CANADIAN POSTWAR MONETARY POLICY

A SURVEY OF
CANADIAN POSTWAR MONETARY POLICY
1946 - 1951

By

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A Thesis

Submitted to the Faculty of Arts and Science

in Partial Fulfilment of the Requirements

for the Degree

Master of Arts

McMaster University

May 1954

MASTER OF ARTS (1954)
(Political Economy)

McMASTER UNIVERSITY
Hamilton, Ontario.

TITLE: A Survey of Canadian Postwar Monetary Policy 1946-1951

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SUPERVISOR: Professor R. Craig McIvor

NUMBER OF PAGES: vii, 114

SCOPE AND CONTENTS: A survey and assessment of Canadian monetary conditions and policies during the period from the end of World War II to the end of 1951, with particular reference to the two periods of rapid inflation (July 1946 to December 1948 and July 1950 to December 1951).

PREFACE

The manuscript for this dissertation was prepared prior to the announcement, a few weeks ago, that the Government of Canada was seeking amendments to the Bank of Canada Act which would give that institution control over the minimum reserve ratio of the chartered banks, within certain limits. It is gratifying, therefore, to find that official thinking has recognized some of the limitations which we have pointed out here, and is attempting to secure more positive control over monetary conditions. It is also gratifying to find that during recent months one of the larger chartered banks, as a matter of deliberate policy, has begun to use the facilities of the central bank for making advances in an attempt to assist in the development of the Canadian money market.

I am deeply indebted to Dr. R. C. McIvor for his patient assistance and searching criticisms during the preparation of this thesis.

J. H. Panabaker

Preston, Ontario,
March 15, 1954.

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It will surely never again be possible to deny that the price of money and the supply of credit together constitute the most powerful and pervasive weapon of economic control that any government can use. To try to run a planned economy without them is like trying to drive a car without a variable throttle - it can be done, but why should anyone want to try?

- The Economist, Oct. 11, 1952, pp.69-70.

CHAPTER I

INTRODUCTION - THE UNDERLYING FACTORS

It is the intention of this dissertation to provide a survey and assessment of the monetary policy of the Canadian government in the post-war period from the beginning of 1946 to the end of 1951 in the light of the recurring inflationary pressures to which the economy was subjected. Federal fiscal policy will be considered only in relation to the economic effects of the existing budgetary (or cash) surpluses or deficits.

When the definitive study of Canadian economic history of this period is written, it will probably begin with a consideration of two events which occurred in the latter half of the nineteen-thirties: the establishment of the Bank of Canada (1935), and the publication, by J.M. Keynes, of The General Theory of Employment Interest and Money.

Both these events have an underlying significance for the postwar period which would be difficult to overemphasize. The first provided the Canadian government with comprehensive machinery for managing the monetary system, giving that system, after many years of ineffective drifting, "head and direction".[1] Keynes's book, to an extent unprecedented in economics, shaped the intellectual environment in which the framing of postwar policies took place. When read today, Keynes's warning to his critics in the

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[1] To use the happy phrase of Dr. C.A. Curtis. See "Evolution of Canadian Banking", The Annals of the American Academy of Political and Social Science, Sept. 1947, p. 124.

last paragraphs of his book, not to underestimate the potency of his ideas over a period of time, seems strangely clairvoyant.[1]

Any critic should be charitable as well as just and in the appraisal of postwar monetary policy there are few economists who would not benefit by reading the injunction of John 8:7 - "...He that is without sin among you, let him first cast a stone...." Thus the subsequent criticism of specific aspects of Canadian policy does not necessarily constitute an over-all condemnation of that policy. Although the damage done by inflation is to be deplored, it must be admitted that Canada's internal inflation has been relatively moderate, when considered against the substantial limitations placed on our monetary policy by our "open" economy, by inflationary pressures abroad, and by the uncertainties and dislocations which were legacies from the war.

In the evaluation of past events, even the least perceptive critic possesses two very real advantages: published statistical data and the revelation of hindsight. Hindsight, rightly used, can be a valuable guide, but the student must be careful to distinguish two questions: (a) What alternatives were available to policy-makers at the time, in the light of relevant contemporary circumstances? (b) What were the merits or demerits of the policies actually adopted, in the light of subsequent events (i.e. given the same problem again, would different policies be adopted)? Any analysis, to be useful, must also guard against oversimplification and unrealistic abstraction. It is impossible, for example, to evaluate Canadian postwar monetary experience fairly unless the analysis moves beyond the considera-

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[1] J.M.Keynes, The General Theory of Employment Interest and Money, (London: The MacMillan Company), 1936, p.383.

tion of primarily domestic influences to an adequate recognition of the economic difficulties posed by violent shifts in our balance of payments.

In the light of these warnings. and the two events of the 'thirties which we have mentioned, we may profitably begin by considering the techniques of monetary control available to the Canadian authorities and their general attitude toward the implementation of these techniques.

Among central banks, the Bank of Canada seems somewhat malformed. Of the four "traditional" instruments of central banking policy (manipulation of minimum reserve ratios, the rediscount rate, open-market operations, and what has been euphemistically called "moral suasion"), the Bank possesses only the latter three, one of which (the rediscount rate) has been ineffective except as a method of applying psychological pressure to the chartered banks and the bond market. When the Bank of Canada opened its doors in 1935, the regulation of currency and credit "in the best interests of the economic life of the nation" involved the establishing of an appropriate anti-depression monetary policy, i.e., the securing of "easy money" conditions. For this purpose, open-market operations are an admirable tool. In the radically different inflationary environment of the postwar economy, where, because of the Bank of Canada's importance in the total bond market, its purchases and sales of securities exert undesirably large "price" repercussions, open-market operations have been unfortunately circumscribed.[1]

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[1] See G.S.Dorrance, "The Bank of Canada", in R.S.Sayers, ed., Banking in the British Commonwealth, (Oxford: The Clarendon Press), 1952, p.122, "It is not satisfactory if every significant group of transactions by the central bank leads to a considerable alteration in the prices of the relevant securities. Therefore, if the central bank is to engage successfully in 'open market operations' there must be a well-developed capital market in which the activities of the central bank play only a minor role."

If the institution itself had a structural bias toward inflation as a result of the circumstances of its founding, one also senses a kind of grim inevitability about the postwar inflation which was rooted in the general fear of a recurrence of the economic depression of the 1930's. The policy-makers looked forward to the postwar period with vivid and bitter memories of the dry rot of depression, that is, the same environment for which Keynes had written and prescribed. As the Deputy-Minister of Finance pointed out, the situation at the end of the war looked anything but bright.[1] The war had been fought at a tremendous cost in blood and treasure, and had left Canada with serious problems of reconversion and a vastly increased national debt. Foreign trade, on which Canada remained vitally dependent, was completely disorganized and the economies of important customers were shattered.

In this situation, and fearful of the social and political upheaval which any return to prewar conditions would entail, the government committed itself to the objective of a high and stable level of employment and income. There was little dogmatic insistence on laissez-faire in Canadian official thinking, and while the actual extent to which the government would have been prepared to interfere in the economy can never be known in detail, its preparations throughout the war period were vigorous and included new social services such as unemployment insurance and family allowances, veterans' benefits, more liberal housing legislation, agricultural price supports, etc. In the monetary area, it established the Industrial Development Bank to fill a gap in the capital market, and, in its

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[1] See W.C.Clark, "Canada's Postwar Finance", American Economic Review, XLIII, no. 2, May 1953, pp.1-18.

"White Paper", the government proposed the Keynesian fiscal technique of cyclical budgeting and the maintenance of low interest rates to encourage capital investment.[1]

The elements of instability in the economy were great, and the policy-maker could not but be painfully aware of the importance to the economy of the vast flow of government spending which, in 1943 and 1944, made up 38% and 42% respectively of the gross national expenditure. In this situation, the chances of deferred demand leading to anything more than a temporary inflationary boom must have seemed very small; consequently, we find evidence of a strong belief in government circles that any postwar inflation, if such occurred, would follow the general pattern of 1918-1921, i.e. a sharp upward flurry, quickly terminating in crisis and unemployment, and that the decline in government military expenditure would eventually end the inflationary conditions.[2]

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[1] See the White Paper on "Employment and Income", (Ottawa: King's Printer), 1945:

"The Government desires and expects that low interest rates will continue after the war. It proposes to pursue a monetary policy which will encourage, through low interest rates, the investment of funds in productive capital contributing to employment." (p.11.)

"The Government will be prepared in periods when unemployment threatens to incur the deficits and increases in the national debt resulting from its employment and income policy.... In periods of buoyant employment and income, budget plans will call for surpluses." (p.21.)

[2] See Economic Controls, (Reference Book for the Dominion-Provincial Conference on Reconstruction), 1945, p.8. "It is...clear that the curtailment of war contracts could be relied upon eventually to break an inflationary boom. The difficulty is that it probably would not prevent an initial inflation of prices. Such an inflation, however short-lived, would be followed by an abrupt deflation which would gravely delay reconversion and produce wide-spread unemployment."

The basic, and quite understandable, miscalculation in our postwar monetary (and fiscal) policy was the long-delayed recognition of inflation as the fundamental economic problem to be faced. The fact that a recession did not occur is widely taken as proof that the government completely misjudged the situation, although it might at least be argued that because of the various measures introduced to forestall recession, the government influenced in some degree the course of events.

Having set these goals, the government had to devise methods of attaining them, and in a society which values and seeks to maintain private economic enterprise, the attempt to assure a high and stable level of employment and income will tax the ability of any administration. First, the government must take into account the psychological effect of its actions upon the private sectors. Second, it is denied the easy (and dangerous) expedient of direct interference with the operation of the economy in setting prices, wages, and levels of production.

Both the entrepreneur and the consumer are inclined to behave perversely in the eyes of those attempting to maintain an even flow of spending. The phenomenon of self-justifying anticipations is too apparent in postwar experience to be treated lightly. Thus wide-spread fear of inflation, leading to a violent shift in the propensity to save, to forward buying, inventory accumulation and willingness to assume debt will almost certainly assure a rise in the price level during a period of relatively full employment. Similarly, a general apprehension of recession, by encouraging cautious buying on the part of consumers, postponement of investment plans, liquidation of stocks and monetary contraction may react severely on the flow of spending and employment. To compound the difficulty,

it seems entirely possible that vigorous government action of a counter-cyclical nature, by confirming the public's fears, might lead to further private retrenchment. This is particularly likely during the initial stages of the first postwar recession of serious proportions, when the effectiveness of the counter-cyclical machinery is still untested.

Moreover, monetary and fiscal measures are in essence rather blunt instruments. They have the notable virtue of affecting the economic environment of all activity, but with the exception of selective excise taxes (the effects of which are still questionable), they are of little use in specific situations. Their role is not easily understood by the public; editorial and parliamentary misconceptions as to the connection between the price of government bonds and inflation, and the inflationary consequences of rapidly expanding bank credit, never having been cleared away, stand as evidence of this.

To all these difficulties in the way of a successful full employment (but non-inflationary) policy in an enterprise economy must be added one or two which are peculiar to the Canadian situation. These lie mainly in the instability which arises from our dependence for a significant proportion of our national income on exports of a few important commodities. Loss of these markets, as a result of depression abroad, tariff barriers, or other trade difficulties, or from a significant adverse change in the terms of trade (such as may occur when exports are raw materials or semi-manufactured goods and imports are manufactured products), can reduce very greatly the sensitivity of the economy to monetary and fiscal techniques, leaving large pools of unemployment not readily amenable

to redirection to the satisfaction of domestic wants. This immobility can be seen in both labour and capital, but most particularly in the utilization of the real plant and equipment involved.

Fortunately, throughout this period, these problems were not serious; the demand for Canadian goods from abroad was heavy; investment kept pace, and instead of depression, the government was faced with an embarrassingly persistent tendency toward inflation. Although the Canadian cost-of-living index rose roughly from 119 to 184 (1935-1939 equals 100) between the beginning of 1946 and the end of 1952, it would be a serious error to suppose that this seven-year period was one of continuous and relatively constant inflationary pressures. On the contrary, there were four clearly distinguishable periods, including two of relatively rapid price rises (July 1946 to December 1948, and July 1950 to December 1951), and two of relative price stability (January 1949 to June 1950, and the year 1952). It is with the two inflationary periods that this analysis will be primarily concerned.

During World War II, the Canadian government financed slightly less than one-half of its total cash requirements from tax revenues, and the remainder by borrowing.[1] An inevitable consequence of this fiscal policy was that by 1946 the economy had achieved an unusual state of "liquidity" providing an ominous inflationary potential for the postwar period. It was against this internal situation that the two periods of most severe inflationary pressure were sparked by external developments which marked

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[1] See R. Craig McIvor, "Canadian Wartime Fiscal Policy, 1939-1945", Canadian Journal of Economics and Political Science, XIV, no. 1, Feb. 1948, pp.62-93.

TABLE I

SUMMARY OF GENERAL PUBLIC HOLDINGS OF LIQUID ASSETS, BY PERIODS, 1946-1952 (*)

(Millions of Dollars)

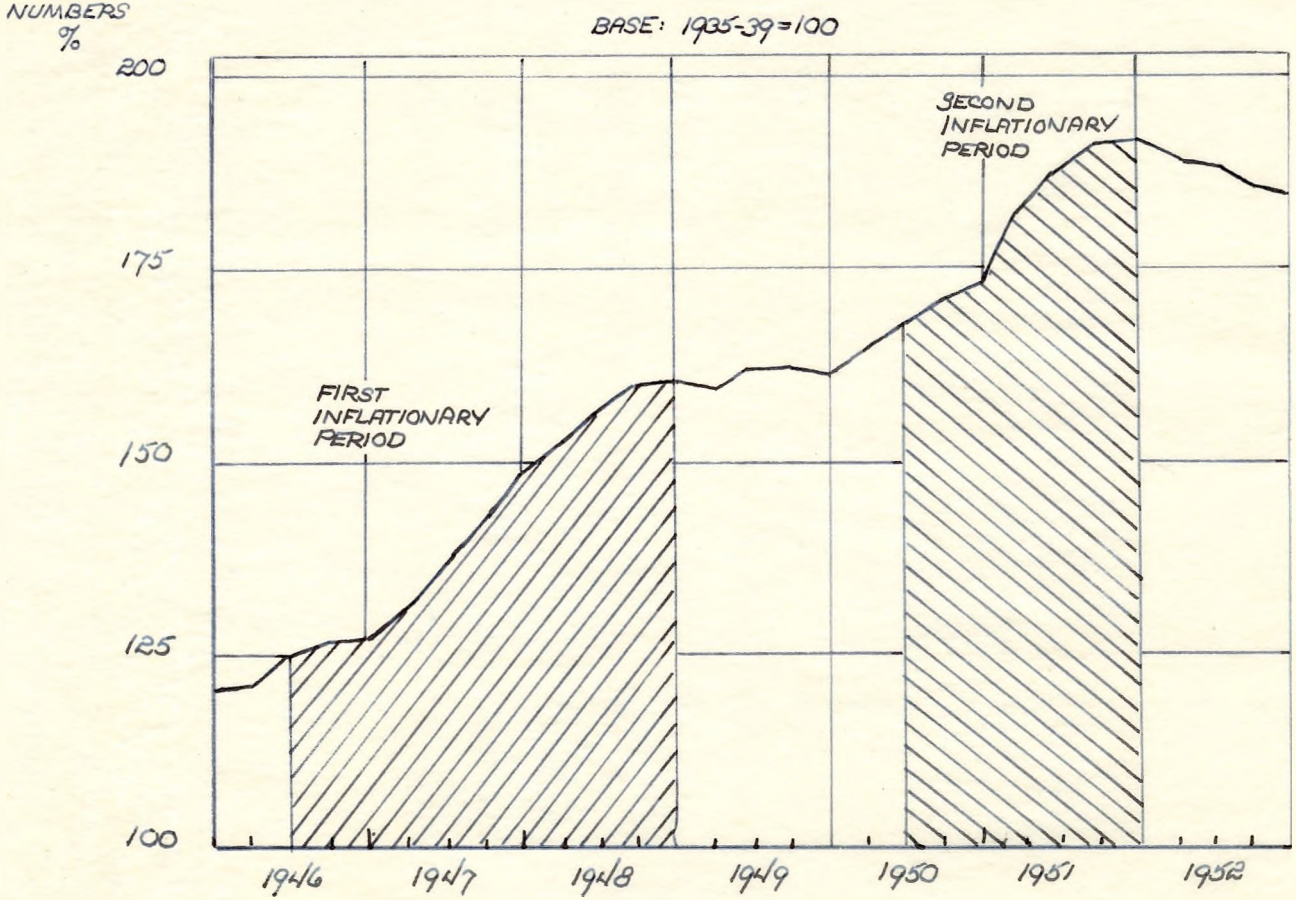
Item	The First Inflation (30 mos.) 30/6/46	31/12/48	Net Change	The Second Inflation (18 mos.) 30/6/50	31/12/51	Net Change
Currency	1,075	1,185	110	1,196	1,275	78
Active Bank Deposits	2,777	3,150	373	3,329	3,568	239
Active Money Supply	3,852	4,335	483	4,525	4,843	318
Inactive Notice Deposits	2,811	3,408	597	3,839	3,894	55
Government Securities						
Non-Marketable	765	1,410	645	1,077	1,194	117
Marketable	10,484	8,839	1,645 -	8,789	8,194	595 -
	11,249	10,249	1,000 -	9,866	9,388	478 -
"Inactive" Assets	14,060	13,657	403 -	13,705	13,282	423 -
Total Liquid Assets	17,912	17,992	80	18,230	18,125	105 -

	The First Stable Period (18 mos.) 31/12/48	30/6/50	Net Change	The Second Stable Period (12 mos.) 31/12/51	31/12/52	Net Change
Currency	1,185	1,196	11	1,275	1,377	102
Active Bank Deposits	3,150	3,329	179	3,568	3,796	228
Active Money Supply	4,335	4,525	190	4,843	5,173	330
Inactive Notice Deposits	3,408	3,839	431	3,894	4,129	235
Government Securities						
Non-Marketable	1,410	1,077	333 -	1,194	1,250	56
Marketable	8,839	8,789	50 -	8,194	7,812	382 -
	10,249	9,866	383 -	9,388	9,062	326 -
"Inactive" Assets	13,657	13,705	48	13,282	13,191	91 -
Total Liquid Assets	17,992	18,230	238	18,125	18,365	240

(*) Source: Data from Appendix A.

