IB-280.

CENTRAL BANKING IN THE CANADIAN FINANCIAL SYSTEM

by

Louis Rasminsky, Governor of the Bank of Canada
The Opening Lecture of the 20th International Banking Summer School
given at Queen's University, Kingston, Ontario
August 15th, 1967.

August 15, 1967

CENTRAL BANKING IN THE CANADIAN FINANCIAL SYSTEM

Remarks prepared for the Opening Lecture at the
20th International Banking Summer School, Queen's University, Kingston, Ontario
August 15, 1967

It is a great pleasure for me to be here today to deliver the opening lecture of the 20th session of the International Banking Summer School. I believe that this is only the second time that the School has met in the western hemisphere and I would like, on behalf of the Bank of Canada, to join with the Canadian Bankers' Association in welcoming you to this country. The gathering together of over 200 carefully selected bankers from more than 50 countries with varying economic and financial systems to discuss common problems is indeed an impressive event. I wish you well in your deliberations and I hope that you will enjoy your stay at Queen's University in this fine historic city of Kingston.

As you know, we in Canada are this year celebrating the Centenary of Confederation. I understand that you have already visited Expo 67, by far our largest single celebration, which has as its theme "Terre des Hommes", "Man and His World". There is no theme pavilion at Expo for "Man the Banker", and I decline to speculate on the size of the crowds that such a pavilion would have attracted or on what their sentiments would have been. Nevertheless, it is highly appropriate that you should meet in Canada this year to discuss the world of banking. With the rapid pace of change in the world today, the theme of your

meetings, "Challenges and Trends in Modern Banking", is a timely one. Indeed, I suspect that in the light of the recent changes in legislation respecting banking in Canada, my friends in our own chartered banks and other financial institutions find it an unusually topical subject.

One of the challenges common to commercial bankers almost everywhere is, I suppose, that of dealing with central bankers. I hope that my appearance at the beginning of your programme does not reflect the view of the organizers of the School that we are in fact your number one problem. It is the case, however, that many of the problems of central banks and commercial banks are closely related because the commercial banking system forms such an important part of the mechanism through which monetary policy operates.

In a meeting of professional bankers there is no need for me to dwell on the general characteristics of central banking, commercial banking or financial systems. In any case, I am sure the representatives here of our Canadian banks will be giving you a much more thorough description of our commercial banking system than I could manage to do in an opening lecture. Instead, I intend to try to set out the main features of central banking in Canada. Some of these differ from what you are familiar with in your own countries. In some cases the differences arise from conditions that are peculiar to Canada. In others we have simply chosen to do things differently.

But I am sure you will also notice many similarities. These similarities are not surprising since the basic job of monetary policy is much the same in all countries.

I should like to begin this afternoon with a brief review of the institutional framework in which the Bank of Canada operates. Then I shall go on to talk about the Bank's basic approach to the formulation of its monetary policy and about the techniques we employ. I shall conclude by saying something about the limitations of monetary policy in the Canadian context.

There are a number of other important matters related to central banking on which I propose to say little or nothing today. These include the relationship of monetary policy to other public economic policies - the difficult problem of the "policy mix" -, the relationship between the central bank and the Government, the broad objectives of monetary policy, such as price stability and external equilibrium, and the problems of reconciling these objectives with other objectives such as domestic economic expansion. One reason that I feel I can leave these very important matters aside is that I tried to deal with them at some length in the Per Jacobsson Memorial Lecture I gave in Rome last November; and I do not want to traverse the same ground again. That lecture was published recently by the Canadian Bankers' Association in The Canadian Banker, and those of you who are interested in these more general aspects of central banking may wish to have a look at it.

