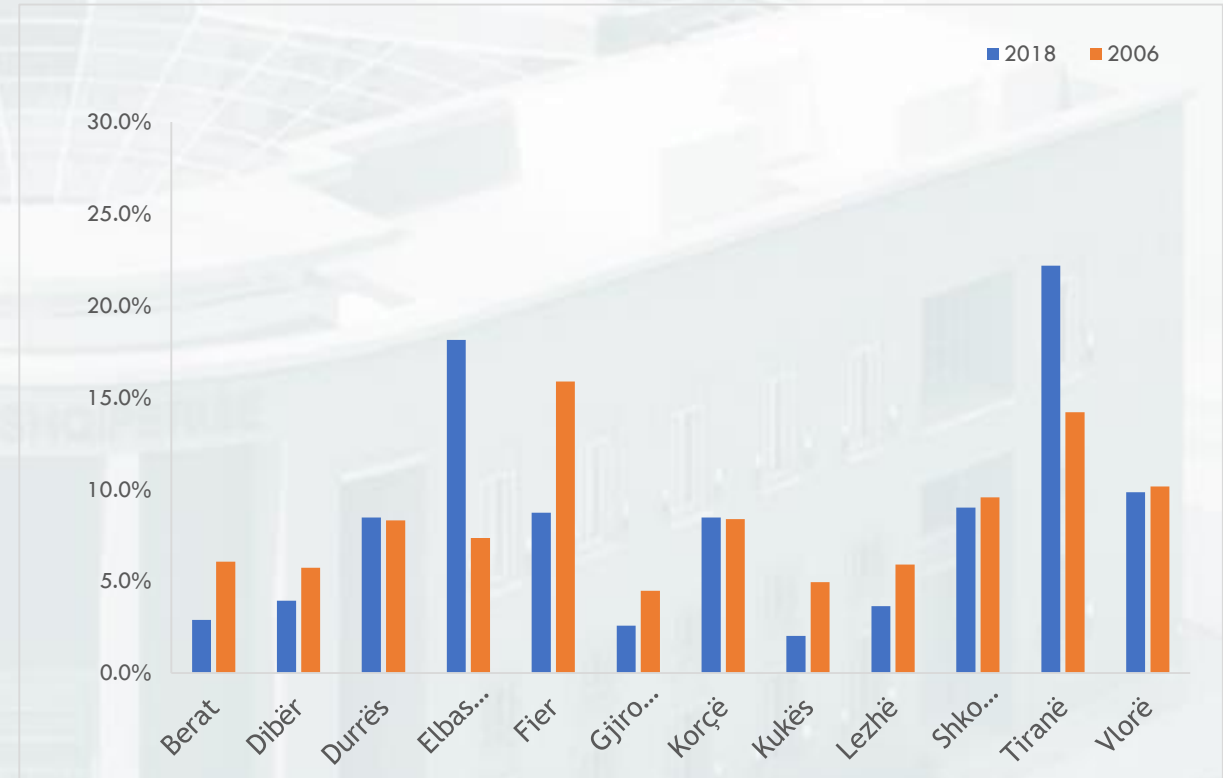
- Have you or any households member received remittances during 2018?
- How much (annual) remittances did you or your family receive during 2018?

III. Data

Graph 1: Percentage of households receiving remittances



Graph 2: Geographical distribution of remittances-receiving households as % of total

