Available online at www.sciencedirect.com
SCIENCE DIRECT®
NORTH-HOLLAND
Journal of Asian Economics 14 (2003) 369–387
JOURNAL OF ASIAN ECONOMICS

Real exchange rate stabilisation and managed floating: exchange rate policy in India, 1993–2001

Renu Kohli[*,1]

Indian Council for Research on International Economic Relations, India Habitat Center, Core-6A, Fourth Floor, Lodi Road, New Delhi 110 003, India

Received 17 August 2002; received in revised form 11 April 2003; accepted 1 May 2003

Abstract

The paper examines the exchange rate management objectives of the Indian central bank after the shift to a floating exchange rate regime in 1993. It argues that three empirical features of the post-float period, viz. nominal and real exchange rate stability and increase in reserves' volatility are inter-related. A policy reaction function relates these features and finds that central bank intervention behaviour is characterised by significant effort to lean against the wind during 1993–1999. This is tempered with purchasing power parity considerations. It concludes that the exchange rate was extensively managed to target the real exchange rate.

JEL classification: E 58; F3; F31

Keywords: Exchange rate; Intervention; Exchange rate management; Purchasing power parity; Real exchange rate; Managed floating; Exchange rate target

1. Introduction

In a recent paper, Calvo and Reinhart (2000) show that most exchange rate regimes described as 'freely floating' under the IMF classification, are actually characterised by heavy exchange rate management by the respective authorities. Using variables like exchange rates, nominal and real interest rates, international reserves and commodity prices as indicators of policy intervention and external shocks, they demonstrate that 'floating'

* Tel.: +91-11-2462-7447; fax: +91-11-2464-0180.
E-mail address: renukohli@yahoo.com (R. Kohli).
[1] The author is employed by the Reserve Bank of India and currently on deputation to ICRIER. The views expressed here are however, the author's own and not of the institution to which she belongs.

1049-0078/$ – see front matter
doi:10.1016/S1049-0078(03)00033-2

currency regimes of most emerging market economies more closely resemble 'fixed' exchange rate regimes than actual floats. In the light of this evidence they argue that the currently held opinion that fixed exchange rate regimes are dead is largely misplaced. India is amongst one of the countries included in the Calvo and Reinhart sample; the study notes that nominal and real interest rate variability in India is four times that of the US in the period of its float, which suggests active management of the exchange rate. This paper contributes to the evidence contained in the Calvo and Reinhart (2000) paper by empirically demonstrating that the 'float' was extensively managed between 1993 and 1999 to achieve nominal and real exchange rate stability despite a policy ostensibly meant to allow the rupee to float.

India shifted from an adjustable-peg to a market-based exchange rate regime in 1993.[2] Since 1996, its exchange rate regime has been classified as 'independent floating' under the IMF nomenclature. The post-float period in India is distinguished by three features: One is the remarkably low exchange rate volatility, which is contrary to the commonly observed rise in volatility as countries switch from fixed to floating exchange rate regimes. Second is the break in the long-term depreciation trend of the real exchange rate. And third is the rise in the scale and frequency of intervention by the central bank in the foreign exchange market. This paper argues that these features are inter-related within a policy response framework. Central bank intervention is assumed to respond to changes in the nominal rupee–dollar exchange rate and a real exchange rate target that reflects deviation from parity. We find that RBI's intervention behaviour during 1993–1999 is characterised by a significant effort to lean against the wind, tempered with purchasing power parity considerations. This suggests that the central bank sought to realise specific exchange rate policy objectives, viz. nominal and real exchange rate stability, through 'managing' the float. The observed low nominal exchange rate variability and tentative validation of purchasing power parity in the post-float period may therefore, be possible outcomes of policy intervention that disallows absorption of external shocks. Moreover, these institutional factors are likely to influence the data, casting doubts about inferences from PPP based models for India and other developing countries that pursue similar policies.

The paper is organised as follows. Section 2 reviews India's exchange rate policy, placing the floating exchange rate regime in perspective with preliminary statistics. Section 3 formulates an implicit reaction function for the RBI and estimates it using single-equation (2SLS) methods. Section 4 demonstrates the impact of exchange rate movements and intervention response upon foreign exchange reserves within a vector auto-regression framework. An impulse response analysis is then conducted on the estimated VAR. Section 5 concludes.

2. Exchange rates and reserves after the float

Fig. 1 traces the path of the 36-country trade-weighted real exchange rate index over four decades. This shows a downward (depreciating) trend until 1993, after which it fluctuates

[2] Between 1993 and 1996, the IMF's *Annual Exchange Arrangements and Restrictions in Member Countries* describe its exchange rate regime as "exchange rate value is determined by demand and supply in the inter-bank market".