Canada has a relatively highly developed and centralized financial system. It is a system which is open to the world, in the sense that there is no exchange control and capital is free to flow into and out of the country. Banks and other financial intermediaries play a most important role in it. This highly developed financial system means that a great deal of the lending and borrowing of Canadians is done through the intermediation of financial institutions rather than directly between lenders and borrowers. The chartered banks constitute by far the largest single group of financial intermediaries in terms of total assets, but an important part is also played by savings banks. trust and mortgage loan companies, the co-operatively-organized savings and loans institutions - caisses populaires and credit unions - acceptance and finance companies, government savings institutions, investment dealers, mutual and other investment funds, life insurance companies and pension funds. I have listed a large number of different types of financial intermediary, and now I have to remind you that these various types of financial intermediary do not operate within separate water-tight compartments. While most types of institution do tend to provide some specialized services, others are also usually involved in the same business. Take the business of providing the means of payment, for example. The chartered banks provide the economy with the bulk of this service through their chequable deposits, which are very much

larger than public holdings of currency, but other institutions - savings banks, trust and mortgage loan companies, caisses populaires and credit unions, and certain government savings institutions - also handle chequable deposits, although their share of this business is only a small fraction of the whole. Or consider the time and savings deposit business. In addition to having almost all of the demand deposit business the chartered banks also handle a large proportion of the savings and time deposit business; indeed, such deposits are much larger in total than the banks' demand deposits. But other institutions that I have mentioned are also important in the business of accepting savings and time deposits, in some cases under a different name such as certificates or debentures. The trust companies provide fiduciary trust services in Canada, but at the same time they collect deposits in competition with banks and others and make longer-term investments that are similar to those made by life insurance companies. The finance companies specialize in the financing of consumer durable goods but the chartered banks have become very important lenders in this field and the caisses populaires and credit unions are in it too. The provision of life insurance is handled almost exclusively by life insurance companies, but on the assets side - in the acquisition of mortgages, federal, provincial, municipal and corporate securities - the life insurance companies compete with most of the other groups of financial intermediaries.

I think that these examples make it clear that in our network of financial intermediaries there is a great deal of overlapping. In an important sense the various groups of financial intermediaries may all be said to be in competition with one another, as well as with "direct" borrowers and lenders, for the flow of savings and for lending opportunities.

The financial institutions are linked together with non-financial enterprises, governments and individuals in a well-developed capital market which is used for placing new issues of securities by governments and private borrowers, and for trading. The money market is also an important feature of our financial system. The Bank of Canada plays a key role in the central part of this market, that is, in the market for treasury bills and other Government of Canada securities with a term of up to three years, by assuring the underlying liquidity of the market. Money market dealers finance a large part of their inventories of these shorter-term securities by obtaining day-to-day loans, callable at any time, from the chartered banks. These loans bear interest rates that usually involve a favourable carry, i. e. that are slightly less than the average earnings on the inventory of money market securities held by the dealers. The banks are willing to make such loans at relatively low rates of interest because they represent, next to cash, the most liquid asset available. The day-to-day

loans can always be called, and it is the willingness of the Bank of Canada to provide accommodation to money market dealers if they are unable to obtain funds from alternative sources that provides this assurance. When necessary, dealers obtain accommodation from the Bank, at a price, by selling money market securities to the Bank with an agreement to repurchase. You can see that this system provides a mechanism through which banks can make an important part of their day-to-day cash adjustments by putting out surplus cash into the day loan market and calling day-to-day loans to meet cash deficiencies. At the same time, it provides money market dealers with a relatively attractive source of financing for the inventories of short-term securities that are necessary for the proper functioning of the money market. This market is able to handle not only substantial transactions in day-to-day loans but also transactions in treasury bills in large size as well as short-term Government bonds. The market has expanded greatly since the key features of purchase and resale agreements with the central bank and day-to-day loans from the chartered banks were introduced under the sponsorship of the Bank of Canada in the early 1950s. The type of paper eligible for purchase and resale agreements has been expanded to include bankers' acceptances. A large market has also developed for short-term instruments in which the Bank of Canada does not deal, such as finance company paper and other commercial paper. Investment

dealers have also developed the practice of placing paper with clients under "buy-back" arrangements in order to tap "off-street" or "country bank" sources of short-term funds while looking after the specific maturity requirements of clients.

The money market provides an efficient means of employing short-term funds. From the point of view of the central bank, it is extremely useful to have a market in which banks and others can make adjustments to their cash positions without disproportionate effects on security prices. The economic function of a securities market is of course to help channel funds from savers to borrowers. The Bank of Canada has always taken an active interest in encouraging the development of securities markets.

