



# Assessing the Impact of Remittances on Social Welfare and Economic Prosperity in Somalia

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# Abstract

This study investigates the impact of remittances on social welfare and economic prosperity in Somalia from 2011 to 2022. Remittances play a vital role in supporting household consumption, reducing poverty, and enhancing financial inclusion, contributing significantly to social welfare. The analysis examines their relationship with trade openness, investment, and price levels, identifying both opportunities and challenges. While remittances positively influence household consumption and financial stability, the economy's heavy reliance on imports and inflationary pressures limits their full potential. The findings emphasize the importance of strengthening remittance systems, implementing targeted policy measures, and investing strategically to amplify their benefits. These insights are critical for leveraging remittances as a sustainable driver of economic development in Somalia.

## Keywords

Remittances, Social Welfare, Economic Prosperity, Financial Inclusion.

# Introduction

Remittances serve as a critical financial lifeline for many developing economies, providing consistent external funding second only to foreign direct investment (FDI). These inflows support consumption, stabilize household finances during economic shocks, and promote investments in key sectors (Nanyiti & Sseruyange, 2022; Coulibaly, 2015). Unlike other financial flows, remittances exhibit remarkable stability, even during global downturns. This has made them an essential focus for policymakers and scholars.

Studies reveal diverse impacts of remittances. They support poverty alleviation (Bang et al., 2022), household income growth (Mishra et al., 2022), and entrepreneurial ventures (Alhassan, 2022). Remittances also influence exchange rates, sometimes contributing to inflationary pressures (Chemseddin & Abdelkader, 2022). Financial sector development benefits significantly from remittances, as they enhance capital mobilization, spur investments, and strengthen financial institutions in developing economies (Akçay, 2020; Peprah et al., 2019).

In Somalia, remittances have played a transformative role. The lack of a robust banking infrastructure has led to the widespread use of mobile money platforms for remittance transfers, enabling greater financial inclusion and economic participation (Mohamed, 2023a). These platforms have become central to financial transactions, especially for households and small businesses. However, the extent to which remittances impact social welfare and economic activities remains underexplored, limiting the ability to optimize their benefits for national development.

This study investigates the impact of remittances on social welfare in Somalia, analyzing their relationship with trade openness, investment, and price levels. By employing an Autoregressive Distributed Lag (ARDL) model, the study captures both short-term and long-term dynamics, providing empirical evidence to inform policy and enhance the socioeconomic benefits of remittances.

## Methodology

This study employs a quantitative approach to examine the impact of remittances on social welfare in Somalia from 2011 to 2022. The analysis focuses on key economic variables, including remittances, trade openness, investment, and price levels, using time-series data collected from reliable sources such as the World Bank, IMF, and national statistical databases.

### 1. Dependent Variable

- **Social Welfare:** Measured through household consumption as a percentage of GDP. This indicator reflects the extent to which remittances contribute to improving living standards and financial stability.

### 2. Independent Variables

- **Remittances:** Expressed as a percentage of GDP to capture their relative contribution to the economy.
- **Trade Openness:** Calculated as the sum of exports and imports as a percentage of GDP, indicating the extent of economic integration with global markets.
- **Investment:** Represented by gross capital formation as a percentage of GDP to assess the role of remittances in promoting productive investments.
- **Price Levels:** Measured using the GDP deflator, reflecting the impact of inflation on purchasing power and economic stability.

### 3. Model Specification

The Autoregressive Distributed Lag (ARDL) model was chosen for its ability to analyze both short-term and long-term relationships between variables in small sample sizes. This model is particularly useful for time-series data where variables may be integrated at different orders (I(0) or I(1)).

The ARDL model is specified as follows:

$$\begin{aligned} \ln WF_t &= \phi_0 + \phi_1 \sum_{i=1}^p \Delta \ln WF_{t-i} + \phi_2 \sum_{i=1}^p \Delta \ln RT_{t-i} + \phi_3 \sum_{i=1}^p \Delta \ln TO_{t-i} \\ &+ \gamma_1 \ln WF_{t-1} + \gamma_2 \ln RM_{t-1} + \gamma_3 \ln TO_{t-1} + \gamma_4 \ln IV_{t-1} + \gamma_5 \ln PL_{t-1} + \varepsilon_t \end{aligned}$$

