

Impact of the Covid-19 on remittances and Economic growth in Africa: Theoretical framework and empirical evidences

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Background

Covid-19 continues to spread despite lockdowns, masks, and social distancing driven by renewed worldwide upticks and the coronavirus more contagious variant detected in several new countries¹. As per 11 April 2021, the World Health Organisation reported more than 136 million cases and over 2.9 million deaths worldwide since the beginning of the pandemic.

The pandemic and its related economic crisis have involved declines in remittances inflows. Based on the latest estimates published in the World Bank's Migration and Development Brief, the migrant remittances in 2021 are projected to decline by 14 percent compared to the pre-coronavirus levels in 2019 mainly due to the economic conditions in several hosting economies explicitly weak economic growth, employment situation and deterioration in exchange rates relatively to the US dollar.

Remittances constitute an essential lifeline for people across the planet, especially in low- and middle-income countries. Under the Covid-19 outbreak, their importance (\$548 billion in 2019) exceeded that of foreign direct investment flows (\$534 billion) and overseas development assistance (about \$166 billion).

In Africa, the Covid-19 has severely impacted remittance inflows. Based on World Bank data on remittances and estimates, UNECA/ONE (2020) evaluated that remittances inflow will record its steepest reduction in recent history and could decline by 21 per cent in 2020, implying \$ 18 billion less to the people who rely on this economic lifeline. The decline is mainly due to the migrants'

¹ https://www.who.int/docs/default-source/coronaviruse/situation-reports/20210413-weekly-epi-update-35.pdf?sfvrsn=ce70cdf5_6&download=true

situation in hosting economies and the disruption in the activity of remittance service providers. To better understand the decrease magnitude, remittances to Africa fell only by 5 per cent during the 2009 global recession. Interestingly, remittance flows during the 2009 crisis played a stabilizing role on GDP growth and output volatility through the stabilization of the overall demand for goods and services in regions heavily dependent on these flows².

The remittances constitute an essential lifeline for Africa, and this could be demonstrated by the following figures (i) One out of five persons sends or receives remittances³, (ii) Remittance account for 10 percent of GDP in 6 African countries and (iii) African migrants sent more than \$78 billion to their relatives in 2020.

The decline in remittances inflows to Africa have both micro and macro implications. International remittances account for 2 % of African GDP⁴. It is expected that the ongoing economic recession will impact remittances and especially those to Africa. ECA/ONE (2020)⁵ revealed that the crisis will impact African economies, both at the macro and micro levels. At the social dimension, ECA has shown that over 300,000 Africans could lose their lives due to Covid-19. Economic growth is expected to slow down from 3.2 percent to 1.8 percent in a best-case scenario, pushing close to 27 million people into extreme poverty. Many factors explained this poverty trap and one of them in the expected decrease of remittances to Africa.

The paper aims to investigate the growth and poverty implications of the remittances decline in Africa. This approach can help evaluating the economic and social consequences of national and global fall in remittances especially the impact on growth and poverty. It will help understanding the magnitude of impact that could have remittance on growth and poverty in Africa. It will focus on specific SDGS.

Recent trends in remittances: Global and African levels

Covid-19 pandemic has triggered the sharpest decrease of the global remittances to low- and middle-income countries (LMICs) in the modern history. In 2020, remittance flows have slumped by US\$110 billion (20 per cent) at the global level due to the economic crisis induced by the Covid-

² <https://www.imf.org/external/pubs/ft/wp/2009/wp0991.pdf>

³ <https://www.ifad.org/en/prime-africa>

⁴ Author calculation based on WB data.

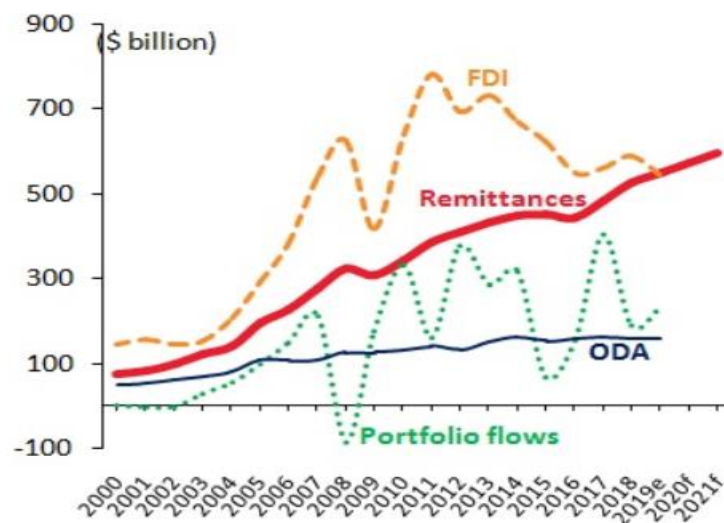
⁵ https://www.uneca.org/sites/default/files/PublicationFiles/eca_covid_report_en_24apr_web1.pdf

19 pandemic and shutdown. (World Bank, 2020). This sharp decline is mainly due to the crisis impacting both the sending and the receiving countries and the drop in the employment and wages of migrant workers.

