Department of
Economics and Finance

Working Paper No. 12-22

TESTING THE MARSHALL-LERNER CONDITION IN KENYA

Guglielmo Maria Caporale
Centre for Empirical Finance, Brunel University, London, UK

Luis A. Gil-Alana*
Navarra Center for International Development,
University of Navarra, Pamplona, Spain

and

Robert Mudida
Strathmore University, Nairobi, Kenya

September 2012

Abstract

Keywords:

JEL Classification:

Corresponding author:

1. Introduction

2. The Marshall-Lerner condition and the Kenyan economy

3. Theoretical Framework

$$= \overline{\qquad\qquad}$$

$$= \quad - \quad - \left(\quad - \quad + \quad \right) = \quad - \quad -$$

$$= \quad - \quad +$$

$$= \alpha \quad + \beta \quad + \eta \quad + \gamma$$

$$+ \gamma$$

α β

$\sqrt{}$ $\rightarrow \infty$

= − − + − =
− −
≈ τ = −

= − + − =
−
≈ τ =

= − − + − =
− −
= _ + ε

= α + β + β +

5. Conclusions and Policy Recommendations

Economics Letters

The Journal of Developing Areas

International Economics Practicum

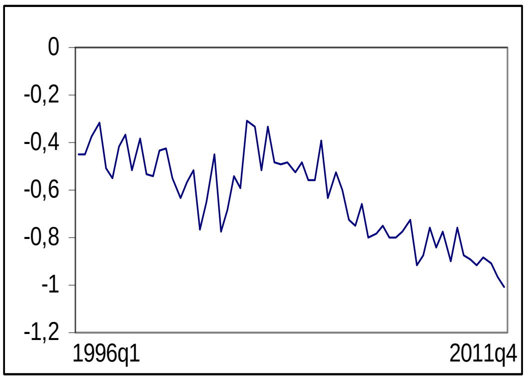
Journal of Econometrics

Kenya: Policies for Prosperity

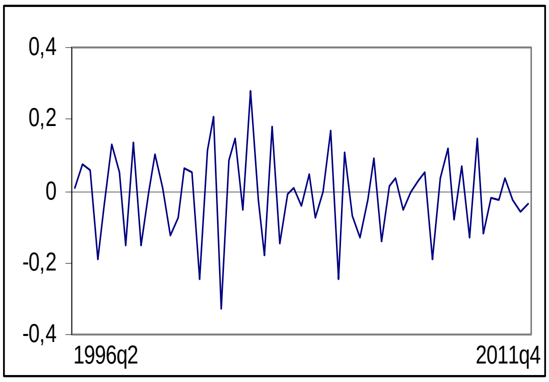
Annals of Statistics

Figure 1: Original series and first differences

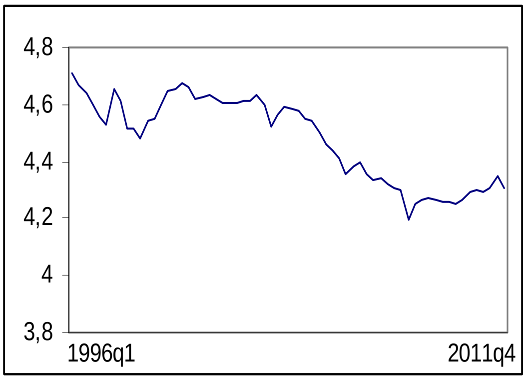
LOG(EXP/IMP) = x_{1t}