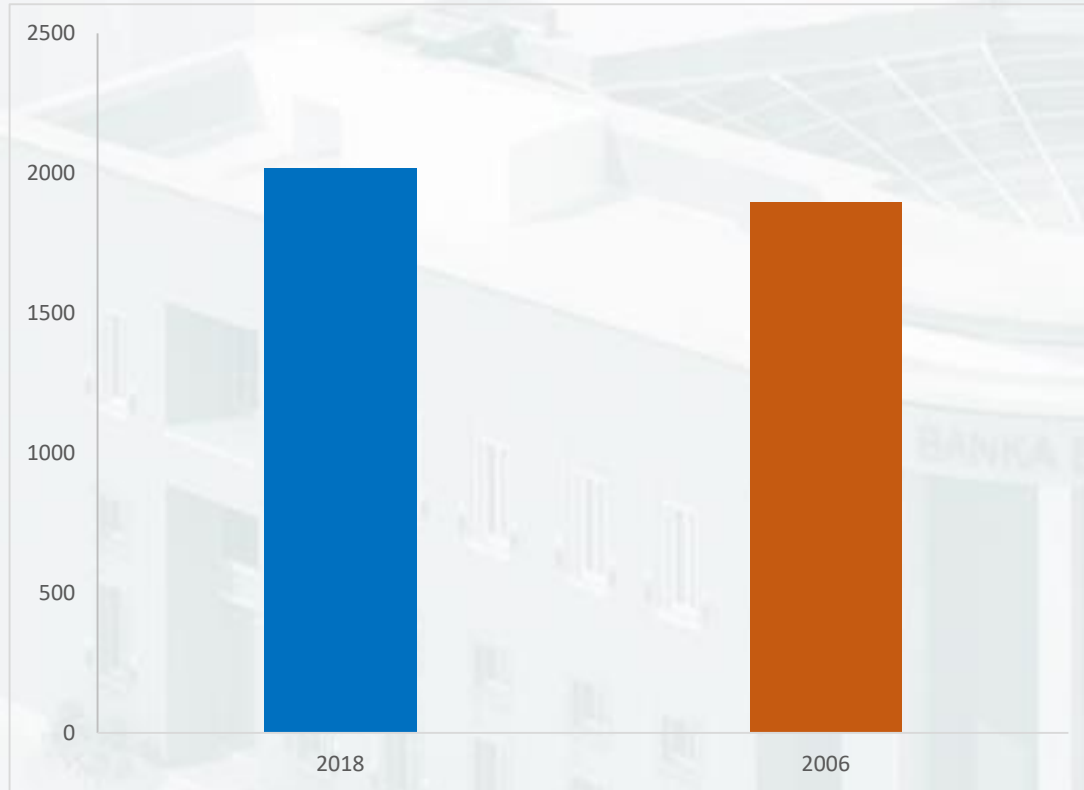


Source: Frashëri, (2007), Dushku (2019)

- 23%-26% of households in Albania received remittances.
- Geographical distribution of remittances-receiving households is almost the same during two periods for the majority of the regions. In 2018, the regions of Elbasan and Tirana, showed double increase of households receiving remittances, while reverse path showed the region of Fieri.

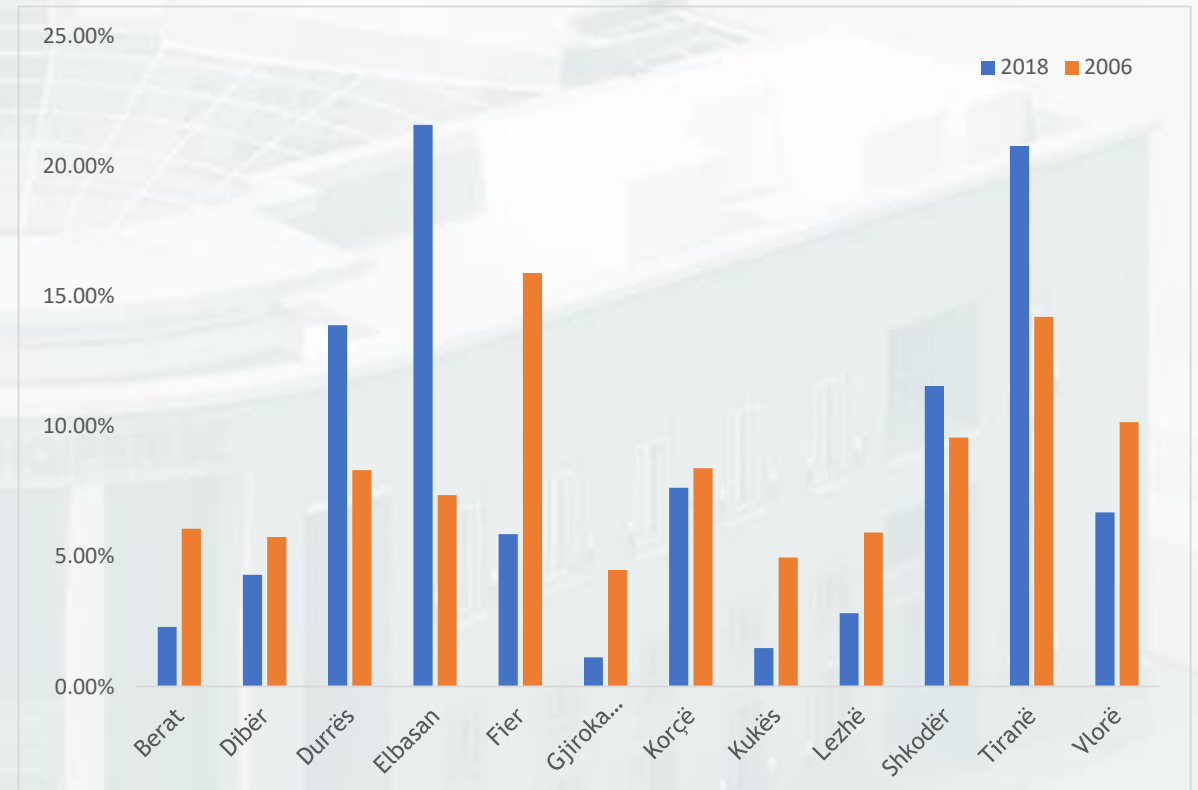
III. Data

Graph 3: Annual average flow of remittances per household in euro



Source: Frashëri, (2007), Dushku (2019)

