ASSESSING THE EFFECT OF REMITTANCES ON MIGRATION PATTERNS IN DISPLACEMENT PATTERNS IN LATIN AMERICA AND THE CARIBBEAN

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ABSTRACT

The role of remittances in human development has been studied in many countries for several decades. However, in recent years, the unwavering expansion in global migration and displacement derived from conflict, fragility, natural disasters, among other emergencies have underscored the need to go beyond this research to learn more about the relationship between remittances and migration patterns around the world. This imperative is evident given the ongoing humanitarian crises afflicting countries such as Syria, Ukraine, and Venezuela, among other regions around the world. At the same time, global remittance transfers have doubled from 2001 to 2022, positioning remittances as a lifeline not only for households, but local, state, and national economies around the world (World Bank, n.d.).

Against this backdrop, this thesis explores the relationship between remittances and migration and displacement in Latin America and the Caribbean (LAC). If such a relationship is revealed, this study can identify opportunities for policy makers to reduce displacement and forced migration in the LAC region by expanding the volume and cadence of remittance transfers around the world. Within this quantitative analysis, this thesis will employ fixed-effect analysis utilizing indicators related to remittances, migration, displacement, as well as development indicators related to access to healthcare, education, housing, unemployment, inequality, among other areas.
DEDICATION

This work is dedicated to the “village” that made my journey to Georgetown possible.

I am deeply grateful to my Thesis Advisor, Etai Mizra, whose enduring support and patience have been instrumental in shaping this work.

Thank you to my parents, Araceli and Jorge Arturo, who instilled in me a devotion to servant leadership since my childhood.

Thank you to my siblings, Brian and Katherine, for your unwavering commitment to our parents and our family, which made dreaming big and leaving home possible.

Thank you to Bita, whose support made the acceptance of my first internship in Washington, D.C. a reality.

Thank you to my Aunt Bertha and Uncle José Luis, for believing in my potential to become a future diplomat since my childhood.

And to Agatha, thank you for going above and beyond in supporting me through life’s toughest challenges. I can’t wait to continue to grow with you, and to help make our world a better place along the way.

“The only way to do great work is to love what you do. If you haven’t found it yet, keep looking. Don’t settle.”

– Steve Jobs
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INTRODUCTION

Today, there are several humanitarian crises throughout the western hemisphere that include diasporas in pursuit of safety and economic opportunity. Thus, it is crucial to explore the potential impact remittances may have on migration trends throughout the region, as remittances may pose an efficient and effective approach to spurring economic development in countries throughout the continent. This, in turn, can reduce the number of refugees and asylum seekers in the Western Hemisphere who undergo the treacherous journey from their countries of origin to as far north as the United States or Canada, including those who feel the need to migrate due to instability, violence, and a lack of economic opportunity.

Displacement in Latin America and the Caribbean poses a multifaceted challenge to countries throughout the region. Forced migration, refugee flows, and other forms of displacement pose significant challenges for countries and their governments, particularly by straining already scarce public resources. In certain instances, this phenomenon is worsened by the tendency of forcibly displaced individuals to cluster in urban centers and capital cities. Such is the case in Chile and Peru, where nearly 75% of all displaced persons reside in the capital cities (Dumont et al., 2024). Left unattended, this strain could exacerbate preexisting economic challenges, and give rise to social tension and political instability. Adding to the challenge, these migration flows are expected to rise commensurate with an increase in conflict, violence, inequality, and in some cases violations of human and political rights (UNHCR, 2022). Countries and international organizations have endeavored to support migrants and displaced individuals by upholding their human rights as they move through Latin America and the Caribbean.
Simultaneously, efforts have been made to help these individuals integrate into local communities from a socioeconomic perspective as they settle down in the region.

Remittances are cash transfers sent by migrants to their communities of origin from abroad. These are typically sent by wire transfer, money order, or through a digital financial service provider such as Remitly. They play a crucial role in the global economy, serving as the primary source of income for households, communities, and in rare instances, entire countries from their diaspora spread around the world. In doing so, remittances contribute towards various factors that are conducive to human development by supporting food security and expanding access to healthcare, education, and housing (World Bank, 2023a). They can also contribute towards reducing inequality in countries experiencing migration from lower income or rural communities, as migrants typically send their remittances back to their households in their communities of origin (OECD, 2006).