CHART NO. 1.

COST OF LIVING IN CANADA, BY QUARTERS, 1946-52 *



*SOURCE: BANK OF CANADA, STATISTICAL SUMMARY, VARIOUS ISSUES.

drastic changes in the world economic situation and made a reconsideration of domestic economic policy, including monetary policy, imperative.[1] In the early postwar inflation, the immediate stimulus was the abrupt abandonment of wartime price controls by the United States in mid-1946. In the later period, the precipitating factor was the outbreak of the Korean War in mid-1950. Moreover, the evolution of Canada's postwar monetary policy was conditioned by a succession of external disturbances, in the light of which contemporary policy decisions were necessarily made. Thus, for example, the postwar plans of the government indicated a belief that the Japanese war would continue for some considerable time after the fighting in Europe. The atomic bomb upset this assumption, so that there was no "twilight" war period during which the removal of wartime controls could be accomplished on an orderly and gradual basis with the patriotic co-operation of the public. Again, the severe balance of payments crisis which emerged in 1947, resulting in part from substantially worse dislocations in Europe than had been supposed, provided problems of urgent priority. In the post-Korean period, the 1950 speculation in the Canadian dollar complicated the problem of dealing quickly with the inflationary upsurge associated with the outbreak of that conflict.

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[1] With some justification, it may be argued that such division of economic events is too arbitrary to be fair. There is, for example, considerable evidence of inflationary pressure during the second quarters of 1946 and 1950, prior to the periods which we have designated as "inflationary". There are, however, two factors which may be noted in defence of the procedure adopted. The more important is that this choice enables us to relate both inflationary periods to "pivot" dates in events outside the Canadian economy. The other is the relative ease of analysis provided by this framework, since, fortunately for the student, both inflationary periods commenced very nearly at the half-year, and ended with stabilization of consumer prices at, or near, a year-end, which event marks (to the fortunately unsophisticated layman) the end of inflation.

Similarly, in the adaptation (or lack thereof) of Canadian monetary policy to changing postwar circumstances, three phases may be discerned. The first phase, characterized by a generally "expansionist" policy. extended from February 1944 to February 1948, i.e., from the lowering of the Bank of Canada's rediscount rate to 1½% until the undertaking of mildly restrictive measures, as indicated by the first appreciable break in bond prices. The second, or "neutral" phase continued from February 1948 until October 1950, at which time the Bank rate was raised to 2%, and the third phase, that of monetary restriction, began.

Chapter II

ANALYTICAL METHOD - USE OF THE BASIC DATA

It is always well, in a study of this kind, to set out in a more or less detailed way the meaning of the terms which we shall use, since no standard set of definitions exists to which reference can be made. By "the Monetary Authorities" we shall mean the policy-making levels in the Department of Finance and the Bank of Canada which direct fiscal and monetary operations and implement these phases of the economic policies of the government. For the purposes of this paper, the activities of the government will therefore be considered on a "consolidated" basis, on the assumption that the central bank has no "independent" existence,[1] but acts to further the overall policies. This statement does not imply that the Bank of Canada acts "under orders", but that in Canada there is only one monetary policy established by the Department of Finance in consultation with the Bank.

"Currency" is hand-to-hand money, i.e., notes of the Bank of Canada in the hands of the public, and subsidiary coinage. The term "Active Money Supply" includes (following the Bank of Canada's definitions)[2], both currency and active bank deposits. Beyond these categories lies a shadow-

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[1] There can be, therefore, no "conflict" such as that between the Federal Reserve and the Treasury, which contributed to the impotence of American monetary policy in the postwar years.

[2] See Bank of Canada Research Memorandum, "General Public Holdings of Certain Liquid Assets", March 1953. This paper will be referred to hereafter as "Liquid Assets".

land of the liquid assets other than money. These we shall refer to as "Inactive Liquid Assets", and they are of two types: (a) inactive notice deposits (estimated by the Bank of Canada on the basis of the interest paid on minimum quarterly balances), and (b) direct and guaranteed debt of the Government of Canada.

At the outset, the peculiar position which the federal debt occupies in the monetary system must be made clear. In a sense, all claims such as bonds and notes are deferred purchasing power to the creditor holding them, and within certain limits private debt can be monetized by the commercial banking system. Indeed, theoretically, under crisis conditions, through the rediscounting mechanism, a very substantial amount of short-term private debt could be monetized by the central bank. However, given an inconvertible paper standard, a comprehensive central banking system, and the sole monetary power in the hands of the federal government, the national debt becomes deferred purchasing power in a particular way. It is the one type of asset held by the general public for which, in practice, the central bank is committed to maintain an active market and for which that bank becomes a buyer of the last resort. Theoretically, such debt can be entirely monetized by the action of the monetary authorities.

From the Bank of Canada's published statistics, there can be derived summary tables which lend themselves readily to analysis, as in the example on the following page. The first important observation to be drawn from this hypothetical table is that the public has no <u>direct</u> control over the total amount of liquid assets which it holds, for this total is dependent upon (1) the government debt outstanding, (as defined in the footnote accompanying the table), and (2) chartered bank loans and invest-

TABLE II

A HYPOTHETICAL TABLE OF THE CANADIAN MONETARY AND DEBT STRUCTURE (a)
(Millions of Dollars)

Gross Government Debt		$ 17,000
LESS: Debt Held by Government Accounts		1,000
Government Deposits at Bank of Canada		100
Government Deposits at Chartered Banks		100
Government Debt Outstanding		$15,800
Bank of Canada	(Government Debt Held	$ 2,000
	(LESS: Government Deposits	100
	(Net Debt Held	1,900
	(Foreign Exchange	100
	(	
	(Notes in Circulation	1,300
Chartered Banks	((Chartered Bank Cash	700
	(	
	(Government Debt Held	3,000
	(LESS: Government Deposits	100
	(Net Debt Held	2,900
	(Loans and Other Investments	3,300
Liquid Assets of the General Public (incl. non-residents)		
	Currency	$ 1,300
	Active Bank Deposits	3,100
	Active Money Supply	4,400
	Inactive Notice Deposits	3,800
	Government Debt Held	11,000
	Inactive Liquid Assets	14,800
	Total Liquid Assets	19,200

(a) This table has been somewhat simplified to permit a neat balance. Actual data for this period are given in detail in Appendix A, and the main movements of Residents' liquid assets are summarized in Table III, pp.16-17. Sundry items which appear in the actual data, such as Bank of Canada "Other Deposits" and the miscellaneous items in the balance sheets of the chartered banks have been omitted above. The "General Public" is a convenient residual, including all persons and institutions (both domestic and foreign) except (a) the federal government and its subsidiary agencies, (b) the central bank, and (c) the chartered banks. In the above table, the term "Gross Government Debt" corresponds to the term "Government Debt Outstanding" in the Bank of Canada's "Liquid Assets" memorandum. It includes matured and unmatured debt outstanding (both direct and guaranteed) and an adjustment for the exchange differential on external bonds. We have reserved the term "Government Debt Outstanding" for the gross debt less the offsetting items: government deposits and holdings of securities in government accounts.

TABLE III

ANALYSIS OF CHANGES IN RESIDENTS' ESTIMATED ACTIVE MONEY SUPPLY *

(Millions of Dollars)

Year	Change in Residents' Active Money Supply	.....RELATED FACTORS..... Shift from or to (-) Inactives	Shift from or to (-) Non-Residents	Change in Total Liquid Assets
1946	382	372-	58-	812
1947	24-	81	72	177-
1948	391	337	88-	142
1949	53	85	115-	83
1950 1st HALF	15	70-	73-	158
3rd QTR.	264	2-	320-	586
4th QTR.	16-	52-	77	41-
1951 1st QTR.	157-	39	9-	187-
2nd "	78	259	3	184-
3rd "	95	133	150	188-
4th "	162	10	246	94-
1952 1st QTR.	40-	44	42	126-
2nd "	67	38	51	20-
3rd "	126	33-	61	98
4th "	216	188-	117	288

* Source: Bank of Canada, Statistical Summary, Various issues.

TABLE III (Ctd.)

Factors Affecting Total Liquid Assets		Factors Affecting Inactive Assets	
Change in Bank Loans & Invests.	Govt. Cash Surplus (-) or Deficit	Change in Debt Holdings	Change in Inactive Deps.
458	374	82-	454
835	1,010-	374-	293
261	119-	619-	282
142	59-	429-	344
175	20-	5-	75
356	253	42-	44
207	248-	85	35-
79	266-	82-	43
59-	125-	208-	51-
61-	127-	165-	30
22	116-	27-	17
62-	63-	126-	82
102	125-	86-	50
66	52	77-	110
252	86	166	22

ments (other than government bonds), and (3) central bank holdings of foreign exchange.

Changes in the amount of government debt outstanding are brought about only by changes in the government's overall cash surplus or deficit position, after taking account of foreign exchange financing and changes in guaranteed debt and government accounts.[1] As we shall bring out more clearly later, a government surplus in an inflationary situation has a virtue in itself, not connected with the repayment of debt. Unfortunately, much of its dynamic effect is obscured by the method of comparative statics which our data require us to use. In comparative statements at particular moments of time, a government surplus appears only as a "leakage" of cash balances from the general public to the government; a deficit would be indicated by a leakage in the other direction. These leakages change the amount of "government debt outstanding", which

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[1] In practice, we have to recognize certain limitations in the data. The cash surplus is shown after financing the normal requirements of the exchange fund. Data on these operations are not available directly, but the effect of exchange financing can be estimated from changes in the official reserves.

Moreover, allowance must be made for changes in the exchange adjustment factor (which will affect total liquid assets and the cash surplus or deficit), as well as for changes in non-resident holdings. Where data are available, the analysis will consider changes in non-resident holdings since the motives which govern trading by non-residents are generally quite different from those which affect the assets internally held.

Although the guaranteed debt appears in our data, we are informed by the Bank of Canada that the government cash balances shown do not include those of specialized agencies such as the C.N.R. Consequently, an increase in the guaranteed debt outstanding will appear as a purchase of debt by the public, but there will be no offsetting increase in government deposits and the size of the surplus will be distorted accordingly.

These factors will be commented upon when necessary in the analysis.

figure is not affected by the act of repaying debt out of cash on hand. In that operation, the decline in gross debt is offset by the fall in government cash balances.

Foreign exchange financing also has an important effect on the movement of the items in the table. Purchase of exchange by the central bank leads to a direct creation of new central bank credit, i.e., new chartered bank reserves. In practice, however, the bulk of such financing is handled by the Exchange Fund (formerly by the Exchange Control Board) to which Fund cash is advanced by the government. Thus the cash surplus or deficit position of the government is influenced by the normal requirements of the exchange account. A substantial budgetary surplus may be absorbed in providing Canadian dollars to enable the Fund to purchase foreign currency offered and so to prevent the Canadian dollar from appreciating. Conversely, a budgetary deficit could be changed to a cash surplus, or at least be substantially reduced by the release of Canadian dollars from the Fund. A loss of exchange reserves combined with budgetary surpluses (as in 1947) can produce huge cash surpluses.

Variations in the other factor related to the total general public holdings of liquid assets, i.e., chartered bank loans and investments, can be considered under three headings: (1) demand for bank credit, (2) the willingness of the banks to extend credit (subject to the customary reserve limitations), and (3) the liquidity of the banks. Two of these elements are dependent on intangibles: the attitudes of bankers and businessmen. Only the last is subject to immediate and positive control

by the central bank.

Under normal conditions, the banking system is quite willing to extend credit to sound borrowers within the customary reserve limits; competition assures that this is so. In a period of serious recession and undermined confidence, "unwillingness" will play a part,[1] and under such circumstances it may contribute greatly to the general economic contraction. More likely to be the key factor under less profoundly disturbed conditions is a weak demand for credit; here the central bank can do little by itself, and the wider economic policies of the government (i.e., deficits, tax relief, public works, etc.) hold more significance insofar as they contribute to the restoration of confidence.

It seems clearly indicated that the central bank can exercise a much more powerful influence in restraining monetary excesses than in encouraging a needed credit expansion. The central bank's ability to limit the creation of credit is very real, provided that the exigencies of maintaining an "orderly" bond market do not require it to purchase securities and thereby to replenish the cash reserves of the banking system. Under depressed conditions, however, it can only create conditions suitable to expansion; it cannot actually bring that expansion about.

While the public has little control over the total amount of liquid assets which it holds (except insofar as it may or may not seek chartered bank credit), it has almost complete discretion over the form

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[1] "Unwillingness" of a special sort may also appear during an inflationary period, when the banks restrict the total amount of credit outstanding asa result of the "moral suasion" of the monetary authorities.

in which those assets are held. It can change the proportion of currency and deposits in its holdings at will. In the case of the non-marketable debt (such as War Savings Certificates or Canada Savings Bonds) it can secure cash virtually on demand. The public's control over its holdings of other forms of government debt is limited by the willingness of the monetary authorities to absorb and monetize securities and by the public's own willingness to trade in those securities at the going market prices. Thus, by modifying its bond prices the monetary authorities can exact a penalty for, or put a premium on, increased liquidity.

In an inflationary situation, it is to the advantage of the monetary authorities in their attempt to maintain the value of the monetary unit to seek to channel as much current purchasing power into deferred forms, or inactive assets, as is possible. It will be desirable to prevent the liquidation of existing claims for money, particularly if this liquidation involves the creation of new money. Under such circumstances, as the dominant if not the sole buyer of government securities, the monetary authorities will probably find it necessary to exact an increasing penalty for additional liquidity by a substantial rise in interest rates, and an accompanying decline in the market value of existing securities.

The effect which some typical transactions will have on the monetary and debt system will now be considered in more detail. In Table IV (pp.22-23), we have assumed that the federal government has generated a cash surplus of $100 million in a given quarter-year. We have assumed further that this surplus has resulted in the transfer of the

TABLE IV

GENERATION AND DISPOSITION OF A $100 MILLION CASH SURPLUS OF THE FEDERAL GOVERNMENT

(Millions of Dollars)

ITEM		GENERATION OF THE GOVERNMENT SURPLUS	
		as at 1/1	as at 1/4
Gross Government Debt		$ 17,000	17,000
LESS: Debt Held by Govt. Accounts		1,000	1,000
Deposits @ Bank Canada		100	100
Deposits @ Chartered Banks		100	200
Government Debt Outstanding		$ 15,800	15,700
Bank of Canada	Govt. Debt Held	2,000	2,000
	LESS: Govt. Deps.	100	100
	Net Govt. Debt Held	1,900	1,900
	Notes in Circulation	1,200	1,200
	Chartered Bank Cash	700	700
Chartered Banks	Govt. Debt Held	3,000	3,000
	LESS: Govt. Deps.	100	200
	Net Govt. Debt Held	2,900	2,800
	Loans and Other Invests.	3,300	3,300
General Public's Assets			
	Currency	1,200	1,200
	Active Bank Deposits	3,100	3,100
	Active Money Supply	4,300	4,300
	Inactive Notice Deposits	3,800	3,700
	Govt. Debt Held	11,000	11,000
	Inactive Liquid Assets	14,800	14,700
	Total Liquid Assets	19,100	19,000
Chartered Bank Cash		700	700
Total Chartered Bank Deposits		7,000	7,000
Cash Ratio		10.0%	10.0%

TABLE IV (CTD.)

(Millions of Dollars)

THE SURPLUS IS USED TO RETIRE GOVERNMENT DEBT HELD BY

(a) General Public	(b) Chartered Banks	(c) Bank of Canada
$16,900	$16,900	$16,900
1,000	1,000	1,000
100	100	100
100	100	100
15,700	15,700	15,700
2,000	2,000	1,900
100	100	100
1,900	1,900	1,800
1,200	1,200	1,200
700	700	600
3,000	2,900	3,000
100	100	100
2,900	2,800	2,900
3,300	3,300	3,300
1,200	1,200	1,200
3,100	3,100	3,100
4,300	4,300	4,300
3,800	3,700	3,700
10,900	11,000	11,000
14,700	14,700	14,700
19,000	19,000	19,000
700	700	600
7,000	6,900	6,900
10.0%	10.15%	8.7%

$100 million from the public's inactive bank deposits to the government deposits at the chartered banks.[1] At the end of the quarter, this money is applied to retire government debt, and the table gives a comparison of the results when the securities retired are held by (1) the general public, (2) the chartered banks, and (3) the Bank of Canada.