Based on the latest World Bank's estimates, remittance flows to LMICs are projected to fall by 7.5 percent, to \$470 billion in 2021 driven by the Covid-19 induced health and economic crises.

Moreover, the remittance to low- and middle-income countries are more stable than private capital flows and larger than Official Development Assistance. (Figure 1)

Figure 1: Remittance Flows to Low- and Middle-income countries (1990-2019)



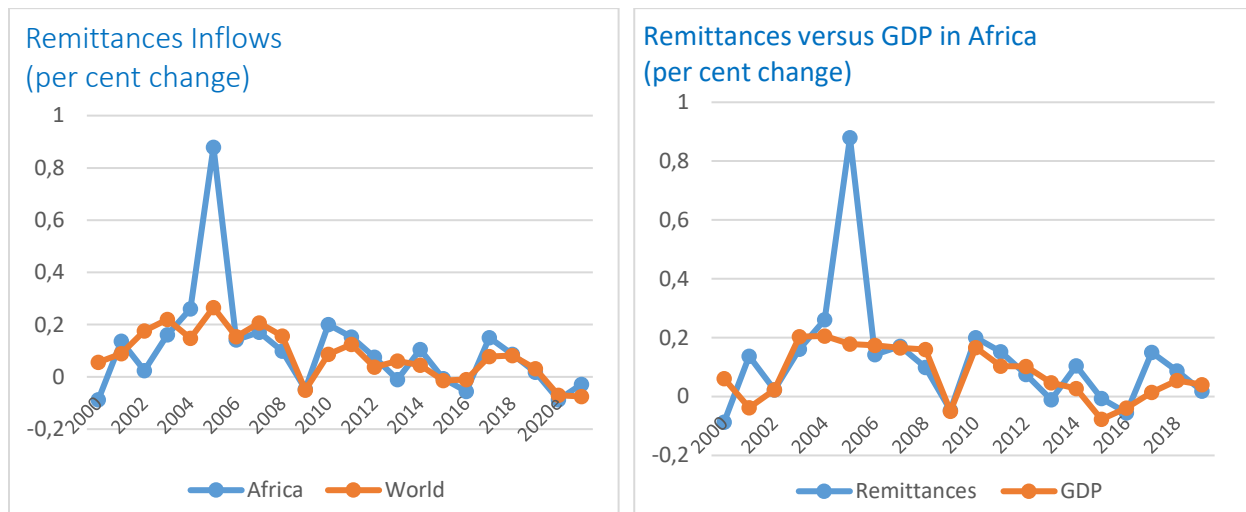
Sources: World Bank-KNOMAD staff estimates, World Development Indicators, and International Monetary Fund (IMF) Balance of Payments Statistics. Note: FDI = foreign direct investment; ODA = official development assistance.

In Africa, the Covid-19 has severely impacted remittance inflows. Figure 2 illustrates the trend in remittance inflows to Africa and the World over the last decades. The trends support strong relationship between (i) the remittance inflows at African and global levels and (ii) the remittances inflows and the GDP in Africa.

The decline is mainly due to the migrants' situation in hosting economies and the disruption in the activity of remittance service providers. To better understand the decrease magnitude, remittances

to Africa fell only by 5 per cent during the 2009 global recession⁶. Interestingly, remittance flows during the 2009 crisis played a stabilizing role on GDP growth and output volatility through the stabilization of the overall demand for goods and services in regions heavily dependent on these flows⁷.

Figure 2: Remittances Inflows and Growth in Africa, 2000-2021



Source: Author's calculation based on World Bank data (1999-2020) and 2021 forecasts

African migrants are in countries that have been mostly affected by the pandemic. Indeed, the large economies in North America, Europe, and Central Asia account for more than 50 per cent of total remittances sent to the region⁸.

The remittances constitute an essential lifeline for Africa, and this could be demonstrated by the following figures (i) One out of five persons sends or receives remittances⁹, (ii) Remittance account for 10 percent of GDP in 6 African countries in 2020 and (iii) African migrants sent more than \$78 billion to their relatives in 2020.

