# Sources of economic fluctuations in Latin America and implications for choice of exchange rate regimes

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## Abstract

This paper studies the sources of economic fluctuations and their implications for exchange rate regime choice in key Latin American countries. In general, external shocks play a limited role in driving output fluctuations in these countries; this absence of common business cycles undermines the case for fixed exchange rates. On the other hand, although there is some evidence that real exchange rates depreciate in response to adverse external shocks, this depreciation, in turn, tends to contract output in the short run. This suggests that exchange rate rigidity may not be as costly for these economies as conventional economic theory predicts.
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## 1. Introduction

This paper examines the sources of economic fluctuations in six Latin American countries (Argentina, Brazil, Chile, Colombia, Mexico, and Venezuela) using a dynamic panel model. Specifically, we are interested in the extent to which short-term fluctuations in output, inflation, and the real exchange rate in these countries are driven by external shocks, such as terms of trade, foreign output, and US real interest rate shocks, versus

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other economic disturbances (which are identified as real exchange rate, domestic output, and domestic price level shocks).

The primary goal here is to examine the implications of our results for the choice of appropriate exchange rate regimes in developing countries, a topic of much recent debate. To this end, we address the following questions. (1) Does the evidence support the hypothesis that these Latin American countries form an optimal currency area with their main trading partners, a prominent one of which is the United States? In other words, are the business cycles of these countries related to those of their trading partners, including the United States, in such a way that the monetary policy being pursued by these trading partners at any particular time would happen to be the right policy for these countries also? (2) Historically, have recessions in these countries been caused more by adverse external shocks or adverse domestic shocks? (3) Historically, have real exchange rate movements in these countries been important in promoting appropriate adjustments of the economy to external and domestic shocks?

A near consensus seems to be emerging in the literature that emerging-market countries should consider only "polar" regimes of a fully floating or rigidly fixed exchange rate, rather than more mixed systems such as adjustable pegs, which have been particularly prone to ending in crises (see, for example, Fischer, 2001). However, it remains controversial which of the two polar regimes—rigidly fixed or fully floating—is more appropriate; Frankel (1999), in particular, has emphatically argued that no single exchange rate regime is appropriate for all countries at all times. The answers to the questions posed above would seem to be at least some of the relevant key considerations in making the right choice for the Latin American countries. Although there has been no dearth of recent debate on these questions in the context of developing countries in both policy and academic circles, there has been relatively little formal empirical analysis that could be used to provide a *quantitative* assessment, which motivates this paper.

The remainder of the paper is organized as follows: Section 2 provides a selective review of the previous related literature; Section 3 lays out the empirical methodology and discusses the data; Section 4 presents and interprets the empirical results for the benchmark model; Section 5 discusses some alternative empirical models and examines robustness; and, finally, Section 6 provides a summary of the results and the main conclusions.

## 2. Previous literature

This study is related to two main lines of inquiry: the literature on the sources of business fluctuations and the literature on exchange rate regimes in developing countries.

The stylized facts of macroeconomic fluctuations in developing countries have been documented by Agenor et al. (2000). They find that output fluctuations in developing countries tend to be positively related to those in industrial countries and to world real interest rate changes.[2] While suggestive, these facts do not identify the actual shocks that these economies are subject to.

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[2] By contrast, Larsen and Aziz (1997) find that since the mid-1980s, there has been an apparent decoupling of the business cycles of the ASEAN and industrial countries.