

Anwar, Amar, Colin F. Mang, and Sonia Plaza. 2024. "Remittances and Inequality: A Meta-Analytic Investigation." *The World Economy* 47 (6): 2664–2705. <https://doi.org/10.1111/twec.13558>.

The motivation of this paper is to resolve inconsistencies in the literature on the relationship between remittances and inequality, where they fail to reach an agreement.

The authors use a meta-analysis approach to synthesize findings from 45 empirical studies examining the relationship between remittances and inequality. They collected 578 results from economic papers related to "remittances", "inequality", and "income distribution". They then apply Bayesian Model Averaging (BMA) and both fixed-effects and random-effects models to estimate the overall impact of remittances on inequality. To check for publication selection bias (PSB), they use funnel plots, the Funnel Asymmetry Test (FAT), and the Precision-Effect Test (PET). Finally, they conduct a meta-regression analysis to identify sources of heterogeneity, examining factors such as regional differences, model specifications, and omitted variable bias.

The key finding is that remittances generally reduce inequality, but the impact varies across regions. In South Asia, remittances tend to increase inequality due to high migration costs that limit access for poorer households. In contrast, they reduce inequality in regions like Eastern Europe, Latin America, and Sub-Saharan Africa, where migration is more accessible to lower-income groups. The Middle East and North Africa show no significant effect.

The methodology of this paper is not going to be used in my paper, but its results are valuable. It's a combined result of previous studies and it identifies the regional variations of the relationship between international remittance and income inequality. In my research, it could be used as both previous knowledge and I can compare my regional result to this paper, and see the difference between using remittance values and the percentage of value to GDP.

Barham, Bradford, and Stephen Boucher. 1998. "Migration, Remittances, and Inequality: Estimating the Net Effects of Migration on Income Distribution." *Journal of Development Economics* 55 (2): 307–331. [https://doi.org/10.1016/S0304-3878\(98\)00038-4](https://doi.org/10.1016/S0304-3878(98)00038-4).

The paper examines how migration and remittances affect income inequality and focuses on Bluefields, Nicaragua, a migrant-sending region where remittances significantly contribute to household income.

The analysis utilizes approaches including OLS, quantile regression model, kernel density estimation, and working-lester model. Also use an instrumental variable approach to address endogeneity concerns, such as reverse causality between remittances and inequality, as well as

potential omitted variable bias and interaction terms. The key independent variables include remittance volume (as a percentage of GDP, per capita, and per migrant), GDP per capita, government expenditure, trade openness, inflation, and democracy index. They also include a migrant skill composition, represented by the ratio of low-skilled to high-skilled migrants.

They conclude that remittances reduce income inequality when the effects are measured as if remittances were an exogenous income source. But if migration and remittances are treated as a substitute for home earnings, income inequality is higher than the no-migration counterfactuals.

This paper is related to my research in a way that it points out a problem of what role international remittance plays in the consumption of households. It may vary a lot and this is a problem I need to address in my own paper. Also, this paper introduces the emittance volume (a percentage of GDP per capita) as a variable, which can be considered as a form of remittance to GDP

Kratou, Hajer, and Najeh Khlass. 2022. "Remittances, Income Inequality, and Brain Drain: An Empirical Investigation for the MENA Region." In *Key Challenges and Policy Reforms in the MENA Region*, edited by M. S. Ben Ali. Springer Nature Switzerland. https://doi.org/10.1007/978-3-030-92133-0_5.

The paper investigates the impact of remittances and brain drain on income inequality in the MENA(Middle East and North Africa) region and focuses on Brain Drain, which is the process of highly educated workers migrating to high-income countries. Brain Drain would increase the chance of international remittance increasing income inequality.

The study employs an empirical analysis covering 14 MENA countries from 1995 to 2020, using the Gini coefficient as the primary measure of income inequality. It utilizes an instrumental variable (IV) approach to address potential endogeneity issues, such as the reverse causality between remittances and inequality. Key independent variables include remittance flows, GDP per capita, government spending, trade openness, inflation, and democracy index, with a particular focus on the ratio of low-skilled to high-skilled migrants. The study also conducts an interaction analysis to examine how the skill composition of migrants influences the relationship between remittances and inequality.

The results hint at the possibility that the sender population for remittances is generally made up of recent immigrants with low-skill levels and low incomes who frequently send remittances to support their families left behind, while the rich often receive fewer remittances because they tend to take their families with them and are less motivated to return or invest in their home country.

This paper focused specifically on Brain Drain, which tends to be more common in developing countries. How this could relate to my paper is that I might be able to use it as a theoretical support for my hypothesis. Since countries rely highly on international remittance tend to rely on “exporting” low-skilled workers (Tajikistan could be a good example here). So I would expect this high reliance would decrease the inequality in those countries. However, this does not provide information on countries that experience both Brain Drain but also send a lot of remittances (for example, China).

Koechlin, Valerie, and Gianmarco León. 2006. "International Remittances and Income Inequality: An Empirical Investigation." Inter-American Development Bank, Research Department Working Paper #571. <https://www.iadb.org>.

