



Informal Remittance Flow Estimation

BRIEFING DOCUMENT

AUGUST 2023

Migration has been and will remain a prevalent reality in the decades ahead, especially in light of growing global economic imbalances, diverging demographic trends, and climate change. Worldwide, migration has shown to be a transformative force for development, improving the lives of hundreds of millions of migrants, their families and societies, and contributing to achieving the United Nations' Sustainable Development Goals.¹

The volume of remittances has been steadily increasing, surpassing global foreign direct investment (FDI) and official development assistance (ODA) in low- and middle-income countries. Such large volumes of financial flows have heightened the interest in possibly strengthening the role of remittances in development.

The inaccuracy of remittance data due to reporting irregularities, technology and market advancements, and, in several instances, the considerable volume of informal remittance transfers, has been a key concern when developing private and public sector responses to remittance flows.² Informal remittances are estimated to comprise a large part of remittance data collection, with conservative estimations ranging between 35-75 percent of recorded remittance flows.³ Informal remittances create a volume of cash outside the formal financial system, which could alter the structure and volume of the money supply and remain unaccounted for in official statistics.

Further technological and market developments, such as mobile money service providers and fintechs, are transforming the experience of migrants and their families

1 World Bank, (2023), *World Development Report 2023: Migrants, Refugees and Societies*.

2 Fernandes, Deepali, Amil Aneja, Azar Sultanov (2022). [Understanding Informal Remittances](#). Central Banking, Infopro Digital Services Limited.

3 Freund, Caroline, and Nikola Spatafora (2005). *Remittances: Transaction Costs, Determinants, and Informal Flows*. Washington DC. World Bank, Development Research Group.

to afford formal financial services in countries of destination and origin.⁴ Remittance transactions from mobile wallets/fintechs, though not transferred informally, tend to be unrecorded in official statistics due to their typically low values. Additionally, large volumes of informal remittance flows remain unaccounted for within countries' balance of payment systems, impacting their inclusion in broader policymaking and the monitoring and estimating of accurate financial indicators such as foreign exchange reserves and sovereign credit ratings.⁵ Both financial inclusion and the switch to digital remittance transfers would benefit from a more accurate understanding of informal remittance flows in terms of size, channels, and corridors.

UNCDF aims to make remittances more accessible and affordable while helping build financial resilience for migrants and their families. A critical component of this goal is the need to improve remittance flows through formal channels so that access to remittances and financial services can be made more affordable through targeted enabling policies and a better estimation of the remittance market, including informal remittances, which may also generate commercial incentives for the private sector to serve otherwise excluded segments.

ABOUT THE INFORMAL REMITTANCE FLOW ESTIMATION BRIEFING DOCUMENT

UNCDF's objective in working in the area of informal remittances is to (i) better understand the evolving literature and propose methodologies and/or tools that the central banks can apply; (ii) assess the impact of informal remittances on the balance of payments focusing on informal remittance data, channels and policy responses; and (iii) make a case for the private sector and financial service providers being better able to serve migrants and their families as viable customer segments towards formal financial services.

Given the size and importance of informal remittance flows, this Briefing Document aims to set out UNCDF's rationale and strategy for estimating informal remittances. This document outlines (i) the key concepts and issues surrounding informal remittances, specifically how central banks and national

statistics offices can better address them; and (b) the rationale and way forward for UNCDF's ongoing work on informal remittances with least developed countries (LDCs) based on identified gaps and limitations in remittance data capture.

CONCEPTUAL UNDERSTANDING OF INFORMAL REMITTANCES

A key issue in understanding informal remittances is the lack of a clear definition or base understanding of what informal remittances are.

The IMF defines a transaction as an interaction between two institutional units that occurs by mutual agreement or through the operation of the law and involves an exchange of value or a transfer. Transactions are classified by the nature of the underlying value, e.g., goods, services, or financial assets

4 GPMI, (2023), *Update to Leaders on Progress towards the G20 Remittance Targets*, Pages 50-51. The results of a survey conducted among Italian migrants indicated a predominant use of cash transfers. However, digital transfer channels have experienced a substantial increase since 2011 and financial inclusion was highlighted as key to more productive use of remittances. Greater financial inclusion and the switch to digitalization would greatly benefit from a more accurate and holistic understanding of the volumes, channels, and corridors of informal remittance transfers.

5 Fernandes, Deepali, Amil Aneja, Azar Sultanov (2022). *Understanding Informal Remittances*. Central Banking, Infopro Digital Services Limited.

such as cash.⁶ The IMF definition would, therefore, apply to remittances sent through formal channels, including those sent and received via regulated financial institutions such as commercial banks and MTOs, etc.

However, not every sender can or chooses to send money via an officially regulated business. Rather, they may be forced by circumstances or choose to send money via an informal method. Informal methods include hand-carried foreign currency, giving foreign currency to friends/family or third-party carriers, using an unregulated money transfer operator (often known as *hawala*), or sending physical goods.⁷

There are also significant variations in the definitions of informal remittances among countries. Countries, for example, differ in their inclusion of mobile money or fintech transfers, and some do not record monetary transactions below a certain threshold or money associated with activities such as tax evasion or drug trafficking.

In the absence of a clear understanding of informal remittances, it is difficult to develop a definition for them. However, for UNCDF's work on informal remittances, it is important to have a conceptual understanding of what they are.

