

I Overview

Exchange rate surveillance has always been at the core of the IMF's responsibilities. Throughout its existence, the Fund has striven to strengthen its framework for assessing exchange rates, adapting it to underlying macroeconomic and financial developments in member countries. As part of this mandate, since the mid-1990s the IMF Consultative Group on Exchange Rate Issues (CGER) has provided exchange rate assessments for a number of advanced economies from a multilateral perspective, with the aim of informing the country-specific analysis of the IMF's Article IV staff reports and fostering multilateral consistency. These assessments are additional tools at the disposal of the IMF staff country desks, which are responsible for formulating exchange rate assessments as part of the Fund's bilateral surveillance, another of the IMF's core responsibilities.

The role of exchange rates in the external adjustment process is increasing as the world economy rapidly becomes more integrated. During the past 15 years, world trade and international financial integration have grown very rapidly, with the ratio of world trade to world GDP increasing by over 40 percent and the ratio of international financial cross-holdings to world GDP more than doubling. Emerging market countries have contributed significantly to these developments, as witnessed by the increase in their share of world trade—from 27 percent in 1990 to 40 percent in 2006—as well as by their importance in international capital flows.

Accordingly, this paper presents revised and extended methodologies for exchange rate assessments covering not only advanced countries—as in the past—but also emerging market countries. The three complementary methodologies are a “macroeconomic balance” approach, a reduced-form “equilibrium real exchange rate” approach, and an “external sustainability” approach. They are discussed briefly in the remainder of this section, and presented in more detail in Sections II, III, and IV below. The focus of this paper is on methodological issues that could underpin exchange rate assessments rather than on the assessments themselves. Exchange rate assessments are ideally based on the notion of equilibrium, that is, consistency with external and internal balance over the medium to long run. In practice, most empirical studies relate the real exchange

rate or trade flows to their observed determinants on the basis of reduced-form relationships.

The macroeconomic balance (MB) approach—a pillar of current account and exchange rate assessments for a number of years¹—calculates the difference between the current account balance projected over the medium term at prevailing exchange rates and an estimated *equilibrium* current account balance, or “CA norm.” The exchange rate adjustment that would eliminate this difference over the medium term—a horizon over which domestic and partner-country output gaps are closed and the lagged effects of past exchange rate changes are fully realized—is then obtained using country-specific estimated responses of the trade balance to the real exchange rate.

The reduced-form equilibrium real exchange rate (ERER) approach directly estimates an *equilibrium* real exchange rate for each country as a function of medium-term fundamentals such as the net foreign asset (NFA) position of the country, the relative productivity differential between the tradable and nontradable sectors, and the terms of trade.² The exchange rate adjustment needed to restore equilibrium over the medium term is, then, simply calculated as the difference between the estimated equilibrium real exchange rate and its current value.

The external sustainability (ES) approach calculates the difference between the actual current account balance and the balance that would stabilize the NFA position of the country at some benchmark level. On the basis of the aforementioned trade elasticities, this difference is translated into the real exchange rate adjustment that—over the medium term—would bring the current account balance in line with its NFA-stabilizing level, under a particular assumption about the economy's medium-term growth rate.

¹See Isard and Faruqee (1998) and Isard, Kincaid, and Fetherston (2001). The broader country coverage being implemented here requires a greater variety of fundamentals to “explain” the current account than when the exercise covered only advanced countries.

²The fundamentals are expected to play a role over the medium term even though exchange rates are essentially unpredictable in the near term (Meese and Rogoff, 1983). Hence, short-term effects of capital flows would eventually disappear, while their medium-term effect should be captured by the underlying fundamentals.

These three methodologies provide complementary perspectives on exchange rate assessments. Taken together, and combined with additional country-specific information, they can help researchers reach informed judgments about medium-term real exchange rates and current account balances, weighing the relative importance of a number of economic factors affecting these key variables. Although assessments indicate that the misalignment estimates arising from the various methodologies are quite similar for most countries, some differences can arise. These differences can be traced either to aspects of the particular methodological approach being used or to the inherent difficulty of incorporating critical country-specific information into cross-country approaches. In these cases, the assessment weighs the various methodologies differently, reflecting their relative strength. For example, the EREER methodology may be less accurate for countries with a short sample. Also, the external sustainability approach can be used to assess the

implications for the external position of different exchange rate misalignment estimates arising from the EREER and MB approaches. This serves to underscore the complementary nature of the CGER-based assessments to those arrived at in the context of bilateral surveillance.

While adopting different empirical methodologies goes some way toward strengthening the robustness of exchange rate assessments, such assessments are unavoidably subject to large margins of uncertainty. These relate to a number of factors, such as the potential instability of the underlying macroeconomic links, differences in these links across countries, and significant measurement problems for some variables, as well as the imperfect “fit” of the models. Some of these problems may be more severe for emerging market economies, where structural change is more likely to play an important role and where limitations in terms of data availability and length of sample are more acute.