4-22-2020

How Do Personal Remittances Affect Income Inequality?

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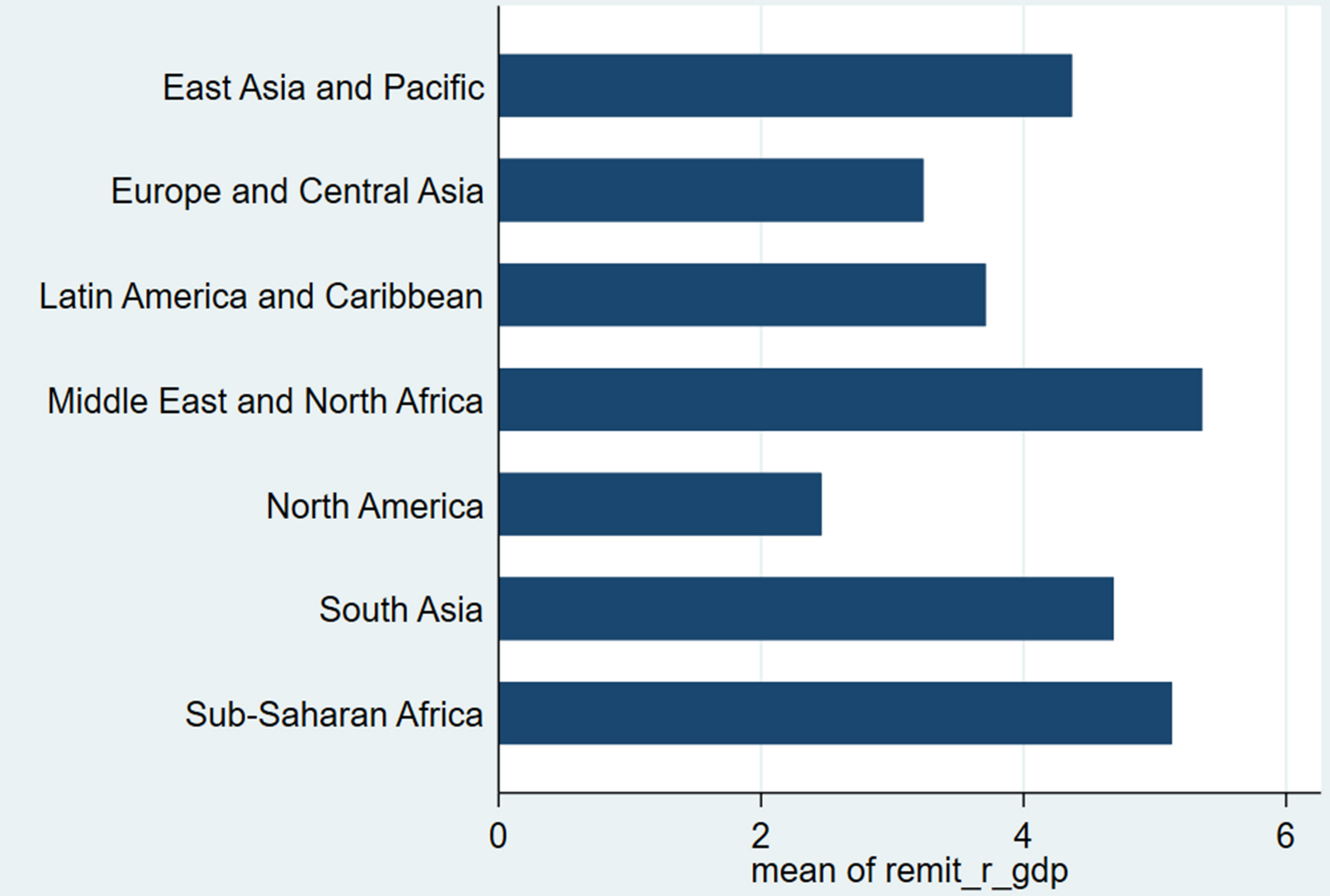
Abstract

We research the effects of personal remittances on the distribution of income and income inequality. Based on data we collected for the World Bank Databank from 1970 to present we compared the effect that remittances have on the income share held by the top 20 percent of the population vs their effect on income share held by lowest 20 percent. The results from comparing the two models indicate that personal remittances decrease the spread of income leading to a decrease in the wage gap of lower to middle income countries. This is due to their greater effect on the income of the lowest 20 percent over the income of the highest. Our findings are similar to those of previous studies on the effects of remittances on income.