The first point to be noted is that while the surplus itself is restrictive in that it reduced the public's holdings of liquid assets from $19.1 billion to $19.0 billion, its disposition in the retirement of debt will be capable of startlingly different effects, depending on the sector from which debt is retired. Repayment of debt held by the public means that active assets and inactive deposits are returned to the levels at which they stood prior to the generation of the surplus by taxation; public holdings of debt are reduced by the amount paid off. Repayment of debt held by the chartered banks will lead to a decline in both debt held and deposits, but the "net debt" held by the chartered banks will not be changed, since the debt repayment will result in the offsetting cancellation of securities and deposits. However, a significant indirect effect appears in the fact that repayment of this debt frees sufficient reserves to support the extension of credit in the amount of $100 million. Such repayment puts the banks in the position of being able to replace their holdings of this government debt with new private loans on the basis of existing reserves.

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[1] There is no particular reason that the transfer should not have been made from active deposits; in fact, a transfer from inactive deposits is rather unrealistic. It does, however, abstract from the analysis changes in the active money supply, and in a situation which would call for restrictive action the active money supply would likely be quickly restored by a transfer from inactive deposits, in any case.

Retirement of debt held by the central bank (using the additional deposits in the chartered banks for the purpose) has the most severely restrictive results, and leaves the system in a state of serious disequilibrium if the banks' cash ratio was "normal" prior to the operation. Deposits and cash reserves of the chartered banks are each reduced by $100 million, and some compensatory action will be required. Several courses are open to the banks: (1) to sell government bonds, (2) to reduce loans and investments, and (3) to rediscount paper or secure advances from the central bank. To the Canadian chartered banks the latter course is almost unthinkable. Reduction of loans is a slow and painful process; the situation envisaged would require a decline of $900 million in loans (27%) to restore the customary liquidity. Such a situation would lead to a credit stringency of crippling proportions. Similarly, if the reduction had to be accomplished by the sale of bonds to the general public, the public would have to absorb $900 million in securities, almost certainly at the cost of a severe dislocation in the bond market.

However, if the central bank is acting as a "buyer of last resort" to support the government bond market, the operation is simple, quick, and comfortingly easy. It involves the sale of only $90 million in bonds, since in this way the banks are able to convert a quick asset into a reserve asset virtually without penalty.

This example indicates the great potential powers of the central bank and the delicacy with which these powers must be used. The retirement of debt held by the central bank, using deposits transferred from

the chartered banks, may be a most effective method of control, since it forces the chartered banks to replenish their reserves. The central bank is therefore in a position to put as much or as little pressure on them as it deems necessary through its buying prices for securities. However, this operation is not useful as a means of putting pressure on individual institutions.

Each type of debt retirement described will have a different effect on the bond market. Repayment of debt held by the public will likely free investment funds, and, unless the demand for credit has been curtailed by the taxation and other fiscal policies which created the surplus (or by some other method of control), such repayment may see a strengthening tendency in bond prices. Repayment of chartered bank holdings of debt will probably have the least effect, since the change in the cash ratio is relatively small; but repayment of central bank holdings of debt using the government's chartered bank deposits would lead to pressure in the securities markets, particularly in the shorter-term issues where the chartered banks' holdings tend to be concentrated.

Effects similar to the first two cases will be obtained if the surplus funds are used to purchase bonds for the government accounts instead of for retirement. Results comparable to the latter case will be obtained merely by the transfer of government deposits from the chartered banks to the Bank of Canada, thus "impounding" $100 million of previously active central bank credit. This handling of cash balances can also be an important short-run monetary mechanism, and, to allow flexibility, substantial deposits should be maintained in readiness in the chartered banks.

The usefulness to the monetary authorities of debt management operations, as distinct from overall fiscal policy (depending on surplus or deficit position), for influencing the monetary situation is indicated in this analysis. Redistribution of the debt among the three general classes of holders can have important repercussions, even though no government surplus or deficit exists. To illustrate, let us assume that the monetary system is in the initial position of Table IV. There is no government cash surplus or deficit during the quarter, but the monetary authorities undertake one of the following operations: (1) They retire $100 million in treasury bills held by the central bank and sell $100 million in bonds to the general public. (2) They retire $100 million in treasury bills held by the chartered banks and replace these debts with an issue sold to the public. These are quite orthodox moves. In the first case, sale of bonds to the public will lead to a transfer of chartered bank deposits to the government, and transfer of these deposits to the central bank in order to retire debt held there will reduce chartered bank reserves by $100 million, forcing the process of contraction described above. The restrictive effects of the second case are similar to those which appear when a surplus is used to retire debt held by the banks. The reserve base is undisturbed.[1]

The examples used in this chapter have been restrictionist, and they are based (perhaps somewhat unrealistically) upon the assumption that government debt can be made sufficiently attractive to the members of the general public during an inflationary period to induce them to

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[1] In these examples the close similarity between the monetary effects of borrowing and taxation is pointed up.

part with active money to acquire inactive assets. The reverse operation, a shift of debt from the chartered banks to the central bank, either by retirement-and-issue, or by purchase-and-sale, will have an expansionist effect, without any need for deficit financing. It is clear, therefore, that the real virtue of the deficit during a recession lies in its possible effect on aggregate spending. If liquidity were the only problem, debt management operations would suffice to maintain economic activity.

It is now possible to summarize and so provide a basis for a more detailed study of the events of the period. An inflationary period calls for restrictive pressures in all phases of governmental financial operations. Government spending should be reduced to a minimum, and, where possible, fiscal policy should be designed to generate a cash surplus. The monetary policy of the central bank must be such as to attempt to prevent an increase in chartered bank reserves. In managing the national debt, the monetary authorities should attempt to transfer debt from the central bank to other sectors. Through interest rate policy, the monetary authorities can put a penalty on the attempt to shift from illiquid assets to relative liquid forms.[1] Where possible,

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[1] It is quite rewarding, for this type of analysis, to think of the pure rate of interest such as is obtained on government debt in terms of a rate of exchange between current purchasing power and deferred purchasing power. The payment of interest provides the incentive for deferring the use of such purchasing power. The simplest example of this may be found in the War Savings Certificates which were used during the Second World War. The buyer of these securities exchanged money (current purchasing power) for claims (deferred purchasing power) in the ratio of $4 cash for a certificate with a face value of $5 due in 7½ years. In effect, the government was offering, in these certificates, future purchasing power at a 20% discount.

The principle remains the same for bonds where part of the return

the government cash balances can be transferred from the chartered banks to the central bank, thus assisting in "impounding" additional reserves. In a situation where economic expansion is required, a reversal of these policies would be indicated, in conjunction with more positive spending programs to maintain the flow of income.

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is made semi-annually or annually through the payment of an interest coupon. Thus, if future purchasing power were valued as highly as current purchasing power, a 10-year 3% bond would sell at 130. At that price, the buyer would receive only the return of his investment over the term of the bond. At more than 130, the yield is negative; the buyer is paying a premium for future purchasing power. At less, there is an effective discount.

This viewpoint has the advantage of accounting very neatly for the variety of yields available in the market, inasmuch as purchasing power deferred five years will quite naturally command a different present price from purchasing power deferred twenty-five years. The interest curve can be readily integrated into the theoretical framework, a task which the conventional loanable funds theory finds somewhat awkward.

Chapter III

THE FIRST POSTWAR PERIOD OF INFLATION

We may now turn to a consideration of the first period of inflation from June 1946 to December 1946. Although it is immediately apparent that this period represents something of an historical curiosity, its analysis provides lessons which might usefully be applied to periods of less rapid economic change. Nevertheless, it must be borne in mind that the unique features of this period - pent-up domestic demand, unprecedented liquidity and abnormal export pressures (based on foreign reconstruction needs and maintained by extraordinary financial arrangements) - are unlikely to recur, save at the end of another war.

There had been extreme changes in the structure of the monetary system between 1938 and 1946 as a result of the methods of war finance, and the contribution which these changes were to make to the first inflation could not be readily assessed in advance. The tendency was to be pessimistic, and, thus, in the statement of policy which the government presented to the Dominion-Provincial Conference on Reconstruction, it was pointed out that the preparations for the postwar period were being made "...against the background of severe depression and the enormous dislocations of war."[1]

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[1] Proposals of the Government of Canada, (Dominion-Provincial Conference on Reconstruction), 1945, p.5.

This position is supported by the expert opinions contained in the accompanying Reference Book. Even when judged in the harsh light of subsequent events, the argument is exceedingly persuasive. The inflationary potential inherent in the deferred demands was recognized, as was the fact that "...buying power to support much of such deferred demands already exists in the form of cash, government obligations, and improved credit standing...."[1] Furthermore, the writers saw that "...the financial basis exists for a buying and speculative spree of unexampled proportions."[2] Yet it was this same paper which made the blunt statement, referred to above, that the curtailment of war contracts would eventually break the boom.

The aim was, therefore, to dismantle the existing controls gradually, holding the liquidity of the economy in check beneath the price ceilings, until the demands of war fell off and inflationary pressures from war-deferred purchases subsided.[3] Unfortunately, the program outlined in these documents was outmoded by events before it could have been applied - even if the conference itself had not been a failure. With the abrupt end of the Japanese war, such a plan became impractical.

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[1] Economic Controls, p.8.

[2] Ibid.

[3] Ibid., p.9. "The ultimate objective is to remove price control as the danger passes in a manner that will not result in serious disturbance to the economic structure. That is to say that ceiling prices and 'free' market prices should be fairly well in harmony when price controls are removed." This bit of smugness betrayed the policy-makers, for it was manifestly impossible to say what the "free" market price would be in the absence of controls after a major war, a threefold increase in liquid assets and a vast change in the employment situation. The belief that an equilibrium price structure could be evolved in this way seems to have been unjustifiably optimistic. It was not possible to deal in such an offhand manner with the effects of increased liquidity, when the major change in

The first inflationary period was one of apparent contradiction and inconsistency in government policy, in which substantial budgetary surpluses were accompanied by the continuation of cheap money. This anomaly can best be explained on the basis of the miscalculations noted above, for if the postwar inflation had fallen into the anticipated pattern, the temporary inflationary complications presented by cheap money would, it was hoped, have been more than offset by the maintenance of stability in the capital market. Such stability would have helped to maintain confidence during the ensuing recession, and to ease the government's debt management problems.

Moreover, there must be taken into account the "theoretical" as well as the institutional and psychological considerations underlying the reluctance of the government to reconstruct its monetary policy. Monetary restriction was conceived, officially, as being useful only in the improbable postwar circumstance that "...after war shortages are over, consumers' expenditures and capital development were to proceed at a rate which would overstrain our productive capacity."[1] The Bank of Canada saw "...no prospect of such a situation arising in a form which would call for a policy

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the monetary structure lay in the existence of a vastly increased government debt, and when, in accordance with announced policy, the central bank proposed to provide a market for this debt at relatively high prices. Even allowing for the superior wisdom of hindsight, it is hard to see how this situation could be reconciled with the decontrol principles set out.

[1]Bank of Canada, Annual Report 1943, p.5. This quotation appears to reject monetary restriction not on grounds of ineffectiveness, but rather as being inappropriate to the contemporary economic environment. But when the economic conditions to which the Governor referred did in fact develop, monetary restriction continued to be rejected, largely, one suspects, because of awkward repercussions for debt management.

of raising interest rates."[1]

With the burden of economic control falling to fiscal measures, it becomes important to decide whether the "mopping up" effect of the surpluses in the first period was deliberate, or whether the government was the passive beneficiary of the expansion (and inflation) which occurred. The evidence on this point is not entirely clear. A comparison of the 1946 budget forecast with subsequent results would indicate that the budgetary surplus in fiscal 1946-47 was unanticipated.[2] Even in the 1947 budget speech, the Minister (Mr. Abbott) still appeared to be hoping for the best and expecting the worst. Acknowledging that the recent surplus reflected unexpected economic strength, he stated that "...our surplus is

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[1] Bank of Canada, Annual Report 1945, p.5. The relative neglect of monetary policy as an instrument of control in the early postwar years was not confined to Canada, being quite evident in the United Kingdom and in the United States. This neglect is frequently explained in terms of the "Keynesian" influence.

It might be objected that Keynes would not have all but ignored the possibilities of monetary control in the inflationary postwar situation. Some support for this argument may be found in The General Theory: "...If we are precluded from making large changes in our present methods, I should agree that to raise the rate of interest during a boom may be...the lesser evil." (p.322n). Keynes expanded this theme on page 327 also.

In reply to this objection, the main position of The General Theory on this point is quite opposed to this: "...The remedy for the boom is not a higher rate of interest but a lower rate of interest! For that may enable the so-called boom to last. The right remedy for the trade cycle is not to be found in abolishing booms...but in abolishing slumps and thus keeping us permanently in a quasi-boom." (p.322).

[2] In this first budget designed for peacetime, the Minister (Mr. Ilsley) introduced tax reductions which were calculated to produce a budgetary deficit of some $300 million for fiscal 1946-47. See J.L.Ilsley, Budget Speech, June 27, 1946, p.28. The actual result was a surplus (in part arising from "special" receipts which it was not possible to estimate in advance) of the order of $375 million. In his speech, the Minister stated that "...if only immediate economic considerations were involved, one could make a case for temporary higher taxes in order to curb the excess of spending in some directions that is tending to pull prices up." (p.8).

a real one and one from which we can find encouragement, but it has been obtained at high levels of revenue and expenditure which do not necessarily give an accurate indication of the shape of things to come."[1] Hence, although the desirability of debt reduction was emphasized, and the need for curbing inflationary pressures was strong, tax relief measures were again introduced, to encourage production and to counter public resentment. A comparison of budgetary prediction and performance again suggests that the magnitude of the surplus ($676 million) was substantially beyond the expectations for fiscal 1947-48.

It was not until the 1948 budget that fiscal policy, which had loomed so large in the government's planning documents, was examined and defended in detail.[2] The Minister advanced the case for "surplus" budgeting ably and at length. He reaffirmed the need to prepare for less prosperous times, but his warnings of recession had lost much of their former urgency. International tensions rendered the government's financial requirements uncertain. In view of the government's overriding responsibility to influence economic trends, and considering the continuing high level of employment, the Minister was unable to justify the release of additional purchasing power through tax reductions which would necessarily intensify inflationary pressures. Moreover, it was necessary to build up an export surplus before the economy could be freed from the emergency

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[1] D.C.Abbott, Budget Speech, April 29, 1947, p.7. At this time, the Minister planned for a budgetary surplus of some $190 million, a figure which was more than tripled in the event.

[2] D.C.Abbott, Budget Speech, May 18, 1948, pp.9-13. One may find some significance in the fact that in this year a special section was introduced under the heading "Budget Policy".

import and exchange controls necessitated by the 1947 exchange crisis, and this could not be done if additional purchasing power were made available to Canadians. The experience of 1947 seems to have had a profound effect on the government's attitude to internal expansion in these circumstances. Thus "...the general policy for this year (fiscal 1948-49) should be to use our surplus to reduce our debt and thereby to fight inflation in the manner most suited to our type of government and our way of life."[1] This policy also had important political advantages, for while it gave the opposition the immediate cry of "overtaxation", it afforded the government the prospect (if prices stabilized) of going to the country in 1949 with inflation no longer an issue, and with substantial tax reductions possible. There was at this time a useful correspondence between political and economic objectives which the government exploited to its advantage.

The only important development in the field of monetary (or specifically banking) policy took place early in 1946, when the chartered banks agreed to restrict their investment in government securities (except the standard "banking" issues: Treasury Bills, Deposit Certificates, and Treasury Notes) to not more than 90% of Canadian personal savings deposits. Moreover, the banks promised to arrange their holdings of marketable bonds among the various maturities in such a way as to give only a moderate profit margin over the interest payable on the savings accounts. This agreement,

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[1] Ibid., p.13. In contrast to the forecast surplus of $489 million, the realized surplus for fiscal 1948-49 was $596 million. Underlying each of the budget speeches was the unwarranted assumption that the existence of a budgetary surplus was ipso facto a restrictionist influence, regardless of the manner of its disposition. See Chapter II, above.

A somewhat different source of misunderstanding as to the economic effects of postwar fiscal policy arises from undue preoccupation with the "budgetary" position, rather than with the "cash" position. The latter is a considerably broader and therefore more relevant concept.

which never had any practical effect because of the rapid growth of demand for credit from private sources, reflected the pessimistic anticipations of the monetary authorities. This policy further assured that the chartered banks would not become aggressive buyers of long government bonds in a competitive attempt to raise their profits. If such competition had developed, government debt would have become an increasingly important part of the banks' portfolios. Consequently, the agreement may also have served to forestall criticism, extending possibly to pressure for nationalization, on the ground that the banks had ceased to fulfil their traditional role as suppliers of business credit and had become passive recipients of "riskless" income from the national debt. Underlying the agreement was, of course, the assumption of a relatively limited commercial demand for bank credit.