As I have already mentioned there is no foreign exchange control in Canada and there are many channels that link Canadian and foreign capital markets, particularly the U.S. capital market. Among these channels are foreign currency deposits including "swapped" deposits*, short-term paper, trade in outstanding securities, direct investment and new issues of securities. Last year gross new long-term bond issues of provinces, municipalities and corporations, which were sold to non-residents amounted to $1.4 billion, about

---

* i.e., funds converted into foreign currency, usually U.S. dollars, which have been placed on term deposit with a bank and which the bank has undertaken through a forward contract to convert back into Canadian dollars at maturity.

one-third of the total of such issues. There is no official control over new issues, and many Canadian borrowers who have access to both markets carefully appraise the conditions that confront them - interest rates and availability - in the United States as well as in Canada before deciding where to sell their long-term bond issues. This situation may be unique. I do not suppose that many of you find your regional governments and cities, as well as large businesses, selling new long-term issues outside your country. There are some advantages in this situation. For example, when our deficit on goods and services is relatively large, as it has been in the past decade, it is important that we be able to attract sufficient funds to cover that deficit. On the other hand, the responsiveness of international capital flows to relatively small changes in interest rate differentials, including long-term as well as short-term interest rate differentials, can be an important constraint on monetary policy.

This brief and over-simplified review of the Canadian capital market indicates that in Canada the task of providing the channels through which the savings of the community are accumulated and through which credit is distributed is performed mainly by a competitive, private capital market. There are also, to be sure, some public credit agencies which play important specialized roles. These include the Industrial Development Bank, a subsidiary of the Bank of Canada, which specializes

in providing medium- and long-term credit to businesses, primarily small businesses, which are unable to obtain their requirements elsewhere under reasonable terms and conditions. There are a number of other federal and provincial organizations which channel funds into particular kinds of investment and are doing the work of major financial intermediaries. But the bulk of the financing of the Canadian economy is done through the private capital market.

I turn now to some comments on the way in which the Bank of Canada looks at its own job and the techniques that it employs. We are, of course, greatly influenced by the kind of financial system in which we operate. The Bank regards its chief function in the field of monetary policy as being to help bring about the kind of credit conditions that are appropriate to domestic economic conditions and to the maintenance of the country's external financial position. By credit conditions I mean the cost and availability of money throughout the economy. The central bank can, as a result of its operations in financial markets, exert a pervasive influence on the whole range of credit conditions. It can directly influence the rate of growth of the banking system, bank holdings of liquid assets, bank loans, and private holdings of deposit claims on banks. If the central bank encourages an expansion of private money holdings, this also facilitates the growth of the competing non-bank financial institutions. The expansion

of banks and other financial intermediaries and the attempt by the public to employ its money claims in interest-earning types of liquid asset exert downward pressure on interest rates and increase the availability of credit throughout the system. Similarly, if the policy of the central bank is directed to restraint, this tends to raise interest rates and affect the availability of credit throughout the financial system, even though the first impact of the policy is on the banking system. The consequent changes in credit conditions in turn have some influence on decisions of businessmen and consumers to spend money on goods and services and on decisions to borrow or invest outside the country. These decisions on spending and borrowing affect the course of the economy and the international balance of payments: they are the ultimate decisions that monetary policy seeks to influence.

In the day-to-day determination of monetary policy, the central bank is not primarily influenced by considerations relating to the size of the money supply. This does not mean of course that the Bank of Canada takes no interest in, or is not influenced by, what is happening to the money supply (which in Canada is usually defined as the combined total of currency outside banks and chartered bank deposits payable in Canadian dollars). However, it is a fact that we do not operate on the basis of a precise view about the appropriate trend, over some period, of total chartered bank deposits. We give priority in our thinking to the

kind of credit conditions that seem to be appropriate in the prevailing circumstances. In any case, in our system where there are many different kinds of financial claims that are close substitutes for one another, it can be misleading at times to look only at bank deposits, which, apart from currency in circulation, are the only type of claim included in the conventional definition of the money supply. Indeed, I believe it is the case that the usual measures of the money supply tend to overstate somewhat the underlying rate of expansion over the past year for a number of reasons. The greater emphasis by the chartered banks on seeking compensation for their services through requiring their customers to maintain compensating deposit balances against loan authorizations has introduced a new factor which has increased the level of both demand deposits and business loans. Such increases in the money supply are not "real" inasmuch as these deposits are not really available to the holder. In addition there has been a shift within the banking system from foreign currency swapped deposits, which are not included in the money supply as defined, to Canadian dollar deposits, which are; and there is also some evidence that other shifts have occurred since the Bank Act was revised in the distribution of the public's claims on banks and non-banking financial institutions which have also had the effect of increasing the apparent rate of expansion of the money supply.

