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Real Exchange Rate Misalignment in China: An Empirical Investigation[1]

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Based on the theory of equilibrium real exchange rate, this paper estimates the behavioral equilibrium exchange rate and the resulting misalignment in China. Evidence shows chronic overvaluation in China's central planning period, but economic reforms have brought the real exchange rate closer to equilibrium. The cumulative effect of exchange rate reform led to a substantial real depreciation of the Chinese currency after 1981. Indications are that China now has a proactive exchange rate policy with the nominal exchange rate used as a policy tool to attain real targets. *J. Comp. Econ.*, March 2001, **29**(1), pp. 80–94. St. Antony's College, Oxford University, Oxford OX2 6JF, England. © 2001 Academic Press

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1. INTRODUCTION

Throughout the central planning period from the mid- 1950's to the late 1970's, exchange rate policy in China, as in other command economies, was subordinate to trade policy, which in turn was a residual in centralized materials balancing. The exchange rate was mainly a translator, serving as a mere accounting device linking foreign trade and the domestic economy (Mah, 1972). Economically, it was relevant only for nontrade transactions, such as foreign tourism and remittance from overseas' Chinese. Changes in the exchange rate could not affect directly the overall balance of trade because the volumes of imports and exports were fixed by the trade plan. Although, in theory, changes in the exchange rate may have budgetary consequences that could potentially produce real effects (Ames, 1953), the trade-off between fiscal balance and price stability prevented such changes from occurring (Zhang, 1997).

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Under this institutional setup, Chinese exchange rate policy was beset with three basic problems: an unrealistic exchange rate that did not reflect conditions of relative scarcity of foreign exchange; a rigid exchange rate regime that rejected totally market forces in exchange rate decisions; and a malfunctioning mechanism so that the exchange rate failed to signal and guide economic agents to efficient resource allocation (Chen, 1992). Against this background in the late 1970's, China launched a reform of its exchange rate policy. The objectives were to rationalize the level of the exchange rate, to make full use of the exchange rate as an economic lever, and to establish a managed, uniform floating rate system while gradually rendering the Chinese currency convertible.

The first reform step took place in 1979 when the government decided to adopt, in parallel to the official exchange rate, an Internal Rate for Trade Settlements, operative from January 1, 1981. This marked the first official recognition that the exchange rate was overvalued. Once this internal rate was introduced, further efforts were directed to reforming the official exchange rate itself. In particular, in 1984, China frequently adjusted the official rate. The reform devaluations resulted in the official rate being at par with the internal rate by the end of 1984, effectively rendering the latter redundant. From January to October 1985, the nominal official exchange rate continued to be devalued repeatedly, but in mini steps, reflecting the fact that the reform focus had switched to the search for an appropriate institutional arrangement for exchange rate changes. Major devaluations followed in July 1986, December 1989, November 1990, and January 1994.

Although the International Monetary Fund has classified China as a managed floating exchange rate regime since 1987, China only officially admitted to such a regime in 1991. In 1994, the government announced that it was adopting a managed floating rate regime based on a uniform rate, coupled with a move to partial convertibility on current account. This policy announcement was related to the emergence of the foreign exchange swap market (Lu and Zhang, 2000).

The basis for the swap market was foreign exchange retention schemes that allowed Chinese exporters to retain a portion of their export proceeds over which they had autonomy in spending. A market for the retained foreign exchange emerged first in 1981; from 1985 the momentum of development quickened. In this market, surplus units swapped their entitlement to foreign exchange with deficit units at a price determined, more or less, by demand and supply. This price was known as the swap exchange rate. With the swap market, the effective exchange rate that Chinese exporters received was the weighted average of the official and the swap exchange rates, with the weights being determined by the retention ratio. While at times the official exchange rate was pegged, the swap exchange rate was freed gradually. Its fluctuations implied that the effective exchange rate in China was flexible, rendering inaccurate the notion that China had a fixed rate regime during the period.

The swap market enabled a considerable proportion of foreign exchange, in its later days about 80% of China's trade transaction, to be allocated through the