It appears reasonable to conclude that in 1946 and 1947 there was no serious conflict between the monetary and fiscal policies of the government, although these policies were conditioned by what, in retrospect, proved to be essentially false premises. Monetary policy was still based on the "cheap money" doctrines of the planning documents. Fiscal policy does not seem to have been intentionally restrictionist; at least the magnitude, and on occasion the mere existence of budgetary surpluses was fortuitous. At the time of the 1948 Budget Speech, when the insistent inflationary pressures rendered non-restrictive policies much less justifiable, a fair inference is that the continuation of budgetary surpluses was regarded as a feasible means of overcoming the inflationary consequences of the relatively easy money policy which the government was extremely reluctant to terminate.

Economic developments during the first six months of 1948 were particularly interesting, in the light of this. The first phase of monetary policy came to an end. During January and February, the first significant break in bond prices occurred, with yields on the longest-term Victory Loan bonds rising from 2.60% to 2.98%. At the same time, the Bank of Canada suggested that circumstances "...made it undesirable for capital expenditures to be financed through expansion of bank credit."[1] Furthermore, early in January, the Bank reverted to its prewar trading practices, abandoning the system of publishing bids and offerings which it had used during the war. While it must be conceded that these events marked a significant break in the hitherto unchallenged "cheap money" position, and while these modifications might have paved the way for a considerably more flexible approach,[2] there is much evidence that the role of monetary policy was still uncertain, even though fiscal policy was now becoming increasingly restrictionist by design. Contemporary statements by the Minister of Finance and by the Governor of the Bank of Canada left much doubt as to the further use to be made of monetary policy. The Minister pointed out that there was little or no discernible correlation between the interest rate and the volume of current saving, that an increase

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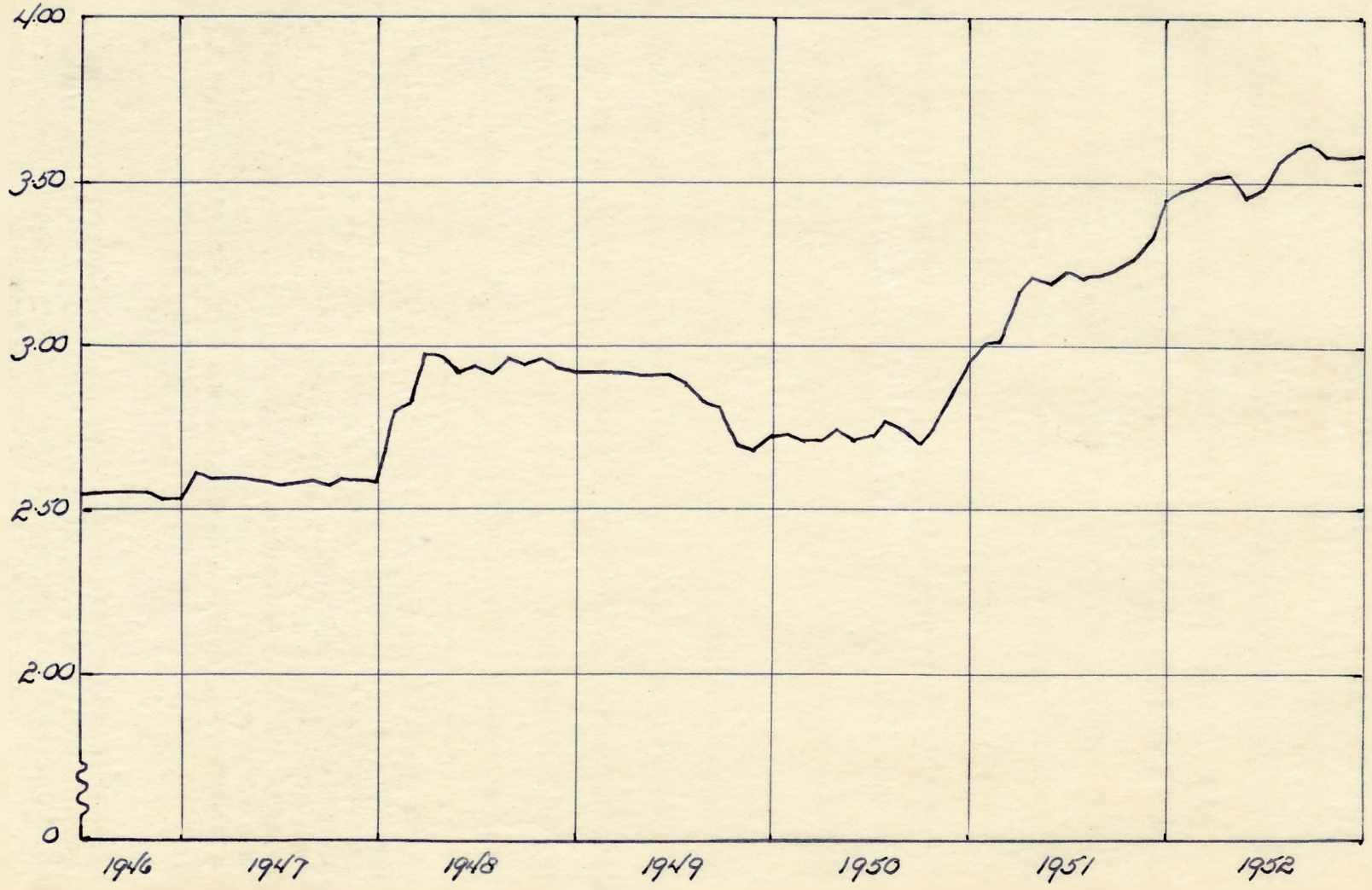
[1] Bank of Canada, Annual Report 1948, p.7.

[2] See the comment by F.A.Knox in "The March of Events", The Canadian Banker, LV, no.1, Winter 1948, p.29: "The Bank of Canada is now free to deal in government securities as it deems appropriate to its monetary policy.... It is able to avoid,if it so desires, the continuous expansion in chartered bank cash through net buying of government securities which the policy of supporting the market at a given level would probably have involved."

CHART NO. 2

LONG-TERM INTEREST RATES IN CANADA, 1946-1952 *

(MONTHLY AVERAGE YIELDS, CANADA 3% BONDS 1961/66)



* SOURCE: BANK OF CANADA, STATISTICAL SUMMARY, VARIOUS ISSUES.

in such saving (in contrast to a transfer from existing inactive deposits) could be achieved only by a drastic reversal of policy which would lead to "chaotic" conditions and seriously embarrass both institutional and individual investors. Moreover, the government did not believe that a further "reasonable" rise in interest rates would discourage borrowing.[1]

In his testimony before the Special Committee on Prices, the Governor in effect admitted the poverty of central banking policy in the existing situation by his reported statement that "...when the general public was not a net buyer of government bonds it was not feasible for the Bank of Canada to increase 'open market' security sales with a view to restraining the increases in chartered banks of loans and non-government investments."[2]

During the first period of inflation, the Canadian and United States dollars were restored to parity in an attempt to reduce the upward pressure on the Canadian price structure originating from inflationary forces abroad, particularly in the U.S.A. The soundness of this move cannot be fully assessed.[3] Its effect on internal prices was quickly swallowed

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[1] See Report of the Royal Commission on Prices, (Ottawa: King's Printer), 1949, p.164. Here are quoted some excerpts from an address by the Minister to the American Academy of Political and Social Science, April 1, 1948. See also the Budget Speech, May 18, 1948, p.6, where the Minister repeated his stand on interest rates in almost the same words. At this time, incidentally, he admitted the existence of the situation which the Governor had been unable to foresee in 1944. "What we need is a slowing down, not a sudden cessation, of the capital development which has been taking place at a pace which has been straining our resources."

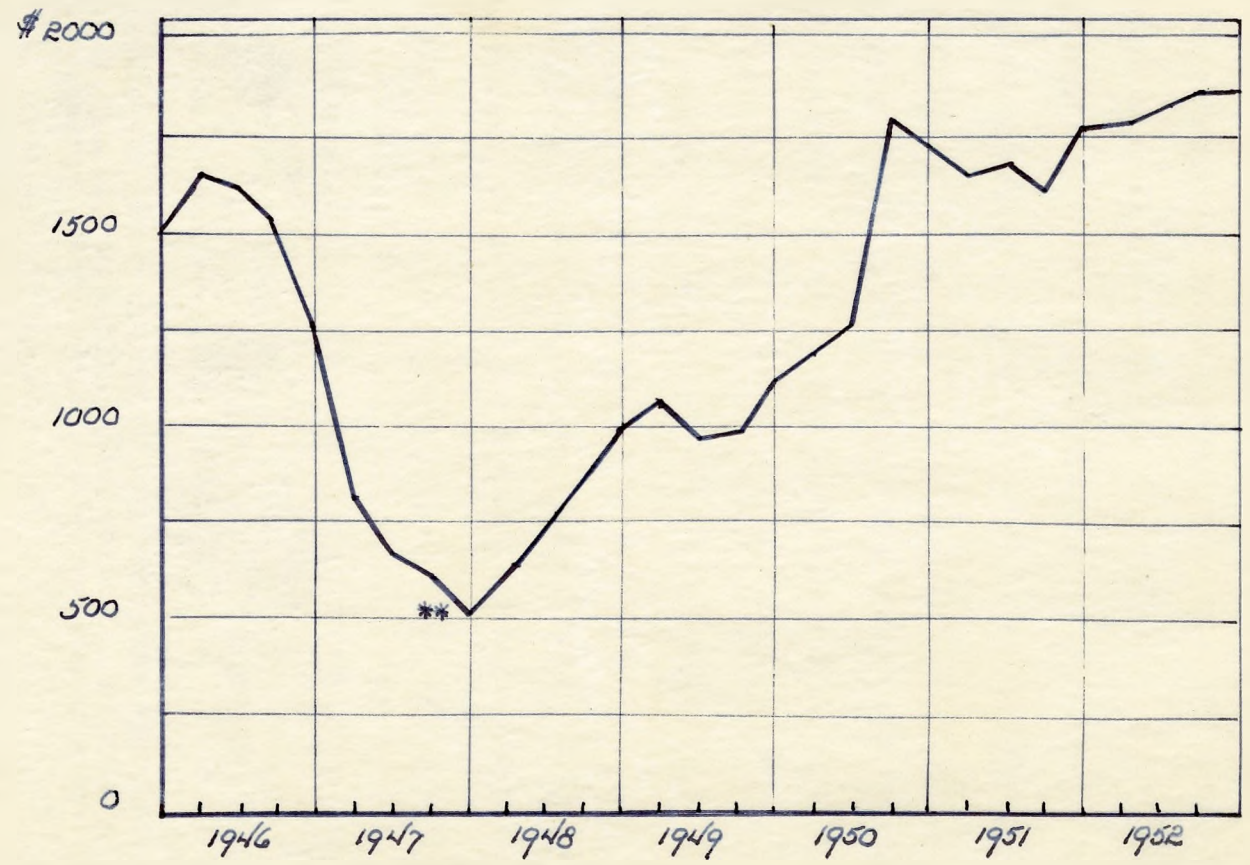
[2] Ibid., p.165.

[3] Events subsequent to this appreciation were evidently not sufficiently encouraging to persuade the government that a satisfactory solution to the 1950 exchange problem could be provided by a repetition of this earlier action of appreciating to a new fixed rate.

CHART No. 3

CANADIAN OFFICIAL HOLDINGS OF GOLD AND U.S. DOLLARS*

(BY QUARTERS 1946-52)



* SOURCE: BANK OF CANADA, STATISTICAL SUMMARY, VARIOUS ISSUES

** MONTH-END LOW WAS $480 MILLION IN NOVEMBER, 1947.

in the continuing inflation and it was followed by a reversal of capital flows (i.e. a loss of exchange reserves) primarily associated with the unexpectedly rapid drawing-down of advances to foreign governments.[1] Basically, the most important feature of the balance of payments in these years was a heavy demand for United States goods and a shortage of convertible exchange to be used in payment. The 1947 balance of payments crisis necessitated the introduction of temporary direct import controls, special taxes, and severe exchange restrictions on travel expenditures. These (and the coming of the Marshall Plan) served to check the current balance of payments deterioration, but their consequences were by no means entirely desirable. Thus the Deputy-Minister of Finance referred to the "distortions and rigidities", "uneconomic production" and "vested interests" which subsequently arose, in direct contradiction to Canada's official encouragement of more liberal trade policies.[2]

In the light of the balance of payments situation at the time of the 1946 appreciation, almost any exchange rate policy would appear, from some point of view, to have been the wrong one.[3] The loss of foreign ex-

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[1] See the comment on this point in Bank of Canada, Annual Report 1947, p.21. "When Canada's export credit program of some $1,850 million was undertaken, it was realized that it would involve a considerable drain on our exchange reserves, even if - as was then expected - drawings were spread over a period running to 1950. Owing to...unfavourable developments in Europe..., the need for goods from Canada has been greater, supplies available for export to Canada have been less, and drawings on the credits have been more rapid than contemplated. In point of fact, more than three-quarters of the total credits had been drawn by the end of 1947."

[2] W.C.Clark, op.cit., p.14.

[3] The modern government has three broad exchange rate possibilities: (1) fixed rates (which provide a relatively small degree of autonomy for domestic economic policy), (2) fluctuating rates (which provide much greater autonomy), or (3) some compromise such as "floating" rates which are permitted to fluctuate without interference within certain limits.

change reserves might have suggested that depreciation was called for, but as indicated in Table V (p.43) Canada was enjoying large overall current account surpluses: $460 million in 1946, $85 million in 1947, and $471 million in 1948. Moreover, in view of the relatively low price elasticities of demand for Canadian exports and imports vis-a-vis the United States in the early postwar years, it is highly doubtful that any practicable measure of depreciation would have appreciably benefitted the current account balance.

The adoption of a free rate in 1946 might have lessened the subsequent pressure which developed against our exchange reserves, although this, of course, cannot be demonstrated. It would have permitted external factors to influence the Canadian internal price level to a greater degree, and would have involved a closer correspondence between Canadian and American price movements in the earlier years, thereby providing a more even rate of rise in Canadian prices. A free rate would have permitted the holding of lower levels of exchange reserves, since in the event of an adverse current balance, fluctuating rates are generally themselves an adjusting factor, whereas with exchange rates fixed the entire burden of adjustment falls on the reserves. But whatever the advantages which a free rate might have provided, such a course was impracticable in view of the commitments just assumed by Canada as a member of the International Monetary Fund.

In 1946, general public holdings of liquid assets increased by $812 million. This was a substantial sum, but, compared to the later war years when increases in liquid assets of over $2½ billion annually occurred

TABLE V

SELECTED ITEMS - CANADIAN BALANCE OF INTERNATIONAL PAYMENTS (1945 - 1952)*
(Millions of Dollars)

Year	Current Account Balance	
	All Countries	United States
1945	1,546	36
1946	460	607 -
1947	85	1,135 -
1948	471	595 -
1949	187	589 -
1950	529 -	403 -
1951	517 -	951 -
1952	151	855 -

* Source: Bank of Canada, Statistical Summary 1950 Supplement, p. 125, and Statistical Summary, various issues.

this amount seemed quite moderate. In the first half of the year (when assets rose by $697 million), this increase can be largely accounted for by the government's cash deficit, which, as measured by the change in government debt outstanding, amounted to $612 million.[1] The first half of the year was, therefore, financially part of the wartime pattern. The Engine of Inflation was still running at high speed to provide the funds for reconstruction; and at this stage it had not received new fuel from the private expansion of credit. There was no net expansion of loans and investments in the commercial banking system.

Overall, the third quarter of the year was a period of delicate balance, with almost no change in the public's liquid assets; the cash surplus of the government which had now appeared ($83 million) and an increase in miscellaneous liabilities of the banking system just offset a $126 million increase in chartered bank loans and investments. But this period marked an important turning point; hereafter the expansionist forces centred on the private sector of the economy as bank credit began to rise. The government sector's surpluses, however ineffectively they might have been used, acted as a drag. In the final quarter of the year, partly as a result of seasonal influences, this balance was broken, and liquid assets rose again, this time by $114 million, despite a government cash surplus of $155 million. Meantime a new factor had entered the situation; after May (when exchange reserves reached a peak of $1.7 billion) a serious decline in the reserves began, and by the end of December they had reached $1.2 billion.

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[1] See above, Chapter II. The data in this section are derived from the Table in Appendix A, which in turn is based on the "Liquid Assets" memorandum.

During the first half of the year, when the government deficit took the form of a transfer of government deposits at the chartered banks to the general public, it seems justifiable to conclude that there was still considerable inertia in the economy, for although the active money supply (as we measure it) rose by $338 million, inactive deposits rose by $420 million. In the second half, this latter class of assets increased by only $45 million, as compared to a rise of $144 million in the money supply.