In the last 20 years, the flow of remittances has grown around the world, doubling from 0.4% of global gross domestic product (GDP) in 2001 to 0.8% of global GDP in 2022 (World Bank, n.d.). The effect of remittances is felt in economies around the world, especially in some developing countries, where remittances have become the largest source of income (Ratha, 2019). For example, in Tajikistan, remittances represented 50.9% of GDP in 2022, and in Honduras they represented 26.8% of GDP in the same year (World Bank, n.d.).

This fundamental role that remittances have in local economies in sustaining livelihoods is exacerbated in countries experiencing economic challenges, especially those undergoing rising levels of unemployment and poverty, which lead to migration. Moreover, in cases of humanitarian crises, internally displaced persons, refugees, and
asylum seekers are often forced to migrate and leave behind their belongings, placing their safety and integrity at risk.

**BACKGROUND**

Many communities of origin throughout Latin America and the Caribbean have historically grappled with a combination of adverse economic conditions that have hindered their development and, in some cases, influenced migration patterns that have taken place for several decades. These migration flows have surged in recent years as fragility, instability, conflict, and violence have afflicted various regions throughout the western hemisphere, impacting entire countries in some cases. Inequality across several dimensions, including income, access to education, and access to healthcare continue to negatively impact vulnerable communities, including women, members of the LGBT+ community, and racial and ethnic minorities (UNDP, 2022). The region underwent an increase in income inequality in the 1990s, followed by a period of decreasing inequality in the 2000s; however, this reduction has slowed precipitously and even stagnated since the 2010s (Gasparini & Cruces, 2021). Today, Latin America is one of the most unequal regions in the world, ranking only behind Sub-Saharan Africa.

In addition to these factors that inhibit socioeconomic mobility, the separation of families represents an additional burden on households and communities of origin for migrants. Migrants tend to skew young and male, and in some cases include skilled workers which lead to “brain drain” occurring in vulnerable communities throughout the region (Cerovic & Beaton, 2017). This flow from a specific segment of a community’s population creates a shift in dynamics in local communities, creating emotional and psychological
impacts, influencing child development, and in some cases straining family relationships (Esteinou, 2022).

Remittances represent a lifeline for households and communities around the world. On average, migrants send between US$200-300 in remittances on a monthly or bimonthly basis (UN News, 2019). However, in 2018, over 200 million migrant workers sent $689 billion in remittances to low and middle-income countries, more than three times the amount of development aid and foreign direct investment combined (UN News, 2019). For the Latin America and the Caribbean region specifically, remittances reached approximately US$155.9 billion in 2023, continuing a 15-year trend of growth (Maldonado & Harris, 2023).

International organizations that promote development such as the United Nations and World Bank recognize the potential benefits that remittances can provide particularly in low and middle-income countries, but also the challenges that high transfer fees pose for sustainable development. Sending remittances is often expensive, with transfer fees averaging 7 percent of the total transfer, inclusive of service and currency conversion fees (UN News, 2019).
Today, there are five displacement situations occurring in the western hemisphere originating in Venezuela, Colombia, Central America, Nicaragua, and Haiti, displacing over 21 million people throughout the continent (UNHCR, 2023a). This represents a 25% increase from 2021. In Venezuela, which is currently experiencing the second-largest external displacement crisis in the world with more than 7 million displaced people
throughout most of the western hemisphere, and representing the largest country of origin for displaced people in the region, nearly one out of every four households received an estimated US$3.5 billion in remittances in 2021 alone (Acosta, 2022; R4V, 2023; UNHCR, 2023b).

**Figure 2: Top 10 Displacement situations in Latin America and the Caribbean in 2023**

Latin America and the Caribbean leads the world in human mobility, having grown from hosting 7 million migrants in 1990 to 15 million migrants in 2020 (UNDP, 2023). There are migration flows that occur at the regional level, including those who migrate from Haiti to the Dominican Republic, from Nicaragua to Costa Rica, and from Venezuela to Colombia and Peru. At the same time, there are migrants who travel from the region to
the United States and Canada seeking safety and economic opportunity. Migrants from Latin American and the Caribbean (LAC) comprise 41% of all migration inflow to both countries (UNDP, 2023). This trend is expected to continue, with migration from LAC to countries such as the United States, Canada, Spain, Portugal, and the United Kingdom increasing by 45% from 2015 to 2018 (Bank & Development, 2021).

