Stock Prices and Exchange Rates in Indonesia: Further Evidence

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ABSTRACT

The paper examines the relationship between stock prices and exchange rates for the case of Indonesia. The study uses daily and weekly data for the period January 1998 to December 2007. We employed Toda and Yamamoto (1995) Granger non-causality test in both bivariate and multivariate setting to examine the relationship between stock prices and exchange rates. The results of this study suggest a strong evidence of bi-directional causality between these two financial variables. The results have implications for investors, practitioners and policy makers.

Keywords: Exchange rates, Stock Prices, Causality, Indonesia

INTRODUCTION

Theoretically, there are two contrasting views on the relationship between stock prices and exchange rate. The traditional approach believes that exchange rates Granger cause stock prices. The fluctuations in the exchange rate can substantially affect the value of firms, through the changes in the terms of competition, input prices and the value of foreign currency denominated assets (Bodnar and Gentry, 1993). Eventually the changes will affect the firm's future cash flows and stock prices in general. On the other hand, the portfolio approach believes that stock prices Granger cause exchange rates. Changes in stock prices may influence the movements in the exchange rate, via firms' portfolio adjustments (Bahmani-Oskooee and Sohrabian, 1992) or outflow of capital (Qiao, 1996). Thus, changes in stock prices lead to the changes in the exchange rate due to the changes in the demand and supply of foreign currency.

There are quite a number of studies written on the relations between stock prices and exchange rate. The findings, however, the existing literature is inconclusive regarding the causal relationship between stock prices and exchange rate (see Aggarwal, 1981; Abdalla and Murinde, 1997; and Nieh and Lee, 2001). Various methodologies have been employed which include simple regression analysis as well as the recent technique of time series analysis.

This study aims to empirically examine the causal relation between the stock prices and exchange rates in Indonesia. This study could contribute to the literature in the following ways. First, the study considers both bivariate and multivariate models. We note that the majority of earlier studies have focused on the bivariate framework. The omission of important variables may end up with spurious results. Second, this study utilizes both daily data and weekly data over the period in order to examine what happens as we move from higher-frequency to lower-frequency data. In particular, we consider whether the lower-frequency data contains less noise and relatively more information to estimate the relationship. Thus, we hope, this study could shed some light on the issue of dynamic relationship between stock prices and exchange rates.

The relationship between the two financial variables is very crucial for profitable and strategic investment decisions that enable the investors to adjust their allocation of portfolio as a result of exchange rate policy shift. For the policy makers, a significant link between exchange rate and stock market suggests that stock market behaviour may have significant consequence on exchange rate policies.