Throughout the entire year, the chartered banks remained in a state of unusual liquidity. On March 31, the ratio of cash to deposits was 11.1%; on June 30, 10.8%; on September 30, 10.9% and at the year-end 11.8%. Moreover, the ratio of cash and government securities to total deposits indicated a heavy backlog of secondary reserves or "quick assets" (for which the central bank is buyer of the last resort). On December 31, 1945 this ratio stood at 70.4%, and at the end of 1946 at 64.5%.

Between mid-1946 and the end of the year, chartered bank cash reserves increased by something more than $100 million, largely as a result of purchases of bonds by the Bank of Canada. This policy, as is immediately apparent in the accompanying chart, seems to have been an attempt to re-establish a seasonal movement in bank cash to avoid the traditional autumn stringency. However, with the banking system already amply supplied with reserves and with the bond market at a high level,[1]

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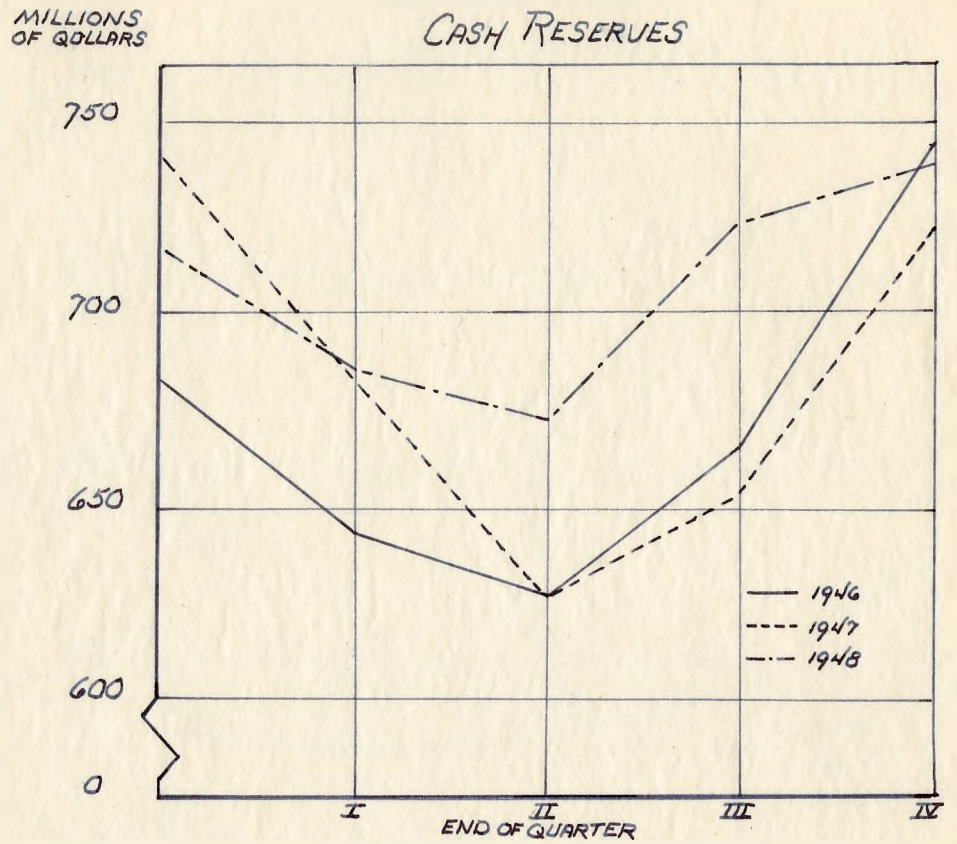
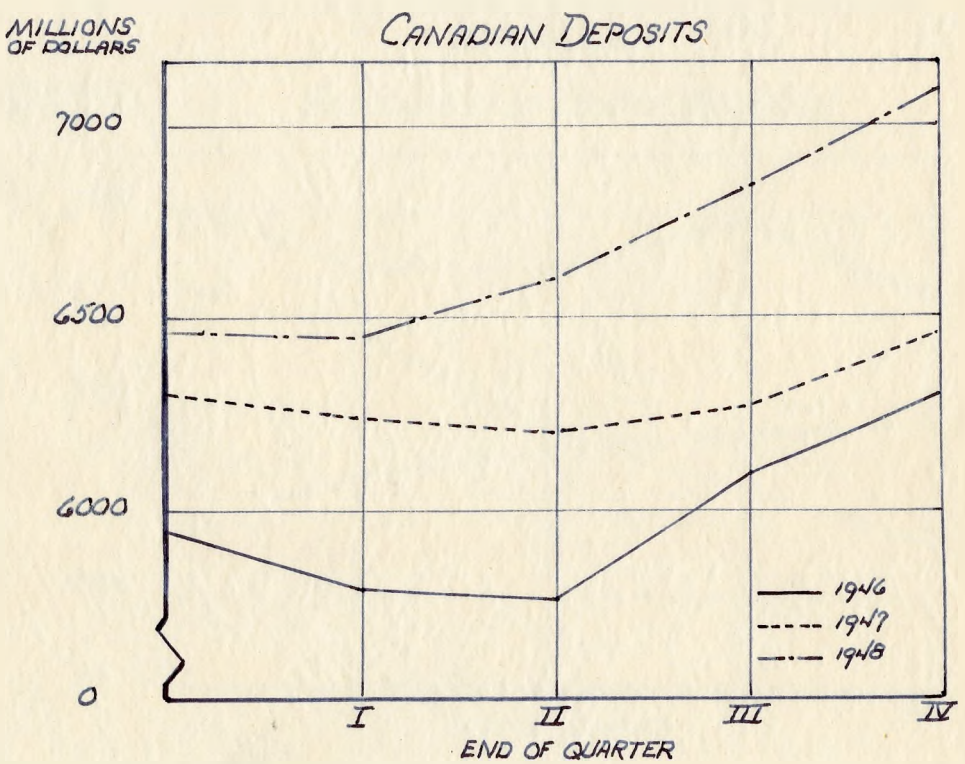
[1] At this time the longest Victory Bonds were yielding about 2.55%. A monetary policy which might bring about a return to a 3.00% basis (par) could not have been accused of "breaking faith" with the "little man" and might have significantly aided him in maintaining the real value of his savings.

CHART No. 4

MAJOR ITEMS IN CHARTERED BANKS' BALANCE SHEET *





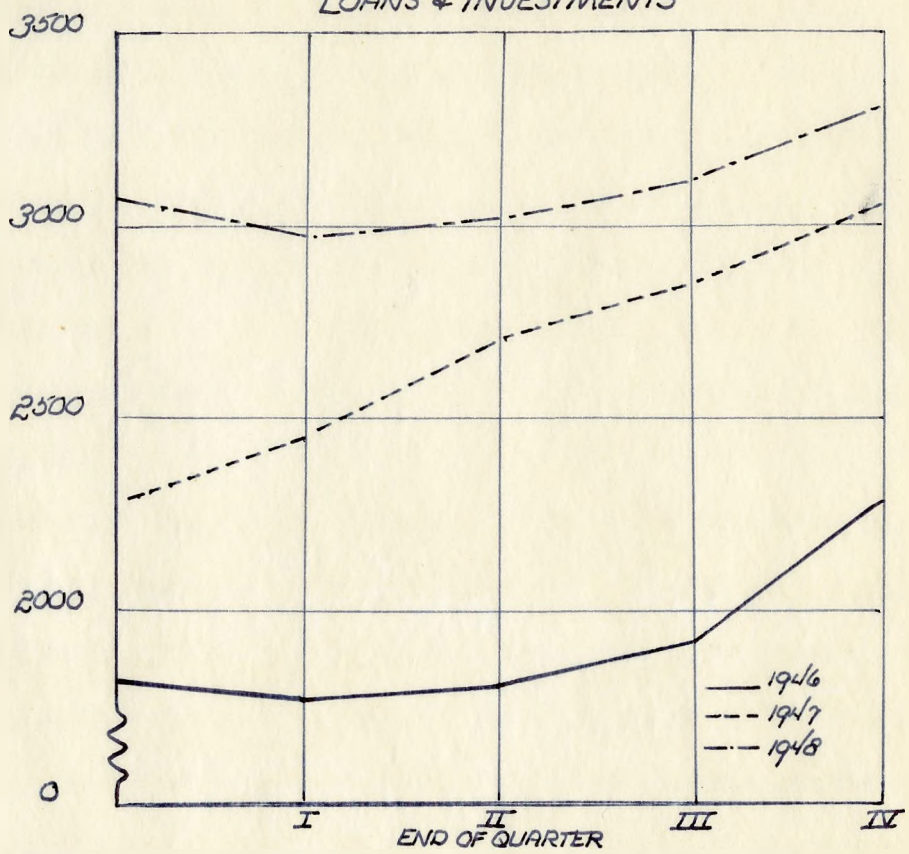
* SOURCE: BANK OF CANADA, STATISTICAL SUMMARY, 1950 SUPPLEMENT, pp 6-9.

CHART NO. 4
(CONT.)

MAJOR ITEMS IN CHARTERED BANKS' BALANCE SHEET **

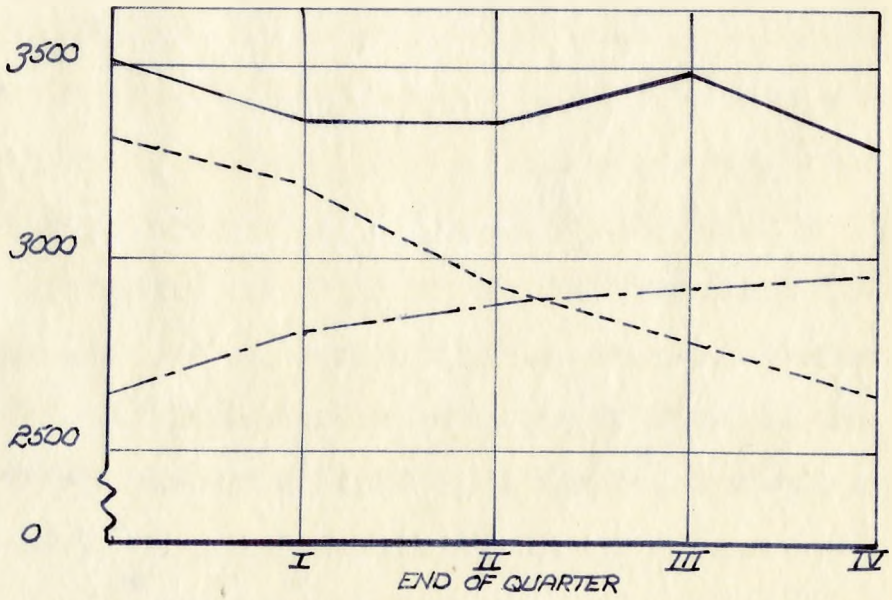
MILLIONS OF DOLLARS

LOANS & INVESTMENTS



MILLIONS OF DOLLARS

GOVERNMENT OF CANADA SECURITIES



** SOURCE: BANK OF CANADA, "LIQUID ASSETS".

there can be found in retrospect little justification for this action, since it helped to provide the basis for the billion dollar credit expansion which occurred later. Thereafter between December 1946 and the end of 1948, the Bank of Canada succeeded in preventing any further net rise in bank cash. In fact, a decline of $4 million occurred, but the banking system was able to continue to expand credit to restore the customary 10% cash ratio on the existing reserves, so that from an average of 11.2% in December 1946, the cash ratio fell to an average of 10.4% in December 1948.

The monetary trends which stand out during 1946 may be summarized as follows: (1) The Government was no longer able to sell vast quantities of securities to the public to "impound" current purchasing power. During the year, despite valiant efforts to sell the first series of Canada Savings Bonds, debt holdings of the resident general public declined by $82 million, although important sectors (notably the life insurance companies and other financial institutions) were still net purchasers. (2) The monetary authorities, through redemptions, purchases by government accounts, and purchases by the Bank of Canada, took up a total of $324 million in debt during the year. It was fortunate, indeed, having regard to these debt operations and the large cash deficits of the first half, that the government had large chartered bank deposits at the beginning of the year, or the situation might have been acutely embarrassing. The Ninth Victory Loan served well, even if it was not used to make guns. (3) The monetary authorities, despite the favourable opportunity presented by the strong bond market, did not use open market operations to regain control of chartered bank cash. Presumably they were

influenced in this decision by the fears we have spoken of above.

So liquid were the banks during this early period that they became increasingly aggressive buyers of "investments". Thus in 1945, the banks held approximately $100 million less in non-government securities than in 1939. In 1946, such holdings rose by $114 million, in 1947 by $317 million and in 1948 by $111 million.[1] In fact, from 1945 to 1947, total chartered bank purchases of provincial, municipal and corporate securities exceeded the Bank of Canada's estimates of the net new issues of such securities.[2] This situation, combined with the heavy flow of institutionalized savings, would appear to have been sufficient (in the face of little net activity in the bond market in 1946 and 1947) to drive interest rates to new low levels.[3]

During 1947, public holdings of liquid assets began to decline, and the total did not again attain the December 1946 level of $18.0 billion until the third quarter of 1949. All the 1947 decline came during the first quarter, as a result of an overall government cash surplus of

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[1] See "Liquid Assets", Table III-A. The expectation that the banks would not be called upon to supply the volume of short-term credit that they had in the past, which was reflected in the Agreement of February 1946, in the establishment of the Industrial Development Bank, and in the provisions for extending term loans for farm improvements all indicate that the monetary authorities had given some encouragement to this trend.

[2] See Bank of Canada, Annual Report 1949, p.7.

[3] The Bank of Canada did not "cause" the appearance of premium prices on Canada bonds, and technically it has not actively supported the market during the postwar period. The important point is that it did not sell in sufficient volume to offset net private buying which was tending to depress yields. In effect, the Bank defaulted its exercise of positive control of inflationary pressures.

$461 million which was only partially offset by the continuing rise in bank credit of $170 million and a small change in the sundry assets of the banking system. The magnitude of the cash surplus is easily accounted for, inasmuch as there was a loss of $434 million from the exchange reserves during this quarter, and cash surpluses persisted throughout the year, a combination of buoyant revenues and the exchange situation. Reserves fell by $145 million in the second quarter, $51 million in the third and $114 million in the last. The corresponding overall surpluses were $207 million, $158 million and $184 million.

Meanwhile, the rapid expansion in the private sector was continuing uninterrupted. Chartered bank loans and investments rose by $254 million in the second quarter and by an additional $353 million before the end of the year. Whereas during 1946 much of the selling of government bonds had come from the resident non-corporate sector, in 1947 the situation was dominated by the chartered banks and the non-financial corporations. The former lost (either by sale or redemption) $669 million in government securities, the latter $303 million and the resident non-corporate public $91 million. These items were balanced by redemptions of $607 million and government accounts' purchases of $497 million. The life insurance companies sold only $12 million; they were still not an important factor in the market.

The important trends during 1947 seem to have been the following: (1) Huge cash surpluses appeared in the government sector. (2) These surpluses were used to repay debt, principally that held by the chartered banks, and to absorb net sales from the public and banks through the government accounts, especially the "Securities Investment Account."

(3) During the first half, there is evidence of a restrictive effort which petered out during the second half when it would have been necessary to slow the absorption of bonds by the various agencies of the monetary authorities. This statement can be traced in the following analysis.

During the first quarter of the year, the very large cash surplus enabled the monetary authorities to redeem debt and absorb net sales of securities without embarrassment. Cash resources were available to bolster government deposits at the chartered banks, and to pay off net borrowing from the central bank. The effect was to reduce the cash reserves of the chartered banks by a large part of the increase which had taken place during the last quarter of 1946. In the second quarter, the situation was not so favourable. The cash surplus, as a result of a smaller loss from the exchange reserves, had declined to less than half its previous rate, but net disposals of debt by the public and banks were at record levels ($579 million). The monetary authorities were forced to use the chartered bank balances, which had been very substantial since the last quarter of the previous year, to cover debt operations. The size of these balances enabled the government to continue to reduce the net holdings of government debt at the central bank, so that cash reserves of the banks declined by $58 million, matching the decline of the first quarter. These were powerful restraints, but they could not be applied indefinitely if debt management considerations were such as to require maintenance of the bond market at current levels.

The third quarter saw a still smaller cash surplus, and somewhat smaller disposals by the public and banks; the same technique was applied.

Chartered bank deposits were run down to $57 millions from $140 millions, but this was not enough to finance the debt operations, and there was an increase of $31 million in net debt held by the central bank. Almost all this amount ($25 million) was added to the cash reserves. Apparently the monetary authorities were attempting to be as restrictive as possible within the objectives for postwar policy which had been set out. From September to December, central bank credit was used freely as chartered bank deposits were rebuilt and cash reserves rose by $69 million.

The integration of Canada's external and internal policies does not appear to have been effectively accomplished during this period. On the one hand, there was the attempt to restrain the impact of external inflationary developments by means of currency appreciation, while, on the other, the use of cash accruing to the Canadian government as a result of the loss of exchange reserves to repay bank-held debt, by releasing bank cash reserves, facilitated the replacement of such assets by new loans to the private sector. Thus the potentially anti-inflationary effect of allowing demand to spill over into the United States market by living on the reserves was lost. In this connection, the Minister of Finance contended in his 1948 Budget Speech[1] that the fact that the quantity of money in Canada had not increased since October 1946 reflected the soundness of the government's postwar fiscal policy. Particular reference was made to the restrictive effects of the repayment of debt held by the banking system. The government's cash surplus

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[1] D.C.Abbott, Budget Speech, May 18, 1948, p.5.

in 1947 was of record size (about $1 billion) to which a significant contribution had been made by the repayment of previous advances to the Foreign Exchange Control Board,[1] and while the use of the surplus to repay bank-held debt did exert a restrictionist influence through the accompanying cancellation of bank deposits, the cash reserves were not reduced by this operation. The net result, in the absence of vigorous central bank action to absorb the excess reserves, was a shift in ownership of chartered bank credit from government to private holders, as the latter category was rapidly increased with dynamic inflationary results.