**Remittances and Development**

Given their role in promoting human development, reducing the cost to send remittances and increasing the volume of global remittances are both United Nations (UN) Sustainable Development Goals (SDGs) (United Nations, 2023). Remittances also address other SDGs, including reducing poverty, eradicating world hunger, promoting healthcare, education, and expanding access to clean water and sanitation (UN News, 2019).

Moreover, capital inflows brought about by remittances provide benefits at the microeconomic and macroeconomic level. When a migrant leaves their community in pursuit of economic opportunity, their income often increases by several factors (Ratha, 2013). This new income is used to purchase food and invest in education, healthcare, and in some cases, entrepreneurship, and other income-generating activities in communities of origin. Remittances are also a vastly more stable source of income compared to foreign direct investments (FDI), given that they have remained steady in the face of the 2008 global economic crisis, and the 2020 covid-19 pandemic, contrary to FDI in many cases (World Bank, 2023a). For these reasons, remittances have become an increasingly critical component of managing and mitigating global economic challenges at the macroeconomic and microeconomic levels.
Growing Remittance Flows for Development

As previously mentioned, remittances are notoriously resilient to adverse economic conditions in both sending and receiving countries, and are often less volatile than foreign direct investment. In 2022, the World Bank’s Global Knowledge Partnership on Migration and Displacement (KNOMAD) found that remittances around the world increased 5% compared to 2021, despite the economic headwinds caused by the Covid-19 pandemic (Ratha et al., 2022). At the microeconomic level, remittances have a direct impact on poverty reduction in its role as a cash transfer, increasing household consumption, expanding investment in education and healthcare, and in some cases reducing capital constraints by facilitating household expenditure in income-generating activities such as farming or investments in other entrepreneurial activities (Shaw et al., 2005). This is possible given the volume of remittances transferred around the world, which reached an amount equal to three times the world’s official development aid in 2022 (Malpass, 2022).

The potential of remittances to continue to bolster development is why both increasing the volume and cadence of remittances are both elements of the United Nations Sustainable Development Goals. These goals were outlined in the Addis Ababa Action Agenda, a report from the Third International Conference on Financing for Development in 2015, with the objective of helping countries harness their capital inflows and match those with social, financial, and economic policies that help maximize their potential in bolstering development (United Nations, 2015). This can be accomplished through policies that effectively remove costs and barriers to conducting transfers through the use of tax credits equal to the reduction in fees paid by senders and recipients, fostering a competitive marketplace for financial service providers to reduce costs, promoting the use of digital
technology such as mobile money transfer (MMT) platforms to expand access to financial services, or setting up innovative financial instruments such as diaspora bonds to fund development (Okai, 2020; Mohieldin & Ratha, 2020). One notable example of such an initiative is the Pakistan Remittance Initiative, established in 2009 to facilitate the flow of remittances into the country. A 2016 report found that the program was successful at shifting remittance transfers from informal to formal channels, though its inconclusive evidence regarding its impact on the size of remittances underscores the importance of multifaceted approaches at spurring the inflows of remittances to countries of origin (Qureshi, 2016).

While remittances are not an end-all solution for economic resilience, these do represent a positive source of economic support for communities around the world. Against the backdrop of an increasingly aging population in the world’s advanced economies, and with more than a billion people primarily from Africa and South Asia expected to enter the labor force by 2050, migration flows are expected to continue around the world, with commensurate increases in the volume of remittances and their contribution to national economies around the world (Ratha, 2023).

If remittances are strongly correlated to economic development and inversely correlated with migration patterns, then facilitating the flow of remittances may be conducive to reducing displacement throughout the continent, preventing humanitarian crises such as the crisis occurring today throughout the continent and at the United States’ southern border.
The relationship between development and migration has been studied for many years. Historically, migration was perceived to have detrimental effects on a country’s development (Ghosh, 2006). However, since the late 2000s, remittances have come to the fore in academic research as a strong potential catalyst for a country’s development. Moreover, migration can yield benefits for countries or economies because it can relieve pressure in labor markets, reducing unemployment levels and potentially increasing wages, adding to the benefits received from remittances abroad (Asian Development Bank & World Bank, 2018). Interest in remittances as a driver for development has only increased given the increasing flows of money sent by migrants to their homes around the world.

