Reflections on October 6, 1979, and Its Aftermath

Charles Freedman

INTRODUCTION

Canada is the quintessential "small open economy." It has very close ties with the United States in both trade and capital movements. On the financial side, interest rate movements in the United States can affect Canada fairly quickly through their influence on the exchange rate and on domestic interest rates. As a result, economic and financial developments in the United States have an important influence on the Canadian economy and on policymaking in Canada.

The changes in the Federal Reserve operating procedures of October 6, 1979, and the subsequent wide fluctuations in short-term and long-term U.S. interest rates had significant effects on interest rate and exchange rate developments in Canada and thereby on Canadian monetary policy. This paper examines a variety of issues related to these developments. The next section of the paper sets out the background to the Canadian economic situation in the latter part of the 1970s. In the following section, I examine the analyses carried out in the Bank of Canada in response to the announcement of October 6, focusing particularly on the analysis of the new operating procedures announced on that date. The subsequent section of the paper looks at the effects of the change in the U.S. policy framework and of the resulting U.S. interest rate movements on Canadian financial developments and on the way they affected policymaking in Canada. A final section offers some concluding remarks.

BACKGROUND

The Bank of Canada was facing problems similar, but not identical, to those facing the Fed in 1979. Following the adoption of targets for the monetary aggregate M1 in November 1975, inflation (as measured by the 12-month increase in the consumer price index [CPI] excluding food and energy) had decelerated from about 9 percent in the second half of 1975 to a low of about 5$^1/_2$ percent in mid-1978. This reflected policies aimed at a gradual disinflation: monetary policy through a reduction in M1 growth from 1975 on and wage and price controls over the 1975-78 period. Subsequently, there was a marked intensification of inflationary pressures in the Canadian economy from both external factors (the rise in commodity prices and U.S. inflation) and internal factors (the pressure of demand in the Canadian economy), in spite of the continued deceleration of M1. Inflation increased to about 8 percent by mid-1979. At the time, a lot of emphasis for the rise in inflation was placed on special factors, especially the exit from wage and price controls and the effects of the renewed rise in oil prices related to the revolution in Iran in early 1979. In retrospect, an important part of the explanation for the divergence of the path of inflation growth from that of M1 growth was the high interest rate elasticity of the demand for M1.[1] This meant that, when M1 growth tended to rise above target as a result of an increase in price inflation, the rise in interest rates needed to keep M1 on target was

[1] There may also have been insufficient adjustment for the downward shift in M1 in response to financial innovations when the targets were rebased.

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not large enough to slow down demand growth sufficiently to slow inflation, at least in the short to medium run.[2] Subsequently, financial innovation weakened the link between M1 growth and output and inflation developments so much that the Bank of Canada withdrew the M1 target in November 1982.

ANALYSES CARRIED OUT IN RESPONSE TO THE OCTOBER 6 ANNOUNCEMENT

At the time of the announcement, I was chief of the Department of Monetary and Financial Analysis at the Bank of Canada, which had responsibility for monitoring and evaluating U.S. financial developments. In response to the announcement by the Fed on Saturday October 6 (Board of Governors, 1979), I wrote an initial memorandum dated October 10 (Freedman, 1979) to the Governor of the Bank of Canada (with copies to all senior officials at the Bank). I noted the four key elements of the package: (i) the discount rate increase of 1 percentage point, (ii) the marginal reserve requirement on the increase in managed liabilities, (iii) the increased emphasis on controlling the supply of bank reserves, and (iv) moral suasion on banks to avoid loans supporting speculative activity in gold, commodity, and foreign exchange markets. Much of the attention in the memorandum was devoted to the first two items. However, the two paragraphs on the new techniques of monetary control are worth quoting at length.