In 1948, as a result of the continuing rise in the loans and investments of the chartered banks, total liquid assets in the hands of the public rose by some $142 million. The government's cash surplus for the year was $119 million, substantially all of which appeared during the first quarter, resulting (in combination with a temporary seasonal decline in bank credit) in a decline of $180 million in total liquid assets for that quarter. For the remainder of the year, the gradual rise in liquid assets can be traced solely to the movement of bank loans and investments, which showed a small increase in the second quarter ($36 million), a somewhat larger one in the third ($102 million) and a very large increase during the final period ($203 million) partly as a result of seasonal influences.

During 1947, despite the government's debt retirement operations, the residents' active money supply declined only slightly ($24 million) while in 1948 it increased by $391 million. The most important factor

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[1] See Bank of Canada, Annual Report 1948, p.5.

in this latter rise was the shift from government bonds to other forms of liquid assets on the part of the resident general public, whose holdings of debt declined by some $619 million.[1] This year, the greatest source of debt for sale or redemption was the non-corporate public, whose holdings declined by $332 million. The resident corporate sector showed a net decline of $287 million, largely as a result of the activity of the life insurance companies which had now begun to sell their government bonds in volume, to the extent of some $169 million during this year.

At no time during 1948 did the liquid position of the chartered banks appear especially difficult, with the cash ratio 10.6%, 10.2%, 10.6% and 10.4% at the end of each quarter. However, the closer approach of the customary ratio indicates that the banks were using their available cash more effectively than in previous years. Throughout 1948, the ratio of cash and government securities held to total deposits remained relatively constant, in sharp contrast to the situation in 1947. This ratio stood at 64.5% on December 31, 1946, at 52.0% at the end of 1947, and at 52.1% at the end of 1948.

This stabilization might indicate that restrictive measures were somewhat more effective during this year. A break in bond prices had occurred early in 1948, and in February, the Bank of Canada had expressed disapproval of direct chartered bank financing of capital expenditures through securities purchases. Actually, however, it merely emphasizes

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[1] There had been a similar shift in 1947, as noted above, as the non-financial corporations began to finance their early programs of capital expansion. The effects of the shift in 1947 were obscured by the government's cash surplus and the fact that a great part of these funds were kept out of the active money supply by a corresponding increase in inactive deposits.

the futility of central banking operations in this early inflationary period. Still in a comfortable cash position (the ratio averaging 10.9% during the year)[1], and discouraged from further expansion of their investment accounts, the banks turned to buying government bonds, increasing their holdings by $511 million during the year. Thus the Governor's rather pious hope that borrowers would obtain funds without an expansion of bank credit was without foundation, although the mechanism was slightly disguised.[2]

The important features of 1948 were the following: (1) The large cash surpluses disappeared as foreign exchange reserves began to be rebuilt, and the government was no longer able to engage in an aggressive program of debt retirement. (2) Bank loans continued to reflect a buoyant economy. (3) After taking certain steps toward monetary restriction during the first quarter, the monetary authorities turned to a kind of "neutralism". (4) Of some interest is the fact that this year saw a particularly large increase in notes in circulation ($71 million compared to $18 million in 1947, $43 million in 1946 and only $2 million in the year to come).

In view of the changing "intent" official policy which we have traced above, one may well ask why the government did not initate some more positive monetary control, without which the domestic attack upon inflation could scarcely hope to be effective. The apparent answer to this question raises grave problems of the ability of the Bank of Canada

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[1] Bank of Canada, Annual Report 1948, p.10.

[2] Ibid., p.7.

to deal effectively with any inflationary situation, given the institutional arrangement of the Canadian capital market. It is an economic commonplace that central bank operations designed to effect monetary restriction have a more immediate influence than those directed toward expansion, since the banks and the business community cannot be forced to utilize the credit made available when confidence is low. But whereas debt management policy, interest rate policy and open-market operations are likely to involve no conflicting objectives where the problem is to encourage economic expansion, Canadian postwar monetary experience reveals the unfortunate fact that where inflation is the problem, the conflict between monetary restraint and considerations of debt management may be so serious as to render any effective central bank action impossible.

We must not minimize the importance of debt management in our anxiety for effective monetary control.[1] As a result of World War II

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[1] "Debt Management Considerations" comprise a heterogeneous conglomeration of (to a considerable extent incompatible) socio-politico-economic aims, among which may be found the following:

(a) The need for keeping the market receptive, thus easing the problems of refunding. This is of more importance in the United States where a much larger proportion of the debt is in short-term obligations.

(b) The problem of maintaining confidence because of the necessity for selling additional securities in the future.

(c) The desire to keep interest costs as low as possible to relieve the direct burdens on the treasury, and to encourage capital investment.

(d) The desire to "keep faith" with the unsophisticated investor who expected to be able to sell his bonds at par. Too often, in discussions of the "responsibility" of the monetary authorities to the unsophisticated but patriotic investor, the argument turns on the loss which he may suffer as a result of a decline in the money price of the securities.

fiscal policy, the Canadian public debt assumed a central place in the structure of the economy, and the government was committed (at the very least) to maintain an orderly and stable market. With substantial amounts of this debt in the hands of individuals, it was neither socially just nor politically feasible to pursue a policy of open-market monetary restriction regardless of the consequences for debt management. Moreover, in the light of the deteriorating international situation, and the need for large-scale appeals to the market in the event of war, the necessity for maintaining confidence would not be ignored. But if it is correct to assume that the Bank of Canada regarded debt management as the dominant factor in the determination of its monetary policy in this first inflationary period, and that its freedom to make open-market sales was severely limited because of this, then it must also be admitted that its ability to initiate monetary restraint had been lost, since under the prevailing arrangements, open-market operations are the Bank's only permanent technique of credit control.

Given the expansionist bias of these institutional arrangements, and the very real requirements of debt management, a policy involving the positive curbing of chartered bank reserves between mid-1946 and the end of 1948 was probably impossible to expect. It is not clear, however, that

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Thus "Congressman Patman...expressed the view that it was 'a shame and a disgrace' and a violation of a 'sacred obligation' that the Federal Reserve had allowed government bonds to decline below par." (National City Bank of New York, Monthly Letter, November 1951, p.131.) Actually, of course, such arguments may stem from a lack of understanding, or from a cynical exploitation of the money veil for political purposes. The bondholder can be "done in" more effectively by maintenance of the money price of his securities at the expense of a decline in their real value. Moreover, in this case, the damage is done to all the bondholders, not just to those who want to sell their bonds prior to maturity.

a tighter control of reserves would have been inconsistent with the Bank's responsibilities in debt management (among which need not have been included an acquiescence in the development of premium bond prices).[1] That the Bank adopted a more flexible policy during the second period of inflation is very encouraging. The record does suggest, however, that as now constituted, the Bank is not properly equipped to restrain inflation. This contention is borne out, as we shall see, by the experience in 1950 and 1951.

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[1] The Minister of Finance consistently denied that the Bank of Canada had ever "...attempted to maintain an artifical support for government bonds." See, for example, House of Commons Debates, June 20, 1951, where the Minister further stated that "...the Bank of Canada invests in government bonds, but they are purchased at prevailing market prices." Such disingenuous statements merely obscure the significance of the Bank's open-market operations. In reply to a charge that the Bank had (in 1948) instituted a policy of, in this case, higher interest rates, the Minister admitted that "...the Bank of Canada was simply recognizing what had taken place elsewhere." Whenever questioned as to the effects exerted by Bank of Canada participation in the bond market, the Minister was invariably evasive.

Chapter IV

THE FIRST PERIOD OF STABILITY

Despite the increase in the active money supply in 1948, the first postwar surge of inflationary pressure appeared to have exhausted itself by the end of that year, and from the last quarter of 1948 to the second quarter of 1950, there were few significant changes in the Canadian monetary system. Debt holdings of residents decreased substantially, but this movement was offset by increases in inactive deposits. In its cash operations, the government sector was approximately in balance and the increase in private bank credit was largely offset by increases in non-resident holdings of Canadian liquid assets. The net result was that the residents' active money supply increased by about $68 million during these eighteen months.

In analysing the postwar experience, we find considerable evidence of two distinct inflationary threads in the pattern, and their interweaving serves to cloud our appreciation of what was occurring. The first is related to the long-term upward movement in prices which can be found in most series. The second is associated with the adaptation of the economy and the monetary system, more or less violently, to new conditions. Thus, during the first period (which has been discussed above), the economy was making room for a new level of investment spending, and accommodating itself to the higher level of active money and liquid assets generated by the wartime financial arrangements and never integrated into the economic process. Again in 1950 and 1951, the Korean war required the economy to

adapt itself to a new level of military spending in a short time, and this was also accompanied by an inflationary movement.[1]

Unfortunately, the word "inflation" has become a slogan, and has lost much of its usefulness as an economic term. To the man-in-the-street (and to his newspapers) the word seems to mean merely a period of rising prices, and this definition receives important support from Professor Samuelson.[2] However, when an economist uses this term, he normally is referring to the causes or conditions which lead to the rising prices, and he would probably accept a definition similar to the following: Inflation is an increase in the flow of effective monetary demand relative to the flow of goods and services available for purchase, when the economy is "fully" employed. This seems satisfactory for the "surges" of inflationary pressure during 1946-48 and 1950-51. At such times, the rising price levels measure the automatic response of the economy to the excessive monetary demand. The aggregate purchasing power is brought into equilibrium with the flow of goods and services by a process which has the effect of cancelling part of the value of each monetary unit. The popular phrase, "the fifty-cent dollar" has therefore much to commend it.

This description, however, cannot be completely satisfactory, for it does not take into account long-term movements (e.g. in wages, stock market prices, etc.), and it does not assist us in understanding the gradual breakdown in an economy which occurs as a result of inflation. Dr.

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[1]This adaptation to new conditions can be traced most clearly in the quarterly records of the National Accounts.

[2]Paul A. Samuelson, Economics, (New York: McGraw-Hill Book Co.), 1948, (First Edition), p. 280.

Bresciani-Turoni has described such deterioration in his classic analysis of the German inflation, when business activity declined considerably prior to the stabilization of prices. This suggests that the analogy between inflation in an economy and overcapacity operation of a machine is a fair one, and that a prolonged and severe inflation will lead to serious internal stresses and eventually to collapse. The most important unanswered question of the recent inflation is how badly the economic machine has been strained by the excesses of the period, and to what extent weaknesses have developed which have been hidden by the general price movements.

So far, the argument suggests that "adjustment" inflations such as we have experienced since the war will come to an end as the new factors are taken account of in the national economic situation. Consequently, to be effective, monetary and fiscal pressures must be applied as soon as possible after the stimulus appears. Such measures do not, however, offer an answer to the longer-term movement, which seems to be an institutional and structural phenomenon.

In many ways, inflation (particularly of the latter type) is a more dangerous menace to a democratic government, and to an enterprise economy, than unemployment. In the first place, it is much harder to pin down: When do rising prices indicate inflation, and when merely the normal changes in a flexible price structure? Moreover, although its effect may be to create dangerous distortions in the economy, there is an understandable reluctance on the part of governments to apply the vigorous measures which might stop the inflation (either of the adjustment or structural varieties) at the price of having the distortions come to light and be squeezed out by a recession. Unemployment is politically more dangerous (and to most

people morally more reprehensible) than moderate increases in the price level, as most governments in power at the beginning of the Great Depression discovered to their cost. Moreover, a little inflation, like a little learning, is especially dangerous, since it gives at least the illusion of greater prosperity to the three important economic groups which Professor Higgins called Big Business, Big Labour and Big Agriculture.[1] In addition, during an inflationary period, well-organized segments of the community such as these are able to increase their share of the total product, and so obtain a measure of increased real income as well. As long as prices continue to rise, conflicts between the first two of these groups, or between the first two (in alliance) and the third, are likely to be minimized. Wage increases, for example, can be passed along to the consumer through higher prices. The union executive is able to provide his men, each year, with substantial monetary benefits. The entrepreneur takes inventory profits, and, if he is able to maintain his margins, shows higher operating profits each year to his shareholders. This is a comforting situation for all these groups, and, before too long, important segments of the community find themselves with a vested interest in inflation, however much they may condemn it from the platform. Even the much-pitied home-owner may breathe a sigh of relief when inflation wipes out a quarter or a third of the real burden of his mortgage, and increases his equity more than proportionately in the bargain.

Some writers, giving way to despair, have noted these factors, and the unlimited inflationary powers which modern monetary machinery has

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[1] Benjamin Higgins, What Do Economists Know?, (Carlton, Australia: Melbourne University Press), 1951, p.111.

placed in the hands of governments, and have concluded that a more or less continuous rise in the price level can be expected. The only defence, therefore, is to arrange the economic institutions to minimize the undesirable effects of inflation, particularly in distortion of the income-distribution pattern.[1]

There are two general approaches to this problem of inflation. The first identifies inflation with rising prices, and deduces that the way to cure inflation is to prevent rising prices by direct interference. A comprehensive system of wage and price controls is introduced and systems of priority are arranged to reduce investment spending. If these measures are successful, they will prevent the normal compensation of the economy to the excessive flow of monetary demand through rising prices, and the adjustments will be made in other ways, as rigidities develop. Except possibly under the patriotic stimulus of wartime, when a high level of saving can be more easily obtained, or forced through rationing,

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[1] See the following sources for pessimistic discussions of this problem:

"Agenda for the Age of Inflation", The Economist, Aug. 18, 1951, pp.382-4; Aug. 25, 1951, pp. 435-7; Sept. 1, 1951, pp. 490-1.

Sumner H. Slichter, What's Ahead for American Business, (Boston: Atlantic-Little,Brown), 1951, pp.78-9.

F. Cyril James, "The Inflation Menace", The Canadian Banker, LIX, no. 1, Winter 1952. In this article, Dr. James argues that the analysis and solution proposed by The Economist's anonymous correspondent would only lead to acceleration of the inflation and collapse. His own position was not optimistic. He considered the psychological element to be all-important since there are no automatic checks and balancing remaining in the system.

In none of these sources is a clear-cut distinction between the short-run (demand) problems and the long-run (cost) problems made, except that Dr. Slichter has based his prediction of rising price levels on cost factors resulting from labour organization.

such measures cannot be applied indefinitely without seriously impeding the progress of the economy and damaging the flexibility which is one of the chief advantages of a decentralized, free system.

The other approach recognizes, correctly, that widespread price increases characteristic of an inflationary period are symptomatic of excessive monetary demand; in the short-run this is quite correct, and it directs its operations to damping the various aggregate demand flows. The weakness of this approach is that it does not attack the underlying and more basic problem of relatively rigid cost inflation through higher wage rates.

I have introduced this discussion at this point since it is appropriate to consider here the process by which the first "adjustment" inflation ended, and to at least raise, if we cannot answer, questions regarding the neglected problem of cost inflation, which has yet to be squarely faced. Turning again to the events of the period, we find that when the Minister brought down the budget in 1949, he indicated that the government now sought to sustain "...our present high levels of output, avoiding the evils of unemployment...and further inflation...."[1] He further stated, "We should not seek just a balance, but a balance in motion."[2] Thus, after a long-delayed recognition of inflation as the foremost problem, the Minister turned to achieving stability, confident that the pressure upon supplies was lessening as deferred demands were met and increasing amounts of goods were made available.

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[1] D.C.Abbott, Budget Speech, March 22, 1949, House of Commons Debates, p. 1786.

[2] Ibid.

The budget discussion of economic conditions in 1949 was coloured by the political considerations of an election year. Nevertheless, the Minister was at considerable pains to justify the maintenance of the large surplus during the 1948-49 fiscal year, when "more spending would not have led to any significant increase in production. To have reduced taxes then in order to let people spend more would have been a delusion."[1] He went on to point out that capital expenditures were continuing at a high level, and that prices and costs in that sector had not weakened. Consequently, he proposed to grant most tax relief to consumption expenditures and individual incomes, and, in a gesture of sweeping magnanimity (which can only be interpreted from a political point of view) made the tax changes retroactive to January 1, 1949.

In retrospect, these plans appear to have been sound. even though they may have been conditioned by political factors. Faced with easier conditions abroad, particularly in the United States, the government relied on its fiscal operations to support the domestic level of business activity. No important monetary policy changes can be found, save that the Bank of Canada withdrew its warnings against the financing of capital expenditures through expansion of bank credit. As the inflationary pressures slackened, bond prices strengthened, and interest rates declined significantly during the last half of the year.[2]

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[1] Ibid., p.1794.

[2] The yield on the longest Victory Loan declined from 2.91% in June 1949 to 2.73% in December, and held close to that level until after the beginning of the second inflationary period in mid-1950.