Accordingly, institutions such as the Global Knowledge Partnership on Migration and Development (KNOMAD), hosted by the World Bank, have explored the key role that remittances play within the framework of migration and development (Gubert, 2017). Current academic research on remittances explores migration patterns, the amount and cadence of remittances sent to communities of origin, and the various stakeholders involved in delivering the remittances, including banks and other financial institutions at the origin and destination of the remittances, and migrants’ associations. Research has also been done on the economic benefits for migrants while abroad, including the increase in income (often in several orders of magnitude) for migrants while residing abroad, as well as increases in education, health, and other living conditions that can contribute to growth in remittances sent around the world (Nanziri & Mwale, 2023; Ratha, 2019; Wang et al., 2021).
Despite the relatively new interest in the role of remittances on development, this research has not been without its challenges. In 2008, the “International Working Group on Improving Data on Remittances”, a group formed by researchers from the International Monetary Fund, the World Bank, and the United Nations, identified several challenges and inconsistencies in measuring remittances and their economic effects around the world (Gubert, 2017). To start, the availability of data is inconsistent across countries. Some countries are able to provide data from official sources, while others compile data from non-official sources or are unable to provide data altogether. Compiling this data can be challenging as there has been a strong increase in the amount of financial service providers available at the migrant’s country and their country of origin to send remittances and other wire transfers. Moreover, the reported increase in remittances since the turn of the century may be derived from enhanced abilities to measure transfers in the global economy. This is due to several factors, including improved protections against money laundering through institutions like the Society for Worldwide Interbank Financial Telecommunication (SWIFT) network which has decreased the amount of informal international money transfers and improved reporting of formal money transfers.

Going deeper into the role of remittances in development, research suggests that the highest potential for improvements to income, health, education, and inequality in countries of origin exist in where remittances are being sent from migrants abroad who were low-income in their countries of origin (Hagen-Zanker, 2015). Moreover, remittances can help mitigate economic inequality at a country level, especially when low-income households are receiving remittances compared to high-income households. In a 2018 case study of Mexico, researchers found that not only do remittances represent a higher
proportion of income for lower-income households than higher-income households, but remittances were less vulnerable than other capital flows during the Peso crisis and the Global Financial Crisis, underscoring the role of remittances in mitigating inequality during economic stability as well as economic crises (Loyola & Kóczán, 2018). In fact, research has found that remittances respond quickly to changes in economic conditions, including government policies, economic activity, and inflation.

Another approach to assess the effect of remittances in countries of origin has been to measure changes in subjective indicators of “well-being” among households receiving remittances. This includes changes in behaviors and norms in countries of origin, as well as potential feelings of empowerment, relief, or stress and depression, and the subjective ‘costs’ of migration outweigh its benefits. This research purports that remittances may enhance positive outcomes for migrant households, but they do not address or mitigate negative subjective outcomes from migration such as stress and depression (Ivlevs et al., 2018). However, this same research found that countries experiencing higher levels of migration have stronger support systems to overcome challenges from migration. This might suggest a positive relationship between migration outflows, development, and therefore, lower migration or displacement rates in the future.

However, there is little research specifically on a second order effect of remittances: changes in migration or displacement patterns derived from heightened levels of development. This is a critical issue especially in the face of ongoing migration crises around the world. Thus, this paper aims to assess the effect, if any, of remittances on migration and displacement in countries around the world. While recognizing that migration is a human right, the end-goal of this research aims to uncover whether
remittances can help prevent forced displacement especially in life-threatening circumstances by facilitating and expanding the volume of remittances around the world. Any proposed solution in this regard would involve public and private sector stakeholders who are necessary to this end, including national and sub-national governments, migrant and diaspora associations, members of legislative bodies of government at countries of origin who represent their diaspora abroad, among other key actors.

**CONCEPTUAL FRAMEWORK**

This thesis purports that the inflow of remittances into a country’s economy can have an indirect effect on migration and displacement patterns. Figure 3 illustrates this process, comprised of two key relationships. First, there is longstanding evidence of the positive correlation between the inflow of remittances into a country and human development across several sectors, including in health, education, and business activity, among other areas. Given that there is extensive research on this topic alone, this paper focuses on the effects of remittances on migration and displacement as a second-order effect of their direct impact on development.