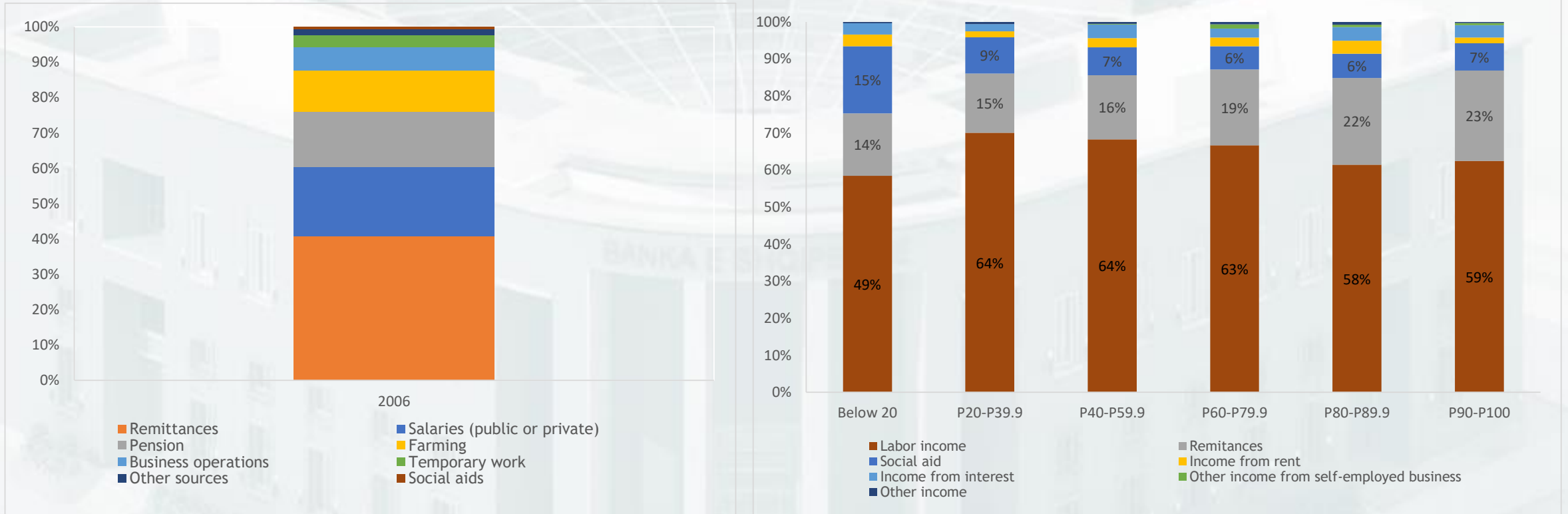
Graph 4: Geographically distribution of amount remittances as % of total remittances



- On average, annual flow of remittances per household is estimated around 1,897 to 2,018 euro.
- In 2006 the most beneficiaries households are those located in the region of Fieri, Tirana, Vlora and Shkodra, while in 2018, are those located at the region of Elbasani, Tirana, Durresi and Shkodra.

