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# Advancing Cross-Border Payments: Opportunities and Challenges for Sub-Saharan Africa

## Inbound and Outbound remittances in WAEMU countries: Exploring the dynamics and the main drivers

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# Outline

- ❑ Main motivation and research question
- ❑ Recent dynamics in remittances
- ❑ Empirical analysis
- ❑ Main findings
- ❑ Policy implications

# Motivation and research questions

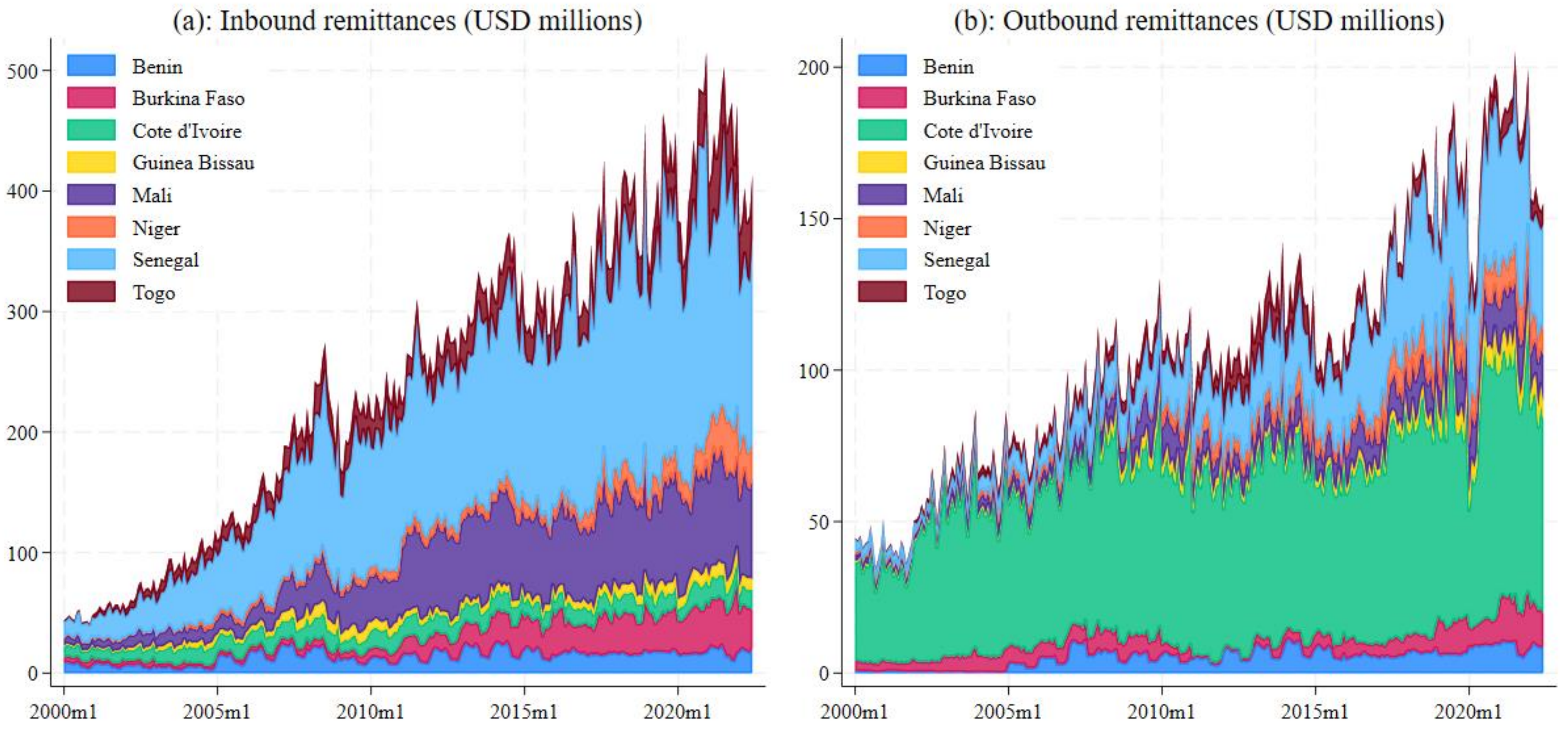
- **Globalization and increasingly interconnected economies**
  - Increase in the international migration of people conditions.
  - Unprecedented increase in the flow of remittances
- **Advantages of remittances:**
  - Finance household consumption expenditure, education, and healthcare, income volatility, safety net, stabilizing role in the face of shocks
  - liquidity to financial sector, and current account deficit mitigation.
- **Main determinants of remittances:**
  - GDP growth rate, exchange rate volatility, transaction costs, uncertainty, stock of migrants, common border and official language.