> There is relatively little in the press release that throws light on the manner in which reserves control is to be implemented. Although the Fed re-affirmed its objective of controlling the growth of M1 and M2…, it may well be that the main result of reserve base control will be to control the growth of bank credit. Indeed, the combination of reserve base control and increased reserve requirements will act together to reduce the growth of total bank assets and liabilities…
>
> On the other hand, if the Fed intends to use control of the reserve base to achieve M1 and M2 targets, one can raise the question of how well base control would operate when the liabilities subject to reserve requirements differ from the aggregate on which the central bank is targeting. Indeed, given the complexity of the U.S. system of reserve requirements, the relationship between M1 and M2 targets and growth of base is likely to be very loose. Since the only way in which the demand for narrow definitions of money balances can be affected in the short run is by interest rate changes, one can interpret base control as a means of getting interest rate changes in a much more automatic way and without the political fallout normally engendered by discretionary changes in interest rates. Thus, in the near term, the major result of base control will probably be to widen substantially the bands within which the federal funds rate is permitted to fluctuate. If the Fed wishes to prevent changes in borrowed reserves from offsetting its changes in unborrowed reserves, it will either have to let the discount rate fluctuate more widely (or perhaps tie it to a market rate) or to impose administrative controls on the use of borrowed reserves.

Clearly, the initial press release on October 6 gave us relatively little to go on in understanding the new procedures. It was only with the release of the staff memorandum (Volcker, 1980) at the time of Chairman Volcker's testimony to the Senate Committee on Banking, Housing, and Urban Affairs on February 4, 1980, that the Bank of Canada was able to undertake a more in-depth analysis of the technical elements of the new procedures. However, I would note that between 1978 and 1980 a number of internal memoranda on base control, as well as a published technical report (Clinton and Lynch, 1979), had been written by members of the staff in response to the aca-

[2] Thiessen (1983). The need for a relatively low interest rate elasticity on money demand is similar to the Taylor principle that nominal interest rates should rise more than one-to-one with a rise in inflation.

demic literature, the work at the Federal Reserve Bank of St. Louis and the Swiss National Bank, and the research being done in England, including at the Bank of England (Goodhart, 2005), on base control and money market multipliers.

In a subsequent memorandum dated June 16, 1980 (Freedman, 1980), I analyzed the movements of interest rates, nonborrowed reserves, borrowed reserves, required reserves, and the various monetary aggregates to see whether in fact the Fed had been following its announced modus operandi:

> If it has been so doing, one might conclude that the substantially increased volatility of interest rate movements since last October is an inherent property of base control, at least in the form practiced by the Fed. If, on the other hand, the Fed has not been following its announced procedures, then one can argue that the recent movements of interest rates have been at least in part the result of discretionary Fed action and not simply the automatic result of the base control.

The conclusion of the memorandum was as follows:

> The above analysis has proceeded on the assumption that the Fed has controlled non-borrowed reserves with the objective of controlling monetary targets. To interpret the movements of non-borrowed reserves and interest rates in the period since October 1979 then requires the additional assumption that the Fed's horizon is very short and therefore that sharp movements in interest rates are a natural outcome of the technique of control. An alternative explanation of the events of the last six months can be offered in terms of the traditional control of interest rates. In this form of exegesis the interest rate increases of February and March were aimed at breaking inflationary psychology and the subsequent interest rate declines were for the purpose of fighting the ensuing recession. With the passage of time one should be able to distinguish between the two competing hypotheses.

Thus, the issue of whether the Fed was using discretion or simply following a more rigid set of techniques remained open.

The technical analysis at the Bank of Canada of the interest rate implications of base control led to a conference presentation at the end of October 1980 (Freedman, 1983), also published as a National Bureau of Economic Research working paper (Freedman, 1981), entitled "Some Theoretical Aspects of Base Control." This paper examined the implications of base control from the perspective of a series of increasingly complex models, before presenting a short analysis of the new Federal Reserve procedures in light of the theoretical models. The exposition of the Fed procedures relied heavily on the staff paper released by the Board in early 1980 and drew on the discussion in Lang (1980). (As an aside, I would note that in mid-1980 I presented this paper to seminars at the St. Louis and the Kansas City Federal Reserve Banks. The response at the Kansas City Fed was largely one of agreement with my analysis of the new techniques, while an economist at the St. Louis Fed commented that I sounded as if I were working at the Board of Governors in Washington, which was not intended as a compliment.)

Interestingly, there appears to have been no discussion of the change in technical procedures at the Fed in official Bank of Canada publications or in speeches by senior officials. This was in line with the general principle that a central bank did not comment publicly on the approach to monetary policy by other central banks. However, there was considerable discussion of the increase in the volatility of U.S. interest rates and its implications for Canada, to which I will now turn.