III. Data

Graph 5: Source of household income in 2006 and 2018

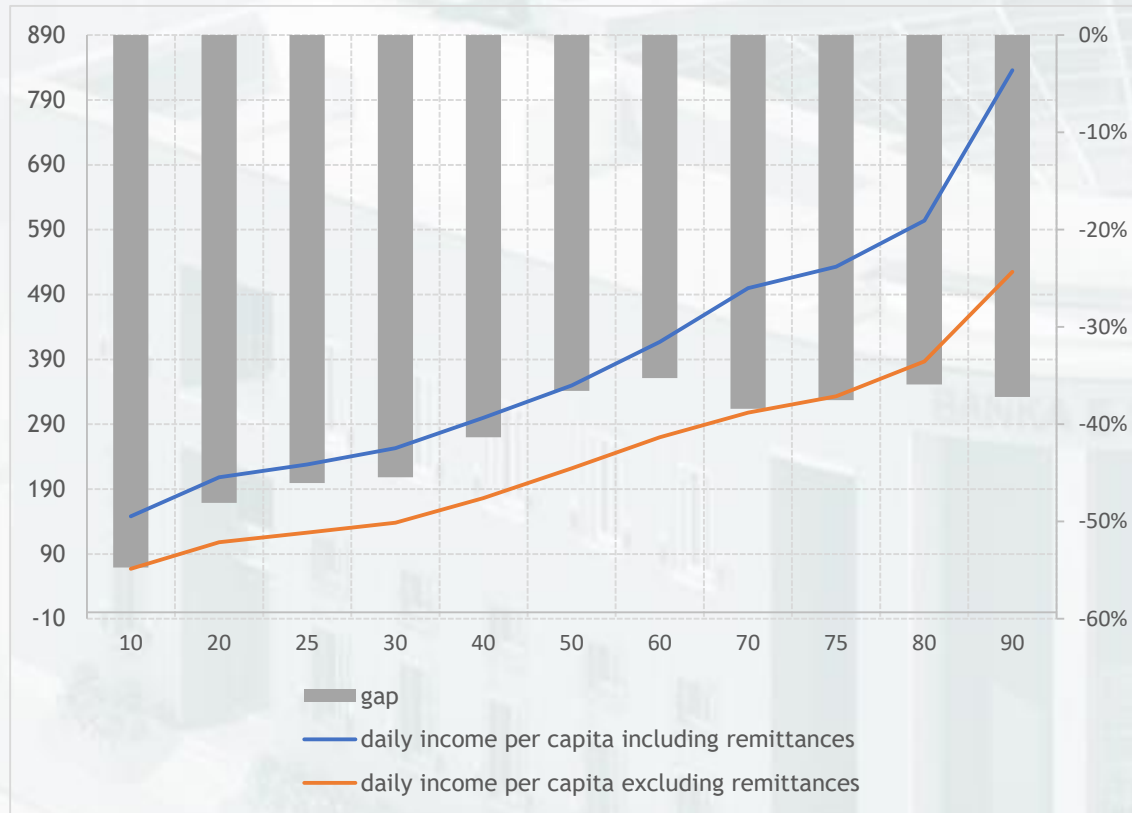


Source: Frashëri, (2007), Dushku (2019)

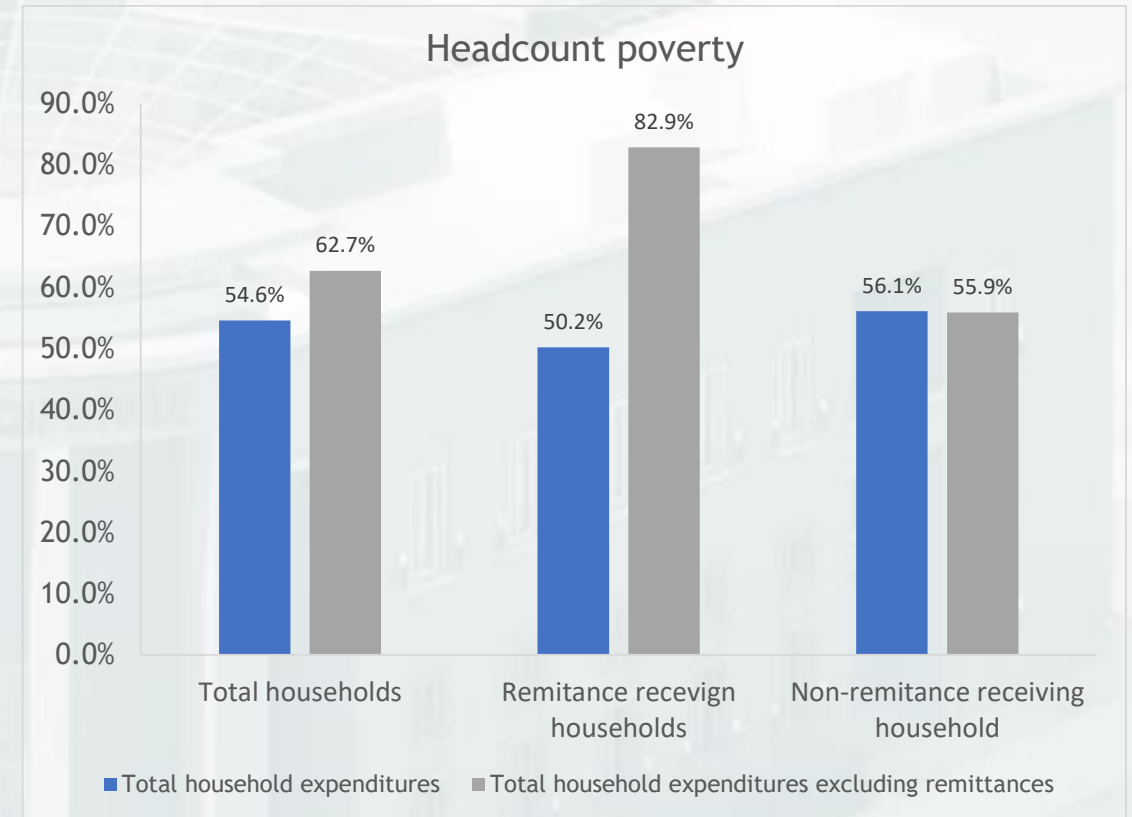
- Remittances are the second most important source of household income, they accounted from 14 % to 23 % of households income.
- The households survey data in 2019, showed that for 24.4% of remittances-receiving households, remittances are the only source of household income.

III. Data

Graph 6: The impact of remittances on household poverty



Source: Frashëri, (2007)



Source: Dushku (2019)

- In 2007, Frashëri showed that excluding remittances, 40 % of households would fall under poverty level.
- The estimated results for 2019, showed that excluding remittances will increase the percentage of poor households, especially for the remittances-receiving household by 30 pp (Dushku, 2019).

IV. Estimation strategy

We aim to model the impact of receiving remittances on household poverty based on probit models.

$$P_H^*_i = x_i\beta + \mu_i$$

$$P_H_i = \begin{cases} 1 & \text{if } Poverty_line^* - H_income_i > 0 \\ 0 & \text{if } Poverty_line^* - H_income_i \leq 0 \end{cases}$$

P_H_i is a dummy variable, which is used to define whenever the households is consider poor or not. A households is consider poor if the gap between poverty line and household income is positive, otherwise non-poor.