Remittances constitutes an important economic lifeline for African countries with the average remittances in the region accounting for about 2 per cent of GDP in 2020. Striking disparities exist,

⁶ Author calculation based on WB data.

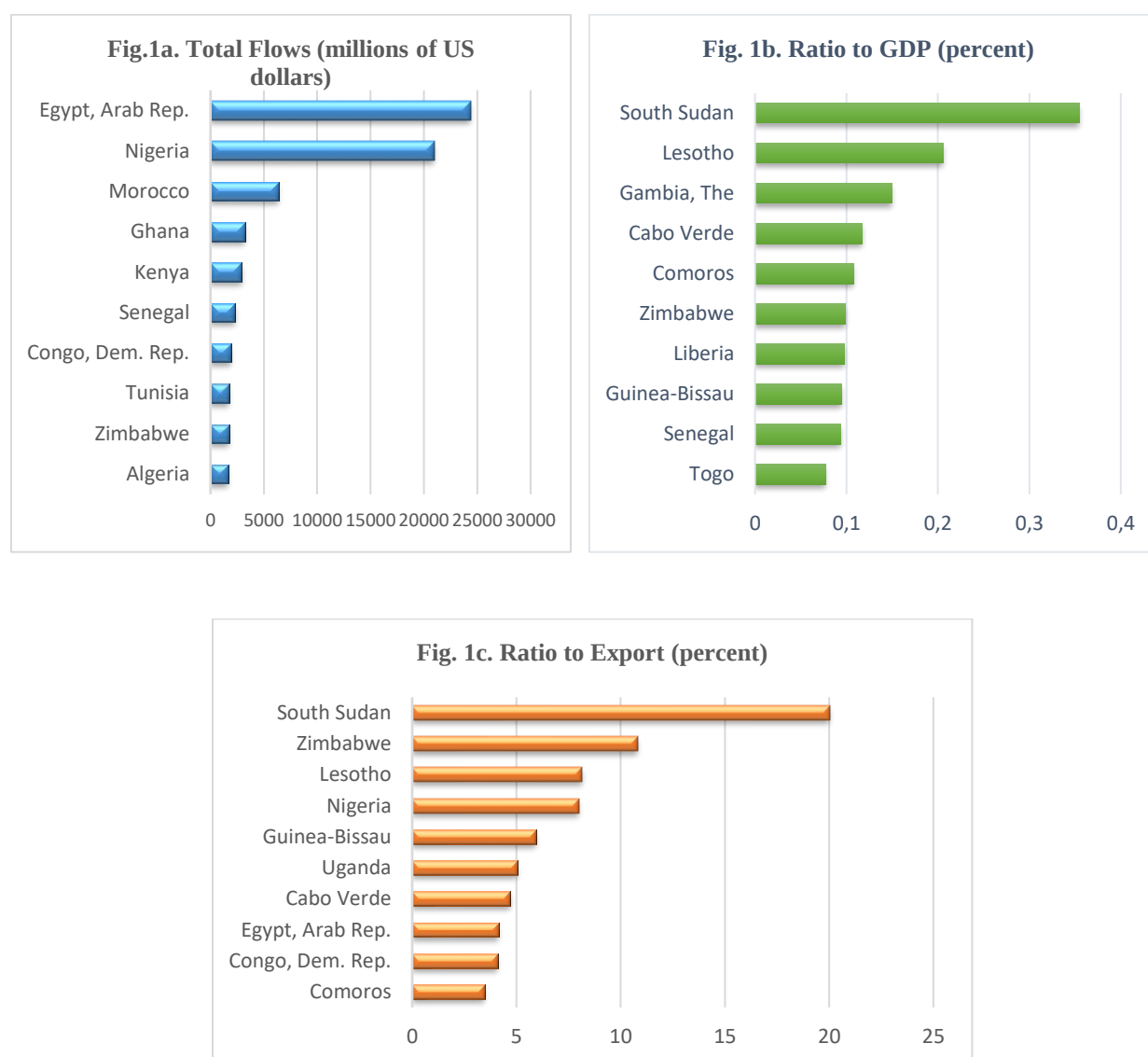
⁷ <https://www.imf.org/external/pubs/ft/wp/2009/wp0991.pdf>

⁸ https://archive.uneca.org/sites/default/files/uploaded-documents/JOINT-ONE-CAMPAIGN-ECA-REPORT-LAUNCH2020/coronavirus_disease_and_migrant_remittances.pdf

⁹ <https://www.ifad.org/en/prime-africa>

however, among African economies (Figure 3). Remittances were almost 36 per cent of GDP in South Sudan and more that 10 per cent in Cabo Verde, Comoros, Gambia, and Lesotho. Based on the total remittances' inflows, Egypt, Nigeria, and Morocco are the largest recipients of remittances in absolute term. South Sudan, Lesotho and Gambia are the most highly dependent on remittances in terms of GDP. The remittances represent an important source of foreign exchange for South Sudan, Lesotho, and Zimbabwe.

