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Why do central banks intervene secretly? Preliminary evidence from the BoJ

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Abstract

This paper empirically investigates the main determinants of secret interventions in the foreign exchange (FX) market. Using the recent experience of the Bank of Japan, we estimate a model that explains the share of secret to reported interventions in the FX market. Two sets of determinants are clearly identified: the first is related to the probability of detection of the central bank orders by market participants; the second to the central bank's internal decision to opt for secrecy. Our estimations support the arguments of current microstructure theories that rationalize the use of secret interventions.

JEL classification: E58; F31; G15

Keywords: Central bank interventions; Exchange rates market; Secrecy puzzle

1. Introduction

Direct interventions in the foreign exchange (FX) market have been used as a policy instrument on a regular basis by the major central banks. The sterilization process has often made these interventions a tool that is independent of monetary policy. While the debate remains strong about the degree of efficiency of sterilized interventions (see Humpage, 2003 among others), some major central banks such as the Bank of Japan (BoJ) have still relied extensively on such interventions over the recent period.

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The motives for interventions as well as the nature of the actual interventions themselves have been closely scrutinized by academics and policy makers. Understanding why monetary authorities intervene is important for policy evaluation. Reaction functions have been estimated for the major central banks and suggest that monetary authorities react to reverse undesirable trends and to a lesser extent, to smooth exchange rate volatility (Almekinders and Eijffinger, 1994, 1996). Central bank practices have also been studied in much detail (Dominguez and Frankel, 1993; Neely, 2001), showing that monetary authorities make use of a large variety of techniques to implement their intervention policy.

The literature contains many insights about the usual practice of central banks but has still not been able to rationalize the use of secret interventions (Sarno and Taylor, 2001). Secret interventions are usually defined as foreign exchange operations that are not disclosed to market participants (at least not contemporaneously). Depending on the central bank's communication policy and the way the order is transmitted to the commercial banks, these operations can be hidden from foreign exchange traders and can be mistakenly viewed as purely private trades by the market. While the Federal Reserve (Fed) and the Bundesbank have progressively adopted more transparent policies, some central banks still rely on secret operations, as suggested by the recent operations of the BoJ (Beine and Lecourt, 2004).

The signaling theory, which considers central bank interventions as a method of altering exchange rate expectations through the release of private information, obviously is unable to rationalize the use of secret operations. Theoretical arguments, based on alternative approaches such as noise trading (Hung, 1997) or microstructure (Vitale, 1999), have therefore been put forth to explain this practice. Purely informal arguments have also been proposed (Dominguez and Frankel, 1993; Chiu, 2003). While interesting, these explanations have not been assessed empirically in the literature to the best of our knowledge. This paper aims at correcting the situation.

To study the motives for using secret operations, we examine the intervention policy of the Bank of Japan over the recent period (1991–2004). For a decade, the BoJ has been the most active central bank by far in the foreign exchange markets. Over the full period under study, the BoJ was present in the market for more than 10% of trading days. However, after 2002 until April 2004, this increased to more than 40% of trading days. The interventions of the BoJ vary greatly over time and thus form a useful basis for testing competing theories of the secrecy conundrum. While the Bank of Japan used public (reported) interventions most of the time during the pre-Sakakibara period (1991–1995) and the Sakakibara (1995–2002), nearly 80% of their operations in the more recent period (2003–2004) remain undetected by market participants on the day they were carried out.[1] This points to a major shift in the intervention policy.

This paper builds on the recent approach proposed by Beine and Lecourt (2004) to separate the official interventions of the BoJ into reported and secret operations. We carried out a logit analysis aimed at explaining the percentage of secret versus reported interventions. After controlling the determinants of the intervention detection process by market participants, we assessed the empirical validity of the traditional explanations of secrecy developed in the theoretical literature. From our findings, we identified the major determinants that favor a central bank's operations being detected: the size of the operation; whether the operation is carried out in concert with other monetary authorities; the success of the operation; and the intensity of the past intervention policy. More importantly, the results lend strong empirical support to those explanations using

[1] E. Sakakibara, called 'Mr. Yen', was the Director General of the International Finance Bureau in charge of the exchange rate policy.