The probability of a household being poor is:

$$\Pr(y_i = 1|x_i\beta) = \Pr(Poverty^*_i > 0) = \Pr(x_i\beta + \mu_i > 0) = 1 - F_{u_i}(-x_i\beta)$$

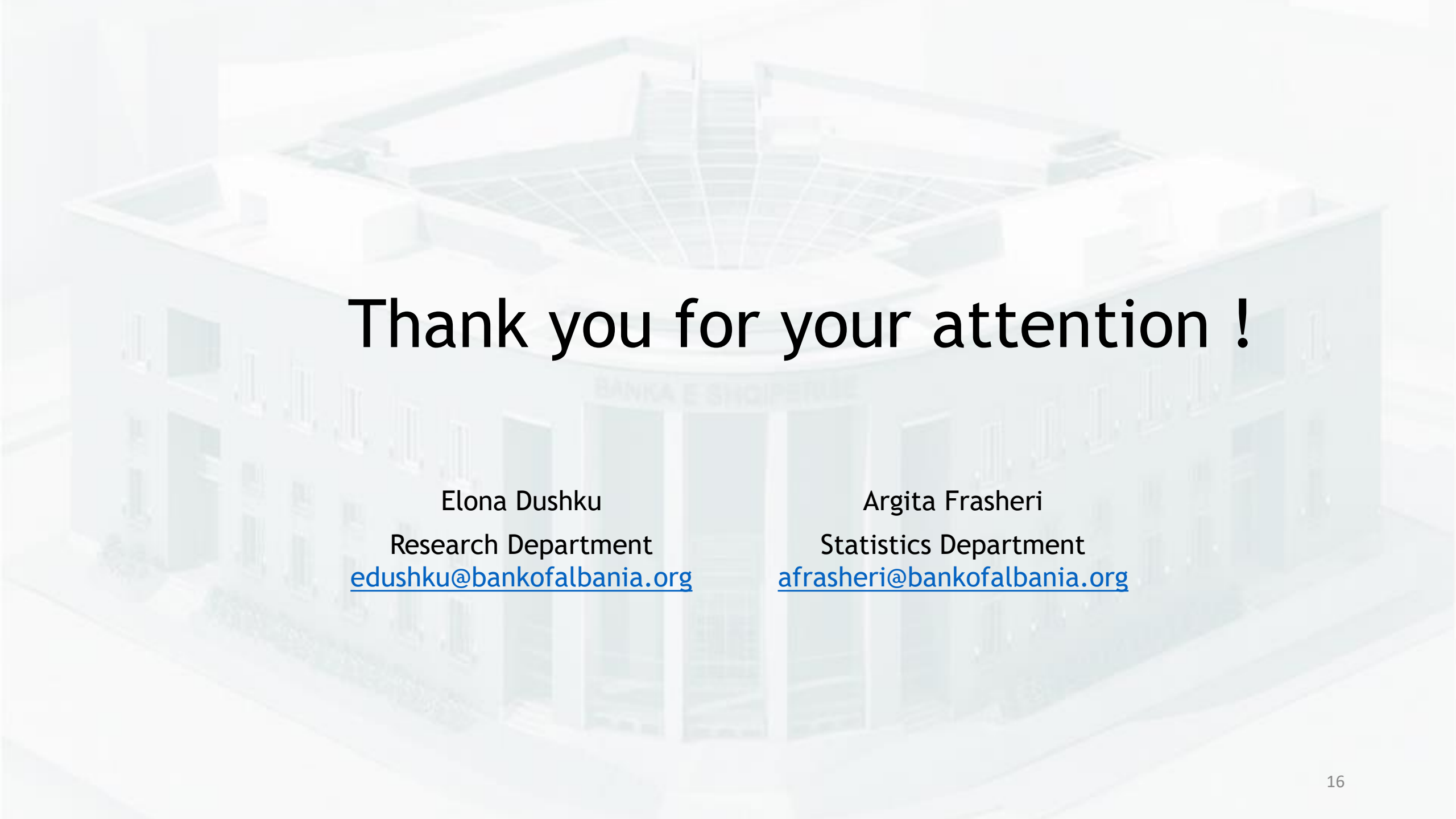
F_{ui} is the cumulative distribution function of u_i ,

IV. Regression results

	I-WB poverty line	II-60 % of the median of expenditure per capita	III-60 % of the median of equalized expenditure
Head: Male	0.248	0.352	0.226
<i>p-value</i>	(0.009)	(0.002)	(0.040)
Head: Age	0.016	-0.031	0.007
<i>p-value</i>	(0.053)	(0.001)	(0.458)
Head:Age2/(100)	-0.020	0.013	-0.012
<i>p-value</i>	(0.024)	(0.205)	(0.228)
Head: Married	0.072	-0.075	-0.239
<i>p-value</i>	(0.496)	(0.554)	(0.047)
Head: Year of education	0.059	0.030	0.042
<i>p-value</i>	(0.085)	(0.461)	(0.302)
Head: Year of education2/(100)	-0.774	-0.685	-0.709
<i>p-value</i>	(0.000)	(0.003)	(0.0032)
Head: unemployment	0.300	0.316	0.271
<i>p-value</i>	(0.003)	(0.001)	(0.0066)
Number of persons in the households	0.251	0.215	-0.031
<i>p-value</i>	(0.000)	(0.000)	(0.227)
Number of children under 5 years old	0.115	0.188	0.136
<i>p-value</i>	(0.125)	(0.010)	(0.075)
Household expenditure per capita (excluding remittances)	-0.088	-0.013	-0.061
<i>p-value</i>	(0.000)	(0.000)	(0.000)
Receipt of remittances	-0.701	-0.405	-0.712
<i>p-value</i>	(0.000)	(0.000)	(0.000)
Observations	2106	2106	2106