I said a few minutes ago that the general approach of the Bank of Canada is in part a reflection of the institutional framework

within which it operates. The same is true of its methods of operation. The Bank takes the view that its responsibilities can best be discharged under arrangements which give private competition through the securities market and lending institutions the maximum scope to perform the important function of determining the terms and allocation of credit. In most circumstances the aim of public financial policy can be pursued effectively without the central bank intervening in the securities market on a broad front with precisely articulated objectives for bond prices and interest rates. This is not to say that in certain circumstances a direct approach may not be required because of the need to avoid disorderly market conditions or, in some circumstances, to influence spreads between yields in Canada and those outside Canada in certain areas of the market. Indeed there have been a number of occasions on which the Bank has found it necessary to intervene in the securities market on a relatively large scale to exercise a stabilizing influence when the psychology of the market was greatly disturbed, or when international capital flows were of a disturbing character.

However, our preference for intervening in financial markets as little as possible leads us to rely primarily on the cash reserve mechanism in implementing monetary policy. By varying the amount of cash reserves available to the chartered banks the central bank can exert a strong indirect influence on credit conditions while keeping the scale of its own operations in the market relatively small. This is particularly the case

if the banking system reacts reasonably quickly to changes in excess cash reserves by changing its holdings of interest-bearing liquid assets.

Until recently the minimum cash reserve requirement for chartered banks set by the Bank Act was a monthly average of 8 per cent of Canadian dollar deposits. The minimum requirement is now in the process of being changed in a series of steps from a monthly average of 8 per cent against total deposits to a combination of 4 per cent against savings and time deposits and 12 per cent against demand deposits. When this change is completed in February of 1968 the average cash reserve requirement, given the present composition of deposits, will be about $6\frac{1}{2}$ per cent. Amendments to the Bank Act give the Bank of Canada the power to reduce the averaging period from one month to half a month, and the Bank has given notice that the half-month averaging period will be put into effect beginning May 1st next year, that is, after the transition to the new method of calculating cash reserves has been completed. The banks as a group tend to work reasonably close to the minimum cash reserve requirement. For example, in the first half of 1967, when the minimum ratio was 8.00 per cent, the average ratio was 8.08 per cent and in three of the six months the monthly ratio was as low as 8.06 per cent. But with the averaging period as long as a month individual banks can allow their ratios to go well above or below the minimum during the month and still have time to get back close to the statutory figure by month-end. It is the view of the Bank of Canada - which I should perhaps add is not universally shared by the chartered banks -

that a shorter averaging period will reduce lags in the response of the banking system to changes in cash reserves.

Over any considerable period of time, the chief means by which the Bank of Canada brings about a change in the level of cash reserves of the banks, or offsets the effect of other changes such as in the amount of Bank of Canada notes in circulation, is through purchases or sales of Government securities, mainly in the open market. The great bulk of these transactions are in short-term securities although the Bank may at times deal in long-term securities.

The operation of the Government's deposit account at the Bank of Canada provides another mechanism through which the central bank makes day-to-day changes in the amount of cash reserves available to the commercial banking system. The Government of Canada maintains an account at the Bank of Canada through which pass virtually all Government receipts and payments. If this were the only bank balance which the Government maintained, it would fluctuate with the daily ebb and flow of Government receipts and payments, and this would produce similar fluctuations - often quite sharp fluctuations - in the cash reserves of the banks. To avoid this sort of disturbance the Government maintains the great bulk of its deposit balances with the chartered banks and permits the Bank of Canada, with the concurrence of the Minister of Finance, to transfer balances between the Bank of Canada and the chartered banks as a group. In addition to offsetting the effect of fluctuations in Government balances

on cash reserves this mechanism provides a technique for assisting in the day-to-day management of aggregate chartered bank cash reserves through deliberate variations, within a modest range, of the level of the Government's balances at the Bank of Canada.

