



# Daily effects of foreign exchange intervention: Evidence from official Bank of Canada data

Rasmus Fatum\*

*School of Business, University of Alberta, 4-30H Business Building, Edmonton AB, T6G 2R6 Canada*

---

## Abstract

This paper analyzes the effects of official, daily Bank of Canada intervention in the CAD/USD exchange rate over the 1995–1998 period. Using an event study methodology and different criteria for effectiveness, some evidence that intervention was systematically associated with both a change in the direction and a smoothing of the exchange rate is presented. The results of the analysis, however, do not suggest that Bank of Canada intervention succeeded in reducing the volatility of the CAD/USD exchange rate. Furthermore, the paper shows that the effects of intervention are weakened when adjusting for general currency co-movements against the USD.

© 2008 Elsevier Ltd. All rights reserved.

*JEL classification:* E58; F31; G14; G15

*Keywords:* Foreign exchange intervention; Event studies; Currency co-movement

---

## 1. Introduction

The empirical literature on central bank foreign exchange market intervention has been growing rapidly over the recent years, partly due to more official intervention data becoming publicly available.<sup>1</sup> Bank of Canada (BoC) intervention data, however, is not publicly available and only three internal BoC studies (all discussed below) have investigated the effects of intervention in the CAD/USD exchange rate market using the official BoC intervention data.

---

\* Tel.: +1 780 492 3951; fax: +1 780 492 3325.

*E-mail address:* [rasmus.fatum@ualberta.ca](mailto:rasmus.fatum@ualberta.ca)

<sup>1</sup> See Dominguez and Frankel (1993), Edison (1993), Humpage (2003), Neely (2005) and Sarno and Taylor (2001) for surveys of the intervention literature.

A common feature of these existing BoC intervention studies is the exclusive focus on short-term (intraday or same-day) volatility effects, all within a time-series analysis context. Unlike these studies, this paper investigates direction, smoothing, as well as volatility effects of BoC intervention over several days surrounding the intervention events and it does not employ a time-series framework for doing so.

The analysis presented in this paper uses official, daily data on BoC intervention in the CAD/USD exchange rate market covering the 1 January 1995–30 September 1998 period. The data at hand contain unique information on whether intervention operations were discretionary or carried out in accordance with a mechanistic policy framework, thereby allowing for a comparison of effectiveness across the two different types of interventions.

Additionally, the paper takes into account the issue of currency co-movements. Eun and Lai (2004) point out that the issue of currency co-movements has not been given much attention by the academic literature. Currency co-movements, however, are of potential importance to this study since the study focuses on the effects of unilateral intervention conducted by a relatively small central bank aiming to manage a minor currency vis-à-vis a major currency. Therefore, the observed exchange rate movements might be driven by major currency factors rather than minor currency factors such as the unilateral intervention carried out by the smaller central bank.<sup>2</sup>

Due to its non-public nature, few other studies have examined the official BoC intervention data. The study by Murray et al. (1996) focuses on the daily effects of official BoC intervention. Their analysis was conducted shortly after the new intervention regime was adopted in April 1995 and covers the January 1992–June 1996 period. They examine the impact of intervention on the (implied) volatility of the CAD/USD exchange rate and do not address issues pertaining to other criteria for effectiveness. They find that intervention did generally not succeed in dampening volatility except in a few cases towards the end of their sample when intervention was allegedly unexpected and unusually large-scale. In another daily data study, D'Souza (2002) incorporates both intervention data and data on BoC transactions aimed at replenishing reserves in order to test market microstructure hypotheses. He finds that foreign exchange traders treat an intervention operation as any other customer order and suggests that, for intervention to be effective, central banks must be able to forecast overall net customer trades at the time of intervention.<sup>3</sup>

Beattie and Fillion (1999) assess the intraday effects of intervention and provide a time-series analysis of the effects of intervention on the (implied) volatility of the CAD/USD exchange rate over the April 1995–January 1998 period. They suggest that mechanistic intervention was widely anticipated by the market and had no impact on volatility, and find some evidence that discretionary intervention was unanticipated and associated with a short-term intraday decrease in volatility.

This study follows recent papers by Edison et al. (2003), Fatum (2000), Fatum and Hutchison (2003, 2006), Morel and Teiletche (2004), Pierdzioch and Stadtmann (2004) and others in employing an event study methodology for analyzing the effects of intervention on exchange rates.<sup>4</sup>

---

<sup>2</sup> In a related study, Beine (2004) analyzes US Fed, Bank of Japan and Bundesbank/ECB intervention and finds that coordinated intervention is associated with the time-varying conditional covariances between the major currencies.

<sup>3</sup> Rogers and Siklos (2003) use daily changes in the level of BoC reserves as a proxy for BoC intervention. Focusing on exchange rate volatility and kurtosis, they find that intervention had generally no effect. For an earlier study using proxy data, see Phillips and Pippenger (1993).

<sup>4</sup> An event study is a very general test of a specific hypothesis and does not rely on a structural model of exchange rate determination. This is a desirable feature given the lack of consensus over what is the appropriate structural exchange rate model, but the drawback is that the particular channel of transmission (if intervention is effective) is not identified.

Download English Version:

<https://daneshyari.com/en/article/964738>

Download Persian Version:

<https://daneshyari.com/article/964738>

[Daneshyari.com](https://daneshyari.com)