POLICY IMPLICATIONS

The substantially higher level and increased volatility of U.S. interest rates following the October 6 announcement received a great deal of attention in Canada and in Bank of Canada discussions. The initial context, as described earlier, was one of considerable inflationary pressures in Canada from both external and internal sources. These developments warranted a rise in interest rates in Canada as well.

A major issue for the Bank of Canada was how to respond to the "extraordinary volatility of interest rates in the United States." The Bank noted in its annual report for 1980 that "movements of this magnitude in U.S. interest rates were bound to have substantial effects on interest rates in Canada or on the foreign exchange value of the Canadian dollar or on both" (Bank of Canada, 1981, p. 9). For reasons that will be discussed shortly, the Bank chose to run policy in such a way that some of the impact of U.S. interest rate movements in 1980 fell on Canadian interest rates and some on the exchange rate. Thus, the "swings in Canadian short-term interest rates, while considerable, were much smaller than in the United States and the value of the Canadian dollar in U.S. funds almost always moved inversely with U.S. interest rates" (p. 9).

As a result of the increased volatility in interest rates, the Bank of Canada announced on March 10, 1980, that the Bank Rate, the minimum interest rate that the Bank charges on its advances to the chartered banks, would in the future be set at 1/4 percentage point above the average rate established in the weekly tender for 91-day Treasury bills issued by the Government of Canada (Bank of Canada, 1980). The change to a floating Bank Rate was made to give the Bank of Canada additional flexibility in the disturbed state of external financial markets.[3] The floating Bank Rate proved to be a useful mechanism in the more volatile environment for interest rates and remained in place until February 1996.

There were two major issues that confronted a country like Canada (and other open economies as well) in the face of the sharply increased volatility of U.S. interest rates in the 1979-81 period.[4] First, what are the policy implications for a country wishing to achieve its announced target for monetary aggregate growth? Second, and relatedly, what is the role of the exchange rate in the setting of policy?

In analyzing the possible responses of a small open economy with a monetary aggregate target to U.S. interest rate movements, there were three cases to be considered: (i) the nominal interest rate increase in the United States reflected an increase in real interest rates; (ii) the nominal interest rate increase reflected an increase in inflationary expectations; and (iii) the rise in the nominal interest rate reflected a rise in inflationary expectations, but the exchange market interpreted it as a rise in the real rate.[5,6]

The first case, that the nominal interest rate movements reflected real interest rate movements, was the most relevant in the 1979-81 period. The small open economy could react to a rise in real interest rates in the United States by one of two polar responses or by an intermediate response. One polar response would be to leave its policy interest rate unchanged. This would result in a depreciation of its currency, upward pressure on demand and inflation, and an increase in M1 relative to its target. The other polar response would be to raise the domestic interest rate by the same amount as the interest rate increase in the United States. This would result in an unchanged foreign exchange rate (at least initially), but the increase in domestic interest rates would lead to a reduction in M1, lower aggregate demand, and downward pressure on inflation.

One intermediate response would be to move the domestic interest rate in the same direction as the interest rate in the United States, but by a lesser amount, in order to keep M1 unchanged in the medium run. The higher interest rate would

[3] The Bank emphasized in its press release that its influence "on the level and movement of short-term interest rates in Canada will not be greatly different with a floating Bank Rate than it has been with a fixed Bank Rate...A floating Bank Rate does not mean a 'hands off' policy by the Bank" (Bank of Canada, 1980).

[4] This section of the paper relies heavily on my presentation at the Kansas City Fed conference of August 1982 (Freedman, 1982). As noted in that article, my analysis of the possible responses to U.S. interest rate movements in a small open economy with a monetary aggregate target drew heavily on earlier work by Pierre Duguay, then Assistant Chief in the Department of Monetary Analysis and now Deputy Governor at the Bank of Canada.