It is also possible, as an alternative to open market purchases of Government securities, for the Bank of Canada to purchase securities directly from the Government (or from a Government account) and to transfer the proceeds to the Government's accounts at the chartered banks, thus bringing about an increase in cash reserves. This technique would be useful in circumstances where the Bank wished to increase cash reserves, or to offset other factors tending to decrease cash reserves, without this action having a direct impact on the securities market.

A variation of this technique has been used to a considerable extent on several occasions during the last year or two on which the Bank wished to provide increased cash reserves to the banking system but did not wish to encourage an upward movement in the price of government securities by appearing as a buyer in the market. Instead, the Bank purchased foreign exchange from the Government (which holds most of the country's gold and foreign exchange reserves in its Exchange Fund Account), making payment in Canadian dollars - which were then transferred to the Government's accounts with the chartered banks, thus increasing their cash reserves.

The Bank simultaneously entered into a forward contract with the Government permitting the exchange transaction to be reversed at any time. These transactions are undertaken at the initiative of the Bank to assist in its management of cash reserves; they cannot be looked upon as providing financing to the Government since Government must be prepared to see them reversed at any time. Their great advantage is that they give the Bank more flexibility in the timing of its purchase of Government securities. This flexibility can be very useful in dealing with changing market conditions and in co-ordinating the Bank's operations with the debt management operations of the Government. It has been possible, for example, for the Bank, in the interests of market management, to add to its holdings of Government securities at the time of refunding or new issues of Government securities without increasing its total assets, because it was able to substitute the additional securities acquired for foreign exchange which it had previously purchased (instead of Government securities) when the need to supply cash reserves arose.

The response of the chartered banks to changes in the amount of their cash reserves initially takes the form mainly of changes in their holdings of money market assets - day loans, treasury bills and short-term Government of Canada securities. Adjustments may also be made by the banks to a change in their cash position by varying their holdings of longer-term Government securities, or their net spot foreign currency position. They may also change the interest rates that they are prepared

to offer on large term deposits. If the banks experience a significant change, upwards or downwards, in their more liquid assets they will of course eventually make adjustments in their lending policies. The over-all liquid position of the banks is therefore an important factor which, along with levels of interest rates and the availability of credit in other parts of the financial system, must always be taken into account by the Bank of Canada in assessing the state of credit conditions.

Before I complete this brief review of the different techniques which the central bank uses to vary the cash reserves available to the banking system, there are two others to which I should refer - the extension of credit to money market dealers and advances to banks.

I have already mentioned that if money market dealers whose day-to-day loans have been called are unable to find alternative financing from other banks or elsewhere, they may sell securities to the Bank of Canada under an agreement to repurchase them within a maximum period of thirty days. To the extent that dealers avail themselves of this privilege and central bank credit is brought into play, there is of course a corresponding increase in cash reserves. In practice this credit is usually outstanding for only a day or two. The prices at which these transactions take place involve a cost to the dealer equal to Bank Rate, or one quarter of one per cent above the average 91-day treasury bill rate at the most recent tender, whichever is the lower, and apart from temporary periods of stringency

short-term accommodation to dealers is normally available on more advantageous terms elsewhere.

The chartered banks also may obtain additional reserves for short periods by borrowing directly from the Bank of Canada. The arrangements under which such advances may be obtained are designed to limit the Bank's role as lender of last resort to exceptional circumstances, and to encourage the chartered banks to make use of the market, e. g. by calling day loans or selling securities. Central bank advances are made for a minimum period of seven days against the hypothecation of suitable securities. Each bank has a specified line of credit with the Bank of Canada, and the first advance made to a bank in any calendar month bears interest at the Bank Rate, the minimum rate at which the central bank makes advances. A second advance to the same bank in any calendar month, or a renewal of an advance, or an advance in excess of the specified amount, bears interest at a rate higher than the Bank Rate. I have indicated to the banks that when we go over to the twice monthly averaging system there will be some relaxation in the terms of their access to central bank credit.

