



De facto exchange rate regimes and currency crises: Are pegged regimes with capital account liberalization really more prone to speculative attacks?

Taro Esaka

Kobe City University of Foreign Studies, 9-1, Gakuenhigashi-machi, Nishi-ku, Kobe 651-2187, Japan

ARTICLE INFO

Article history:

Received 26 January 2009

Accepted 6 November 2009

Available online 11 November 2009

JEL classification:

F31

F33

Keywords:

Exchange rate regimes

Capital controls

Capital account liberalization

Currency crises

Macroeconomic policy trilemma

ABSTRACT

This paper empirically examines whether *de facto* exchange rate regimes affect the occurrence of currency crises in 84 countries over the 1980–2001 period by using the probit model. We employ the *de facto* classification of Reinhart and Rogoff (2004) that allows us to estimate the impact of relatively long-lived exchange rate regimes on currency crises with much greater precision. We find that pegged regimes significantly decrease the likelihood of currency crises compared with floating regimes. By using the combined data of exchange rate regimes and the existence of capital controls, we also find interesting evidence that pegged regimes with capital account liberalization significantly lower the likelihood of currency crises compared with other regimes. These results are robust to a wide variety of samples and models. From the standpoint of the macroeconomic policy trilemma, we can conjecture that pegged regimes with capital account liberalization are substantially less prone to speculative attacks because they can enhance greater credibility in their currencies by abandoning monetary policy autonomy.

© 2009 Elsevier B.V. All rights reserved.

1. Introduction

The choice of exchange rate regimes is one of the most important topics in international economics that has been studied and debated over recent decades. This topic has gained momentum following the major currency crises in the 1990s (e.g., the European Monetary System (EMS) crisis in 1992–1993, the Mexican crisis in 1994–1995, and the Asian crisis in 1997–1998). In a world with increasingly integrated capital markets, what sort of exchange rate regime is sustainable?¹ Which types of exchange rate regimes are more prone to crises? Do pegged regimes indeed have a higher risk of currency crises than floating regimes?

To answer these questions, some empirical studies have investigated the links between exchange rate regimes and currency crises

by using various dataset and methods. The main previous studies were conducted by Ghosh et al. (2003), Bubula and Ötoker-Robe (2003), Rogoff et al. (2004), Husain et al. (2005), and Haile and Pozo (2006). Ghosh et al. (2003) estimate the occurrence of currency crises under alternative exchange rate regimes from 1972 to 1999 by using the data of the IMF *de jure* classification, and they find that the probability of crises is the highest for floating regimes.²

Bubula and Ötoker-Robe (2003) examine the link between exchange rate regimes and currency crises in IMF member countries from 1990 to 2001 by estimating the logit models based on the data of the *de facto* Bubula and Ötoker-Robe (2002) classification.³ They indicate that the bipolar view of exchange rate regimes holds in the sense that the probability of currency crises is significantly higher for intermediate regimes than for both hard pegs and floating regimes.

Rogoff et al. (2004) and Husain et al. (2005) estimate the probability of currency crises under different types of exchange rate regimes from 1970 to 2000 by using the data of the *de facto* Reinhart and Rogoff (2004) classification. According to their results, managed floating has the highest probability of currency crises.⁴

E-mail addresses: tesaka@inst.kobe-cufs.ac.jp, tesaka@hotmail.com

¹ Some researchers have suggested that in a world of increasing international capital mobility, only the two extreme exchange rate regimes (either hard pegs such as dollarization, currency boards and monetary unions, or a freely floating regime) are likely to be sustainable (Eichengreen, 1994; Obstfeld and Rogoff, 1995; Summers, 2000; Fischer, 2001). Conversely, intermediate exchange rate regimes (such as adjustable pegs, basket pegs, crawling pegs, or bands) are likely to be unsustainable and will disappear. This view has come to be known as the “bipolar view” or the “hollowing-out” hypothesis. On the other hand, Williamson (2000) has proposed the usefulness of the intermediate regimes of the “BBC (basket, band, crawling) rules,” because stabilization of real effective exchange rates is very important for the sustainability of exchange systems.

² However, it is not certain whether floating regimes have a statistically significant higher probability of crises than other regimes.

³ For the analysis of Bubula and Ötoker-Robe (2003), the explanatory variables in logit models are exchange rate regime dummies and do not include control variables.

⁴ However, it is not clear whether it is statistically significantly higher than other regimes because a statistical test is not done.

Macroeconomic policy trilemma: degree of monetary policy autonomy

Exchange Rate Regimes (<i>de facto</i> exchange rate regimes of Reinhart and Rogoff (2004))			
Capital Controls	pegs	floats	freely falling
No capital controls	Regime 1 pegs with no capital controls fixed exchange rate perfect capital movements no independent monetary policy (1) ↓ →	Regime 3 floats with no capital controls no fixed exchange rate perfect capital movements independent monetary policy ↓	Regime 5
Capital controls	Regime 2 pegs with capital controls fixed exchange rate imperfect capital movements independent monetary policy →	Regime 4 floats with capital controls no fixed exchange rate imperfect capital movements independent monetary policy (4)	High inflation

Fig. 1. Macroeconomic policy trilemma: degree of monetary policy autonomy. The numbers in parentheses and arrows indicate the size of monetary policy autonomy.