[5] While the analysis in this paper is done in the context of an increase in U.S. interest rates, it also holds with signs reversed for a decline in U.S. interest rates

[6] The analysis is partial in the sense that it does not take account of the spillover effects into the small open economy of movements in U.S. aggregate demand. It also focuses on movements in U.S. interest rates that are perceived to be transitory. For U.S. interest rate increases that are perceived to be long-lasting, domestic interest rates in a small open economy would over time have to match those in the United States, with adjustments to shocks occurring in the long run via exchange rate movements.

lead directly to an appreciable reduction in the demand for M1 and would also put downward pressure on aggregate demand. The change in the spread between Canadian and U.S. interest rates would lead to a depreciation in the Canadian dollar (but less than in the first polar case), which would put upward pressure on aggregate demand and on Canadian prices. Over the medium run, the downward pressure on M1 from the direct effect of the interest rate increase would be offset by the upward pressure on M1 from higher aggregate demand and the rise in Canadian prices resulting from the depreciation. That is, the outcome of the rise in the interest rate and the fall in the value of the Canadian dollar would be somewhat higher aggregate demand, composed of an improved trade balance and weaker domestic demand. In the short run, the combined interest rate increase and depreciation would likely result in a temporary decline in M1 because the interest rate increase would probably affect M1 demand more rapidly than would the upward movements in aggregate demand and prices.

If the interest rate increase in the United States were a reflection of increased inflationary expectations in that country and if it were so interpreted by financial markets, there would be no need for the small open economy to adjust its interest rates, unless it too were facing inflationary pressures. With unchanged real interest rates in the two countries, there should be no change in the exchange rate. Hence, the interest rate movements in the large country should have no effect on demand or inflation in the small open economy.

In the 1979-81 period, the very volatile movements in U.S. interest rates were interpreted largely as real interest rate movements, although some component of them may have reflected changes in inflation expectations. Initially, demand and inflationary developments in Canada called for a tightening of policy, but to a lesser extent than in the United States. Hence, Canadian monetary policy aimed at adjusting interest rates in the same direction, but not to the same extent, as U.S. interest rate movements. The Bank of Canada explained, as follows, its policy of adjusting interest rates to a greater extent than indicated by the short-run movements of M1:

> The Bank of Canada has preferred to react immediately to moderate potential exchange-rate movements rather than to wait until an increase in inflation, induced by the exchange rate, has pushed up M1. While these actions by the Bank of Canada have on occasion caused M1 to move below the target range or to remain there longer than would otherwise be the case, these temporary divergences from target have typically been brief. (Thiessen, 1983)

Thus, policy actions taken in the face of U.S. interest rate movements were seen as a form of "short-circuiting." That is, the Bank adjusted interest rates not only in response to current developments in M1 but also to avoid *future* movements in M1 that would result from insufficient adjustment of interest rates and the associated movement of the Canadian dollar.

The policy of letting some of the pressure from U.S. interest rate movements fall on domestic interest rates and some on the exchange rate worked reasonably well in 1980. However, strong inflation pressures in Canada in 1981 along with weakness in the exchange rate for the Canadian dollar resulted in Canadian interest rates moving up more than U.S. interest rates during the year.

CONCLUDING REMARKS

The developments in the 1979-81 period led to an increased emphasis on the role of the exchange rate in the conduct of policy. Initially, as described above, the increased focus on the exchange rate was done in the context of a strategy that targeted M1. Subsequently, after the withdrawal of the monetary aggregate target in November 1982, considerable attention was placed on the direct effects of exchange rate movements on inflation and their indirect effects on aggregate demand.[7]

[7] Crow (2002, p. 154) puts it as follows: "Hanging on to the exchange rate as best we could was not the real objective but rather, with the crumbling of M1 targets, another way of guiding monetary policy in an anti-inflationary direction. In other words, shadowing the US dollar was a means to an end. The end was a better inflation performance, using the instrument and the rationale that was immediately available—the exchange rate—as a means for nudging Canada along that path."

This culminated some years later in the development of the Monetary Conditions Index (MCI), which integrated into a single measure the effects of the two channels through which monetary policy operates in a small open economy—interest rate changes and exchange rate changes (Freedman, 1995). The Bank of Canada was well aware of the importance of interpreting the source of any exchange rate movement in deciding on the appropriate policy response. However, the financial markets tended to treat all exchange rate movements as resulting from "portfolio shocks" of the sort that were prevalent in the 1979-81 period, and indeed for quite some period thereafter, rather than effects of "real shocks" (such as changes in the relative prices of commodities produced in Canada). This led them to expect an offsetting interest rate movement for all exchange rate movements. Eventually, in 1998, because of the difficulties of communicating to the markets the importance for the policy process of the source of the exchange rate movement, the Bank abandoned the MCI measure as an input into monetary policy actions. Nonetheless, as was the case in the 1979-81 period, it still remains important to interpret the source of any exchange rate shock in deciding how to respond to it.

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