International Economics 145 (2016) 92–110

Contents lists available at ScienceDirect

International Economics

journal homepage: www.elsevier.com/locate/inteco

Do exchange rate misalignments really affect economic growth? The case of Sub-Saharan African countries

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A R T I C L E   I N F O

Available online 26 October 2015

JEL classification:
F31
O47
C51

Keywords:
Misalignments
Growth
Bayesian inference
Cross-sectional dependence

A B S T R A C T

In order to shed light on the debate concerning the exiting of the Franc Zone area, we address the issue of the growth effects of currency misalignments in Sub-Saharan African countries. To this end, we first assess misalignments which we include in a growth equation while taking into account uncertainty and "jointness" between growth determinants using recent Bayesian inference techniques. More specifically, exchange rate regimes, as well as cross-sectional error dependence, will be explored. We thus demonstrate that the gain related to undervaluation is almost zero regardless of the exchange rate regime.

1. Introduction

Officially created in 1945 during the so-called Bretton Woods Agreements, the economic development of the Franc Zone has followed a saw-tooth pattern. Initially, there was an affluent period, especially after independence from colonization, marked by an average growth rate of 5%. This period was followed by a crisis in the mid-1980s which led to the last resort measure of monetary devaluation in 1994 when faced with the impossibility of dealing with the crisis. While devaluation provided some hope for economic recovery,[1] the advent of the euro has ultimately led to the resurgence of concerns about the future of the Franc Zone area, thus reigniting the debate on the

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[1] Even if this recovery was described as fragile by Galy and Hadjimicheal (1997), due to structural rigidities or vulnerability to exogenous shocks.

http://dx.doi.org/10.1016/j.inteco.2015.10.001

option of exiting the monetary union. Indeed, pegging to the euro would appear to have resulted in 18.7% appreciation of the CFA between 2000 and 2010, against only 6.6% between 1994 and 1999 (Zafar, 2005; Couharde et al., 2012). But the appreciation of the euro over the same period[2] could potentially place the real exchange rate of the CFA franc above the level suggested by macroeconomic fundamentals, leading to loss of competitiveness, deterioration of the current account, thus limiting economic growth (Coulibaly, 2014). However, from a theoretical point of view, it is not clear whether overvaluation does in fact work according to the above mechanism, despite general consensus in the literature (Aguirre and Calderón, 2005; Gala and Lucinda, 2006). Grekou (2015), for example, argues that overvaluation may be beneficial through its reducing effect on the foreign currency-denominated debt. Similarly, as regards undervaluation, authors such as Haussmann et al. (2005) and Béreau et al. (2012) highlight its positive effect through improved competitiveness, whereas others point out that undervaluation may not be beneficial insofar as using the exchange rate as sole 'policy weapon' is insufficient to break down barriers to growth such as the narrowness of domestic markets or the low diversification of production (Guillaumont-Jeanneney, 1988).

This raises the issue of the real growth effects of exchange rate misalignments[3] on Sub-Saharan African countries in general, and on Franc zone countries in particular. Even more so since the recent global economic situation has renewed research interest in the topic. Indeed, for many authors, the almost "miraculous" growth of some Asian countries is the result of an export-led growth strategy supported by "smart" and deliberate manipulation of exchange rate levels (Rodrik, 2008; Razmi et al. 2012). By pegging the Yuan to the U.S. dollar for example, China managed to halt appreciation of its currency and artificially maintained an undervalued exchange rate, through the accumulation of foreign exchange reserves. This strategy has enabled it to boost exports and maintain competitiveness. Generally, the example of Asian countries has given rise to abundant literature (Frenkel, 2004; Mejia-Reyes et al., 2010; Couharde and Sallenave, 2013). However, few studies have examined the case of sub-Saharan Africa in general, and the Franc Zone in particular, with the notable exceptions of Ghura and Grennes (1993), Elbadawi et al. (2012) or Grekou (2015) to name but a few. However, there are clear indications that there are differences in real effective exchange rate (REER) developments depending on whether a country belongs to this area or not (see Fig. A1).

Furthermore, the issue of the impact of misalignments on economic growth would appear crucial for African countries. Firstly, the narrow scope of domestic markets makes the external sector a vital sector for growth, capable of restoring the balance of public accounts, attracting foreign direct investment (FDI) and promoting competitiveness gains (Elbadawi et al. 2012). On the other hand, if the promotion and creation of growth conditions remain a major challenge for global development, this is particularly due to the poor performance that these countries have recorded which threaten the achievement of Millennium development goals (MDGs).

Our approach advocates the use of an econometric analysis to take into account the uncertainty regarding growth determinants, as well as the effect of omitted variables on the estimated errors which are therefore no longer independent. For this purpose, we will proceed with a three-stage method. Firstly, we will determine the RER misalignments using the behavioral approach of the equilibrium exchange rate, while distinguishing between the fixed exchange regime to which Franc Zone countries belong, and the "flexible" exchange rate regime adopted by the other countries in our sample.[4] Secondly, we will use the latest Bayesian inference techniques to reflect the uncertainty regarding growth determinants while controlling the dependency relationships between them. This step allows us to estimate the growth effects of misalignments relying on the system technique. Thirdly, we will put forward a robustness analysis through estimates using the Driscoll and Kraay (1998) covariance matrix estimator and an alternative approach of the equilibrium real exchange rate, in order to explore the hypothesis of the cross-sectional errors dependence and the robustness of our results to changes in the misalignments indicator respectively. All estimates cover the period from 1980 to 2011, on an annual basis, for a sample group of 16 countries in Sub-Saharan Africa (SSA) six of which are part of the Franc zone.

[2] Arghyrou and Chortareas (2008) show that the euro appreciated by 40% on average between 2002 and 2010.

[3] Exchange rate misalignments signify sustained deviations of the exchange rate from its equilibrium level as inferred by the fundamentals.

[4] The classification used follows the "coarse classification" of Reinhart and Rogoff (2004).