The key driver in this hypothesis are remittances, measured as the amount of money that a country receives from its migrants and diaspora abroad, in nominal US dollars. Specifically, these are funds received by family, friends, and households at countries of origin from migrants abroad, according to the United Nations International Organization for Migration (Migration Data Portal, 2023). Data on remittances are also collected by the World Bank, located in the “Migration and Remittances” (World Bank, 2023b).
Migration and displacement are measured as the number of migrants and displaced persons from a country. Data is also available as net migration, or the number of emigrants less the amount of immigrants in a specific country. Both are common methods to measure migration by international organizations throughout the world, including by the World Bank in its World Development Indicators dataset (ibid).

In order to control for other factors which can impact migration and displacement patterns within countries, this thesis will also consider indices that measure the strength of the country’s democracy, the perception of corruption in a country’s government, and the size of the country’s diaspora abroad. These variables intend to account for the impact that they can have on migration and displacement in order isolate and more effectively measure the effect of remittances on migration.

Similarly, this thesis will also control for a country’s level of development using various indicators. The human development index, which measures life expectancy, education, and per capita income, gross domestic product which measures the total value of all goods and services produced in each country, the unemployment rate which measures the portion of a country’s labor force that is unable to find work, and income inequality, measured by the Gini coefficient which represents a country-level index measuring distribution of income across a population by percentile. To account for education, this paper will consider educational attainment as average schooling years within a country’s population.

Finally, other factors will be included as part of this thesis that, despite not being affected by remittances, can still affect migration or reduce displacement. These include the distance between countries of origin and countries of destination, and the impact of
natural disasters such as hurricanes and droughts (potentially exacerbated by climate change) on a country will be considered as variables of interest.

Within this framework, this thesis aims to uncover the relationship, if any, between remittances and reducing displacement in the Western Hemisphere. The analysis will implement a fixed-effect regression given the longitudinal nature of the dataset, as the data is derived from the same set of countries or subjects over a period of time. Additionally, fixed-effect regression analysis helps account for any unobserved heterogeneity in the data. This method of analysis can also be helpful in considering the effect of policy changes or interventions occurring during the period of study, such as policies that expand access to financial services or technology that make it easier to receive remittances.

![Conceptual Framework](image)

**Figure 3: Conceptual Framework.** This paper's research question seeks to assess the effect of remittances on development indicators, and any subsequent effects on migration and displacement derived from an increase in development.

**DATA AND METHODS**

This thesis will utilize country level data for remittances, development indicators, and migration. The population of the analysis are countries with migrants or people experiencing displacement within the western hemisphere, comprised of North America,
Latin America, and the Caribbean. This region provides many countries with similar characteristics that receive differing amounts of remittances, and which consequently represent differing proportions of national economies, as shown below (Maldonado & Harris, 2023).

<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>GDP (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central America</td>
<td>Nicaragua</td>
<td>29.70%</td>
</tr>
<tr>
<td></td>
<td>Honduras</td>
<td>27.30%</td>
</tr>
<tr>
<td></td>
<td>El Salvador</td>
<td>24.30%</td>
</tr>
<tr>
<td></td>
<td>Guatemala</td>
<td>19.50%</td>
</tr>
<tr>
<td></td>
<td>Belize</td>
<td>4.28%</td>
</tr>
<tr>
<td></td>
<td>Costa Rica</td>
<td>0.96%</td>
</tr>
<tr>
<td></td>
<td>Panama</td>
<td>0.60%</td>
</tr>
<tr>
<td>Caribbean</td>
<td>Jamaica</td>
<td>20.65%</td>
</tr>
<tr>
<td></td>
<td>Haiti</td>
<td>15.70%</td>
</tr>
<tr>
<td></td>
<td>Dominican Republic</td>
<td>8.39%</td>
</tr>
<tr>
<td></td>
<td>Trinidad &amp; Tobago</td>
<td>1.25%</td>
</tr>
<tr>
<td>Mexico</td>
<td>Mexico</td>
<td>3.96%</td>
</tr>
<tr>
<td>South America</td>
<td>Guyana</td>
<td>6.95%</td>
</tr>
<tr>
<td></td>
<td>Ecuador</td>
<td>4.40%</td>
</tr>
<tr>
<td></td>
<td>Suriname</td>
<td>4.36%</td>
</tr>
<tr>
<td></td>
<td>Bolivia</td>
<td>3.40%</td>
</tr>
<tr>
<td></td>
<td>Colombia</td>
<td>3.00%</td>
</tr>
<tr>
<td></td>
<td>Peru</td>
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</tr>
<tr>
<td></td>
<td>Paraguay</td>
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<tr>
<td></td>
<td>Argentina</td>
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</tr>
<tr>
<td></td>
<td>Brazil</td>
<td>0.20%</td>
</tr>
<tr>
<td></td>
<td>Uruguay</td>
<td>0.20%</td>
</tr>
<tr>
<td></td>
<td>Chile</td>
<td>0.10%</td>
</tr>
</tbody>
</table>