In the face of these new conditions, the established patterns in the monetary system did not change as much as might have been anticipated. The general public continued to sell government bonds, disposing of a total of $347 million, but this was offset by a rise of $343 million in inactive deposits. This is one relationship which seems to differentiate inflationary from non-inflationary periods. In both, as we have seen, the public was on balance a seller of government debt. In the inflationary periods, the funds so obtained flowed into active money balances; in the more stable periods such sales were accompanied by an offsetting increase in inactive deposits. Moreover, in the stable periods, as can be seen from the tables, the chartered banks became net purchasers of government securities.

In 1949, an important factor in the shift out of government debt was the repayment of the largest amounts of refundable taxes, which were considered part of the debt in the statistical data: $223 million being paid out to individuals and $64 million to corporations.

During the first quarter of the year, the decline in total liquid assets ($188 million) was related to a marked seasonal decline in chartered bank credit. In the second quarter, the decline was associated with the repayment of the refundable taxes out of government deposits in the chartered banks, and in the last half, when chartered bank credit showed the usual seasonal rise, the cash position of the government was distorted by the adjustments related to the currency revaluations in September.

For the year, as a whole, it appears that the major sellers of government bonds were the government accounts, to the extent of some $461 million. The chartered banks, as in 1948, were net purchasers ($153 mil-

lion), as were non-residents. However, the sales of the government accounts, (holdings of the "Securities Investment Account" declined $487 million during the year),[1] were offset by debt retirements, so that the government debt outstanding declined by only $59 million. It would seem that this policy was in line with that set forth by the Minister of Finance. The bond sales by the government accounts during the year exerted a retarding effect on the upward movement of bond prices in the securities markets, thus continuing to put some small degree of pressure on the capital goods sector. Direct retirement of debt, as through the refundable tax, would be more likely to encourage consumption, since large amounts of this money would not be reinvested.

By 1949, the customary cash relationship seems to have been closely attained by the chartered banks, with the ratio varying as follows at the end of each quarter: 10.1%, 9.9%, 10.3% and 10.2%. Moreover, the relatively stable relationship between holdings of cash and government bonds and total deposits which had been noticed in 1948 persisted this year.[2]

The depreciation of the Canadian dollar which took place in September can only be justified as a competitive adjustment in the face of the much more drastic simultaneous reductions in the value of the pound sterling and many other currencies. Such a devaluation may also have been

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[1]The activities of the "Securities Investment Account" are not well documented. Providing a temporary resting place for surplus government funds, this account may well be thought of as the "price-support" agency. It was probably brought into existence because of the statutory limitations on Bank of Canada holdings of long term bonds. Its activities were most important during the first two periods under study.

[2]At the end of each quarter this ratio was 54.3%, 53.6%, 53.3% and 52.6%.

intended to forestall any speculative activity such as had been an important factor in the revaluation of sterling. On any other grounds, the Canadian depreciation can scarcely be defended. Canada had both a current account surplus in 1949 ($187 million) and reasonable stability in her foreign exchange reserves (a loss of $11 million between the end of 1948 and August 1949), in contrast to the tremendous pressure on the sterling reserves at this time. That this change was not completely satisfactory was recognised in government circles;[1] it was officially defended on the basis of the need to protect Canada's trading position from a deficit, in view of the relatively short period of recovery since the 1947 crisis, and the fact that the exchange reserves had not yet been restored to "adequate" levels.[2]

In all, the year 1949 was a period of queer cross-currents; the situation did not call for vigorous monetary control, and none was forthcoming. In the first half of 1950, however, with the government sector largely neutral in its overall effect on the economy, a new upsurge appeared in bank credit. There was no seasonal downturn; bank loans and investments increased by $16 million during the first quarter and by $122 million during the second. Canada was experiencing a new phase of development, as the United States recovered from the 1949 set-back, and as in-

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[1] See W.C.Clark, op.cit., p.15. "In making this decision, however, the Minister of Finance was again quite aware that under current world conditions the 'right rate' for the Canadian dollar at one time was unlikely to be the 'right rate' at another, and that he might soon have to face again the problem of altering the official rate, with all the inconveniences that these sudden and arbitrary changes create."

[2] Foreign Exchange Control Board, Annual Report 1949, p.7.

creasing defence expenditures began to add a new factor to the situation. In his 1950 review of economic conditions, the Minister drew attention to the relative strength displayed by the Canadian economy in 1949, when United States industrial production declined about eight per cent and Canadian output advanced about two per cent.[1] His appraisal of the outlook was optimistic, and he expected sustained high levels of employment and income. However, his viewpoint on fiscal policy was very sober, foreshowing future developments. Noting the vastly increased welfare and other expenditures, and the requirements of defence, he intimated that taxes would have to be kept at a level which would provide balanced budgets on a scale of about $2.4 billion for revenue and expenditures in years to come. Further reductions in taxes, or increases in expenditures, would have to be covered either by increases in the tax base, as the economy expanded, or by additional tax revenues. In his re-appraisal of budget policy, the Minister did not stress, as in 1948, the necessity for surplus budgets in prosperous years to help stem inflationary pressures. Obviously of the opinion that inflation as a problem was largely past, he aimed for a balanced budget ($20 million surplus for 1950-51) in good years, and anticipated large deficits in poorer times.[2]

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[1] D.C.Abbott, Budget Speech, March 28, 1950, House of Commons Debates, p.1207.

[2] Ibid.,p.1216. The fiscal system was admittedly very sensitive to cyclical changes, although at this juncture the government did not anticipate that it would again generate large surpluses through inflationary expansion. "...Our tax structure is now such that it is very sensitive to changes in employment and incomes, and relatively modest changes in these can have a more than proportionate effect upon our revenue." (p.1213).

During the first half of 1950, as Canada's position grew stronger, it became apparent to investor and speculators abroad that the Canadian dollar was undervalued at the official rate, and non-resident holdings of liquid assets increased by $73 million, continuing at a more rapid pace a trend noticeable in 1948 ($88 million increase) and 1949 ($115 million increase). This trend was reflected, too, in an increase in our exchange reserves of $138 million between the end of 1949 and the end of June 1950. This was pleasant, and not too embarrassing, since the government's cash resources at the time were ample to finance the increase in the reserves.[1] With the coming of the Korean war, and a new burst of inflation, the comfortable stability of this period rapidly dissolved.

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[1]Bank of Canada, Annual Report 1950, p.9.

Chapter V

THE SECOND PERIOD OF INFLATION

In June 1950, with the outbreak of war, a serious inflationary problem returned to plague the Canadian monetary authorities. In contrast to the immediate postwar years, the second inflationary period was characterized by conditions which might well recur: i.e., the addition of a large defence effort to a substantial capital development boom as the result of a sudden deterioration in the international situation. Thus, while both periods were essentially periods of transition, the first from wartime conditions to the peacetime "normal" of 1949, and the second from the encouraging prosperity of the first half of 1950 to a state of cold war readiness, there were substantial economic differences which must be noted.

The first inflation began with government spending at a very high level, and with the prospect that such spending would decrease rapidly. The second found government spending at a relatively low level, and held out the prospect that such spending would rise markedly. These statements imply that tax rates would fall considerably below the repressive wartime levels during the first inflation. In contrast, the second period began with the tax structure arranged for what the government believed to be a "normal" situation, and with the expectation of rapidly increasing rates.

Immediately following World War II, Canada's foreign trade was, as already indicated, uncertain. The major markets for Canadian exports had

been destroyed or demoralized, and the wartime expedients for providing funds and goods (Mutual Aid) had terminated. With the coming of the Korean war, however, there was every prospect that the organization of "defence" economies in the United States and elsewhere would require enormous quantities of Canadian raw materials, and strong export markets were thus assured for many months to come.

In the consumers' and capital goods sectors, the first inflation found serious shortages, after a decade of depression and six years of war. However, the outlook was for rapidly increasing output, and by 1950 the most important deferred demands had been either eliminated or reduced to manageable proportions. At that time, with the memory of the World War II experiences still vivid, there arose a general fear of the renewal of wartime shortages, particularly of durable goods.

The problem of demobilization and redirecting the labour force had been acute in 1946,[1] but in the "defence" economy the prospect was for labour shortages rather than widespread unemployment. At the end of the Second World War, there remained in operation the complete structure of direct economic controls, with the expectation that this could be dismantled gradually. The Korean "incident" occurred when the economy was

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[1] See the White Paper on "Employment and Income", p.2. Here the Minister of Reconstruction and Supply referred to the 784,000 Canadians in the armed services in 1944 and the more than 1 million in war industry, together constituting more than 1.8 million of a total labour force of some 5 million persons. No one at the time could foresee whether or not the economy would be able to absorb the manpower which it had been unable to use in 1939.

The proportion of the labour force seeking work reached a postwar high of some 6% in the early months of 1950, largely as a result of regional factors in the British Columbia lumber industry. See National Accounts Income and Expenditure by Quarters 1947-1952, (Ottawa: Queen's Printer), 1953, p.21.

not burdened by controls, and the government soon expressed its determination to keep it as untrammelled and flexible as possible in spite of the necessity for particular restrictions, notably in the allocation of materials and in consumer credit regulations.

Finally, there existed in 1946 a situation marked by greatly increased liquidity in all sections of the economy, resulting from the methods of war finance. By 1950, much of this liquidity had been squeezed out by the expansion of real income and the effects of the first inflation.

Several aspects of this shifting liquid position in the postwar Canadian economy are of particular interest. First, it may be noted that there is no significant correlation between changes in the active money supply and changes in price levels, at least during the six years under study. Thus, in 1947, an absolute decline in the active money supply was accompanied by a rapid rise in the cost-of-living index; whereas in 1948, although the active money in the hands of residents rose by $391 million, consumer prices stablized by the last quarter of the year. Similarly, in 1952, an increase in the active money supply of $369 million did not lead to rising prices.

There is, however, an interesting pattern in the changing relationship between overall liquidity and national income.[1] Throughout the postwar years, the non-corporate sector of the economy has displayed a strong tendency toward the restoration of the 1938 relationship between liquid assets and income. The degree to which this has been accomplished

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[1] In this connection, see also Mabel F. Timlin, "Recent Developments in Canadian Monetary Policy", American Economic Review, Vol.XLIII, No.2, May 1953, p.51.

TABLE VI

NON-CORPORATE LIQUIDITY: SELECTED YEARS, 1938-1951 *
(Millions of Dollars)

Item	Year			
	1938	1945	1949	1951
Personal Disposable Inc.	5,975	8,430	11,968	14,683
Liquid Assets (at 31/12)				
Active Money Supply	659	2,108	2,559	2,731
Inactive Deposits	1,184	2,044	3,297	3,457
Government Debt	970	6,119	5,246	5,057
	2,813	10,271	11,102	11,245
Less: Consumer Credit o/s	379	297	892	1,080
Net Liquid Position	2,434	9,974	10,210	10,165
% Total Liquid Assets of Pers. Disp. Income	71	122	93	77
% Net Liquid Position of Pers. Disp. Income	61	119	85	69
% of Total Liquid Assets				
Active Money Supply	23	21	23	24
Inactive Deposits	42	20	30	31
Government Debt	35	60	47	45

* Source: Bank of Canada, Statistical Summary, various issues; "Consumer Credit Outstanding" and "General Public Holdings of Certain Liquid Assets" (Research Memoranda).

is surprising, in view of the economic changes (e.g. in employment) which have occurred in the meantime. The most striking feature of the non-corporate monetary situation, as indicated in the foregoing table, was the greatly increased importance of government debt, which by that time had supplanted inactive deposits as the largest repository of "potential" purchasing power. Probably as important as the amount of this debt, from the point of view of postwar policies, was its wide distribution, a result of the efforts of the government and its National War Finance Committee.[1]

At the end of the war, the personal sector was in an excellent position to increase its rate of spending, its net liquid position being almost twice as favourable as before the war, taking into account the fact that the amount of consumer debt outstanding was lower after the war than it had been in 1938. This reflected to a great extent the unavailability of durable goods, for which expenditure had fallen from 7.3% of disposable income to 4.0% during the period.[2] By the end of 1949, the several liquidity items had shifted about half-way toward the 1938 asset-income ratios,[3] again suggesting that the rise in money income associated with the first inflation and postwar prosperity had removed a good deal of

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[1] In 1944, Mr. Ilsley pointed out that interest on the debt would be payable to "...probably not less than sixty per cent of the income-earners of this country." See Budget Speech, June 26, 1944, p.4.

[2] See National Accounts Income and Expenditure 1926-50, (Ottawa: Dominion Bureau of Statistics), 1952, p.75 (Table 36).

[3] It is not suggested, of course, that the relationships prevailing in 1938 are "normal" in the sense of a desirable objective to be attained.

TABLE VII

CORPORATE LIQUIDITY: SELECTED YEARS, 1938 - 1951 *
(Millions of Dollars)

Current Position of 603 Canadian Corporations

	1938 (a)	1945	1949	1951
Net Current Assets	856	1,457	1,978	2,489
% of Invested Capital (b)	23.5	37.2	37.0	38.8
Inventories	512	778	1,372	1,963
% of Invested Capital (b)	14.1	19.9	25.7	30.6
Net Quick Assets	344	679	606	526
% of Invested Capital (b)	9.5	17.4	11.1	8.2

Capital Structure of 603 Canadian Corporations

	1938 (a)	1945	1949	1951
Funded Debt & Misc. Loans	957	771	1,135	1,478
Total Invested Capital	3,657	3,910	5,347	6,408
% Debt of Total Capital	26.3	19.7	21.2	23.1

* Source: Bank of Canada, Statistical Summary 1950 Supplement, p.44. (for 1938 figures), and Bank of Canada, Statistical Summary, November, 1952, p. 184. (for other years).

(a) 1938 figures are not directly comparable, being based on a sample of 663 companies.

(b) Invested Capital includes funded debt, loans from parent companies, etc.

of the "excess" purchasing power from the liquid asset holdings. There would, therefore, seem to be little reason, on the basis of the liquid position itself, to expect a further upsurge in the rate of consumer spending.[1]

Overall data in the corporate sector have little significance because of the great variety of financial, non-financial and governmental units included.[2] Nevertheless, some indication of the changing position of Canadian non-financial corporations may be obtained from an analysis of the published figures on selected companies provided by the Bank of Canada.

It is evident that in 1945, corporate liquid funds were substantially greater than in 1938, the pressures of war shortages and price controls having led to relatively small inventory increases. Since 1945, however, the net quick assets (current assets excluding inventories less current liabilities) of these corporations have shown both relative and absolute declines, and by the end of 1951 were well below the 1938 ratio to capital investment. Postwar increases in working capital have evidently been the result of a high level of activity and of inflationary changes in inventory values. The "free" funds with which the corporations were very

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[1] The entire period under study seems to represent a full cycle in the relationship between liquidity and income. One can see in the latest figures very little basis for a large upsurge in future spending, except under "panic" conditions should new wars occur. This may indicate that under more normal conditions further cost "inflation" will lead to increasingly serious dislocations in the economy. See above, pp.58 et seq.

[2] The attempts of the chartered banks in the early postwar period to restore their former cash ratios have already been indicated.

adequately supplied in 1945 were no longer abundant in 1951.[1] This suggests that any future upsurge in spending by corporations will be based to a great extent on the expansion of bank credit, which one would hope might be controlled by vigorous central bank action.

The second inflationary period, initiated by the outbreak of war, was accompanied by an enormous speculative inflow of capital in anticipation of a revaluation of the Canadian dollar. During 1950, the current account deficit in Canada's balance of payments amounted to $329 million, but despite this development, investors and speculators became convinced that the existing foreign exchange rate could not be held, and that a return to parity was inevitable. Thus, Canada experienced an unprecedented short-term capital inflow and "In ten weeks in the third quarter...our exchange reserves increased by over 500 million dollars."[2] This was the net result of a capital inflow which approached the magnitude of $1 billion.[3]

Due credit must be given to the monetary authorities for their handling of the second inflationary crisis. Freed from the uncertainty as to the dominant trend (i.e., inflation) which led to paralysis of monetary policy in the earlier years, the monetary authorities acted vigorously. In October 1950, the government moved to obtain relief from the inflationary pressures arising from the embarrassingly large capital inflows

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[1] By 1945, the financial strength of these companies had been aided considerably by the repayment of funded debt during the war years, when relative prosperity was combined with a limited ability to make new investments. This financial strength was substantially maintained in the postwar years. Prosperity assisted the corporations in expanding their equity base, and the additional issue of debt was quite modest.

[2] See W.C.Clark, op.cit., p.15.

