Over the past few decades, international remittances have grown significantly in both scale and importance, reflecting the acceleration of global migration and their crucial role in the world economy. According to the World Bank (2023), total personal remittances worldwide have increased tenfold over the past 30 years, rising from $81.08 billion in 1993 to $409.71 billion in 2008, and reaching $822.32 billion in 2023. This trend highlights remittances as a major source of foreign exchange for many developing countries and underscores the profound impact of migrant workers on the global economic system. Moreover, during periods of economic crises, conflicts, or natural disasters, remittances often serve as a critical financial lifeline for affected families and communities. For instance, despite the global economic downturn caused by the COVID-19 pandemic, international remittances demonstrated remarkable resilience, further reinforcing their essential role in economic stability and social protection. Looking ahead, international remittances will remain a crucial force in the global economy, not only providing financial security for households but also fostering capital accumulation, investment growth, and overall economic development.

While the growth of international remittances is a global phenomenon, the degree to which countries rely on these inflows varies significantly due to differences in their economic conditions. In general, high-income countries are often the primary destinations for migrant workers and serve as major remittance-sending nations rather than recipients, making them relatively less dependent on remittances. In contrast, low-income countries are more likely to rely on international remittances as a key economic pillar. For example, in Tonga, Tajikistan, and Lebanon, remittances account for more than 30%, or even 40%, of GDP, highlighting the critical role of migrant income in these economies (World Bank, 2023). However, an intriguing observation is that some countries with similar economic levels exhibit little to no reliance on remittances. This raises an important question: why do some countries with comparable levels of economic development depend heavily on remittances, while others are barely affected by them? If these countries share similar overall economic conditions, one possible difference is income distribution. Therefore, in this paper, I aim to examine the relationship between income inequality and remittance dependency, exploring **how a country's reliance on international remittances affects its income distribution for countries that have similar economic status**.

For a long time, economists have debated the relationship between remittances and income inequality. Theoretically, remittances provide direct financial support to migrant families, improving their living standards. In low-income households, remittances can significantly increase household income, helping to narrow income gaps. However, remittances often flow to middle- and high-income families, as migration opportunities are more accessible to those with greater resources. This uneven distribution of remittance inflows can exacerbate income inequality, leaving the poorest households with limited benefits. Koechlin and León (2006) provided a possible explanation for this debate. The authors used data from 78 countries from 1970 to 2001, and their study demonstrates that the effect of remittances on income inequality is not uniform but rather follows an inverted U-shaped pattern. In the early stages of migration, remittances primarily

benefit wealthier households, exacerbating income inequality. However, as migrant networks develop and migration costs decline, remittances become more accessible to lower-income households, ultimately reducing inequality. This research is very similar to mine, as it examines the general relationship between international remittances on a global scale. Another paper that explores this topic on a global scale is by Anwar, Mang, and Plaza (2024), a recent study that conducts a meta-analysis of 578 estimates from 45 empirical studies examining the relationship between remittances and income inequality. Overall, they found that remittances slightly reduce income inequality, but the effect is economically small. Additionally, they found significant regional variations: in some regions, remittances increase inequality due to high migration costs limiting access for lower-income households; in the Middle East, North Africa, and Sub-Saharan Africa, remittances have minimal effects on income inequality; and in Latin America, Eastern Europe, and East Asia, there is evidence that remittances reduce inequality.

Many economists have also studied how this relationship manifests in a specific region. Barham and Boucher (1998) study Bluefields, Nicaragua, where remittances play a significant role in household income. They find that remittances reduce income inequality when treated as exogenous income, but if migration is seen as a substitute for local earnings, inequality increases. Kratou and Khlass (2022) analyze data from 14 MENA countries (1995–2020), showing that remittances from low-skilled migrants help reduce inequality, whereas high-skilled migration (brain drain) has little effect, as wealthier migrants tend to relocate with their families and send fewer remittances. Murodova (2018) focuses on Tajikistan, Kyrgyzstan, and Uzbekistan, where remittances account for a significant share of GDP. The study finds that remittances effectively reduce poverty but have a limited impact on income inequality when included in household expenditures. Rodrigue and Tsafack (2020) use panel data from 47 Sub-Saharan African countries (2004–2014) and conclude that remittances reduce income inequality, but their impact is stronger in countries with higher financial inclusion, while weak financial systems limit their effectiveness. These studies highlight the regional variations in the relationship between remittances and inequality, emphasizing the importance of local labor market structures, migrant skill composition, poverty dynamics, and financial infrastructure in shaping the effects of remittances.

This work contributes to the literature in the following ways: First, this paper groups countries based on their economic conditions rather than geographical location, which may reveal underlying economic patterns that drive remittance dependency and inequality outcomes. Second, by comparing the grouped results to the ungrouped findings from other studies, we can identify how this effect varies for countries at different stages of economic development. Third, this work helps test the generalizability of the Inverted U-shape hypothesis and examines whether countries still conform to this hypothesis under group regressions.

Based on the theoretical and empirical literature cited above, I hypothesize that in lower-income countries with high remittance dependence, an increase in international remittances should lead to lower income inequality, as remittances provide financial support to lower-income households and

improve overall income distribution. However, in higher-income countries, this effect may be insignificant or weaker, as these economies typically do not rely heavily on remittances, and income disparities are influenced by other structural factors. Additionally, this relationship is expected to vary across different economic conditions, such as GDP levels, inflation rates, and financial inclusion, which may shape how remittances are distributed within a country. To analyze this, I will use grouped regression, categorizing countries based on these macroeconomic indicators, allowing for a comparative analysis of how remittance reliance affects income inequality under different economic circumstances.

The ideal dataset for this research would be a panel dataset covering multiple countries from 19–83-2023. It should include income inequality measures such as the Gini coefficient, as well as remittance dependence indicators, primarily remittances as a percentage of GDP, which are the outcome variable and specific explanatory variable. Additionally, key control variables that reflect economic development and conditions should be included, such as GDP, GDP per capita, inflation rate, financial inclusion, trade openness, and government expenditure. Variables related to the amount of remittance received, such as household income and education levels should be included. These data can be acquired from the World Bank, and the Income Inequality Database from the United Nations. Unfortunately, some of the data are incomplete, so we need to take the intersection between several different datasets.

The rest of the paper is organized as follows. The next section introduces the data and outlines the empirical strategy, with a particular focus on the method used to group countries. Section 3 presents and interprets the results of both grouped and non-grouped panel data regression analyses. Section 4 examines how inequality evolves in relation to reliance over time using time series analysis. Finally, Section 5 provides conclusions and closing remarks.