# Motivation and research questions

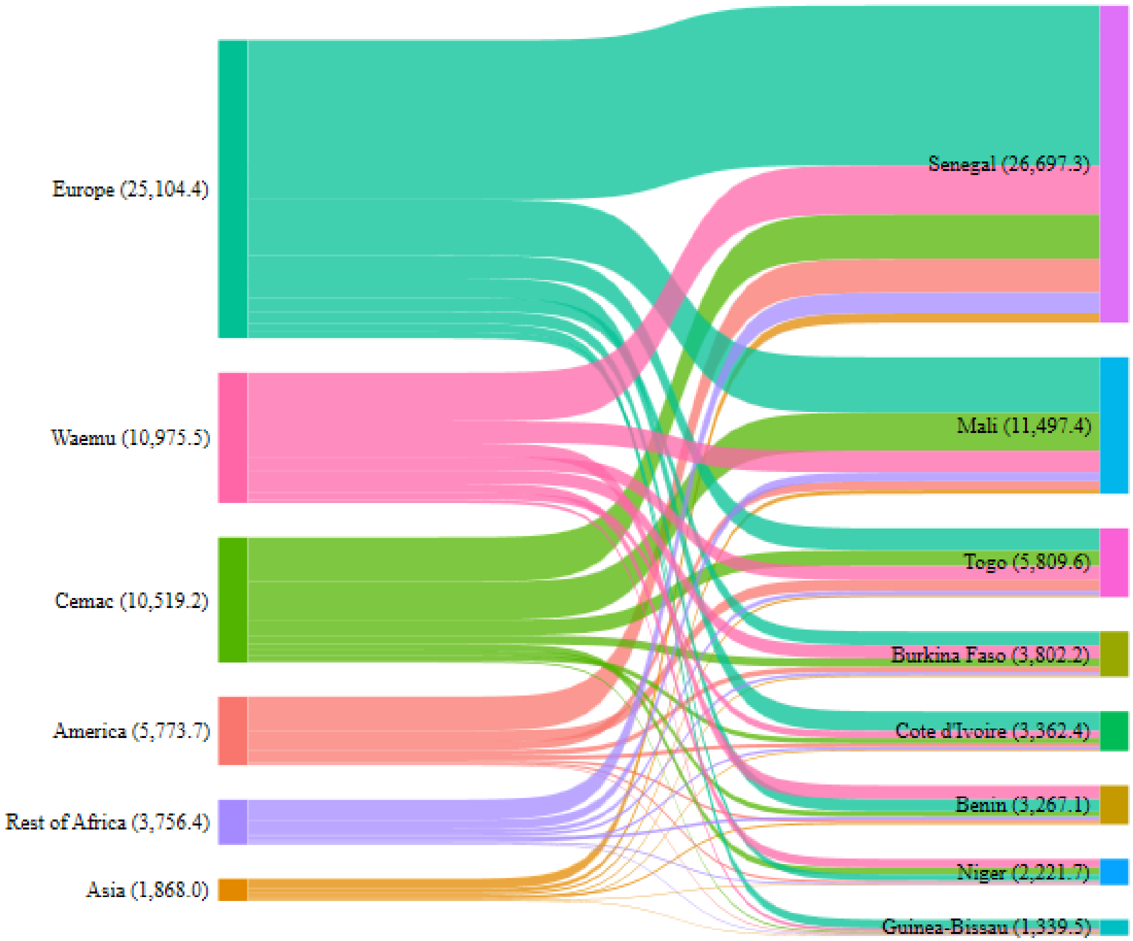
- **Specific context of WAEMU countries**
  - Financial development with growth in the number of active banks, fintech and microfinance
  - Rapid growth in the adoption of digital financial services (Domestic and cross-border payment)
  - Interoperability project launched in September 2025.
- **Research questions:**
  - What are the main drivers of inward and outward remittances in WAEMU countries?
  - How important are digitalization and financial development?
- **Objectives of the study:**
  - Explore recent dynamics of remittances in WAEMU countries.
  - Identify the main drivers, focusing on digitalization and financial development

