Monetary autonomy in selected Asian economies: The role of international reserves

Hiroyuki Taguchi [a,*], Geethanjali Nataraj [a,b], Pravakar Sahoo [c,d]

[a] Policy Research Institute, Ministry of Finance, Government of Japan, 3-1-1 kasumigaseki Chiyoda-ku, Tokyo 100-8940, Japan
[b] National Council for Applied Economic Research, India
[c] Institute of Developing Economies, 3-2-2 Wakaba Mihama-ku, Chiba 261-8545, Japan
[d] Institute of Economic Growth, Delhi University, India

A R T I C L E   I N F O

A B S T R A C T

With the increased financial integration of Asian countries, monetary policy takes on the additional role of maintaining the stability of the financial system along with the traditional objectives of promoting growth and employment with price stability. Given the importance and relevance of monetary policy in Asian countries, we examine monetary autonomy and its interaction with financial integration, currency regimes and international reserves for the past two decades in the following Asian countries: Thailand, Korea, Indonesia, the Philippines, and India. The empirical analysis reveals two significant and interesting findings that have policy implications. First, Thailand, Korea and Indonesia, countries that have moved towards a floating currency regime, experienced simultaneous declines in the sensitivity of their interest rates (thereby increasing monetary autonomy), while India continues to increase the sensitivity of its interest rates with a pegged exchange rate and increased financial integration. Second, in all of the studied economies, the accumulation of international reserves has contributed, to some extent, to the retention of monetary autonomy in terms of preventing the sensitivity of the interest rates from rising. We speculate that the accumulation of reserves plays the role of an anchor for monetary autonomy in emerging market economies facing a "fear of floating".

1. Introduction

The primary objective of monetary policy in Asian countries is to promote growth and employment by maintaining price stability. However, with the increased financial integration of Asian countries, monetary policy has taken on the additional role of ensuring the stability of the financial system. In both policy and academic circles, the autonomy of monetary policy is one of the most fundamental issues in an open economy. The conventional wisdom of the "impossible trinity" in international macroeconomics tells us that countries can pursue only two of the three options – fixed exchange rates, domestic monetary autonomy and capital mobility. Thus, without restrictions on capital flows, fixed exchange rates constrain domestic monetary autonomy, while floating rates allow the monetary authority to pursue an independent monetary policy. An alternative view (i.e., the "fear of floating"), represented by Calvo and Reinhart (2001, 2002), argues that a currency that lacks credibility prevents countries from pursuing an independent monetary policy, regardless of their

* Corresponding author. Tel.: +81 3 3597 0464; fax: +81 3 5251 2114.
E-mail address: tagusaya0710@s3.wh.qit.ne.jp (H. Taguchi).

announced regime. This "fear of floating" tends to be greater for open or small EMEs[1] for which currency credibility is hard to achieve. So far, no clear consensus has been reached.

The recent surge in capital inflows in EMEs during the recovery process from the 2008 global financial crisis has refocused attention on the feasibility of monetary autonomy in these economies. Large capital inflows have complicated the management of monetary policy because of their potential to generate exchange rate appreciation, inflation pressures, or asset price boom-and-bust cycles. For example, suppose that an EME raises its interest rate as a strategy to cope with inflation pressures. This behavior attracts capital inflows, reflecting the interest rate differentials with advanced economies. However, capital inflows were what had led to the exchange rate appreciation in the first place. Therefore the authority may intervene in the exchange rate market to avoid currency appreciation that will damage the competitiveness of the trade sector. This intervention itself may result in an increase in the money supply, thereby re-creating inflation pressures. The authority can, alternatively, sterilize the intervention to avoid inflation pressures. This sterilization, in turn, keeps the domestic interest rate at a relatively high level, thereby perpetuating capital inflows. This monetary loop is a reflection of nothing but a policy constraint in terms of endangered monetary autonomy, regardless of any hypothesis, i.e., the "impossible trinity" or "fear of floating".

Given the economic trends of the past two decades, Asian emerging economies have faced drastic changes in the component variables of the "impossible trinity". They have experienced financial integration in line with the progress of globalization. At the same time, some of their economies suffered from the 1997 to the 1998 currency crises, resulting in a shift in currency regimes from US-dollar-pegged exchange rate regimes to more flexible ones. In addition, they accumulated foreign reserves in the wake of currency crises, especially in East Asia. Considering these changes in the components of the "impossible trinity" and foreign reserves, this paper will examine the trends in monetary autonomy and its interaction with financial integration, currency regimes and foreign reserves, focusing on select Asian economies. This paper will also critically review the results of Aizenman, Chinn, and Ito (2008), which is a previous study that has the same scope as this one but employs different approaches. The rest of the paper is structured as follows. Section 2 reviews previous studies and clarifies this paper's contribution. Section 3 presents empirical analyses introducing the methodology and data and a discussion of the results of the estimation and their interpretation. Section 4 summarizes the results and concludes.

2. Previous studies and our contribution

There are a large number of previous studies that address the issue of monetary autonomy. Some focus on its relationship with the currency regime, while others investigate monetary autonomy in the context of capital control. However, there seem to be relatively a few studies that examine monetary autonomy in the comprehensive framework of the "impossible trinity". As an example, Aizenman et al. (2008) have carried out a comprehensive study on the linkages between the three trilemma variables (monetary independence, exchange rate stability and financial integration) and international reserves. In this section, we begin by providing an overview of the literature related to monetary autonomy; we then clarify our contribution by reviewing Aizenman et al. (2008).

2.1. Overview of related literature

We first review the empirical evidence on the relationship between monetary autonomy and currency regimes. For the purpose of investigating whether the choice of currency regimes affects monetary autonomy in practice, previous studies have estimated the sensitivity of local interest rates to changes in international interest rates, examining whether local rates are less sensitive to base interest rate changes under a floating exchange rate regime than under a fixed regime. The existing studies have provided inconclusive evidence.

Hausmann, Gavin, Pages-Serra, and Stein (1999) studied the relationship between the daily movements in domestic 30-day interest rates and foreign dollar rates on sovereign bonds for Argentina, Venezuela and Mexico for the period September 1997–February 1999. They showed that movements in foreign interest rates have the greatest impact on domestic rates in Mexico (a country that floats), minimal impact in Argentina (a country with a strongly fixed regime) and intermediate effects in Venezuela (a country with limited flexibility). They also ran a similar exercise using monthly data for the 11 countries for the period from 1960 to 1998, reporting that U.S. rates affect domestic rates by 25% less in countries that peg relative to other countries. Thus, they found no evidence to suggest that floating arrangements are better at insulating domestic interest rates from foreign rate movements. Frankel (1999) also reported that the coefficient on U.S. interest rates for floaters (Brazil and Mexico) seems to be higher than that for dollarizers (Panama, Argentina, and Hong Kong) for the period from 1986 to 1998. This also led to the speculation that emerging market securities might pay substantial risk premiums, and these risk premiums might be sensitive to U.S. government interest rates. Both Hausmann et al. (1999) and Frankel (1999) seem to be in line with the "fear of floating" approach.

Conversely, Borensztein, Zettelmeyer, and Philippon (2001), focusing on those countries whose regimes could be clearly defined as either currency boards or floating regimes during the period from the early to mid-1990s, found that interest rates in Hong Kong, which has a fixed exchange rate regime, reacted much more to US interest rates than did interest rates in

---

[1] EMEs: emerging market economies.