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# How mobile money is revolutionising banking in Africa

**75% of sub-Saharan adults do not have a formal bank account yet millions of Africans are using mobile phones to pay bills, move cash, and to buy basic everyday items. Mobile money is revolutionising retail banking in East Africa**

The unparalleled success of mobile money in East Africa over the last seven years has opened new territory for a wide range of actors in the East African economy, raising important economic questions. What would be the effect of mobile money on inflation and monetary policy? What are the effects on savings and financial intermediation? How does mobile money affect the poor? With the [East Africa Mobile Money Forum](#), the IGC brought together regulators, monetary and fiscal policy makers, telecommunication and banking industry professionals as well as researchers in the field to seek answers to these and other questions.

The academics speaking at the conference brought good news for the participants. On the macro level, research presented showed that mobile money is likely to have stabilizing effects on the paths of inflation and output. Studies at the micro level in turn showed that mobile money helps protect the rural poor against income shocks from weather and other sources and participate in the financial system. Industry professionals echoed these positive messages with the display of a healthy degree of competition as well as a strong sense of optimism for the future development of the industry.

## Reducing volatility of inflation and output

Co-organised by the Bank of Uganda, an important focus of the event was to explore the impact of mobile money on inflation and the efficacy of monetary policy. The increase in mobile money transactions and balances has increased both the velocity of money as well as the money multiplier, while loosening the link between these variables and inflation. This has made inflation in East Africa more difficult to predict and would argue for choosing inflation targeting over reserve-money targeting in East Africa. Analysing this formally for the Ugandan economy, Sebastián Walker and Prof. Chris Adams from Oxford University presented clear evidence in support of this claim. Further, given the high vulnerability to food price volatility for a large portion of the population, they argued that monetary policy makers are better advised to target headline rather than core inflation (which excludes food and energy). Reassuring not only for monetary policy makers, according to their model, mobile money also appears to stabilize the path of

their model, mobile money also appears to stabilize the path of inflation and output. This led them to conclude that policymakers should actively encourage the spread of the service.

Dr. Janine Aron from Oxford University complemented her colleagues' analysis with the presentation of another study on mobile money and inflation. The paper she presented employed econometric models to answer the question whether the growth of mobile money transactions and balances is a relevant factor for inflation forecasting models in Uganda. Her study found no significant effect. This is positive news for monetary policy makers who might have worried that further spread of mobile money will have inflationary effects. In terms of inflation, mobile money seems to bring gain without pain.

### **The micro benefits**

To shed light on the effects of mobile money on individual consumers and their behaviour, Prof. Billy Jack from Georgetown University presented several randomized control studies that he and his co-authors conducted in Kenya, the country with the largest mobile money customer base in the region. His studies show clear evidence that mobile money enables poor rural households to cushion consumption losses in the face of an adverse income shock by allowing them to rely on informal insurance from relatives who are not subject to the same shocks. From this it follows that households using mobile money can invest in higher risk, higher return activities, thus opening new avenues to escape from poverty. These micro level developments have the potential for large positive growth effects.

The research Prof. Jack presented also confirmed that mobile money can increase financial inclusion. One of his studies showed positive effects of mobile money on savings behaviour. He found some evidence that an intervention that encourages households to open mobile money accounts and sends them simple text message reminders can be an effective way to help and motivate households save the money needed to pay for the education of their children. Prof. Jack further provided evidence that mobile money can increase rural poor household's access to credit. For this he analysed an innovative micro-credit solution relying on remote punishment to enforce repayment.

### **Regulation will be decisive**

With telecommunication companies starting to offer services such as savings and credit accounts traditionally offered by banks, regulators contemplate how to protect consumers without stifling the growth of the young industry. Two presentations by Juliet Tumuzoire from MTN and Dr. Julius Kipng'etich from Equity Bank Kenya made it clear that a lot is at stake for their industries, and that regulation will be decisive in enabling them to extend their services to offer cross-border and cross-network interoperability. Regulators will also play a pivotal role in steering the market towards either competition or cooperation. Currently telecommunication companies handle the customer through their vast network of bank-like kiosks, while banks manage the repository of funds gathered through the network. Both industries are eager to expand into the

other's domain. Banks are demanding that telecommunication companies be forced to allow banks to offer certain services through their networks, while telecommunication companies want to cut banks out of the financial intermediation of mobile money funds. Regulators are challenged to strike the right balance between the competing industries' interests, while keeping consumer interests paramount. According to the industry professionals, a lot is to be gained from light-handed regulation if it fosters the development of new services such as mobile money savings and credit accounts. And further impetus is imminent with increased affordability of smart phones and the rapidly expanding cellular data network.

### **Mobile money is opening a new future to East Africans**

In his opening remarks for the event, Prof. Emmanuel Tumusiime-Mutebile, the Governor of the Bank of Uganda said that mobile money puts the East African economies at the beginning of a transformation. The scope of banking services offered through mobile money has and will continue to expand. Financial inclusion will be furthered, providing unprecedented opportunities for the rural poor. These developments present strong incentives for policy makers to support further growth of the industry.

However, policy makers will also benefit more directly from the rise of mobile money. Vast amounts of data collected through the services will prove a useful gauge for policy making. It will also open a whole range of opportunities for increased revenue collection as well as social assistance or development programmes. In light of all these opportunities that mobile money holds for East Africa, maybe Hon. Maria Kiwanuka, the Ugandan Minister of Finance, Planning and Economic Development, was more serious than one would think when, in her closing speech, she called mobile money 'probably the greatest invention since the wheel'.