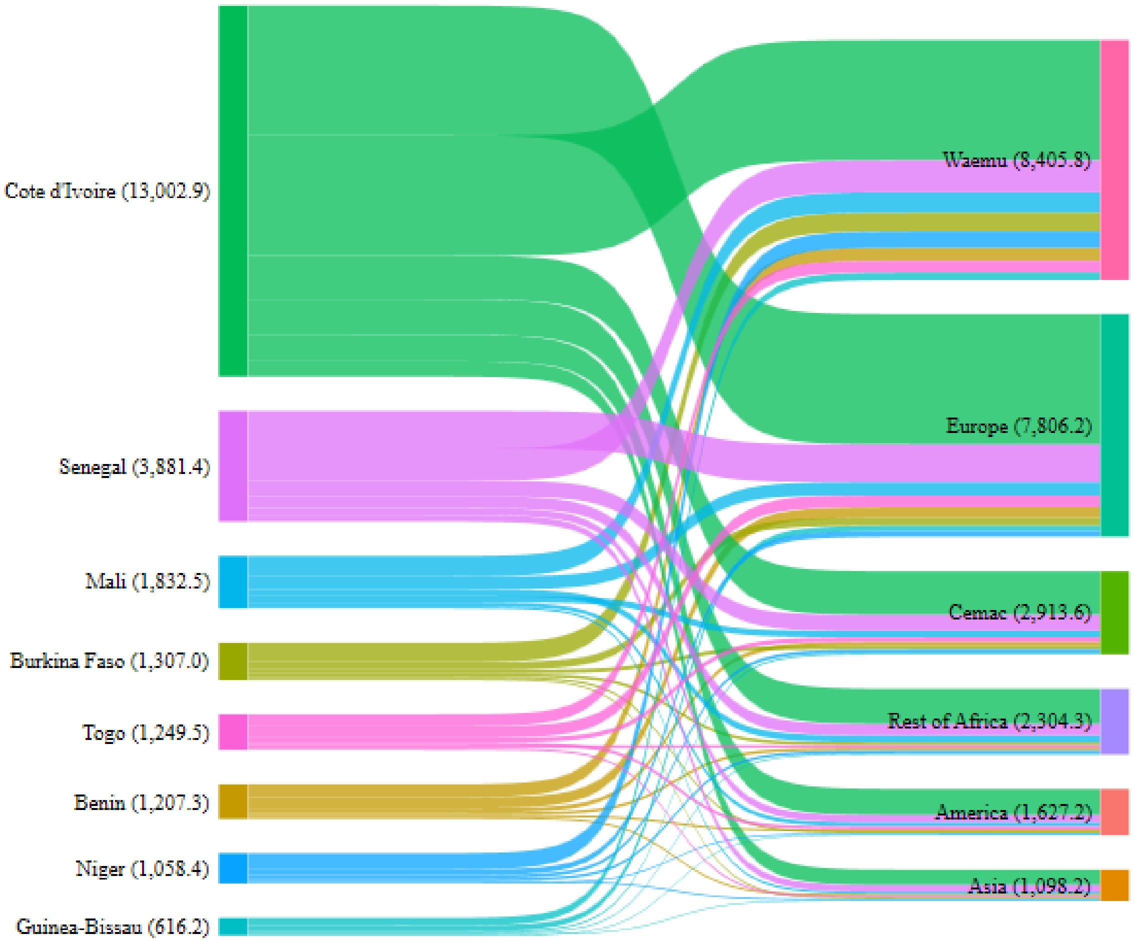
# Trends of remittances in WAEMU countries