The symbols  $\phi$  and  $\Delta$  represent the short-run and the long-run coefficients, respectively, where  $t$  is the error term. The cointegration between the variables is measured by F-statistics, which can identify the cointegrating vectors among the many cointegrating vectors. The ARDL Cointegration model is suitable for dealing with variables that integrate in a different order, but it is problematic in the small sample size variable with at least one cointegrating variable. The variable has a long-run relationship if F-statistics exceeds the critical value. If social welfare, Mobile Money, export, Import, Investment, and Inflation have a long-run relationship, this equation is utilized;

$$\begin{aligned} \ln WF_t &= \omega_0 + \omega_1 \sum_{i=1}^p \ln WF_{t-i} + \omega_2 \sum_{i=1}^p \ln RT_{t-i} + \omega_3 \sum_{i=1}^p \ln TO_{t-i} \\ &+ \omega_4 \sum_{i=1}^p \ln IV_{t-i} + \omega_5 \sum_{i=1}^p \ln PL_{t-i} + \varepsilon_t \end{aligned}$$

The short-run relationship between the variables is estimated using this model

$$\begin{aligned} \Delta \ln WF_t &= \theta_0 + \theta_1 \sum_{i=1}^p \Delta \ln WF_{t-i} + \theta_2 \sum_{i=1}^p \Delta \ln RT_{t-i} + \theta_3 \sum_{i=1}^p \Delta \ln TO_{t-i} \\ &+ \theta_4 \sum_{i=1}^p \Delta \ln IV_{t-i} + \theta_5 \sum_{i=1}^p \Delta \ln PL_{t-i} + \gamma ECT_{t-1} \varepsilon_t \end{aligned}$$

Where  $\gamma$  is the error correction coefficient capturing the speed of the equilibrium adjustment in the event of the short-run shock.

Where:

- SWt: Social Welfare
- REMt: Remittances
- TOt : Trade Openness
- INVt : Investment
- PLt : Price Levels
- $\Delta$ \Delta First Difference Operator
- $\epsilon_t$ : Error Term

## 4. Stationarity Testing

The Augmented Dickey-Fuller (ADF) test was applied to ensure the variables met the stationarity requirements for ARDL analysis. Variables were found to be integrated at levels I(0) and I(1), confirming the suitability of the ARDL model.

## 5. Diagnostic Tests

Diagnostic checks, including tests for autocorrelation, heteroscedasticity, and normality, were conducted to ensure the reliability of the model. The stability of the model was assessed using the cumulative sum (CUSUM) test.

## 6. Data Analysis

Both short-term and long-term coefficients were estimated. Error correction mechanisms were used to determine the speed of adjustment to equilibrium after shocks.

# Results

The findings indicate that remittances play a crucial role in improving social welfare in Somalia. The analysis shows a 1% increase in remittance inflows results in a 0.371% improvement in social welfare in the long term and a 0.514% improvement in the short term. This underscores the sustained and immediate benefits of remittances for households, particularly in addressing consumption needs and improving financial stability.

Trade openness contributes significantly, with a 0.911% long-term positive impact on social welfare. This finding suggests that Somalia's integration with global markets enhances access to goods and services, creating broader economic benefits. Investment also demonstrates a positive relationship with social welfare, highlighting its role in stimulating economic growth and infrastructure development, which directly impacts living standards.

Price levels, measured through the GDP deflator, exhibit a negative impact on social welfare. Rising prices erode household purchasing power, making it harder for families to meet their basic needs despite the inflow of remittances. This finding highlights the need for inflation control measures to maximize the effectiveness of remittance flows in improving welfare.

The short-term coefficients emphasize the immediate benefits of remittances and trade openness in stabilizing household consumption and supporting economic activities. These factors provide a cushion against economic shocks, such as droughts or global market fluctuations. Mobile money systems further amplify these benefits by improving access and efficiency in remittance transfers, particularly in regions where traditional banking systems are unavailable (Mohamed, 2023b).

The study also identifies regional disparities in the impact of remittances. Urban areas tend to benefit more from remittance flows due to better access to markets and services, while rural areas face limitations in infrastructure and financial inclusion. This gap underscores the importance of targeted interventions to ensure equitable distribution of remittance benefits across all regions.

The diagnostic tests confirm the reliability and robustness of the model. The Augmented Dickey-Fuller test validates stationarity, and the CUSUM test confirms model stability. These findings strengthen the credibility of the analysis and its implications for policymaking.

## Conclusion

Remittances are a cornerstone of Somalia's economic and social framework. They contribute to poverty reduction, financial inclusion, and improved living standards. However, challenges such as infrastructure gaps and inflationary pressures persist. To enhance the impact of remittances, policymakers should:

- Strengthen remittance systems through partnerships and regulation.
- Promote financial literacy to help households maximize remittance benefits.
- Address inflation to preserve purchasing power and improve welfare.

These measures can optimize the transformative potential of remittances, driving sustainable social and economic progress in Somalia.

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