V. Conclusions

- Household level data confirm that remittances continued to be an important source of household income in Albania during the last decade.
- 23-26 % of Albanian households received remittances, with an annual average flow of remittances per household that range from 1827-2018 euro.
- Tirana, Elbasan and Fier are the most beneficiaries region in terms of amount and receiving-remittance households .
- Estimated results show that remittances reduces the probability of household being poor.



Thank you for your attention !

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Remittances and their impact of poverty: the case of Albania

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Abstract:

The purpose of this article is to assess the impact of remittances on poverty in Albania, based on household level data obtained from the first wave of Household Wealth Survey in Albania, conducted by the Bank of Albania in collaboration with Instat during 2019. Survey data show that 23% of Albanian households receive remittances, which an average annual inflow of remittance per household around 2,000 euros, which varies according to different groups of households and region. The data show that remittances are the second most important source of household income, after income from work. Estimations based on probit regressions show that remittances have a positive and significant impact on the reduction of household poverty in Albania.

Keywords: Remittances; Household Behavior, Poverty
JEL Classification F24, D10, I32

1. Introduction:

Migration has been identified as one of the most important factors of the 21st century affecting economic relations between developed and developing countries (Adams and Page, 2003). The United Nations, at the beginning of this century have estimated that 2.8% of the world's population or about 174 million people live and work outside their country of birth. In addition the latest figures show that migration is a growing phenomenon and that the world in this period is facing the deepest migration crisis it has seen in its entire history (WB, 2019). Estimates for 2017 done by United Nations, show that total number of migrants is 274 million people, increased by 98 million (or 56%) compared to the data of year 2000. Migrants in 2019 make up 3.5% of total world population, where Europe and North America represent the countries with the largest stock of migrants in the world, at 82.3 million and 58.6 million, respectively.

Migration is a multidimensional phenomenon that affects both the economies of sending and receiving countries in many ways. In addition to the economic, social and cultural impact that migration has mainly on countries that export migrants, the income they send to their country of birth is probably the most direct link between migration and the economic development of

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their country (Ratha 2007). Globally, in 2019 remittance reached the level of \$689 billion (WB, 2019) and represent the largest source of income for many developing countries. Remittance flows tend to be more stable and more countercyclical than capital flow and during the latest financial crisis remittances proved to be more resilient (Ratha, 2011). The main data source of recorded international migrant remittances are based on balance of payment data. However the estimation of the exact size of remittances is challenging because mostly of remittances have sent through unofficial channels. However empirical literature based on cross-country and country-level analysis have showed that remittances have reduced the share of poor people in the population (Adams and Page 2003, 2005; Gupta, Pattillo, and Wagh 2009) and are an important source of household income. Remittances are used to increase the level of consumption, saving, investments, financial intermediation of household, by contributing in reducing poverty and improving the overall economic growth perspective (Ratha et al, (2011)).

Albania, represent an interesting case where migration is a very widespread and well-known phenomenon. Many Albanians have relatives or friends, who work or live abroad. In 2017, it was estimated that 1.21 million Albanians or 42.7% of the Albanian population live outside the borders of Albania (UN DESA 2017, 2019, World Bank 2017) and 98 % of Albanian migrants have moved to the top five destination countries (World Bank, 2019). At the macroeconomic level, remittances in Albania constitute at one of the largest foreign exchange inflows coming from abroad and are an important source of financing the balance of payments. On average during the period 2008-2018, remittances estimated at 11.7% of GDP (Bank of Albania, 2019). Aggregate remittance data, although indicate their importance at macro level, show less about their importance at the household level. Most of the paper that discussed the phenomenon of remittances in Albania are focused mainly on the characteristics of migrants and their motives for remit (Gëdeshi (2000), Frashëri, (2007), Zanger-Siegel, (2007), (Abazaj (2011), Gëdeshi-Jorgoni (2012)), without analyzing the impact of remittances on poverty.

This article based on household level data from the first wave of the Albanian Household Wealth Survey, developed by the Bank of Albania in early 2019 analyzes the impact that remittances have on poverty in Albania. The data obtained from this survey show that 23% of Albanian households received income from migrants during 2018, and it is estimated that remittances are the second most important source of income. In addition empirical results based on probit model show that remittances negatively affect the probability of Albanian households being poor.

The article is organized into three parts. The first part makes a summary on the data collected from the Albanian Household Wealth Survey. The second part continues with the presentation of the empirical model, while in the third and fourth part are discussed the results and the main findings of this article.

