### 博士論文審查結果報告 Report on Ph.D. / Doctoral Dissertation Defence

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審査委員会を代表し、以下のとおり審査結果を報告します。

On behalf of the Degree Committee, I would like to report the result of the Ph. D. / Doctoral Dissertation Defense as follows.

学位申請者氏名 Ph.D. Candidate	Zarau Wendeline Kibwe				
学籍番号 ID Number	PHD11106				
プログラム名 Program	政策分析プログラム Policy Analysis Program				
審査委員会 Degree Committee	主査 Main referee	′		主指導教員 Main advisor	
	審査委員 Referee	荒井 洋一 ARAI, Yoichi		副指導教員 Sub advisor	
	審査委員 Referee	藤本 淳一 FUJIMOTO, Junichi		副指導教員 Sub advisor	
	審査委員 Referee	園部 哲史 SONOBE, Tetsushi		博士課程委員会委員長 Chairperson of the Ph. D. Programs Committee	
	審查委員 Referee	藤原 一平 FUJIWARA, Ippei (慶應義塾大学 教授/ Keio Un		外部審査員 Referee from outside institutions iversity)	
論文タイトル Dissertation Title	The Efficacy of Monetary and Fiscal Policies in East Africa: An Empirical Investigation				
	東アフリカにおける金融政策及び財政政策の効果に関する実証研究				
学位名 Degree Title	博士(開発経済学)/ Ph.D. in Development Economics				
論文提出日 Submission Date of the Draft Dissertation	平成 27(2015)年 11 月 13 日		論文審査会開催日 Date of the Degree Committee Meeting		平成 27(2015)年 12月11日
論文発表会開催日 Date of the Defense	平成 27(2015)年 12 月 11 日		論文最終版提出日 Submission Date of the Final Dissertation		平成 28(2016)年 1月6日
審査結果 Result	合格 pass				

### 1. 論文要旨 Thesis overview and summary of the presentation.

This thesis examines the effectiveness of fiscal and monetary policy for three of the five members of the East African Community (EAC), namely Kenya, Tanzania, and Uganda. The thesis has five chapters. The first chapter is an introduction which discusses important characteristics of the economic and institutional background of these countries. The second chapter reviews the literature on the effectiveness of fiscal and monetary policy and explains the context for the contributions of the thesis. The third chapter uses a novel approach to estimate the impact of monetary policy, using a Vector Autoregressive Model (VAR) with sign restrictions to identify the structural shocks. This is the first study applying this technique to East African Community countries. This identification strategy has the advantage of being able to identify the shocks using more realistic assumptions than in previous literature. This chapter finds that monetary policy appears to affect output and other macroeconomic variables significantly, and that interest shocks have a more pronounced effect that reserve money shocks. The fourth chapter uses a VAR with sign restrictions to estimate the impact of fiscal policy. It finds that deficit spending works well for Tanzania, while balanced budget performs better for Uganda. The analysis did not find a significant impact of fiscal policy in Kenya. Chapter 5 puts together the findings from previous chapters and draws some overall conclusions.

During the final defense the candidate presented for about 1 hour and subsequently the referees raised questions and comments.

## 2. 審查報告 Notes from the Degree Committee (including changes required to the thesis by the referees)

The referees raised several comments, which mostly requested greater explanation for the findings in terms of known facts about the economy and institutional background of these countries. At the end of this report I attach a list of all comments raised by the referees.

## 3. 最終提出論文確認結果 Confirmation by the Main Referee that changes have been done to the satisfaction of the referees

Mr. Kibwe has satisfactorily carried out the changes requested by the referees. He has also wrote an explanation of how these changes were done, which I attach at the end of this report.

#### 4. 最終審查結果 Final recommendation.

I recommend that Mr. Kibwe be awarded the degree of PhD in Development Economics.