Source: Compiled by the Inter-American Development Bank (IDB) in the “Remittances to Latin America and the Caribbean in 2023” report, based on data from Latin America and Caribbean central banks and the International Monetary Fund (IMF).

**Figure 4: Remittances in Latin America and the Caribbean in 2023, as a percent of Gross Domestic Product (GDP)**

While Venezuela was excluded from the analysis performed by the Inter-American Development Bank in Figure 3 due to a lack of official data, other research has estimated that Venezuela received US$4.2 billion in remittances in 2022, representing approximately 5% of its GDP (Orozco, 2022).
Throughout this process, various regression models will be proposed, all of which will consider migration and displacement as the main dependent variable, and remittances as the main independent variable, as shown in the example below:

\[
refugees = \beta_0 + \beta_1 \text{remittances}_{it} + \beta_2 \text{HDI}_{it} + \beta_3 \text{gini}_{it} + \beta_4 \text{climate change}_{it} \\
+ \beta_5 \text{democracy}_{it} + \beta_6 \text{CPI}_{it} + \beta_7 i.\text{country} + \beta_8 \text{year} + \varepsilon
\]

The equation above examines the effect of inflow of remittances (\textit{remittances}) on the size of a refugee population by country of origin (\textit{refugees}), controlling for the country’s human development index (\textit{HDI}), Gini coefficient (\textit{gini}), climate change issue category measured on an index ranging from 0 to 100 (\textit{climate change}), level of democracy measured on an index ranging from 0 to 100 (\textit{democracy}), and the perception of corruption in a country measured on an index from 0 to 100 (\textit{CPI}). The equation also contains an indicator variable for country (\textit{i.country}) and year, and accounts for an error term (\textit{\varepsilon}). Finally, it denotes that the equation holds the country-level unit of analysis for variables with the subscript ‘i’, as well as time, which is represented by the subscript ‘t’, to account for fixed effects derived from these two variables. Other models will incorporate interaction terms between remittances and development, and between remittances and income inequality.

Four separate models will be used to discern any effect of the inflow of remittances into a country on refugees or displacement from that country, subject to different conditions. These include a bivariate model, a model incorporating the human development index as well as an interaction term with remittances, a model incorporating Gini
coefficient measuring income inequality as well as an interaction term with remittances, and a model incorporating a country’s real gross domestic product in 2017 prices as well as an interaction term with remittances.

**Descriptive Statistics**

I report descriptive statistics for my dependent variable, key independent variable, and control variables in Figure 5. The data was compiled from the University of Gothenburg’s Quality of Government (QoG) standard dataset, which itself combines time-series data from more than one hundred sources related to country governance, including country-level data on population, education, public health, social protection, economic activity, among other topics. Sources include national databases, international institutions including the United Nations, World Bank, and the Organisation for Economic Co-operation and Development (OECD), and private associations such as Transparency International.
Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Size</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refugees by country of origin (log)</td>
<td>361</td>
<td>6.501</td>
<td>2.301</td>
<td>1.609</td>
<td>12.891</td>
</tr>
<tr>
<td><strong>Key Independent Variable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remittances (in millions of US dollars)</td>
<td>361</td>
<td>2166.327</td>
<td>4173.97</td>
<td>0</td>
<td>35768.418</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Development Index (0-1)</td>
<td>361</td>
<td>0.704</td>
<td>0.074</td>
<td>0.508</td>
<td>0.853</td>
</tr>
<tr>
<td>Real Gross Domestic Product (in millions of US dollars)</td>
<td>361</td>
<td>402758.2</td>
<td>699652.7</td>
<td>1043.304</td>
<td>3140662.3</td>
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<tr>
<td>Gini Coefficient, income inequality (0-100)</td>
<td>361</td>
<td>49.926</td>
<td>5.112</td>
<td>35.7</td>
<td>61.6</td>
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<tr>
<td><strong>Fixed Effects</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Country</td>
<td>361</td>
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<td>-</td>
</tr>
<tr>
<td>Year</td>
<td>361</td>
<td>-</td>
<td>-</td>
<td>1990</td>
<td>2019</td>
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</tbody>
</table>

