The Efficacy of Monetary and Fiscal Policies in East Africa: An Empirical Investigation

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On 30 November 2013, the East African Community (EAC) countries–Burundi, Kenya, Rwanda, Tanzania and Uganda–signed the East African Monetary Union Protocol that sets the ground for the takeoff of the East African Monetary Union (EAMU) by 2024, which will usher in a supranational monetary policy and single currency. In the offing to this third phase of the East African community roadmap, concerted efforts are underway to ensure its successful launch. These efforts include but not confined to understanding the dynamics of the national monetary policies and fiscal practices among the member countries. To this end, this dissertation examines the effectiveness of monetary and fiscal policy for the the East African Community (EAC) member countries, Kenya, Tanzania, and Uganda in particular. The countries are deepening their economic ties to ensure mutual gains from the envisaged monetary arrangement. To understand the historical genesis of the community, chapter 1 lays out the evolution of the monetary and fiscal cooperation amongst these countries since the pre-independence era when each of them was under the British patronage. Chapter 2 updates about the recent monetary and fiscal developments as well as some empirical evidence on how the demand management policies have been conducted since becoming members of the reestablished East African Community. An important takeaway from this chapter is that East African countries have made great strides in both fiscal and monetary performance but empirical evidence on the effectiveness of these policies is still cluttered with the inconsistent findings. This dissertation therefore explores these topics with a more recent, and more reliable approach than those applied in the existing literature.

Chapter 3 studies the effectiveness of monetary policy on output and other macroeconomic fundamentals for each country using structural VAR with sign restrictions. To the best of the information available, this is the first study to apply this empirical strategy to

identify monetary policy shocks and estimate their effects on output for each of the three EAC countries. Monetary policy shocks, identified by an unexpected, temporary changes in interest rate and reserve money, appear to affect output and other macroeconomic variables significantly. Further, the response of output to a shock in interest rate is more pronounced than similar response to a reserve money shock for each country. And as expected, monetary policy shocks are not the main determinants of the output variability in these countries as they explain a maximum of 10 percent of the fluctuations of output. Moreover, interest rate shock seems to contribute more to output variability than reserve money for each country and almost for each forecast horizon. Regarding the channels with which the monetary policy shocks propagates to the economy, the findings point to channels pertaining to interest, credit to private sector and exchange rates. Finally, although monetary policy is found to be effective for each country, differences exists with respect to the magnitude, timing and persistence of the responses to monetary shocks amongst the EAC country. The difference may partly be attributed to the prevailing differences in the levels of financial developments as well as policy frameworks.

The analysis in chapter 3 meant to provide an overview of the national transmission mechanisms of monetary policy that may corroborate the transmission mechanisms at the regional level. This analysis helps to investigate the presence of the cross-country differences in the transmission mechanisms that may be of concern for the operations of the supranational monetary policy. However, as countries in the monetary union relinquish their monetary policy autonomy, few instruments are at their disposal to countervail idiosyncratic shocks. Since country-specific shocks are prevalent among the East African member countries, subscription to monetary union will deprive them of their ability to use monetary policy as well as the exchange rate to address these shocks. With customs union and common markets still not at fully operational, fiscal policy is the only policy instrument that can be used to counteract country-specific shocks in these countries. This offers the rationale for understanding how effective fiscal policy is for counter-cyclical purposes in each of the East African economies.

Chapter 4 delves in examining whether fiscal policy can be used for countercyclical purpose in the event of economic slowdowns, that is whether fiscal policy can stimulate output in the economy. This is done with the aid of structural VAR with sign restrictions in which fiscal policy shocks are identified by imposing sign restrictions on the impulse responses of fiscal variables for some horizons after the shock and requiring that fiscal shocks be orthogonal to both business cycle and monetary policy shock. By so doing, this empirical strategy captures much of the fiscal dynamics present in each of these countries. A number of key findings are worth noting. First, deficit spending works well for Tanzania while balanced budget performs better for Uganda. None of these fiscal options works for Kenya and thus fiscal policy is least effective in Kenya. Fiscal shocks are found to have modest contributions to output fluctuations. Finally, as each of these countries is about to reap the resource-based revenues, fiscal space may be widened and thus be used for countercyclical purpose in the event of economic slowdown or other structural transformations of the economy.

Overall, these findings show that monetary policy is effective in each of the three East African countries and that, of the two instruments of monetary policy, interest rate appear to be more effective than reserve money. The findings therefore offer support to the ongoing efforts among the central banks in East Africa countries to adopt interest rate as the main policy instrument. Furthermore, fiscal policy may be used to counteract country-specific shocks as the cumulative fiscal multipliers are found to be significant especially for Tanzania and Uganda. The results based on structural VAR with sign restrictions may therefore be used as benchmark for further theoretical and empirical analysis of the transmission mechanisms of monetary policy and cyclical behaviour of fiscal policies in East Africa. As the new data flow in the run up to the launch of the East African Monetary Union (EAMU), monitoring how these results change is imperative because the observed differences may rapidly disappear and thus attenuate the adverse effects that could have resulted from the loss of policy autonomy.