Leon

Roberto Leon

### **Appendix**

# Response to Comments from the PhD Defense Committee Zarau Wendeline Kibwe PHD11106

I would like to thank professors in my PhD committee for careful and thorough reading of my dissertation and for the thoughtful comments and constructive suggestions, which helped to improve my dissertation. I have accommodated their comments in my dissertation by making the following changes.

### (a) Prof. Fujiwara Comments

Comment [Chapter 1]: There is a need to understand the similarities of the business cycle shocks in EAC countries. This can be done by computing the correlation of the business cycle shocks and compare trend growth.

Response: I have added a section on business cycles in East Africa in Chapter 2 in which trend growth is compared amongst the East African countries. In addition, Fig 4-A1, 4-A2 and 4-A3 in Chapter 4 present impulse responses to the business cycle shock for Kenya, Tanzania and Uganda, respectively.

Comment [Chapter 3]: Are the peak/bottom of a shock in each country similar or different? Test similarity of the impulse response shocks in the frequency domain.

Response: A visual inspection of the peaks/troughs of the impulse responses to each shock has been done and respective comments have been included in the discussion of the results.

Comments [Chapter 4]: Compare the business cycles identified in this chapter.

Response: As already responded above, a paragraph with explanation on the business cycle shocks has been added while descriptive statistics of the business shocks among the three East African Countries have been given in Chapter 2. It is not easy to obtain historical decomposition of the shocks for this model given the code algorithm, so I leave it for future research.

### (b) Prof. Sonobe Comments

Comment: Noted some missing references in chapter 1.

Response: I have identified the missing references and included them where appropriate.

*Comment:* Chapter 2 has to include the contributions of the dissertation to the existing literature (wrap-up conclusion at the end of the chapter)

*Response:* A closing paragraph that shows explicitly the contributions of the dissertation to the existing literature has been added.

### (c) Prof. Arai Comments

Comment: Explain why restrictions in previous studies were less appropriate.

*Response:* Previous studies used the recursive approach as their identification strategy, but there has been inconsistency in the way each study ordered the variables according to the endogeneity. With Sign restrictions, ordering of the variables does not matter. This explanation has been added to the methodology section of chapter 3.

*Comment:* Explain why reserve money was missing in chapter 4 while instead broad money was included.

*Response:* I have included reserve money instead of broad money and the results seem to be robust. I have noted this in chapter 4.

*Comment:* In the interpretation of the results, an explanation should be given as to why similar shock have different impact in different countries.

Response: It is a welcome comment and I have tried my level best to justify the differences in responses to similar shocks amongst the East African Countries.

Comment: How valid is the orthogonality assumption/restriction in EAC countries compared to Advanced Economies?

Response: I am of the view that Orthogonality somehow holds as central banks in East

Africa are operating under a new legal framework since 2000s, which clearly single out price stability as the overriding objective of monetary policy. In addition, as these countries are in offing to having a monetary union, there is an increasing distance between fiscal policy and monetary policy.

Comment: What is the Deflator used to obtain real variables?

Response: I have used consumer price indices to deflate nominal variables, notably government consumption, private investment, spending and revenue in chapter 4. I have explained this in chapter 4.

### (d) Prof. Fujimoto Comments

Comment: Why some of the variables in chapter 3 are not included in chapter 4?

Response: Our model in chapter 4 already has 8 variables which I believe are key in identifying fiscal shocks. Thus, to avoid some dimensionality problem, I excluded those variables that are not directly related to the identification of fiscal policy shocks in chapter 4.

Comment: How do we interpret the reserve money shock, is it in terms of borrowed Reserves or required reserve ratio?

Response: A standard definition of this variable has been used. Reserve money include the reserves commercial banks hold with the central bank plus currency in circulation. It therefore includes required reserves.

*Comment:* What drives the difference in the results between your study in chapter 3 and previous literature? Is it the choice of the variables or the identification strategy?

Response: Since I have used similar (six) variables to the existing studies that use the recursive approach as identification strategy (for example, Davoodi, 2013; 2014), I therefore attribute the difference to the identification strategy I used: Sign Restrictions.