- Increase in inward and outward remittances
- Positive trends in most countries when considering remittance as % of GDP
- Top receiving country: Senegal
- Top sending country: Cote d'Ivoire



# Sources and destinations of remittances (received and sent) of WAEMU



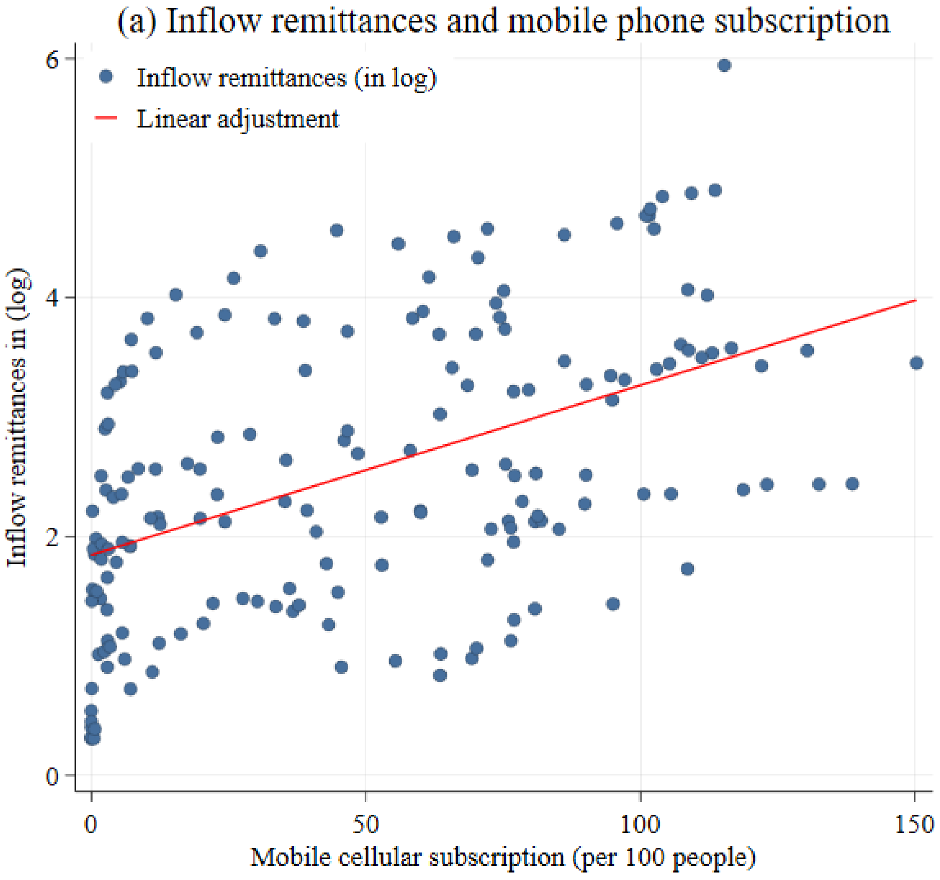



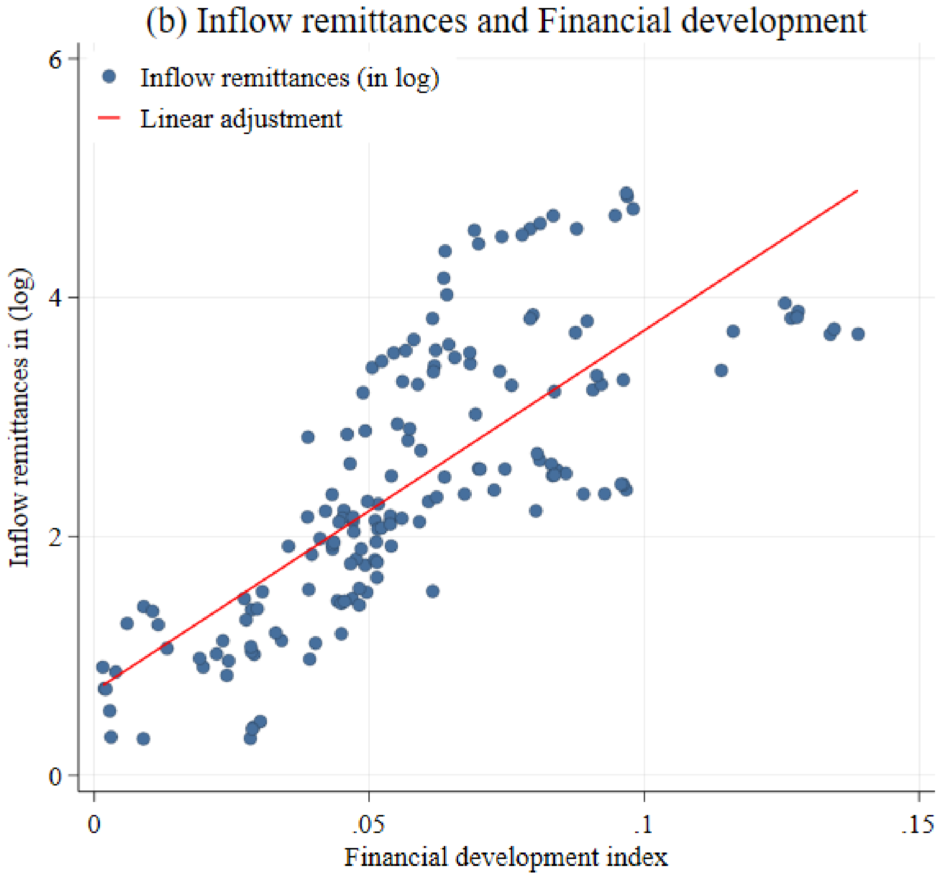

Source: BCEAO.

# Mobile cellular subscription, financial development, and inbound remittances in WAEMU

- Positive correlation between inward remittances and mobile phone adoption in WAEMU countries

- Positive correlation between inward remittances and financial development in WAEMU countries



# Empirical analysis

- **Econometric model**
  - Gravity model estimated on corridor data (8 WAEMU countries vs 25 other countries, from 2000 to 2021)
  - Panel fixed effects estimator rather than Pseudo Poisson Maximum Likelihood (PPML) estimator

- **Main variables:**
  - Endogenous variables: inward and outward remittances (in log)
  - Exogenous variables: distance, common language and border, GDP growth, Stock of migrants, exchange rate volatility, financial development and mobile phone subscription

- **Specification:**
  - Direct effects of financial development and mobile phone subscription
  - Interaction effects between financial development and mobile phone subscription

# Main findings

- Positive effect of common official language, the stock of migrants both in receiving and sending countries, financial development and the adoption digital tools