Figure 2. Top Ten Recipients of Remittances in Africa in 2020



Author calculation based on World Bank and IMF database

Impact of the Covid-19 on remittances and livelihoods in Africa: a review of the literature

Remittances are defined by the International Organization for Migration (IOM) as private monetary transfers that migrants make to their relatives back in their origin countries. These money transfers are the most recognized linkage between migration and economic development.

IMF (2019) demonstrated that remittances have steadily increased during the last decades and have become the main financial inflow in developing countries, surpassing other inflows such as foreign direct investment and official development assistance. Particularly, remittances to low- and middle-income countries was on track to reach \$551 billion in 2019 and \$597 billion by 2021. (World Bank, 2019)

Theoretical and empirical literature analyse the economic impact of remittance on migration (Gubert, 2017), institutional development (El Hamma, 2018), poverty reduction (Abduvaliev and Bustillo, 2019) and macroeconomic variables, such as growth, investment, and consumption in recipient countries (Meyer and Shera, 2017; Cismas and all., 2019 and Manic, 2017). The results of these research remain largely inconclusive.

From one side, remittances can promote economic growth in recipient countries by boosting investment, savings, and consumption. Particularly, the money transfers exert a critical role in poverty alleviation and economic development in developing countries with high government expenditure and/or low rate of domestic saving.

World Bank (2015) asserts that remittances elevate the national consumption by rendering affordable health care and education of recipient families for increased income in the long term. From that perspective, the diligent management of this capital flow can contribute to investment and infrastructure development and constitute a component to endogenize economic growth.

IMF (2008) affirmed that remittances have provided fiscal cushion for cash-strapped governments and allowed some economies to avoid debt crises. Indeed, recipients usually direct the transfers to imports and other taxable products.

IMF (2009) provided evidence that remittance flows play a stabilizing role on GDP growth and output volatility through the stabilization of the overall demand for goods and services in regions heavily dependent on these flows.

From another side, money transfers may have negative effect on growth due the reduction in labor supply. This may lead to appreciation of the real exchange rate and resource reallocation from the tradeable to the non-tradeable sector, or by adversely impacting long-run growth (IMF, 2019)

Remittances include a micro and macro dimension. Various researches have shown that at the micro level, remittances play as a safety net and specifically if the remittances are stable over time. From a social point of view, remittances play a critical role and could represent on average 3% of African GDP. It plays as a social stabilizer as highlighted by various publications on this issue. Chami and others (2009) also demonstrated that remittances alleviate poverty by providing significant income to the poorest part of the population and especially in the rural sector.

There is important evidence on the literature that remittances benefit to households. For instance, a paper written by Adams and al. (2013) demonstrated that in Ghana, households receiving remittances spend more at the margins on three investment goods: education, housing and health. More importantly, they exposed how remittances has reduced poverty and has upgraded social conditions of life.

In South Africa as well, using the South African National Income Dynamics Study (NIDS), Wurku and al (2019) have shown that remittance reduces the probability to be in the state of poverty by 98.8%, all other potential determinants of poverty remained constant.

In Egypt, a policy paper from Rizk (2019), recalled that the Organization for Migration (IOM) conducted a study on 200 remittance-receiving households in 2010. The study showed that most remittances in Egypt is spent on housing and household consumption and expenditures (79%), rather than on productive investment.

Various additional works such as Lubambu (2014) have indicated that remittances increase household's capacity to spend and meet basic social needs and therefore contribute to reduce poverty. (Lubambu, 2014 and Ratha 2013).

Several researches have shown that 1% rise in real remittances per capita leads to 0.12% rise in the share of students registered in the secondary school and 0.09% rise in primary completion rate. This trend is confirmed by Makom and Iheoma (2014) who proposed empirical works on 18 African countries. They found primary school enrolment and secondary school enrolment rose by 4.2% and 8.8%, respectively, for every 10% rise in remittances. This confirmed studies by Zhunio et al. (2012) who argued the impact on secondary school enrolment was greater than primary school enrolment.

This means that the current situation will negatively impact school enrolment and secondary school enrolment unless specific measures are taken to mitigate this effect.

