

# **A Note on Exchange Rate Management and Gravity Equation: Developing Country's Viewpoint**

V. Christianto<sup>a</sup> & F. Smarandache<sup>b</sup>

<sup>a</sup>Email: [vxianto@yahoo.com](mailto:vxianto@yahoo.com), Site: <http://www.sciprint.org>

<sup>b</sup>Email: [smarand@unm.edu](mailto:smarand@unm.edu), [fsmarandache@yahoo.com](mailto:fsmarandache@yahoo.com)

University of New Mexico, 200 College Rd., Gallup, NM 87301, USA

## **Abstract**

In the last few decades, the flexible exchange rate has become the predominating policy implemented by most countries in the World, except only a few countries who can keep their exchange rates fixed. The predominating position can be attributed mainly to Milton Friedman's strong support. What is less known, nonetheless, is a hidden premise that the flexible exchange rate policy will help fiscal policy in the sense that only governments who do not manage the fiscal policy properly will get 'punished' by exchange rate decreases. But as the US-Japan experience showed [1], this widely-held assumption is often not realistic. The same experience has been observed in other countries too, i.e. that financial liberalization including flexible exchange rate often became precursor of financial instability [2].

While in the past year, in Indonesia for particular, the exchange rate remains stable, it does not mean that it would be free from troubles in the future. Therefore it is worthwhile to explore some other choices for better exchange rate policy.

In the present paper will discuss, albeit in somewhat 'crude' manner, some long-term approaches which have been discussed in the literature, and also not-so conventional approaches which may be suitable for short term purposes.

The basic proposition in the present paper is that we argue in favor of returning to fixed (or pegging) exchange rate, but of course it is not realistic to promote this policy for the short-term future. Therefore we explore some unconventional alternatives for short-term. It is our hope that the proposition would be useful to explore further by the economics policy makers.

## Introduction

In the last few decades, the flexible exchange rate has become the predominating policy implemented by most countries in the World, except only a few countries who can keep their exchange rates fixed. The predominating position can be attributed mainly to Milton Friedman's strong support. What is less known, nonetheless, is a hidden premise that the flexible exchange rate policy will help fiscal policy in the sense that only governments who do not manage the fiscal policy properly will get 'punished' by exchange rate decreases. But as the US-Japan experience showed [1], this widely-held assumption is often not realistic. The same experience has been observed in other countries too, i.e. that financial liberalization including flexible exchange rate often became precursor of financial instability [2].

For instance, a number of economists have revealed a caveat of financial liberalization which issue has often been discussed in monetary policy sessions, i.e. studies revealed that liberalization is neatly linked and often precedes financial instability. In other words, the magic word has now become the peril for the financial-liberalization supporters: [2]

“Following liberalization, many developing countries found themselves involved in a condition of high instability and increasing fragility of their financial systems. Therefore, the question arises as to why countries should enact policies that move their financial systems from a situation of relative stability to one of potential instability.”

In a somewhat similar tone, Krugman [1] has summarized the US experience with flexible exchange rate during 1980s:

- (a) Exchange rate instability has resulted from reasonable market responses to changes in policies –but also from failures in the international financial market (p.77);
- (b) Traditional fear that floating exchange rates will be subject to destabilizing speculation is unfortunately supported by the evidence of the 1980s (p.77);
- (c) In his classic defense of floating rates, Milton Friedman argued that exchange markets would never be subject to destabilizing speculation per se.
- (d) Nonetheless the fact during 1980s seems to support the argument of Ragnar Nurkse instead of M. Friedman.

These lines of arguments have led P Krugman to promote returning to fixed exchange rate (albeit not a radical one, but using a wide '*target zone*' approach). According to P Krugman [1] the basic yet not often understood premise behind flexible exchange rate is that the government will get punishment (in terms of fluctuating exchange rate) in precise proportion to the fallacies in their fiscal policies. The actual experience, nonetheless, has shown that the exchange rate can

fluctuate very large, without the fiscal policies big error. In other words, there are tendencies that exchange rate fluctuations are going on irrespective of fiscal policies.

With this new insight, we try to look again the conventional exchange rate policy in the literature.

**A review of history of Flexible exchange rate, and Long-term policy**

In accordance with Krugman, The Bretton Wood system was created after WWII to restore the international monetary system stability, by introducing fixed exchange rate. [1][5] Nonetheless, during the course of history, some major countries have found it very difficult to keep their fixed exchange rates, which then lead to the gradual acceptance of flexible exchange rate until these days.

In other words, while some economists would agree that fixed exchange rate is the best system, but the majority of them would also agree that it is not so realistic to keep the fixed exchange rate. Therefore the moderate choice can be a choice, either using ‘pegging exchange rate’ or ‘target zone’ [1]. These belong to long term policy, which often needs coordination among some countries in the same region in order to maintain stability.