2. Methodology:

In this article, the main source of data are households level data obtained from the first wave of the Albanian Household Wealth Survey (Dushku, 2019), conducted by Bank of Albania in 2019. This survey was based on the HFCS (Household Finance and Consumption Survey) methodology, applied by all national central banks in European Union and was adapted based on the features of Albanian households. The main purpose of this survey is to obtain detailed information on Albanian households, in terms of income, expenditures, real and financial assets of households, employment status and education level of all household members, etc. Albanian Household Wealth Survey was conducted in cooperation with Instat (Institute of Statistics), which collected the data through face-to face interviews methods, during the period March-April 2019 and provided the household sample. The sample design was based on the use of probability sampling, in order to have a full representation of all households and the population size on twelve region in Albania were used as stratification criteria. Despite different data on balance sheet of Albanian households we have collected data whether households

have received remittances and to what amount. So, the two main questions from the survey that we have taken in consideration related to migration and remittances are as following:

- Have you or any households member received remittances during 2018?
- How much (annual) remittances did you or your family receive during 2018?

We have to highlight that AHWS is not a migration or remittance survey, so we have shortage of information about the reasons condition Albanian to migrate, why they remit or the utilization of remittances. However, taking into account the advantages of disaggregate data on household level, our aim is to assess the impact of remittance on household poverty.

Dushku, (2019) by using the data of AHWS found that 23% of the total households received remittances in 2018. On average, households received around 2,000 euro annual inflow remittances, which varies on different household groups and regions. The data showed that remittance-receiving households were mostly located in the region of Tirana, Elbasani and Vlora. While based on the inflow of remittances, the most beneficiaries households were those located in the region of Elbasani, Durrësi and Tirana.

In addition we have estimated the importance of remittances for household income. Based on the detailed information that we have for all sources of household income we have found that remittance are the second most important source of income, accounting for 14 % -23 % of total income, after labor income which accounts for 49% to 64% of the total income. While other sources of income such as social contribution, rent or interest income comprise 20 % or less of total labor income.

Since we attempt to explain the impact that remittances have on household poverty first we will describe some characteristics of households taking into consideration the differences among the remittance-receiving households and no-remittance-receiving households. The data show that remittance-receiving households have on average fewer household members, fewer children under the age of 5 and low number of male over the age of 15 comparing to the no-remittance-receiving households. In addition the no-remittance-receiving households have on average more female over the age of 15 and older household head. The data reveal minor differences on the number of household members over age 15 with primary and secondary education but show that remittance-receiving households have less household members with tertiary education. Both groups differentiate in terms of average monthly household per capita expenditure (excluding remittances), which show that remittances are very crucial for the remittance-receiving households group.

Table 1: Features of No-Remittance-Receiving Household and Remittance-Receiving Household

	No-Remittance-Receiving Household	Remittance-Receiving Household
Human capital		
Mean number of member over age 15 with primary education	1.77	1.76
Mean number of member over age 15 with secondary education	1.14	1.12
Mean number of member over age 15 with university	0.42	0.38
Households characteristics		
Mean age of household head (years)	55	60
Mean education of household head (years of education)	10.3	9.7
Mean household size	3.8	3.2
Mean number of males in households over age 15	1.68	1.58
Mean number of females in household over age 15	1.64	1.69
Mean number of children in household under age 5	0.16	0.13

Wealth		
Mean value of house (in million ALL)	5.98	5.73
Median monthly household per capita expenditure (excluding remittances) in ALL	10,851.25	3,388.34
Median monthly household per capita expenditure (including remittances) in ALL	10,905.08	11,525.51
area (1=Nord, 2=Centre, 3=South-East, 4=South)	2.22	2.26
Number of households	1,569	537

In our econometric analysis, we aim to model the impact of receiving remittances on household poverty. Based on the work of Raihan et al. (2009), Wurku and Marangu (2015) and Abbas et al. (2014), we have estimated a probit regression model as follows:

$$P_H^*_i = x_i\beta + \mu_i$$

Where P_H_i is a dummy variable, which is used to define whenever the households is consider poor or not, x_i are exogenous variables and μ_i is a random disturbance. A households is consider poor if the gap between poverty threshold line² and household income ($H_income^*_i$) is positive, otherwise non-poor. Poverty threshold line is determine as the minimum of income needed to cover basic needs (WB, 2019) based on Foster-Greer-Thorbecke index³

$$P_H_i = \begin{cases} 1 & \text{if } Poverty_line^* - H_income_i > 0 \\ 0 & \text{if } Poverty_line^* - H_income_i \leq 0 \end{cases}$$

While the probability of a household being poor is determined as follows:

$$\Pr(y_i = 1|x_i\beta) = \Pr(Poverty^*_i > 0) = \Pr(x_i\beta + \mu_i > 0) = 1 - F_u(-x_i\beta)$$

Where F_u is the cumulative distribution function of u ,

Both income and consumption observations are available from the AWHs data, however our measure of poverty indicator is based on consumption data. One reason for this preference is that consumption is less subject to short term economics shock and usually income are underestimated. As exogenous variables we have include those variables, which tend to capture the characteristic of households head and those of the households. We have added dummies variables for the gender, marital and occupation status of the household head and also the years of education for him. We have entered the numbers of people in the households and the number of children under 5 years old to take to account the difference between households. In addition we have included a dummy variable equal to one when household had received remittances during the past year to investigate the impact that remittances had on poverty. We have added household expenditure per capita (excluding remittance) for estimating the effect of income on the probability of households on being poor.