My sample contains 361 observations, which represents a subset of observations from the QoG dataset within countries in Latin America and the Caribbean in which data is available for all seven variables, from more than 2,500 observations in the dataset. The minimum value for remittances took place when Chile received US$400,000 in remittances in 1990, whereas the maximum took place in Mexico in 2018 when it received US$35.8 billion in remittance inflows. Moreover, the minimum number of refugees takes place in Costa Rica in 1992 and 1993, whereas the maximum took place in Colombia in 2013 in the midst of its internal displacement crisis as then-President Juan Manuel Santos led peace negotiations with the Revolutionary Armed Forces of Colombia (FARC, in Spanish). Notably, Venezuela has intermittent data on refugees from 1992 through 2006, with no data available beyond this point. Moreover, the standard deviation reported for remittance inflows per country indicates that the sample is diverse in the number of remittances it receives during the period of time observed.
**Results**

The table below shows my main regression results. Robust standard errors are reported in parenthesis below each coefficient. All models are calculated using fixed-effects models for country and year to account for unmeasured characteristics affecting individual countries as well as trends that make take place outside of the time period for which data is available. In the table below, Model (1) represents a bivariate regression of remittances in millions of US dollars and refugee displacement. Model (2) adds the Human Development Index to account for development conditions in each country, including health by measuring life expectancy, education measured by average year of schooling, and income measured as gross national income per capita. Model (3) includes the Gini coefficient, which measures the distribution of income over an entire population using an index ranging from zero to one hundred. This model also includes an interaction term for remittances and the Gini coefficient, to gain a deeper understanding into how the relationship between remittances and refugee displacement changes depending on the level of inequality in country. Finally, Model (4) incorporates country-level data measuring the real gross domestic product in 2017 prices, in millions of US dollars. Similar to Model (3), this model considers an interaction term between remittances and real GDP to understand if the relationship between remittances and refugee displacement changes depending on the size of the country’s economy.
Table 2: Main Regression Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1) Bivariate</th>
<th>(2) Human Development</th>
<th>(3) Interaction with Inequality</th>
<th>(4) Interaction with Real GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remittances (in millions of US dollars)</td>
<td>0.002</td>
<td>0.0001</td>
<td>-0.0001</td>
<td>0.0004</td>
</tr>
<tr>
<td></td>
<td>(0.001)**</td>
<td>(0.0001)**</td>
<td>(0.0008)</td>
<td>(0.0002)**</td>
</tr>
<tr>
<td>Interaction term: Remittances and Real GDP</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>-0.0002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.0001)**</td>
</tr>
<tr>
<td>Real Gross Domestic Product (in millions of US</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>0.0000</td>
</tr>
<tr>
<td>dollars)</td>
<td></td>
<td></td>
<td></td>
<td>(0.000)**</td>
</tr>
<tr>
<td>Human Development Index (0-1)</td>
<td>–</td>
<td>-8.0534</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5.2658)</td>
<td></td>
<td>(5.2658)</td>
</tr>
<tr>
<td>Gini Coefficient, income inequality (0-100)</td>
<td>–</td>
<td>–</td>
<td>0.0093</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.0463)</td>
<td>(0.0463)</td>
</tr>
<tr>
<td>Interaction term: Remittances and Gini Coefficient</td>
<td>–</td>
<td>–</td>
<td>7.6391</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(16.7416)</td>
<td>(16.7416)</td>
</tr>
</tbody>
</table>

Fixed Effects

<table>
<thead>
<tr>
<th>Country</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
<td>6.0643</td>
<td>0.5356</td>
<td>5.5442</td>
<td>4.9742</td>
</tr>
<tr>
<td></td>
<td>(0.1904)**</td>
<td>(3.6518)</td>
<td>(2.9226)**</td>
<td>(0.3428)**</td>
</tr>
<tr>
<td>Observations</td>
<td>361</td>
<td>361</td>
<td>361</td>
<td>361</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.1497</td>
<td>0.2085</td>
<td>0.1554</td>
<td>0.2873</td>
</tr>
</tbody>
</table>

