IMF WORKING PAPER

July 22, 1991

WP/91/63

Subject: Real and Nominal Exchange Rates in the Long Run

CORRIGENDUM

An incorrect summary was inadvertently included in WP/91/63. The attached page iii is the correct version.

Att: (1)

Other Distribution:
Members of the Executive Board
Department Heads

WP/91/63
Corrected: 7/22/91

Summary

Much attention has been paid to whether real exchange rates among major currencies show a tendency to revert over time to a fixed mean, as suggested by the hypotheses of relative and absolute purchasing power parity. A number of studies have found evidence of a preponderance of negative autocorrelations in real exchange rate changes at long lags, implying temporary components in real exchange rate changes that are reversed over time and the possibility of long-run mean reversion.

This paper sheds light on how any tendency toward mean reversion in real exchange rates is brought about by decomposing longer-run movements in real exchange rates into components associated with changes in nominal exchange rates and price levels, and their co-movements. The paper's main finding is that much of the long-run negative autocorrelation in real exchange rate changes is associated with negative autocorrelation in nominal exchange rate changes. This finding, which implies that the transitory movements in real exchange rates are closely associated with those in nominal exchange rates, is interpreted as suggesting a role for overshooting and the kinds of intrinsic dynamics associated with sticky-price monetary models. Using representative parameter values for the U.S. economy, the paper shows that a version of Dornbusch's sticky-price monetary model that is subjected to permanent nominal shocks is able to rationalize the negative autocorrelation in nominal and real exchange rate changes, as well as several other features of the decomposition.