3. Result:

² Determine as the minimum of income needed to cover basic needs (World Bank, 2019)

³ The index is calculated as follows: $Poverty_\alpha = \frac{1}{N} \sum_{i=1}^H \left(\frac{z-y_i}{z} \right)^\alpha$

Where, H is the total number of poor households, whose income lie below the poverty line, y_i is the expenditure (or income) of the i^{th} individual households, N is the total number of households and z is the poverty line. We have used as a measure of the poverty line the daily per capita income proposed by World Bank in 2019 which is 3 \$ per day for developing countries. α is a parameters index, which takes the value of 0, 1 and 2 and is used to calculate different measures of poverty..

Since our aim is to investigate the impact of remittances on poverty, the estimated results are revealed in the table 2. In the column 1 we have presented the impact that remittances have on household poverty, whereas as poverty line we have used the World Bank definition. As robustness check in the column 2 and 3 we have presented the results, where household poverty is based on the OECD definition⁴.

Table 2: Estimated results based on probit model regressions

	I-wb poverty line	II-60 % of the median of expenditure per capita	III-60 % of the median of equalized expenditure
Head: Male	0.248***	0.352***	0.226***
<i>p-value</i>	(0.009)	(0.002)	(0.040)
Head: Age	0.016**	-0.031***	0.007
<i>p-value</i>	(0.053)	(0.001)	(0.458)
Head: Age ² /100	-0.020**	0.013	-0.012
<i>p-value</i>	(0.024)	(0.205)	(0.228)
Head: Married	0.072	-0.075	-0.239**
<i>p-value</i>	(0.496)	(0.554)	(0.047)
Head: Year of education	0.059*	0.030	0.042
<i>p-value</i>	(0.085)	(0.461)	(0.302)
Head: Year of education ² /100	-0.774***	-0.685***	-0.709***
<i>p-value</i>	(0.000)	(0.003)	(0.003)
Head: unemployment	0.300***	0.316***	0.271***
<i>p-value</i>	(0.003)	(0.001)	(0.006)
Number of persons in the households	0.251***	0.215***	-0.031
<i>p-value</i>	(0.000)	(0.000)	(0.227)
Number of children under 5 years old	0.115	0.188*	0.136*
<i>p-value</i>	(0.125)	(0.010)	(0.075)
Household expenditure per capita (excluding remittances)	-0.088***	-0.013***	-0.061***
<i>p-value</i>	(0.000)	(0.000)	(0.000)
Receipt of remittances	-0.701	-0.405	-0.712
<i>p-value</i>	(0.000)***	(0.000)***	(0.000)***
N	2102	2102	2102

Note: ***, **, * denote significance at the 1%, 5% and 10% level, respectively

The estimated results show a negative and significant results of remittance on poverty, which is in line with literature that remittances increase the level of income of households receiving remittances, as result increase the level of consumption and savings. Then this rise of income diminish household vulnerability as result reduce household poverty. We have found that larger households are more likely to be poor. Also our results show that occupation status of household head affect positively the probability of household being poor. Education level of the household head has a u-shaped effect on the probability of being poor, which confirm that higher level of education is associated with lower probability of household being poor. We have found that household expenditure per capita effect negatively the probability of

⁴ The at-risk-of-poverty rate is the share of people with an equalized disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equalized disposable income after social transfers. The equalized disposable income is the total income of a household, after tax and other deductions, that is available for spending or saving, divided by the number of household members converted into equalized adults; household members are equalized based on two scale, the number of households and their square.

household being poor, while about the impact of household head age we have found mixed results.

4. Discussion and Conclusion:

Generally households are characterized by a considerable level of heterogeneity, not only in terms of their finances, but also in terms of the behavior towards them. This has led to greater attention to micro-level data analysis in order to better illustrate the heterogeneity that exists in households data. Following the latest financial crisis, household's data are used to assess the financial vulnerability of the household based on different socio-economic factors. Furthermore, these data are used to identify those groups that are most vulnerable to various risk factors and how they may impair financial stability.

The results of the first wave of Albanian Household Survey data confirm that remittances continued to be an important source of Albanian household income during the last decade. In Albania 23% of households have received remittances, with an annual average flow of remittances per household at 2,000 euro. Tirana, Elbasan and Vlora were the most beneficiaries regions in terms of amount and percentage of households, which received remittances. The empirical results confirm that remittances have reduced the probability of household on being poor, which is in line with literature that remittances increase the level of income of households receiving remittances, as result increase the level of consumption and savings and reduce poverty. In addition, we have found a u-shaped relationship between education and poverty and that household size and occupation status of household head being unemployed affect positively the probability of households being poor.

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