The motivation of this paper is to provide comprehensive empirical evidence on the relationship between international remittances and income inequality. It tests the hypothesis that there is a non-monotonic relationship between international remittances and income inequality. The methodology of this paper involves Ordinary Least Square regression and instrumental variables to address the endogeneity problems, and panel data. The main finding is that there is a positive and significant coefficient for the linear term and a negative and significant term for the quadratic term in regression when and only when the instrument variables are introduced. However, I am skeptical if the choice of instrumental variable (the cost of obtaining a passport in each country) is the correct choice of a representative of a proxy of the barriers to exit a country. Also, it shows that remittances increase inequality at the first stage of migration history but at some later point reduce income inequality. The use of panel data, with country characteristics being considered, supports this result by providing evidence of a non-monotonic relationship. The authors' conclusion is that during the initial stages of migration history, this opportunity is only taken by people in the higher stances of the income distribution, so it increases inequality. When households in lower levels of income distribution start to migrate, inequality reduces.

This source provides evidence that the effect of international remittance on income inequality is related to how common migration is in a specific country. This paper might be sourced as a theoretical support of the hypothesis that countries with higher dependence on remittance might have lower income inequality.

Murodova, Sevilya. 2018. "Impact of Remittances and International Migration on Poverty in Central Asia: The Cases of the Kyrgyz Republic, Tajikistan, and Uzbekistan." *Journal of Applied Economics and Business Research* 8, no. 1: 38-56.

The motivation for this paper is to focus on the impact of large size of remittances on the welfare in these countries, and it fills the gap of lack of knowledge in these areas.

In terms of methodology, they estimate a binary dependent variable model with several regressors that include remittances received and other household and individual characteristics (such as household size, education, remittances, and location). To address endogeneity concerns, the author constructs a counterfactual scenario, estimating what poverty levels would be if migration and remittances had not occurred. Since migration is not random, the study employs the Heckman Two-Step Selection Model to control for self-selection bias, using household characteristics to predict migration decisions. The result is the comparison between the poverty status under both migration and no-migration scenarios and use it to determine the true impact of remittances on poverty reduction.

As their key findings, they confirm the impact of variables like family size and education on poverty. Also, they find that international remittances have a significant effect on poverty reduction, but the inclusion of remittances in household expenditures has little impact on income inequality. Poverty status can be considered as one side of income inequality, so I wonder why there is no significant result in the decrease of income inequality. I guess it's because that part takes the "inclusion" as the explanatory variable, and this part might be discussed/checked in my research.

How this paper is related to my research is that this paper includes research on specific countries whose economies highly rely on international remittance (42% in Tajikistan and 30% in Kyrgyzstan), which helps me discover what to expect in the results of these countries, and also a contrast to countries with similar background but lower reliance (12% Uzbekistan). The result shows that the probability of falling into poverty decreases by 12% in Tajikistan, 8.58% in Kyrgyzstan, and 23.15% in Uzbekistan for households receiving remittances. This seems that countries with higher reliability in remittances have less decrease in poverty, but in my research I think I need to check if it's because of remittance or other variables, and also check the other side of the income inequality (rich). This part can be referenced as expecting a decrease in inequality, and we can conclude what happens to the rich when according to the inequality data of these countries.

Rodrigue, Yannick, and Nanfosso Roger Tsafack. 2020. "Remittances, Financial Inclusion and

Income Inequality in Africa.” *MPRA Paper*, April.

The motivation for this paper is to analyze the role of financial inclusion (FI) within remittances on income inequality (whether it reduces income inequality). This paper uses panel data for 47 countries in Sub-Saharan Africa over the period 2004-2014, and performs regression with remittance and financial inclusion as independent variables, while inequality is the dependent variable. This paper focuses on the marginal effect of remittances on income inequality depending on the level of financial inclusion, so they will look at the interaction term between these two. The authors also applied the generalized moments method to solve the endogeneity problem, biases that arise due to the country-specific effects, and avoid problems of simultaneity or reverse causation. They found significant evidence that remittances and FI have a negative impact on different income inequalities and are all significant. In Africa, remittances remain a major source of reduction of inequalities. Also, the coefficient of the interaction term is positive and significant, this implies that the marginal effect on inequality depends on the level of integration of financial inclusion. The authors reached a conclusion that remittances significantly reduce inequality in Africa is accompanied by financial inclusion.

This paper does not perfectly align with my research topic, but it does provide important insights on how I might do my own research. First, this paper contains panel data from different countries over a period, which is similar to the type of dataset I might use. I can source and use of generalized moments method in my thesis. Also, this paper provides evidence of the significance of financial inclusion on income inequality and it's interaction with remittances, so I might need to include it in my dataset as a control variable. This paper can also be sourced as previous literature about the relationship between remittance and income inequality for poor areas (according to one of the sources more than half of the world's poor live in sub-Saharan Africa) since I consider divide countries into groups based on poverty status.

Research Question: How does the dependence on international remittances affect income inequality?

Hypothesis: Countries whose economy relies highly on receiving international remittances should have lowered their income inequality over time. No previous literature points out this relationship in countries who relies less, but the hypothesis would be the impact is less.