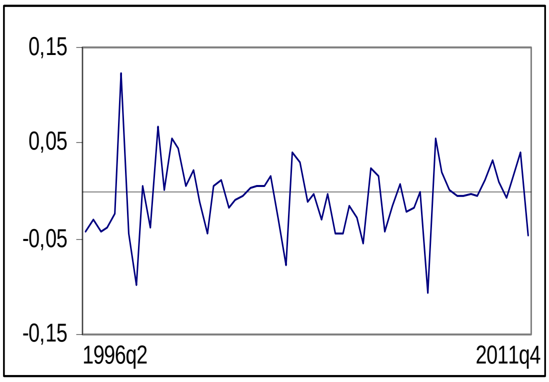
$(1 – L)x_{1t}$



LOG(REER) = x_{2t}



$(1 – L)x_{2t}$



LOG(NOMGNP/USGNP) = x_{3t}

$(1 – L)x_{3t}$

Figure 3: Periodograms of the original series and first differences

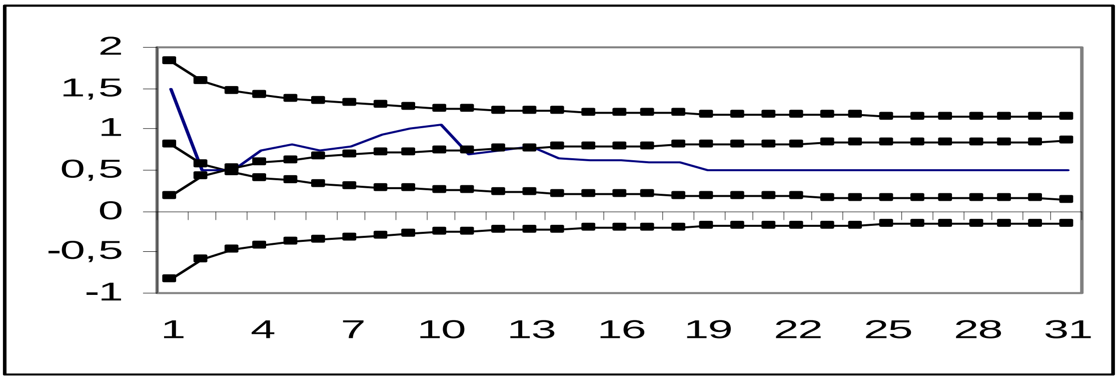
LOG(EXP/IMP) = x_{1t}	$(1 - L)x_{1t}$

Table 1: Estimates of d and 95% confidence bands for the three individual series

i) White noise disturbances			
	No regressors	An intercept	A linear time trend
LOG(EXP/IMP)	0.511 (0.372, 0.714)	0.493 (0.413, 0.605)	**0.373** **(0.258, 0.536)**
LOG(REER)	0.934 (0.787, 1.148)	0.883 (0.742, 1.129)	**0.888** **(0.740, 1.129)**

Figure 4: Estimates of d and 95% confidence bands for the three individual series

i) LOG(EXP/IMP)



ii) LOG(REEF)

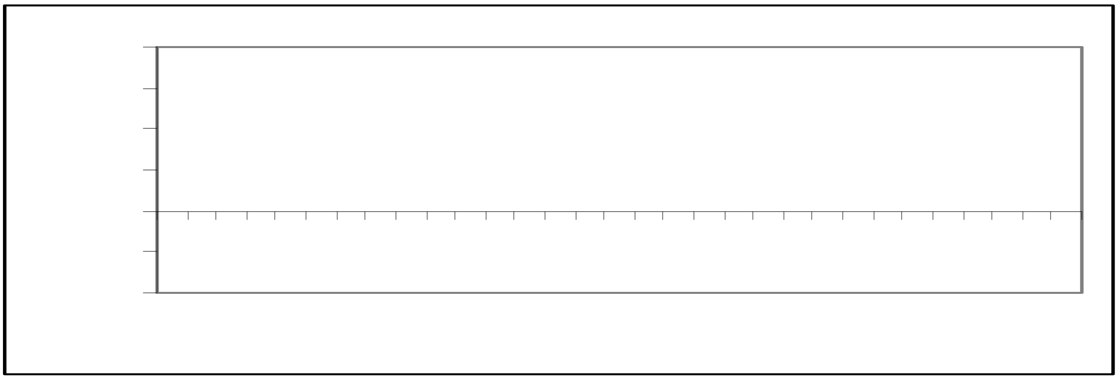


Figure 4: Estimated residuals from the cointegrating regression

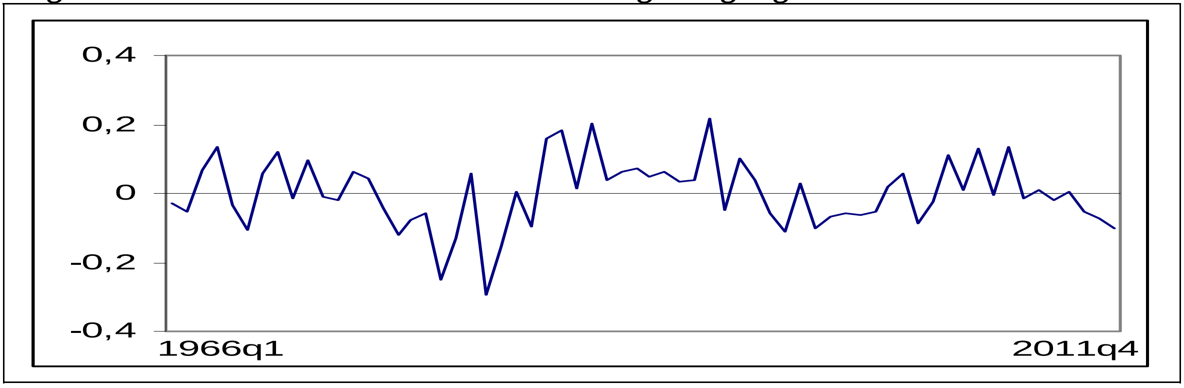


Table 2: Estimates of d and 95% confidence bands for the three individual series

i) White noise disturbances			
	No regressors	An intercept	A linear time trend
White noise	0.239 (0.089, 0.435)	0.239 (0.089, 0.434)	0.241 (0.091, 0.436)
Bloomfield	0.255 (-0.046, 0.575)	0.258 (-0.050, 0.579)	0.259 (-0.048, 0.579)
Seasonal AR	0.244 (0.072, 0.453)	0.244 (0.071, 0.452)	0.246 (0.072, 0.455)