Robust standard errors are in parentheses

*** p < 0.01, ** p < 0.05, * p < 0.1

Main Regression Results

Models (1), (2), and (4) suggest that there is a statistically significant relationship between remittances and refugee displacement in Latin America and the Caribbean; however, this relationship is close to zero in every model with statistical significance. Model (1), or the bivariate model, suggests that for every US$1 million increase in the inward flow of remittances into a country, refugee displacement increases by a marginal 0.2% (p value=0.032). Model (2) shows that for every US$1 million increase in remittances, refugee displacement in the region increases by 0.01% when controlling for human development conditions and yields a statistically insignificant correlation between
the Human Development Index and refugee displacement. Model (3), which incorporates country inequality data and measures its interaction with remittances, yields no statistically significant coefficient. Model (4), which considers the size of a country’s economy measured by real gross domestic product, shows statistically significant correlations between all coefficients according to the model’s specifications. Here, for every US$1 million in the flow of remittances into a country, refugee displacement increases by 0.04%. The relationship between real GDP and refugee displacement is close to zero. Finally, the size of a country’s economy has a negative – albeit close to zero – effect on the relationship between remittances and refugee displacement.

CONCLUSION

The results provided by the research suggest that the inward flow of remittances into a country has a minimal effect on the number of refugees or displacement originating from that country, hovering around zero across various models. These results are consistent across models incorporating factors such as human development, income inequality, and the size of the country’s economy. The findings underscore the difficulty in identifying potential factors to address and support refugee or displacement situations in Latin America and the Caribbean.

Remittances are often conveyed as a lifeline for households in communities of origin, and research suggests that remittances play a role in supporting economic activity, reducing poverty, and promoting stability, all of which are thought to mitigate displacement. However, while existing literature finds that remittances support a country’s development, the impact or influence of remittances on refugees and displacement
specifically is limited. Other factors most likely play a larger role in influencing
displacement in the region, including state fragility. Conflict, and violence derived from
democratic backsliding, a lack of economic opportunities, food shortages, and systemic
violations to political and human rights. These results highlight the need for a multifaceted
strategy that addresses each of these drivers of displacement to solve the ongoing
humanitarian crisis in Venezuela and to support refugees in the western hemisphere.

Thus, the negligible effects of remittances on refugees that I identified in this study
underscores the need not only to utilize comprehensive approaches to identify and address
factors driving displacement in the region, but to also understand the socioeconomic
context in which remittances operate in countries afflicted by instability or poverty.
Hyperinflation, shortages of basic needs such as food, water, and sanitation products,
deficient education systems or weak institutions can all limit the extent to which
remittances can benefit households receiving remittances in communities of origin.
Uneven access to financial services may also pose a potential barrier to send or receive
remittances (Naceur et al., 2020).

As policymakers grapple with one of the most severe displacement situations in
recent history in the world, and the largest refugee crisis in Latin America, it will be
important to understand the role remittances play in helping support a country’s
development. Policymakers may need to go beyond supporting international agreements
that seek to expand the volume and cadence of remittances; they may also need to consider
innovative methods to ensure that remittances being spent in communities of origin can
reach their fullest potential, driving development throughout the region, and hopefully
mitigating future displacement situations in the region and globally.
To this end, further research is warranted to explore the relationship between socioeconomic conditions that impact how remittances are received, stored, and spent within communities receiving remittances, and the effect, if any, on refugees or displacement. Additionally, additional country-level data is required on democracy levels, inequality, and corruption in the region. This research can reveal the complex dynamics between refugees and remittances, and inform policy interventions that harness the positive impact of remittances to mitigate displacement situations.
BIBLIOGRAPHY


Qureshi, J. A. (2016). The Pakistan remittance initiative and remittance flows to Pakistan: 


https://www.r4v.info/en/refugeeandmigrants


https://doi.org/10.1596/978-0-8213-6344-7
UN News. (2019, June 17). *Remittances matter: 8 facts you don’t know about the money migrants send back home | UN DESA | United Nations Department of Economic and Social Affairs.*


UNDP. (2023, May 2). *Being a Migrant in Latin America and the Caribbean.*


https://reporting.unhcr.org/globalappeal-2023/americas


https://www.unhcr.org/us/emergencies/venezuela-situation


https://sustainabledevelopment.un.org/content/documents/2051AAAA_AOutcome.pdf


https://doi.org/10.1080/1369183x.2019.1683442