The foregoing arrangements determine the role the Bank Rate plays in our system. Money market dealers will normally come to the Bank of Canada if they would have to pay more for day loans than the cost of central bank accommodation. This means that Bank Rate has an important influence on short-term market rates and that Bank Rate policy

must be co-ordinated with the cash reserve and open market operations of the Bank. The Bank Rate is, however, not an important operative rate in our system; normally, large amounts of central bank credit are not outstanding for any significant period, and other borrowing and lending rates are not directly or automatically linked to the Bank Rate by custom or otherwise.

In concluding this section on the techniques of monetary policy, I want to say a word about two techniques that might be regarded as a bit less "classical" than those I have been talking about up to now. I refer to secondary reserve requirements and moral suasion.

Recent amendments to the Bank of Canada Act give the Bank the power, subject to certain conditions, to impose a secondary reserve requirement on the chartered banks. In addition to the legal minimum cash reserves imposed in the statute itself, the banks can be required by the Bank of Canada to maintain a minimum secondary reserve in the form of treasury bills and loans to money market dealers, and this minimum reserve can be varied by the Bank of Canada within certain limits. It cannot be set at more than 6 per cent of total deposits in the first instance and cannot be raised to more than 12 per cent. The rationale of this provision is that circumstances might arise where it would be more appropriate, at least temporarily, to reduce the effective liquid position of the banking system by impounding liquidity than it would be to put the banks in a cash position

where they would have to reduce their holdings of securities on a large scale. Or, at the other end of the spectrum, it might be more appropriate to ease credit conditions by releasing liquidity through reductions in the minimum secondary reserve than it would be to provide additional central bank cash which enabled the banks to add to their liquid assets. The circumstances in which it might be useful to impound a larger amount of chartered bank liquidity (rather than carry out a cash policy which forced the banks to dispose of liquid assets) would probably be circumstances in which it seemed desirable to minimize the impact of a tighter credit policy on the level of interest rates, for example, because of the problem of capital inflows from other countries. In other words such a policy would be directed at influencing the availability of credit more than its cost. It has to be acknowledged that this is basically a technique which seeks to take advantage of market imperfections: clearly if all the potential borrowers who were denied credit by the banking system as a result of this measure were willing and able to obtain it elsewhere on similar terms and conditions, nothing would be gained in terms of credit restraint. However, there may be occasions when it is sensible to take advantage of these market imperfections. I should add that the banks have maintained a secondary reserve of 7 per cent since 1956 in accordance with an agreement with the Bank of Canada and this agreement has been extended through the transitional period to February 1968.

At the same time that the Bank of Canada acquired the power to impose and vary a secondary reserve requirement it relinquished the power to vary the minimum cash reserve requirement of the banks between 8 per cent and 12 per cent. This power, which had been in the Bank of Canada Act since 1954, had never been used. A disadvantage of a variable cash reserve system is that since cash is a non-earning asset changes in the minimum cash ratio would have incidental and quite serious effects on bank earnings.

The Bank of Canada has no power to issue directives to the chartered banks regarding their lending policies or other policies. It is the case, however, that the Bank of Canada has on occasion, and for relatively short periods, asked for and obtained the co-operation of the chartered banks in achieving special objectives, a procedure that has come to be called "moral suasion". There may be some inclination for people to look at the Canadian banking system, which has only 8 head offices with almost 6, 000 branches in Canada and conclude that it must not be too difficult for the central bank to call eight representatives of the banks together and indicate to them what it would like to have done. I hasten to stress that monetary policy does not operate this way in Canada. There are important disadvantages to moral suasion as a standard technique of policy: reduction in competition, loss of flexibility in the financial system, and the inequity which arises when competing institutions are not subject to moral suasion. These difficulties increase rapidly with the length of the period over which

the arrangements are in effect. In ordinary circumstances the Bank of Canada is reluctant to ask financial organizations to act in a manner contrary to that indicated by the market forces which confront them; and it prefers whenever possible to discharge its responsibilities through its use of the normal cash reserve management techniques. However, there may be occasions when ordinary procedures are not adequate, or do not operate quickly enough, and at such times the Bank has been prepared to make exceptional requests for co-operation. In practice, however, it has been possible for the central bank to rely almost exclusively on the impersonal functioning of the cash reserve mechanism and operations in the market in implementing its monetary policy. It has been possible to have very tight credit conditions on some occasions as well as relatively easy credit conditions on others without depending on moral suasion.