Impact of the coronavirus on remittances and growth in Africa: Theoretical framework and empirical evidence

Empirical Approach

Firstly, we propose to review the impact of remittances decrease on African economies. Using GTAP version 10, we endogenize the reduction of African and global remittances on GDP growth. In addition, using econometrics and following Glytsos (2005) and Barajas, Chami, Fullenkamp, and Garg (2010) methodologies, we utilize a two-step empirical investigation (i) to estimate the impact of remittances decline in the GDP of African countries using a remittance determination equation and multiplier (ii) to calculate the impact of the GDP decline on poverty specially to assess SDG1/3/4.

From a technical point of view, following the approach proposed by Barajas, Chami, Fullenkamp, and Garg (2010)¹⁰, and using World Bank data, we forecast remittances changes for all African countries due to Covid-19 impacts on GDP growth in migrants' host countries. Indeed, the Covid-19 has severely impacted economic activities and locked down policies in various countries have also deteriorated the economic prospects. In a second step, and using robust methodologies applied in the literature (see Glytsos, 2005)¹¹, we estimate the impact on income in the receiving countries.

¹⁰ The Global Financial Crisis and Workers' - Remittances to Africa: What's the Damage? IMF Working paper, 10/24, 2010

¹¹ Glytsos, Nicholas, 2005, "The Contribution of Remittances to Growth: A Dynamic Approach and Empirical Analysis," *Journal of Economic Studies*, Vol. 32, No. 6, pp. 468–496.

As per Barajas, Chami, Fullenkamp, and Garg (2010), we utilize two step procedure to estimate the economic impact of the change in remittances on African economies. At the first step, we forecast the change in remittances received by each African country implied by the forecast changes in GDP in the migrants' host countries in 2020 and 2021. In the second step, we estimate the impact on income in the receiving country using a short-run remittance multiplier.

The first step relies on the estimation of a remittance-determination equation to overcome the lack of data on the quantity of remittances (Equation 1). The equation estimates the relationship between the quantity of remittance received by a given country and a set of explanatory variables. Similarly, to Singh and all (2009), we consider the following explanatory variables: The host-country income in the main migrant destination country, the income in the remittance-receiving country, the financial development, the ratio expatriates to population, the real exchange rate, the interest rate differential between the remittance-sending and remittance-receiving country, the institutional quality, the Dual exchange rate dummy variable.

$$\begin{aligned}
 \ln(REM/GDP)_{it} &= \lambda_i + \sigma_t \\
 &+ \alpha_1 \ln y_{it} \\
 &+ \alpha_2 \ln DevFin_{it} \\
 &+ \alpha_3 \ln y_{it}^* + \alpha_4 \ln(Mig/Pop)_{it} + \alpha_5 \ln Ins_{it} + \alpha_6 \ln EX_{it} + \alpha_7 I_{it} + \varepsilon_{it}
 \end{aligned}$$

Equation 1

With REM/GDP the ratio remittances to GDP, y home income, $DevFin$ the index for the financial development, y^* host income, Mig/Pop the ratio of expatriates to population, Ins the institutional quality, EX the real exchange rate, I is the interest rate differential, and λ_i and σ_t are country- and time-specific dummies.

The differential in income and interest rates between the host country and the home country were calculated as a weighted average of bilateral differentials, using the bilateral remittances inflows from the receiving country across countries as weights. As per Chami and all (2010), we retain only top ten destination countries and constructed weights.

The relationship between growth and remittances is investigated using the Equation 2.

$$\begin{aligned}
\Delta \ln y_{it} = & \beta_i + \mu_t \\
& + \lambda_1 \ln y_{it-1} \\
& + \lambda_2 \ln(REM/GDP)_{it} \\
& + \lambda_3 \ln(Inv/GDP)_{it} \\
& + \lambda_4 \ln DevFin_{it} + \lambda_5 \ln Ins_{it} + \lambda_6 \ln EX_{it} \\
& + \lambda_7 \ln(GovExp/GDP)_{it} + \lambda_8 \ln TradeOpen_{it} + \lambda_9 \ln Inflation_{it} \\
& + \lambda_{10} \ln(REM/GDP)_{it} \ln Ins_{it} + \lambda_{11} \ln(REM/GDP)_{it} FinDev_{it} + \varepsilon_{it}
\end{aligned}$$

Equation 2

y denotes real GDP per capita, Inv indicates investment, GovExp represents the government expenditure-to-GDP ratio, TradeOpen is trade openness.

In selecting regressors, we follow the standard list of variables discussed in the literature (e.g., Giuliano and Ruiz-Arranz, 2005; and Fajnzylber and Lopez, 2007) to which we add indicators for investment and financial development.

The equation 2 is estimated using the fixed effect estimation.