Introduction

Personal remittances are a major source of income in many developing and lower to upper median income countries across the world. Remittances received from other countries totaled 529 billion in 2018 up 9.6% from 483 billion just one year before. Previous studies have shown that the effect remittances have on income poor is positive while their effect on the rich is negative. Our research looks at whether an increase in a countries remittances as percentage of GDP will lead to a decrease in poverty and decrease income inequality among countries across the world that are considered to be lower to median income countries. We hypothesize that remittances will increase the amount of wealth across the different regions for the lowest 20 percent while at the same time decreasing wealth of the highest 20 percent intern, decreasing income inequality.

Average Remittances of Each Region



Methodology & Model

The data from this study comes from data reported to the World Bank Databank from 1970 to present. Our study uses countries from across the world split up into seven different regions using North America as our base for observation. We exclude countries from the model that are considered to be "high income" in order to get the most accurate representation of the effect that remittances have on lower to middle income countries while using low income as our base. The analysis for this study uses Ordinary Least Squares (OLS) Methodology. We control for additional variables that have an effect on income including trade, secondary education level, and inflation.

Summary Statistics

Variable	n	Mean	S.D.	Min	Mdn	Max
remit_r_gdp	5941	**4.22**	11.05	0.00	**1.25**	235.92
incshcare_1st20pct	1468	**46.18**	7.82	32.4	**44.35**	71.00
incshcare_5th20pct	1468	**6.34**	2.19	0.80	**6.50**	11.40
inflation	8398	**33.62**	439.06	-36.56	**5.72**	26765.86
edu_secondary	6239	**64.76**	34.11	0.00	**71.24**	166.14
trade	7538	**81.54**	53.23	0.02	**71.82**	860.8

Selected Results

Summary statistics summarize information about the data set. This statistic shows that the average mean of remittances as a percentage of GDP is 4.22 and the median reads 1.25. The average mean for income share held by the highest 20 percent is 46.18 and the median, 44.35. The average mean for income share held by the lowest 20 percent is 6.34 and the median, 6.50.

We found that in the full model that a 1 percent increase in remittances would result in a 0.001 percent increase in income held by the highest 20 percent but is no longer statistically significant. When looking at the second model we found that a 1 percent increase in remittances would result in a 0.02 percent increase in income share among the lowest 20 percent.

Results show that there are remittances in the top 20 percent which are still increasing but at a decreasing rate. As for the bottom 20 percent, the results have continually showed statistical significance throughout the full model. Although, this change is relatively small it does show a slight decrease in income inequality. An amount of substantial economic activity is dependent on family members working abroad.

Log of Income Shares Held By the Highest 20 Percent			
Explanatory Variables	1	2	3
lremit_r_gdp	-0.0167*** (0.0028)	-0.0083** (0.0034)	0.0014 (0.0026)
inflation		-0.0006*** (0.0002)	-0.0002 (0.0002)
edu_secondary		-0.0007*** (.0.0002)	-0.0001 (0.0002)
trade		-0.0009*** (0.0002)	-0.0001 (0.0001)
2.regionname			-0.103*** (0.0134)
3.regionname			0.161*** (0.0129)
4.regionname			-0.0305* (0.0174)
6.regionname			-0.0607*** (0.0206)
7.regionname			0.139*** (0.0177)
3.incomelevelname			0.0488*** (0.0177)
4.incomelevelname			0.0978*** (0.0197)
Constant	3.881*** (0.0054)	3.992*** (0.0202)	3.775*** (0.0240)
Observations	908	647	647
R-squared	0.038	0.089	0.642

Log of Income Shares Held By the Lowest 20 Percent			
Explanatory Variables	1	2	3
lremit_r_gdp	0.0437*** (0.0075)	0.0267*** (0.0094)	0.0172** (0.0070)
inflation		0.0012* (0.0006)	0.0005 (0.0004)
edu_secondary		0.0001 (0.0006)	0.0006 (0.0005)
trade		0.0018*** (0.0005)	-0.0005 (0.0003)
2.regionname			0.332 (0.0365)
3.regionname			-0.640*** (0.0353)
4.regionname			-0.0139 (0.0474)
6.regionname			0.124** (0.0561)
7.regionname			-0.371*** (0.0484)
3.incomelevelname			-0.171*** (0.0484)
4.incomelevelname			-0.240*** (0.0537)
Constant	1.661*** (0.0144)	1.517*** (0.0557)	2.118*** (0.0654)
Observations	908	647	647
R-squared	0.036	0.050	0.636

Standard errors in parenthesis ***p<0.01, **p<0.05, *p<0.1

Conclusion

Our results from the study indicate that remittances have a positive effect on the income share of lowest 20 percent. This effect is greater than that of the effect on the income share of the income share of highest 20 percent. This leads us to the conclusion that over time an increase in remittances flowing into a low to median income county will slightly decrease income inequality. Although proven to be statically significant this effect may be too slight to have practical effect on the wage gap over a reasonable period of time.

These results are consistent with the relevant literature that explore the distribution of remittances and their effect on income inequality.

Selected References

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