The problems become more adverse in developing countries because various institutional or non-institutional factors, including [2]:

Table 1. Factors affecting exchange rate management in developing countries [2]

No	Problems	Plausible solution(s)
1	Following liberalization, many developing countries found themselves involved in a condition of high instability and increasing fragility of their financial systems. Therefore, the question arises as to why countries should enact policies that move their financial systems from a situation of relative stability to one of potential instability.	
2	Lack of independence on the part of regulators is a second source of uncertainty. Regulators often fail to perform because of the failure of institutions or because of political interference. Moreover, regulators often find themselves involved in a conflict situation between the preservation of the system and the interests of atomistic depositors.	

3	Contagion spreads within the domestic financial system, often originating from the less regulated and supervised sectors and affecting the core sectors of the system.	
4	Incompleteness of markets and institutions, undermining the efficiency of investment allocation	
5	Distortion, due to government intervention and the nature of regulation.	
6	Sequencing is important. The order in which to expect the components and its factors to develop is of crucial importance. Regulation and supervision should be strengthened before privatization of financial institutions takes place.	

What we can observe here is that the condition is far more complicated for developing countries, in particular because after financial liberalization and deployment of flexible exchange-rate, their economies are for more prone than before.

### **Not so often cited alternatives to Flexible exchange rate policy (Short term choices)**

Other than the often cited methods (long-term policies), such as:

- Returning to fixed exchange rate regime (often it is not realistic approach);
- Or turning to pegging exchange rate;
- Or introducing target zone (unless this policy is adopted as regional policy, instead of implemented by individual country);

In the present paper we will explore some new unconventional approaches, including:

- (a) News management for incomplete information;
- (b) Modified gravity equations and re-assessment of national assets;
- (c) Gradual changes toward target-zone (regional monitor);
- (d) Considering (tax or fiscal) incentives (and disincentives) for conversion from exchange-rate market investment to industrial investment.

We will discuss first a method we call 'News management'. The idea is that from Stiglitz we learned that actually the information that forms decision in marketplace is incomplete. To summarize:

(\* ) Incomplete information --> Biased decision --> Biased price

Therefore the price that shows up at NYSE, for instance only reflects a partial amount of information that was received by traders (or investment managers).

Since Information was read from newspaper then the (\*) can be written:

(\*\*) Incomplete news --> Incomplete information --> Biased decision --> Biased price

Therefore one possible way to alleviate this problem (or at least reduce the imbalanced information) is via 'news management':

(\*\*\*) More complete news --> More complete information --> Less Biased decision --> Less Biased price

In other words, in the context of this short-term policy, the government and other exchange-rate 'keepers' will be more proactively release news (of course, not crafting 'illusion' news which in turn can deepen the market distrust to the government capabilities). The news then can be broadcasted via numerous ways, often in real time, for instance using digg.com, blogging etc. At the end, the purpose is to reduce the 'imbalance' of information to the decision makers of investment companies.

Another approach that broadcasting-news, is targeted-news delivery. In this method, news is delivered to targeted people only, for instance to a few investment managers who take care a huge amount of foreign investment. By using Pareto theory, these people can often be identified by selecting the predominating investment companies.

The next possible method is gradual changes toward target zone. Since this method will require significant backup (just like to tackle DDOS attack in network management), therefore it can only be implemented by for instance finance ministers of South East Asia countries, not by individual country.

The next method is to implement (albeit in gradual way) the concept advocated by Tobin sometimes ago, but this time we propose a more positive way. Instead of punishing investors for investing in exchange market, we think it would be more convenient to offer tax/fiscal incentives if the investment companies would like to relocate their investment outside the exchange market. Hence the investment managers can calculate themselves based on opportunity costs (rational choice).

In the next section we will discuss a modification of gravity equation.

## **Concluding remarks**

We have summarized some basic issues related to flexible exchange rates and long-term and short-term choices to manage their related volatility. Some unconventional approaches have been discussed too.

We acknowledge that this study is far from being complete, and therefore would like to invite others to contribute to its further development.

### References:

- [1] P. Krugman, *Exchange Rate Instability*, MIT Series (1989).
- [2] B. Schneider, "Getting the domestic financial architecture right," ODI, 2001, URL: [http://www.odi.org.uk/events/winter2001\\_financingfordev/schneider6.html](http://www.odi.org.uk/events/winter2001_financingfordev/schneider6.html); [2a] Cox, W., <http://www.odi.org.uk/events/archive/cox.pdf> .
- [3] F. Smarandache & V. Christianto, "Cultural advantage for Developing countries: A book summary," submitted to *Int. J. of Social Economics*, Ref. MS#2008-064 (18thAug. 2008)
- [4] V. Christianto & F. Smarandache, *Cultural Advantage for Cities: An alternative for Developing Countries*, InfoLearnQuest, USA, 2008, p. 17 (URL: <http://www.gallup.unm.edu/~smarandache/CulturalAdvantage.pdf>).
- [5] Blinder, A.S., "Eight steps to a New Financial Order," <http://www.foreignaffairs.org/19990901faessay1006/alan-s-blinder/eight-steps-to-a-new-financial-order.html> .