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BANK OF CANADA

Implementation of Monetary Policy in the Absence of Reserve Requirements

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Discussion Paper on the Implementation of Monetary Policy in the Absence of Reserve Requirements

In the paper ***New Directions for the Financial Sector*** the Government of Canada indicated that the statutory requirement on chartered banks to hold a given ratio of reserves against certain of their deposit liabilities would eventually be eliminated. The question addressed in this discussion paper is how monetary policy will be implemented in the absence of reserve requirements.

The way in which monetary policy is implemented is greatly influenced by the nature of the system through which cheques and other payments items are cleared among banks and non-bank financial institutions and are settled on a daily basis. Under the present arrangements for clearing and settlement, the method proposed below for implementing monetary policy in a regime without required reserves would be similar to the process that now exists under the current reserve requirement regime. Monetary policy actions would continue to have a direct impact on the balances held at the Bank of Canada by those financial institutions (both chartered banks and non-bank deposit-taking institutions) directly involved in the daily clearing process, and the Bank of Canada would expect to have virtually the same degree of influence on interest rates as it currently has. The essential elements to ensure monetary control are: (a) that the settlement of the daily clearing of payment items be undertaken on the books of the Bank of Canada; (b) that directly clearing institutions therefore continue to need balances at the Bank in order to settle; and (c) that the Bank of Canada be able to determine the availability of such balances.

It is possible that future developments in the payments system might lead to some changes in the clearing and settlement arrangements. Under current arrangements, payment items that are cleared on a given day are settled on the following day but the entries are made retroactive to the previous day on the books of the Bank of Canada.[1] Any move to a different system, one which involved some element of same-day settlement for example, would result in substantial changes in the way monetary policy is implemented. However, even under such changed clearing and settlement arrangements, the Bank of Canada would still be able to make its influence adequately felt in money markets in the absence of reserve requirements since settlement would still have to take place on the books of the Bank of Canada.

In the next section of this paper we focus on the technical details of a proposed approach for implementing monetary policy in a system with retroactive settlement. This is followed by a briefer and more general discussion of the kinds of arrangements for implementing policy that would appear to be workable in a system of same-day settlement.

1 See "Technical Note: Introduction of Retroactive Settlement for the Daily Clearing of Cheques and Other Payment Items", Bank of Canada Review, August 1986, for further details.

A. Monetary Policy Implementation with Retroactive Settlement

1. Those banks and non-bank financial institutions that choose to be directly clearing members of the Canadian Payments Association, and therefore settle through the Bank of Canada, would be expected to maintain a small positive balance on average at the Bank of Canada. The requirement that direct clearers hold settlement balances that equal or exceed such a target would have to be met over an "averaging period", very much like the system currently in place for the chartered banks. However, the proposed averaging period would be one week and would end on each Wednesday. Fridays would continue to have a weight of 3 in calculating settlement balances over an averaging period.

2. Direct clearers would be permitted to obtain overdraft loans from the Bank of Canada when their settlement balances dropped below zero, but would be expected to operate in such a way as to offset such overdrafts by positive settlement balances on other days in the averaging period. Thus, in each averaging period the cumulative total of daily balances net of overdrafts should amount to no less than the target balance times seven. Failure to achieve such a cumulative balance would require that an advance be taken from the Bank of Canada on the last day of the averaging period.

3. The term *advance* would be used to describe this type of borrowing at the end of the averaging period, whereas the term *overdraft* would be used to describe the borrowing when daily balances of an institution at the Bank of Canada dropped below zero during the averaging period.[2] Interest charged on period-end advances from the Bank of Canada would be based on the extent of the shortfall from the target settlement balance over the averaging period. But we anticipate that no additional charge would be made for any daily overdrafts that occurred during the averaging period. Although small advances (up to perhaps one-half the target settlement balance) would bear interest at Bank Rate (currently the 91-day treasury bill rate plus 1/4 per cent), any advances above this amount would typically bear a cost of twice this rate. Furthermore, higher rates could be charged should it appear that a direct clearer was not attempting to avoid advances.

4. For smooth operation of the system, direct clearers would be expected to avoid excessively large or continuous overdrafts. We would hope that exceptional charges would not be necessary under this system to prevent excessive use of overdrafts, although such charges could be introduced if they turned out to be needed.

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2 An overdraft position on the last day of an averaging period would be possible if the direct clearer had satisfied the cumulative balance requirement. Indeed, it would be possible to have both an overdraft and an advance on the last day of an averaging period if the cumulative shortfall, and hence the required advance, were less than the amount by which the balances dropped below zero on that day.

5. All borrowings from the Bank of Canada, whether overdrafts oradvances, would require collateral as in the present system.

6. Taking account of the benefits in terms of increased flexibility that overdrafts at the Bank of Canada provide to direct clearers, it is proposed that the target balances referred to above should be of the order of 1/4 of 1 per cent of Canadian deposits. The dollar amount for each financial institution would be calculated on the basis of consolidated Canadian deposits as of the end of December and would be revised once a year.

The structure outlined above would permit the Bank of Canada to influence short-term interest rates in a way very similar to that under the current system. That is, by using drawdowns and redeposits to vary the quantity of settlement balances above or below the levels desired by direct clearers, the Bank of Canada could induce downward or upward pressure on very short-term interest rates. The proposed structure would improve on the current system by changing the end of the averaging period to a Wednesday, thereby eliminating periods ending on weekends, with a triple weight on the last day. The reduction of the length of the averaging period to one week would tend to shorten the time lag between Bank of Canada actions and movements of very short-term interest rates without losing the smoothing benefits of an averaging system. In comparison to a system without averaging, the proposed structure involves a lower cost to direct clearers by permitting them to hold lower average settlement balances. Finally, by treating all direct clearers identically the above system would be equitable, and it would simplify somewhat the day-to-day operations of monetary policy.

B. Some Aspects of Policy Implementation under a Same-Day-Settlement System

If the current retroactive settlement arrangements were changed to introduce some elements of same-day settlement, the process described above would no longer provide as effective a mechanism for the implementation of monetary policy. However, arrangements whereby direct clearers were always in a position of having to obtain funds directly from the central bank either by borrowing or by selling securities to the central bank could provide workable alternative mechanisms.

Under a borrowed funds approach, the direct clearers as a group would be continuously indebted to the Bank of Canada, and there would be an explicit published schedule of interest rates on advances. The larger the borrowing (relative to deposits) of an individual institution, the higher would be the rate charged relative to some minimum lending rate. By changing the minimum lending rate or by taking actions to increase the aggregate amount of borrowing that direct clearers had to undertake, the Bank of Canada would be able to exert an influence on very short-term market interest rates.

In the alternative approach involving security sales to the central bank, the direct clearers would find themselves short of funds each morning but would be able to obtain funds from the Bank of Canada by selling securities to the Bank at terms and conditions of the Bank's choosing. In this system, the Bank would influence money market interest rates by altering those terms and conditions on its securities transactions with direct clearers.