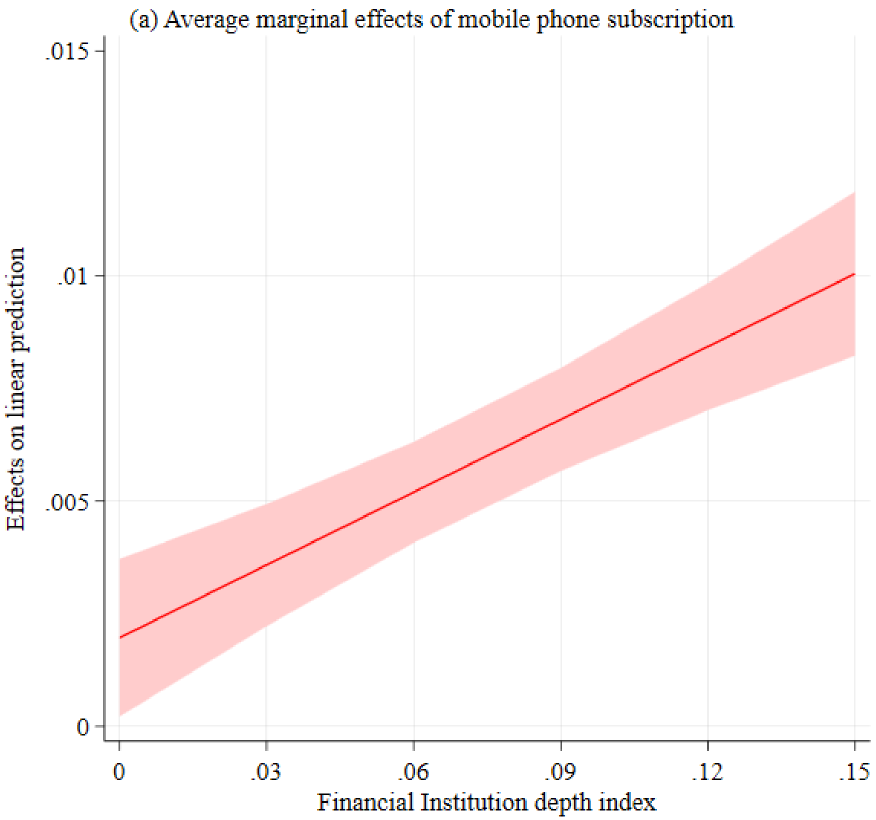
- Negative effect of GDP growth in receiving countries (safety net of remittances in face of negative shocks

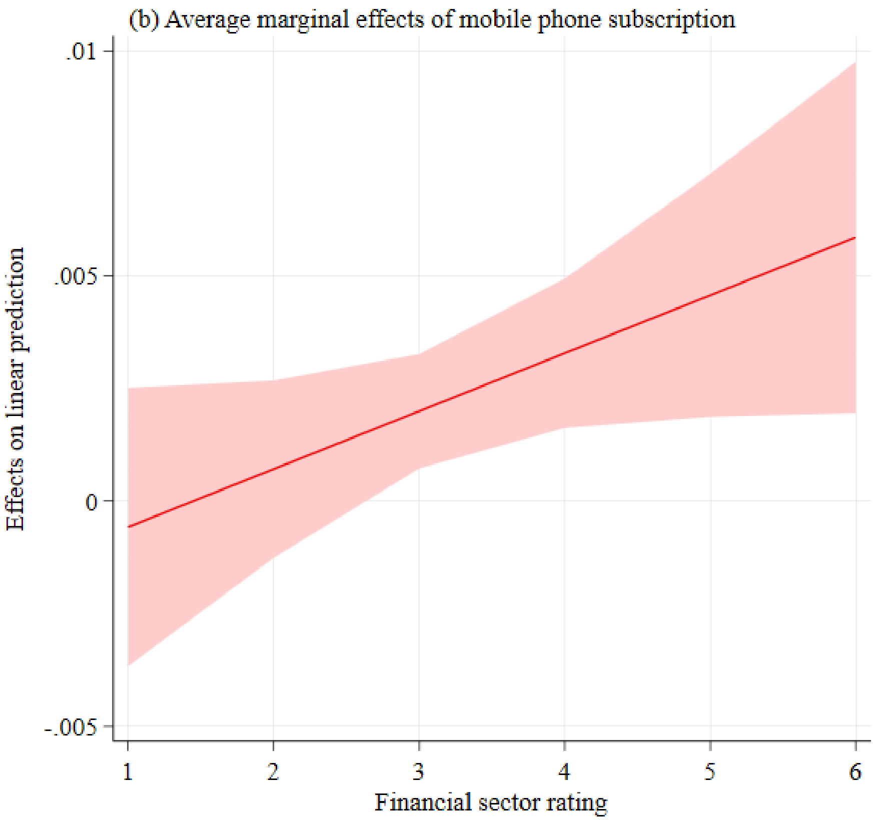
- Positive interaction effect between financial development and mobile phone subscription

