



Should developing countries undervalue their currencies? ☆

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Abstract

The Washington Consensus emphasizes the economic costs of real exchange rate distortions. However, a sizable recent empirical literature finds that undervalued real exchange rates help countries to achieve faster economic growth. This paper shows that recent findings are driven by inappropriate homogeneity assumptions on cross-country long-run real exchange rate behavior and/or growth regression misspecification. When these problems are redressed, the empirical results for a sample of 63 developing countries suggest that deviations of the real exchange rate in either direction from the value that is consistent with external and internal equilibriums reduce economic growth. Deviations from Balassa–Samuelson adjusted purchasing power parity on the other hand do not seem to matter for growth performance. The real exchange rate should thus be consistent with external and internal balances irrespective of implied purchasing power parity benchmarks.

Introduction

The real exchange rate (RER) does not play a central role in traditional growth theory. Both the canonical Solow–Swan growth model and endogenous growth models feature closed economies. However, Ricardo's and Lewis's theories of economic growth suggest a more important role for the RER. As nations develop, the “modern” manufacturing sector absorbs “surplus labor”, which directly translates into higher national output. The RER, which creates an incentive to allocate resources to the modern manufacturing sector, is therefore of first-order importance to economic growth. The question of what is the optimal relative price of traded goods arises. There are two opposing views on the answer to that question. The aim of this paper is to shed more light on this debate.

The “Washington Consensus”, articulated by Williamson (1990), acknowledges a crucial role of the RER in the growth process. According to this view, an appropriate real exchange rate should be consistent with macroeconomic objectives in the medium run and “sufficiently competitive” such that exports grow

at a rate consistent with external balance. However, an overly competitive RER is not appropriate because it would fuel inflation and curb resources available for investment. Underlying this view is the notion that there exists an equilibrium real exchange rate (ERER) that satisfies external and internal balances (Nurkse, 1945). Seen in this light, any deviation from the ERER will hamper economic growth.

The opposing view, with Rodrik (2008) at the forefront, maintains that RER overvaluation harms growth and undervaluation promotes it. This stance is in part due to the success story of export-led growth in conjunction with apparently undervalued currencies in East-Asian countries. But there are also other plausible explanations for why real undervaluation is good for growth. In the export-oriented growth literature it is often argued that the manufacturing sector is special because positive externalities (learning-by-doing effects, technology spillovers) are more pronounced for export-linked activities than other sectors of the economy. Another explanation is that an undervalued RER encourages higher savings and investment (Dooley et al., 2004, Levy-Yeyati and Sturzenegger, 2007). Finally, Rodrik (2008) conjectures that the manufacturing sector in developing countries is disproportionately subject to distortions and hence it is below its optimal size in equilibrium. Because removing those distortions proves difficult in practice, an undervalued RER serves as a “more practical” second-best mechanism to optimally reallocate resources toward the manufacturing sector (Rodrik, 2008).

However, there is little systematic evidence supporting any of these views. The nature and prevalence of those positive externalities associated with exporting remain obscured (Eichengreen, 2008, Harrison and Rodríguez-Clare, 2009). Rodrik (2008) was unable to empirically verify that the manufacturing sector is disproportionately subjected to distortions in developing countries. In addition, all of these propositions seem to ignore the distortion cost associated with real undervaluation in the form of reduced aggregate demand (Corden, 1981). It is therefore not clear if the gain in exports outweighs the loss in absorption, especially over longer time horizons. Finally, according to Edwards (1989), RER distortions can lead to resource misallocation across sectors as economic agents base their investment decisions on a relative price in disequilibrium. Because the RER tends to adjust to equilibrium over time, real undervaluation may induce investments in short-lived projects.

The early empirical literature identifies a negative impact of RER overvaluation on growth but does not address RER undervaluation (Cottani et al., 1990, Ghura and Grennes, 1993).¹ However, recent empirical studies unanimously reject the Washington Consensus view in the sense that they find a positive effect of RER undervaluation on economic growth.² The most prominent example is Rodrik (2008), whose empirical findings suggest that higher medium-term growth is systematically associated with undervalued exchange rates in developing countries. While Rodrik (2008) defines purchasing power parity (PPP) adjusted for the Balassa–Samuelson effect as the ERER, there is also a sizable number of empirical studies estimating ERERs consistent with internal and external balances that broadly reach the same conclusion (Aguirre and Calderón, 2005, Béreau et al., 2009, Berg and Miao, 2010, MacDonald and Vieira, 2010, Razin and Collins, 1997).³ Since these two concepts vastly differ from one another and are not directly comparable, this paper considers both ERER definitions but with the prime focus being on RER misalignment in the sense of Nurkse (1945).

There are two important sources of inconsistencies driving previous results and the bulk of the literature suffers from at least one of these. First, relying on conventional panel data techniques to estimate ERERs imposes strong homogeneity assumptions on cross-country long-run RER behavior. This approach does not conform to the economic theory underlying the ERER and therefore generates misleading results. Second, the objective to infer the effect on growth of two variables (real over- and undervaluation) from a

single continuous variable (RER misalignment) introduces a number of pitfalls, which can lead to growth regression misspecification.

This paper explicitly takes into account heterogeneity in long-run RER behavior across countries by individually estimating RER misalignments for 63 developing countries over the period 1970–2007. It then empirically analyzes how RER over- and undervaluation affect economic growth. To this end, the study employs system generalized method of moments (SGMM) developed by Arellano and Bover (1995) and Blundell and Bond (1998). To ensure robust inference, various measures of RER misalignment are used.

The empirical results provide evidence in favor of the Washington Consensus view and reject the notion that RER undervaluation is an expedient development policy tool. This means that the optimal growth promoting relative price of traded goods is the value of the equilibrium real exchange rate. The study also shows that the identified inconsistencies drive previous results, rather than differences in estimation methods or data sets.

As for deviations from adjusted PPP, using the same data set and estimation methods as those of Rodrik (2008) but redressing the above problems generates results which suggest that adjusted PPP misalignment does not matter for the growth performance of developing countries.

The rest of the paper is organized as follows. Section 2 defines the Nurksian EREER and estimates RER misalignments. Section 3 empirically analyzes the effects of RER distortions and adjusted PPP deviations on growth. Section 4 concludes.

Section snippets

Estimation of real exchange rate misalignment

Before the relationship between RER distortions and economic growth can be analyzed, deviations of the actual RER from its equilibrium value need to be estimated. The problem which any empirical study on this subject faces is that the EREER is not directly observable. The starting point to resolve this issue is to define the RER and the EREER...

Growth regressions

This section examines the impact of RER over- and undervaluation on economic growth. To control for cyclical variations, I split the sample period 1970–2007 into non-overlapping five-year periods.²⁸

The empirical growth equation is derived from the Solow–Swan growth model:

$$g_{it} = y_{it} - y_{i,t-1} = \alpha + \beta y_{i,t-1} + \gamma' x_{it} + \psi m_{it}^{\dagger} + \mu_i + \lambda_t + \epsilon_{it}.$$

In this equation, g_{it} reflects the real GDP per capita growth rate for...

Conclusion

The purpose of this paper has been to contribute to debate on the impact of real exchange rate misalignment on economic growth with particular emphasis on the inference of some recent studies that real undervaluation promotes growth. While the traditional position on this issue (the “Washington Consensus”) advocates for the RER being close to its equilibrium level, the recent theoretical and empirical literature emphasizes the economic benefits of real undervaluation. This study has estimated...

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