Quite apart from questions of "moral suasion", however, I believe that a high degree of co-operation is necessary between central banks and commercial banks if monetary policy is to operate with desirable efficiency and smoothness. The co-operation of banks in the provision of up-to-date information is particularly important since they form a key sector of the financial system through which monetary policy must operate and information is the absolutely vital ingredient in the making of good monetary policy. Although our banks may feel that there is no end to new central bank ideas for more information, it is the case that they do co-operate

by providing a great deal of useful statistical data. The weekly banking statistics published in Canada provide an excellent example of this co-operation. Every Thursday afternoon we release a bulletin which includes the major assets and liabilities of the banks for the Wednesday of the previous week only eight days earlier - and data on cash reserves, day loans, holdings of Government securities and certain other items as at the close of business on the day before the release. In our system virtually all of the work involved must be done by the banks since all that is left for the central bank to do is to add the figures for eight banks together. I should add that this reporting began well before the computer age.

Non-statistical information is also important and for this reason there are many informal contacts and communications at a number of levels between representatives of the Bank of Canada and individual chartered banks. In addition, I follow the practice of meeting with the Chief Executive Officers of the banks three times a year, and with Chief General Managers four times a year. Our economists also meet with those of the banks regularly and meetings of other specialists also take place from time to time.

In bringing this lecture to a close, I want to refer briefly to some of the important limitations to which monetary policy in Canada is subject. I have already indicated that the connections between the capital markets of Canada and the United States are so close that substantial

changes in credit conditions in Canada, relative to those in the United States, may give rise to large inflows or outflows of capital. This is a factor that the monetary authorities must always take into account if international equilibrium is to be maintained, and it could of course be a particular limitation in view of the arrangements with the United States by which we have undertaken to work to certain reserve targets in exchange for exemption from the Interest Equalization Tax for new issues of Canadian securities in the capital markets of the United States.

Another limitation on monetary policy is the uneven impact of tight credit conditions on different groups and sectors of the economy. For example, housing tends to be harder hit by tight credit conditions than most other industries. Small businesses do not have the alternative sources of credit that are available to large businesses and not all large corporations have the access to foreign sources of credit that are available to some. The regional problem is a very real one. It is not possible to have credit conditions tight in the economy as a whole without having them relatively tight in each region, including those where economic activity may be increasing more slowly than the national average. In a country like Canada which stretches across four thousand miles and is made up of various economic regions with different economic characteristics and different economic problems there are bound to be times when the appropriate national monetary policy is not entirely suited to each region. The fact that monetary

policy is subject to these limitations, some of which I am sure apply to your countries as well, means that if our economic goals are to be achieved a good deal of reliance must be placed on the other economic policies, including policies which are pinpointed to particular situations, that can be combined with monetary policy.

I feel very conscious of the fact that there are many matters connected with the role of the central bank in the Canadian financial system that I have not touched on at all in this lecture. These include the role of the Bank in debt management and in foreign exchange markets where it acts on behalf of the Government, the problem of relations between the central bank and the Government, the role of the Directors and the internal management of the Bank, the activities of the Bank in encouraging the development of financial markets and in economic research, and the role of the Industrial Development Bank. I have omitted these subjects because I do not want your main impression of the Bank of Canada to be that it has a Governor who gives unusually long lectures. What I have tried to do is describe some of the main features of central banking in Canada, especially those closely related to commercial banking. I have stressed that in Canada the central bank has the responsibility to help bring about credit conditions that are appropriate to our economic circumstances but that the allocation of credit is left mainly to the competitive workings of the private sector of the financial system - the chartered banks, other financial intermediaries,

and the remainder of the capital market. I have referred to some of the limitations of monetary policy. And I have indicated and I expect this is true in all of our countries, that there is always a great deal to be gained by close consultation and co-operation between central bankers and commercial bankers.