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Nominal exchange rate flexibility and real exchange rate adjustment: New evidence from dual exchange rates in developing countries

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Abstract

This study investigates whether greater nominal exchange rate flexibility aids real exchange rate adjustment based on data from dual exchange rates in developing countries. Specifically, we analyze whether the more flexible parallel market rate produces faster real exchange rate adjustment than the less flexible official rate does. Half-life estimates of adjustment speeds are obtained from fractional time series analysis. We find no systematic evidence that greater exchange rate flexibility tends to produce either faster or slower real exchange rate adjustment, albeit there is substantial cross-country heterogeneity in speed estimates. With official rates pegged to the dollar, many developing countries use parallel exchange markets as a back-door channel to facilitate real exchange rate adjustment. The evidence suggests, however, that these parallel markets often fail to speed up real rate adjustment.

JEL classification : C22; F31

Keywords: Real exchange rate; Fractional time series; Half life; Adjustment speed

1. Introduction

The role of exchange rate flexibility in economic adjustment has long been a hotly contested issue. The issue brings back the old debate between Nurkse (1944) and Friedman (1953) on the

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stabilizing or destabilizing nature of speculation. According to Nurkse (1944), speculative exchange rate movements would tend to amplify and prolong disequilibria rather than accelerate economic adjustment. In contrast, Friedman (1953) suggested that it would be easier for the economy to adjust to shocks by securing needed changes in the real exchange rate through exchange rate than through price adjustment. Instead of fearing the instability flexible rates might bring, speculative forces could actually quicken exchange rate adjustment and hasten the equilibrating process. Since the move to the modern float, real exchange rate changes seem to have grown more persistent. As Rogoff (1996) observes, the speed of real exchange rate adjustment has been glacially slow among industrialized countries under the current float. The issue then arises as to whether greater nominal rate flexibility promotes real rate adjustment.

In this study, we provide new alternative evidence on the issue in exchange rate flexibility based on a special set of data on dual exchange rates from developing countries. We do not analyze exchange rate flexibility in usual terms of exchange rate regimes (floating as opposed to fixed), but in terms of dual exchange rates (market-determined as opposed to government-set). Not only during the Bretton Woods (BW) period but also afterwards, parallel markets for foreign exchange – especially for the U.S. dollar – were common among developing countries. Unlike the official rate, which is fixed and occasionally reset by the relevant monetary authority, the parallel rate is determined by market supply and demand in which speculative forces can play a significant role. With limited access to the official exchange market, the parallel market serves to meet unsatisfied demand for foreign currency. Many developing countries use the dual exchange rate system as a tool to stabilize the real economy and to insulate real economic activity from the volatility of financial markets (Pozo and Wheeler, 1999). As noted by Reinhart and Rogoff (2004), parallel exchange rates provide a form of ‘‘back-door’’ floating in a lot of countries where an official peg is adopted.

The spread between the parallel and the official exchange rate – referred to as the parallel market premium – often works as an indicator of exchange rate misalignments and has been used as a guide to realigning the official rate. According to Reinhart and Rogoff (2004), the parallel exchange rate is ‘‘a far better barometer of monetary policy than is the official exchange rate’’ and that the parallel market premium often correctly predicts realignments in the official rate and anticipates future official rate changes. Earlier studies of the parallel market premium (Dornbusch et al., 1983; Kamin, 1993; Montiel and Ostry, 1994; Pozo and Wheeler, 1999) also suggest an important role for the expectations of future official rate changes in driving the premium. Ghei and Kamin (1999) recognize that the parallel exchange rate is a good, though not entirely perfect, proxy for the free-market currency value.

To examine whether greater exchange rate flexibility leads to quicker real exchange rate adjustment, this study analyzes data on dual exchange rates for 24 developing countries. For each of these countries, a parallel market for foreign exchange exists alongside the official one during both BW and post-BW periods. With official and parallel rates being available for the same historical period, this special data set permits intra-period analysis. We can evaluate the relative adjustment speed of the real official and the real parallel rate for each country within a given time period. This minimizes the need to control for any inter-period differences in global and domestic economic conditions. Two questions of interest are: Do the official and the parallel market rate revert toward one another over time? Does the flexible parallel market rate bring about a faster speed of real exchange rate adjustment than the less flexible official rate?

In addition to analyzing the difference in adjustment speed between real official and parallel rates on a country-by-country basis, this study also shows that the speed of adjustment for either rate can vary considerably across countries, even within the same historical