Haile and Pozo (2006) investigate whether exchange rate regimes affect the incidence of currency crises in 18 developed countries from 1974 to 1998 by estimating probit models based on the data of the IMF classification and the *de facto* Levy-Yeyati and Sturzenegger (2005) classification.⁵ They find that while the probability of currency crises is significantly higher for pegged regimes than for other regimes when the IMF classification is used, there is no significant link between exchange rate regimes and currency crises when the Levy-Yeyati and Sturzenegger (2005) classification is used.

Judging from the above, however, these previous studies provide a more mixed view of the impact of exchange rate regimes on the occurrence of currency crises. Therefore, it is very useful to investigate which types of exchange rate regimes are more susceptible to speculative attacks and currency crises and which exchange rate regimes can avoid currency crises.

Accordingly, this paper empirically examines whether *de facto* exchange rate regimes affect the occurrence of currency crises in 84 countries from 1980 to 2001 by using the probit model. We employ the *de facto* classification of Reinhart and Rogoff (2004) as the data of actual exchange rate regimes. Using the data of Reinhart and Rogoff (2004) allows us to estimate the impact of relatively long-lived actual exchange rate regimes on currency crises with much greater precision, because Reinhart and Rogoff (2004) treat high-inflation countries as another category and their data have a relatively longer duration of exchange rate regime compared with other *de facto* data.

In the context of currency crises, it is often claimed that one of the major ingredients of the environment leading to currency crises is pegged regimes. It is said that pegged regimes may promote excess capital inflows by minimizing the exchange rate risk for international investors. Hence, it is conventional policy wisdom that pegged regimes are universally more prone to currency crises. Are pegged regimes really more vulnerable to currency crises, as is commonly assumed? This paper will provide an answer to this question.

Moreover, it is often claimed that in particular, adopting the combined policy of pegged regimes and liberalization of capital flows is an underlying contributing factor behind the outbreak of currency crises experienced in recent years (e.g., Radelet and Sachs, 1998). It is said that pegged regimes under liberalized capital accounts contribute to excessive capital inflows compared with other regimes, and they are susceptible to sharp capital flow reversals induced by some shocks.⁶ Therefore, it is conventional view that

pegged regimes under liberalized capital accounts increase the risk of currency crises. Are pegged regimes with capital account liberalization really more prone to currency crises? The main purpose of this paper is to answer this question.

Accordingly, we first investigate whether pegged regimes are really more prone to currency crises than floating regimes by using the *de facto* regimes of Reinhart and Rogoff (2004). We then examine the connection between exchange rate regimes under restricted or liberalized capital flows and currency crises by using the combined data of exchange rate regimes and the existence of capital controls.

Policymakers in any open economy face the macroeconomic policy trilemma (also known as the impossible trinity) when they choose an exchange rate regime (Obstfeld and Taylor, 2004). The macroeconomic policy trilemma is the hypothesis in international economics that it is impossible to achieve all three of the following objectives simultaneously: (1) a fixed exchange rate, (2) free international capital mobility, and (3) monetary policy autonomy toward domestic goals. Therefore, a crucial insight of the trilemma is that policymakers need to consider the choice of policy stance toward capital flows simultaneously when they choose their exchange rate regime. It is important to explicitly take into account the existence of capital controls.

Accordingly, by applying the macroeconomic policy trilemma, we empirically examine whether pegged regimes under no capital controls that have no monetary policy autonomy significantly increase or decrease the probability of currency crises compared with pegged regimes under capital controls, floating regimes under no capital controls, and floating regimes under capital controls. By doing so, we can indirectly investigate the link between the degree of monetary policy autonomy and the incidence of currency crises. Moreover, in this analysis, we verify whether pegged regimes with capital account liberalization are really more prone to speculative attacks and currency crises.

The paper is organized as follows. Section 2 will present the methodology of identifying currency crises and the data of exchange rate regimes and capital controls. Section 3 will present an empirical methodology for the probit model of currency crises. Section 4 will examine whether pegged regimes really have a higher risk of currency crises than floating regimes by estimating the probit model. Section 5 will examine the link between exchange rate regimes under restricted or liberalized capital flows and currency crises by using the combined data of exchange rate regimes and the existence of capital controls. Section 6 will present a summary and concluding remarks. Finally, Appendix A will detail currency crisis episodes, and Appendix B will show the result of estimating the effect of capital controls on the likelihood of currency crises.

⁵ For the analysis of Haile and Pozo (2006), the explanatory variables in probit models include exchange rate regime dummies and several control variables.

⁶ Honig (2008) examines the link between institutions and the incidence of sudden stops. He finds that the effect of government quality on the frequency of sudden stops is non-linear.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات