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# Can devaluation be effective in improving the balance of payments in Vietnam?

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**Abstract**

Economists and policy makers in Vietnam have been discussing about the possibility of using devaluation to encourage exports and improve the balance of payments (BOP), while maintaining macroeconomic stability. The empirical results of this paper show that there has been two-way causality between money supply growth and inflation, exchange rate and inflation, and money supply growth and exchange rate in Vietnam in the 1990s. Both the long run and short run results of this paper suggest that devaluation can be implemented to encourage exports and to improve current account balance and BOP, and also to reduce the real exchange rate appreciation in the short run.


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*Keywords:* Inflation; Exchange rate; Money supply; Vector autoregressive model; Vector error correction model

## 1. Introduction

Understanding the links between inflation, exchange rate and money supply is imperative to conduct monetary policy, and exchange rate policy in any country. Vietnam is keen to increase its exports and to improve the balance of payments (BOP) without affecting its macroeconomic stability. Though there are several options to achieve its objective such as using tariffs and export subsidies, an option that has attracted the attention of the policymakers in Vietnam is devaluation. How effective the devaluation will be in improving the BOP by boosting exports depends on the

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relationships among inflation, exchange rate and money supply. There are not many studies in Vietnam that examine such links. Dodsworth, Chopra, Pham, and ShiShido (1996) analysed the stabilisation policies in Vietnam, Cambodia and Laos since the late 1980s. Vector autoregressive (VAR) models concerning inflation and exchange rate, and inflation and money supply were carried out to answer the question of whether money growth and exchange rate movements would lead or lag inflation in the short run in these countries. Their results for Vietnam showed that inflation did not influence money growth, but money growth and exchange rate depreciation influenced inflation (Dodsworth et al., 1996: 23). However, if effective exchange rates had been used in this model, the relationship between, exchange rate, money aggregates and inflation could have been explained more clearly. Further, the possibility of inflation affecting money supply cannot be ruled out due to the following arguments. Unanticipated inflation could bring an increase in expenditure and reduction in investment and output, which would bring pressure to increase money supply to restore the original level of investment and output. Also, inflation may affect exchange rate through purchasing power parity (PPP). The real exchange rate determinant through PPP indicates that when domestic prices increase, that will cause pressure to depreciate the nominal exchange rate (assuming foreign price is unchanged), in order to restore the equilibrium level for the real exchange rate. It is in this context, this paper examines the dynamic links between inflation, exchange rates and money supply in both the short and long runs. Specifically, this paper focuses on the following important questions: whether there has been two-way causality between money supply growth and inflation, exchange rate and inflation, and money supply growth and exchange rate in Vietnam? Whether Vietnam's devaluation of its currency would increase exports and improve the BOPs?

The outline of this paper is as follows: Section 2 reviews theoretical issues, which concern the links between inflation, exchange rate and money supply and specifies the empirical vector autoregressive (VAR) model and the vector error correction model (VECM) that are used in this study. Section 3 describes the data set used in this study. Section 4 discusses the empirical results of this paper, and Section 5 concludes with a brief discussion of policy implications.

## 2. Inflation, exchange rate and money supply: theoretical issues

First, the theoretical relationships between inflation, exchange rate and money supply are briefly reviewed. The movements of exchange rate can influence domestic prices through their effects on aggregate supply and demand. On the supply side, the exchange rate could affect the prices of imported goods directly. If the exchange rate is depreciated, the prices of imported intermediate inputs will be higher, which would lead to an increase in the prices of domestically produced goods (Edwards, 1989). On the demand side, a real depreciation of the exchange rate could increase foreign demand for domestic goods and services, and domestic producers may increase output prices. With the expansion of domestic demand that may bid up wages and input prices, which would raise inflation (see Deravi, Gregorowicz, & Hegji, 1995; Kahn, 1987). Also, the real exchange rate determinant through PPP indicates that when domestic price increases, that will cause pressure to depreciate the nominal exchange rate (assuming foreign price is unchanged), in order to restore the equilibrium level for the real exchange rate. Thus, inflation may affect exchange rate.

Now, the ways in which money growth affects inflation and exchange rate in an open economy were shown by Deravi et al. (1995: 44):

> "Money growth influences the inflation rate primarily through its effect on aggregate demand. Increases in the money stock lower interest rates and stimulate interest-sensitive spending, putting upward pressure on domestic prices. Alternatively, money may stimulate