Available online at www.sciencedirect.com

SCIENCE DIRECT®

Global Finance Journal 15 (2005) 219–237

Global Finance Journal

Long-run dynamics of official and black-market exchange rates in Latin America

Panayiotis F. Diamandis[a,*], Anastassios A. Drakos[b]

[a]*Department of Business Administration, Athens University of Economics and Business, GR-10434, Athens, Greece*

[b]*Department of Accounting and Finance, Athens University of Economics and Business, GR-10434, Athens, Greece*

Accepted 1 May 2004

Available online 13 December 2004

Abstract

This paper attempts to investigate the long-run dynamic relationship between official and black-market exchange rates for four Latin America markets namely, Argentina, Brazil, Chile, and Mexico. We follow (Moore, M. J., & Phylaktis, K. (2000). Black and official exchange rates in the Pacific Basin: Some tests of dynamic behaviour. Applied Financial Economics, 10, 361–369.) and we distinguish between long-run informational efficiency and short-run predictability in a sense that these notions are compatible with cointegration and error-correction mechanisms (ECM). Our findings indicate a constant black-market premium for each country, which is taken as strong support for long-run informational efficiency between the official and black markets for foreign currency. In addition, the evidence of short-run predictability is not considered as a violation of market efficiency, but it is the outcome of optimal arbitrage by rational economic agents.

JEL classification: C32; F31; F41; O17

Keywords: $I(2)$ analysis; Cointegration; Currency black markets; Long-run informational efficiency; Error-correction dynamics

* Corresponding author.

E-mail address: pfd@aueb.gr (P.F. Diamandis).

1044-0283/$ - see front matter © 2004 Published by Elsevier Inc.

doi:10.1016/j.gfj.2004.05.001

1. Introduction

Many developing countries have experienced or are still experiencing the existence of dual or multiple markets for foreign currency. In dual or multiple exchange rate systems, two or more exchange rates side by side. There are circumstances where the existence of such dual or multiple exchange rates is legal. In this case, under a dual system, a government may set that official reserves are used to purchase primary products and goods (i.e. real transactions) at a predetermined (administratively fixed) exchange rate, while private financial transactions take place at a market freely determined exchange rate. The implementation of such system by governments of developing countries has the purpose to insulate the real sector from the high volatility observed in financial markets.

A second case of dual or multiple exchange rates arises when besides the official exchange rate(s) another exchange rate exists from unofficial transactions. This unofficial market is often called parallel or black market for foreign currency. Parallel or black-market activities for foreign exchange are usually the outcome of direct and indirect government intervention in the foreign exchange market. When access to the official exchange market is limited and there are various foreign exchange controls on international transactions on goods, services and assets, then those who need foreign exchange and are not able to obtain all they desire from official sources have an incentive to find an alternative source, whereas those having an excess of foreign exchange prefer to sell it at a price higher than the official rate.

The influence of the black-market exchange rates on economic activity and social welfare varies from country to country and, therefore, economists and policymakers display substantial interest on understanding the workings of this type of markets. Furthermore, it is argued that the scope of the black markets for foreign currency are very important in countries which experience sustained levels of high inflation, or in cases in which the official exchange rate is used as a policy instrument. Thus, in high inflation economies with increased uncertainty, the existence of these markets possibly reflects the need for portfolio diversification, because outstanding stocks of foreign currency represent an efficient hedge against domestic inflation. (Agenor, 1992; Edwards, 1989; Kiguel & O'Connell, 1995; Montiel, Agenor, & Ul Haque, 1993; Phylaktis, 1997 provide detailed analysis of the workings of these markets).

Since transactions in black markets for foreign currency are illegal, it is difficult to collect information on the volume of these transactions that take place in these markets. However, there is substantial evidence that the black markets for foreign exchange have been very active and increasing in size in the last two decades. Recent evidence shows that substantial amounts of US dollars are circulated in countries that are known to have large and active black market for foreign currency. Additionally, the range of black-market exchange rate premia is wide and it depends mainly on the likelihood of detection and the height of penalties imposed on those who have been found to participate in illegal transactions (Edwards, 1989; Montiel et al., 1993).

Black market for foreign currency, and in particular for U.S. dollars, has operated continuously in most of the Latin America countries for the past decades. The experience of these countries with chronic high inflation rates and corresponding current account deficits since 1970s has led to the emergence of a strong black market for dollars, one that has