| | Inflow remittances in (log) | | | |
|---|---|---|---|---|
| Variables | (1) | (2) | (3) | (4) |
| Common border | 0.0457 | 0.0386 | 0.0448 | 0.0390 |
| | (0.028) | (0.028) | (0.028) | (0.028) |
| Common official language | 0.1675*** | 0.1631*** | 0.1674*** | 0.1634*** |
| | (0.029) | (0.028) | (0.027) | (0.028) |
| Distance (in log) | -0.0330* | -0.0260 | -0.0327* | -0.0261 |
| | (0.020) | (0.019) | (0.020) | (0.019) |
| Exchange rate volatility (sd) | 0.0019 | 0.0016 | 0.0019 | 0.0016 |
| | (0.002) | (0.002) | (0.002) | (0.002) |
| GDP growth of the receiving country | -0.0277*** | -0.0285*** | -0.0322*** | -0.0286*** |
| | (0.003) | (0.003) | (0.003) | (0.003) |
| GDP growth of the sending country | -0.0025 | -0.0024 | -0.0025 | -0.0024 |
| | (0.002) | (0.002) | (0.002) | (0.002) |
| Migrant stock of the receiving country (in log) | 0.0223*** | 0.0213*** | 0.0209*** | 0.0210*** |
| | (0.003) | (0.003) | (0.003) | (0.003) |
| Migrant stock of the sending country (in log) | 0.0309*** | 0.0264*** | 0.0326*** | 0.0265*** |
| | (0.003) | (0.003) | (0.003) | (0.003) |
| Financial Institutions Depth Index | 4.4887*** | | -0.5116 | |
| | (0.639) | | (1.151) | |
| Mobile cellular subscriptions (MCS) | 0.0067*** | 0.0022*** | 0.0020** | -0.0019 |
| | (0.001) | (0.001) | (0.001) | (0.002) |
| Financial sector rating | | 0.4244*** | | 0.3441*** |
| | | (0.033) | | (0.056) |
| MCS x Financial Institutions Depth Index | | | 0.0539*** | |
| | | | (0.009) | |
| MCS x Financial sector rating | | | | 0.0012* |
| | | | | (0.001) |
| Constant | 1.1784*** | 0.6256*** | 1.5294*** | 0.8827*** |
| | (0.168) | (0.176) | (0.177) | (0.219) |
| Observations | 5,088 | 4,064 | 5,088 | 4,064 |
| R-squared | 0.833 | 0.864 | 0.834 | 0.865 |
| Receiving country fixed effects | Yes | Yes | Yes | Yes |
| Sending country fixed effects | Yes | Yes | Yes | Yes |
| Year effects | Yes | Yes | Yes | Yes |

# Conditional effects of digital tools adoption on inbound remittances

- Positive and significant marginal effects of mobile phone adoption
- Countries with more developed financial systems benefit from greater leverage of digitalization on migrant remittances.



# Policy implications

- **Migration**
  - Remittances are expected to increase in WAEMU as migration grow along with population growth rate
  - Decrease in remittances coming from advanced economies experimenting anti-migration policies

- **Safety net role of remittances**
  - Need for transaction cost reducing policies and digitalization of financial services such as the interoperability project (effective from September 2025) to amplify this role
  - The paper recommends further consideration of extending the interoperability project to other African countries.
  - Need for transaction cost reducing policies to amplify this role
  - Full implementation of financial inclusion policies (banking access, financial education for the population and facilitating the use of digital tools with better internet access)

# THANK YOU