To the greatest extent possible, UNCDF focuses on informal remittances as unrecorded remittance flows such as cash (and other informal flows), avoiding including items in kind. Regarding practical implementation for UNCDF's in-country activities, UNCDF will take a demand-driven strategy based on the relevant national government's definition of informal remittance coverage, which sometimes could include mobile and digital money. Any conceptual understanding would need to align with internationally agreed frameworks such as the IMF's strategy on data and statistics.⁸

6 IMF, (2009), *Balance of Payments and International Investment Position Manual* (BPM6).

7 Fernandes, Deepali, Amil Aneja, Azar Sultanov (2022). *Understanding Informal Remittances*. Central Banking, Infopros Digital Services Limited.

8 IMF, (2018), *Overarching Strategy on Data and Statistics at the Fund in the Digital Age*.

BENEFICIARIES AND BETTER INFORMATION ON INFORMAL REMITTANCES

The following are the primary beneficiaries of better data on informal remittances:

- **Policymakers:** Informal remittance data would enable better market sizing, targeted remittance policies, channels for informal remittance transfers, and long-term and improved macroeconomic outcomes in financial inclusion, financial depth, and other sectors. This is a critical component, particularly for LDCs that rely on remittances.
- **The private sector:** Access to a bigger customer base comprising migrants who transfer remittances via informal channels.
- **Migrants:** A better policy environment related to remittances would result in cheaper and more secure transactions.

Aside from these reasons, providing data from mobile wallets and digital transfers, regardless of the size, can help determine which payment instruments and pricing are most effective in supporting formal remittance flows and enabling broader financial inclusion and resilience for migrants.

UNCDF'S APPROACH TO ESTIMATING INFORMAL REMITTANCES

While efforts towards estimating informal remittances are well recognized, there is still a margin of error in these estimations, largely due to the channels of transfer, limited information on senders and recipients, and inadequate reporting on informal remittances. Methods for capturing informal remittance flows exist in the form of estimating models and newer data approaches such as big data.⁹ It is necessary to better understand how central banks collect informal remittance data. The disadvantages of existing methods regarding data reliability, accuracy, and

9 UNCDF, Migrant Money Notes 7, (2022), *Approaches to Evaluating and Estimating Informal Remittance Flows in Developing Economies*.

representativeness must also be addressed.

UNCDF has reviewed the available literature on methods to estimate informal remittances and is now consulting with several central banks on in-house methodologies to analyse informal remittance flows. It will conclude with detailed talks with central banks on the methods used to assess informal remittances in 2023.

UNCDF's approach to estimating informal remittances combines quantitative and qualitative elements. The quantitative approach involves developing an estimation model for estimating informal remittance flows. At the same time, the qualitative method entails creating a survey strategy and questionnaire that central banks can employ to better understand informal remittance flows. While neither the quantitative nor qualitative approaches are likely to provide a fully accurate estimation of informal remittance flows, the goal is to enable a more accurate estimation and the channels to support the efforts of central banks to improve informal remittance data collection.

The informal remittance strategy and its tools (estimation model and survey) are best viewed as tools to assist countries with significant informal remittance flows, especially countries that do not collect or may benefit from better informal remittance data capture.

INFORMAL REMITTANCE SURVEY STRATEGY AND MODEL SURVEY FOR ESTIMATING INFORMAL REMITTANCES

UNCDF has developed an informal remittance survey strategy and a questionnaire model for central banks to measure unrecorded remittances. The strategy identifies how more granular data on informal remittance transactions, channels, senders/recipients, gender aspects, and usage can be assessed and potentially used for informal remittance data estimations. A model survey has also been developed as a practical tool that central banks can implement.

The survey strategy aims to guide countries on how they can utilize surveys as a tool to measure unrecorded remittance flows to improve overall remittance data. The informal remittance survey strategy and questionnaire will be accessible (for free) to any central bank that decides to employ them. Moreover, UNCDF may support strengthening the capacity of governments to implement the informal remittance survey strategy on a demand basis or in partnership with other international organizations.

ESTIMATION MODEL TO ASSESS INFORMAL REMITTANCE FLOWS

UNCDF's quantitative approach to estimating informal remittance flows entails creating an estimation model to estimate informal remittance flows in a particular economy. The estimation model uses a combination of different economic theories and statistical methods, including the Quantity Theory of Money, the Cagan Money Demand Model, State Space-Representation, the Kalman Filter, Maximum Likelihood Estimation (MLE), and a number of macroeconomic indicators to generate model estimations.

A toolkit for estimating informal remittances is available, and pilot estimations are scheduled to be completed in 2024.

The estimation model's results on informal remittances have been well received in that they are consistent with findings in the literature review and reflect specific economic and political developments in the countries under consideration.

TRANSACTION-LEVEL DATA

UNCDF has worked with many remittance service providers in Asia and Africa as part of data-collaborative efforts. Research suggests that remittance service provider management information systems generate millions of transactions. Gathering and analysing them provides a more accurate picture of the digital remittance market.

RISKS

Estimating remittances for developing economies, including formal and informal remittances, presents data challenges because official remittance data are typically inaccurate, underreported, and have various discrepancies, such as inconsistent quality, limited reporting, and differing reporting categories. This may cause some variation and anomalies in UNCDF's own assessment of informal remittances, which is based on official data sources. Additionally, informal remittances create challenges for data collection using the survey approach.

Informal remittance data, along with greater use of big data and transaction-level data, including aggregate, granular and sex-disaggregated transaction-level data, has great potential in providing a more accurate understanding of remittance flows, which is of value to both the government and the private

sector. However, limited technical capacity, analysis, and usage have resulted in an incomplete understanding of the remittance market size and the commercial incentives and policies that could enable greater financial deepening.

Insights, data, and tools generated for financial sector policies connected to financial inclusion and the production of financial products must also be linked. Awareness of the business case that informal remittances represent can create commercial incentives that encourage tailored products for this purpose, leading to greater financial inclusion and better policy outcomes.



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