[3] See Foreign Exchange Control Board, Annual Report 1950, p.2.

by freeing the dollar. It may justifiably be asked whether there were any real alternatives to this action. In retrospect, it does not seem so, and the explanation which the government offered was quite reasonable.[1] To have restored the rate to parity would have justified the expectations of the speculators, and would have led to withdrawals of the "hot" money, complete with a tidy profit.[2]

Postwar fluctuations in Canadian foreign exchange reserves have exerted important repercussions on the volume of domestic credit. Thus in 1947, the decline in reserves contributed to the government's cash surplus, part of which was employed to reduce bank-held public debt.[3] In 1950, the financing of the extraordinarily large increase in reserves was

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[1] Ibid., pp. 14-15. "...The inflows were bringing about a substantial and involuntary increase in Canada's gross foreign debt and annual service charges without any corresponding increase in its productive resources or ability to export. In considering action appropriate to check the inflow the Government reviewed the possibility of moving the par value of the Canadian dollar to a new and higher fixed level but concluded that under the conditions then existing it was impossible to determine in advance with any reasonable assurance what new level would be appropriate. It was therefore decided that the rate of exchange should be left to be determined by market forces."

[2] Since the end of the war, our foreign exchange reserve position has been dominated by the effects of short-term capital movements. Under fixed exchange rates such movements exerted a destabilizing influence, in the belief that the fixed rate could not be held. With the free or floating rate since 1950, the short-term movements have worked in our interest, as a stabilizing force, and as a means of simplifying the problem of financing exchange reserves. The preference for a system of flexible exchange rates expressed here implies the existence of an official agency administering a large block of official or semi-official reserves. This Exchange Fund can be used to smooth fluctuations, and to counter (by its dominant size) movements initiated for speculative purposes, which had so weakened the case for free rates during the inter-war period. See G.N. Halm, Monetary Theory, (Philadelphia: The Blakiston Co.), 1946, pp.210-16.

[3] The failure of this policy to tighten credit has been noted. It cannot be too strongly stressed that with the use of a separate government agency to hold the official exchange reserves, financed by advances from

was accomplished partly by the sale of deposit certificates ($200 million) to the chartered banks, and partly by the Bank of Canada's direct acquisition of foreign exchange assets (up to $893 million). At first, the Bank was able to offset much of the potential monetary expansion by open-market sales of securities. Later, as the Bank's extraordinary foreign exchange assets declined, it absorbed substantial amounts of securities, and the net effect of the Bank's operations was an increase in chartered banks' reserves of $56.4 million in 1950. Thus the violent effects of external factors impeded any swift response to the internal inflationary upsurge. Because the cash position of the government was severely strained by the deficit associated with the financing of the exchange reserves,[1] it would not have been feasible to have applied strong pressure to the banking system at this time.[2]

On October 16, the immediate overriding problem of the exchange rate and the capital inflows having been resolved by the freeing of the dollar, the Bank of Canada announced an increase in the rediscount rate from 1½% to 2%, and officially abandoned its 1944 position, at which time

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the government's working funds, the traditional relationship between the exchange and gold reserves and the volume of bank cash has been completely disrupted.

[1]The data in Appendix A indicate that by the end of September 1950 the cash balances of the government had been reduced almost to zero.

[2]The importance for monetary control of the maintenance of substantial government deposits in the chartered banks must be noted. Shifts in deposits from the chartered banks to the Bank of Canada can have as important restrictionist effects as open-market operations without any direct effect on the securities markets. This device might have been employed more vigorously in 1947. See the discussion, above, Chapter II.

it had indicated that postwar conditions were not likely to be such as to require higher interest rates.[1] In practice, this meant that the Bank of Canada, in its open market operations, would permit the changing forces of demand and supply to be reflected more readily in fluctuations in securities prices. The market was unaccustomed to this sort of behaviour by the Bank, and does not appear to have appreciated what was occurring. In November, interest rates began to rise, but the magic of "par" was still strong, and at the end of December the longest Victory Loan was quoted to yield 2.97%.

In the third quarter of 1950, as we have indicated, the exchange situation was dominant. Total liquid assets rose by $589 million, with expansion of bank credit and an overall cash deficit of some $233 million in the government sector, as a result of exchange financing. With the freeing of the dollar, the exchange pressure came abruptly to an end; the last quarter of this year saw a decline in total liquid assets of some $41 million, inaugurating a trend which continued, uninterrupted, through the second half of 1952, beyond the end of our period of study. In the final quarter, the cash surplus of the government served to offset an increase in chartered bank credit outstanding, but the post-Korean inflation had settled in; the expansion which had been based in the first instance upon foreign exchange financing now shifted to private loans and investments of the banking system.

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[1] This reversal of policy was accompanied by more restrictive fiscal measures in which taxes were increased in such a manner as to particularly discourage the consumption of commodities for which materials were likely to be in short supply. Restrictions on consumer credit were brought into operation.

During 1950, the chartered banks must have found their cash position changing in an erratic and unsatisfactory manner. Generally speaking, however, the position was quite tight, particularly during the first three quarters: 9.6% on March 31, 9.2% on June 30, and 9.6% on September 30. During the last quarter, the banks acquired a considerable amount of cash ($75 million) and the ratio rose to a more comfortable 10.1% notwithstanding the rise in bank credit of which we have spoken.

The data show a high degree of dislocation in the monetary system. Normal seasonal movements were disrupted by the exchange situation, and in the last quarter, declines in "other deposits" at the Bank of Canada and absorption of securities more than offset sales of exchange by that institution, leading to an increase in chartered bank reserves. Overall, the exceedingly difficult situation in the third quarter appears to have been well handled, having regard to the international situation; there was a genuine effort made to control further expansion in the last quarter which was partially frustrated by external events, and by the weakness of the restrictive methods available.

The entry of the Chinese Communists into the war coincided with an intensification of inflationary pressures, facilitated by the rapid expansion of bank credit which was taking place.[1] Thus it became apparent that new methods were needed, and in February 1951 there occurred an event unprecedented in Canadian banking when a so-called "credit ceiling"

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[1]In the 1950 Annual Report of the Bank of Canada, the Governor referred to an increase of $270 million in loans (excluding grain loans) during the last quarter of that year, as compared to $17 million for the same quarter of 1949. In addition, during January and February 1951, there occurred a further increase of $71 million in total Canadian loans, as compared to a decline of $21 million during the comparable 1950 period.

was imposed upon the chartered banks. In the discreet phrases of the Governor of the Bank of Canada, it was noted that "In view of the degree of inflationary pressure and the strength of the demand for more credit, the Bank felt that the situation called for action over and above further tightening of the chartered banks' cash reserve position. Meetings with representatives of the chartered banks during February 1951 to discuss the situation found the banks in agreement with the suggestion that further expansion in total bank credit was undesirable under existing conditions."[1] As indicated in the following chart, the credit ceiling worked very well indeed.

It enabled the Bank of Canada to take another important step toward a more flexible monetary policy by permitting declines in long-term bond prices to well below par, without excessive disorganization of the market. With the credit ceiling to prevent the banks from utilizing the additional cash, the Bank could continue to "cushion" the market by absorbing bonds as required. As a transitional measure, considerable justification may therefore be claimed for the use of such a ceiling, but as a precedent for future action, the use of this form of direct control has little to commend it as a substitute for the more gradual and orthodox application of pressure by customary techniques as inflationary pressures develop.

It seems quite unfair to burden the chartered banks with the responsibility for control of the credit structure and in effect to penalize,

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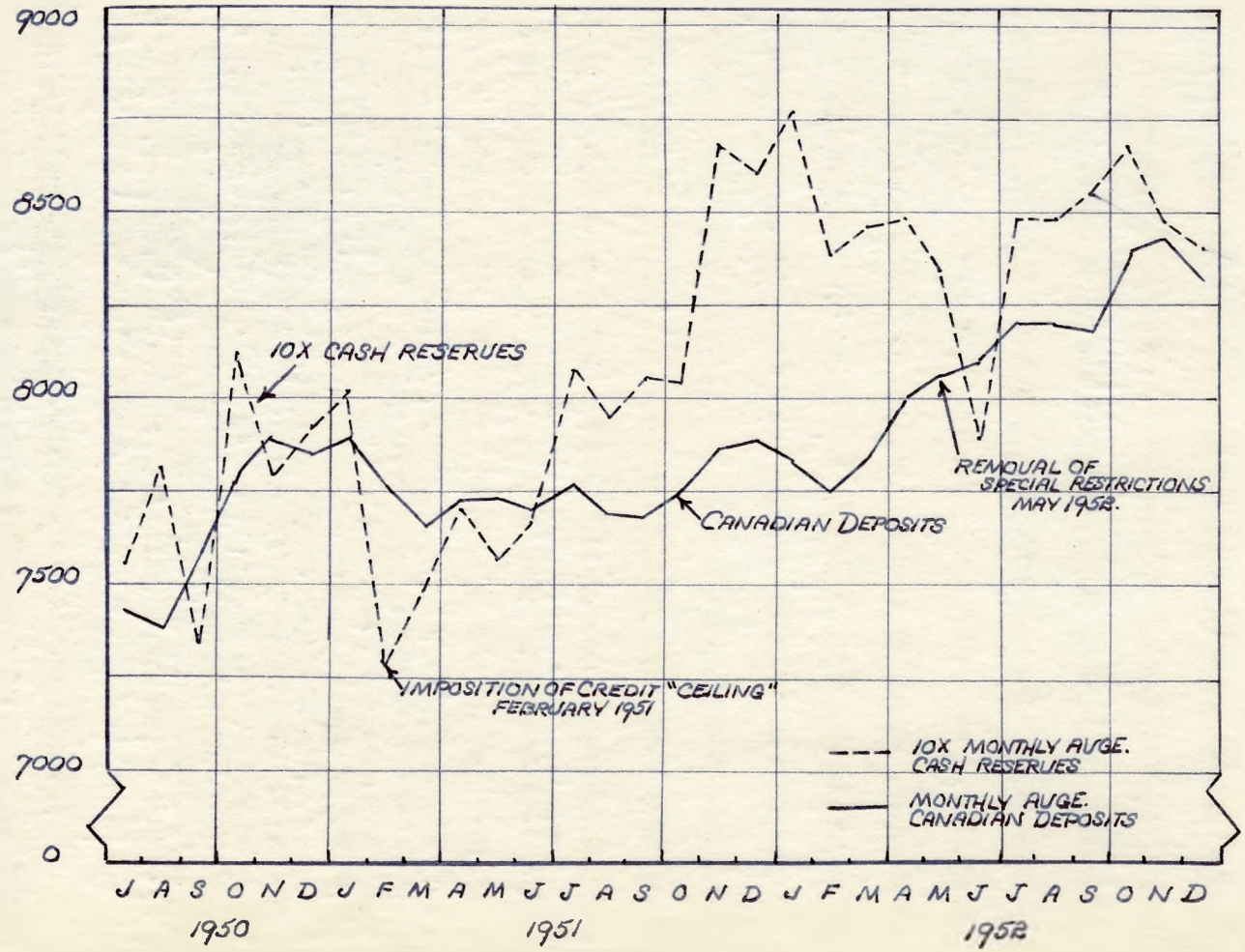
[1]Bank of Canada, Annual Report 1951, p.9.

CHART No. 5

CANADIAN DEPOSITS OF THE CHARTERED BANKS *

THE ACTUAL VOLUME AND "CUSTOMARY" VOLUME (10% CASH RESERVE)

MONTHLY AVERAGES



* SOURCE: BANK OF CANADA, STATISTICAL SUMMARY, VARIOUS ISSUES.

profit-wise, those banks which prior to the instituting of the ceiling had behaved with relative restraint in expanding loans. Rather, pressure should be brought to bear on those banks most fully extended. The reluctance of the monetary authorities to assume full responsibility for monetary restriction in such a crisis appears to be quite unjustifiable.[1]

In this connection, in late 1951, the Parliamentary Assistant to the Minister of Finance, in replying to complaints about the general decline in bond prices, provided some interesting but equivocal statements on debt policy.[2] Thus, "...it is not the policy of the government, or of the Bank of Canada, to cause a fall - or, for that matter, a rise - in the market price of government bonds."[3] It was further pointed out that between issue and maturity, the price of a marketable bond "...is a reflection of varying conditions which affect the desire of bondholders to sell and of other persons to buy." Along this same line, the Governor of

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[1]In his 1951 Budget Speech, the Minister of Finance stressed the "voluntary" co-operation of the banking system in the public interest. In the 1951 Annual Report of the Bank of Canada, the Governor observed that "It was evident that there was a desire on the part of banks to maintain a higher cash ratio than they had during the first half of 1951." It is true that in the second half of 1951 the cash reserves of the chartered banks rose by some $124 million, but this was largely the result of a decline in the Bank of Canada's "Other Deposits" which was not offset elsewhere in the Bank's accounts. With the credit ceiling effective, it would appear that the cash ratios of the chartered banks would inevitably rise, regardless of their wishes in the matter.

[2]See House of Commons Debates, November 19, 1951, p.1131.

[3]The validity of this statement rests upon an apparently calculated ambiguity as to the interpretation of the Bank's "causal" influence in the market. But however interpreted, it represents a substantial change in the government's thinking since the appearance of the 1945 White Paper, in which the avowed purpose of monetary policy was the continuation of low interest rates to encourage investment in productive capital, thereby contributing to employment.

the Bank stressed the "limited buying interest in Government of Canada bonds"[1] which prevailed at this time. These references appear to confirm a continuation of the government's unwillingness to admit the importance of the influence exerted by the monetary authorities in the market.[2]

The thinking of the government on fiscal policy under the new circumstances is explained in the 1951 budget. The Minister pointed out that the "essential principle" in preventing inflationary upsurges "... is to restrict the total of all expenditure, public and private, to an amount which can be met from our production and imports."[3] In setting out the avenues by which the government proposed to apply this principle, Mr. Abbott made mention of the following: He stated that it would be necessary to restrict government expenditure to essential projects. He called for a fully balanced budget. Monetary restriction was mentioned specifically; additional expansion of credit was to be prevented by the "ceiling", selectivity was to be encouraged in favour of defence-assisting capital projects. The Minister did not specifically advocate higher interest rates as a means of encouraging saving and discouraging borrowing, but he indicated that the rise in interest rates was symptomatic of the pressures which had developed in the investment markets. Finally, the government,

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[1]Bank of Canada, Annual Report 1951, p.12.

[2]During 1951, the Bank of Canada added $249 million to its holdings of government debt, and government accounts added $162 million. Retirements amounted to some $592 million.

[3]See above, pp.60 ff. As indicated, the weakness of this approach to the problem, even that of the "adjustment" inflation, lies in the fact that it does not recognize the improvement of the bargaining power of entrenched groups during periods of full employment, and the consequent relatively inflexible cost inflation. See House of Commons Debates, April 10, 1951, pp.1800-1803.

giving priority to the defence program and to consumption, proposed to concentrate its restrictive operations on spending for capital items and consumers' durables, particularly since these sectors are the major users of strategic materials.

The Minister restated the government's general opposition to direct controls, which he emphasized was based on practical rather than "theoretical or academic or ideological" grounds. Nevertheless, the use of the deferred depreciation device, and the allocation of materials indicate that there is a limit to what can be accomplished by orthodox fiscal policy. The government seems to have recognized this. Because of the relatively high level of spending (estimated at $3,700 million for the following fiscal year) and the high tax rates already proposed, it would not have been politically feasible to use fiscal policy to budget deliberately for a surplus, as in 1948. It may be possible to use taxation as an anti-inflationary measure by neglecting to reduce existing taxes; to raise already high rates of tax in order to retire debt would require more political courage than one might reasonably expect any government to generate.

In the light of this situation, the government should not take too much credit for the "unanticipated" surpluses which appeared during the second inflationary period. The size of these surpluses was the result of inflation, and cannot be said to have contributed much to its effective control. Beyond that, and without attempting to assess the possibility of deliberate understatement of expected revenues by the government, we must conclude that fiscal policy had lost a great part of its usefulness as a method of controlling inflationary pressures dur-

this second period. This may explain, in part, the greater reliance which was placed on monetary measures.

The essential difference in central banking policy between the first and second inflationary periods was an increased recognition of market pressures. The movements of chartered bank reserves and the need for the credit ceiling indicate that the Bank of Canada was no more able to make open-market operations an effective instrument of control in the latter period than in the immediate postwar years. Furthermore, however effective the credit ceiling proved to be, it was a makeshift device made necessary by the failure of the Bank to implement any alternative and sounder form of monetary restraint, and, like any makeshift device, it suffers the disadvantage of being concocted "...only after a trend has been well established and when it may be difficult to arrest. Moreover, political pressures may dictate the removal of these substitute arrangements at a relatively early date."[1] In addition, when deferred demands for credit are substantial (as a result of the ceiling, or of complementary direct controls on consumer credit and capital expenditure), the removal of such a ceiling may be followed by an unhealthy competitive adjustment of the credit structure.

Allowing for the monetary expansion which occurred as a result of the capital inflow in 1950, it is significant that, in the face of a very large government cash surplus and of the credit ceiling, the active money supply was reduced by only $8 million during 1951. As we have in-

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[1] Timlin, op.cit., pp.46-7. It is a singular coincidence that the credit ceiling was imposed in February 1951, just about the time that wholesale prices in the United States reached their post-Korean peak.

dicated, the restraint of inflationary pressures via fiscal methods was subject to serious political limitations, particularly in the absence of wartime public co-operation, and with a major burden resting on monetary policy, it is not reassuring to find that our institutions are poorly adapted to operation in such an environment.

The restrictive monetary policy led to a steady decline in total liquid assets throughout the year. After the first quarter, when chartered bank credit outstanding rose by $151 million, the credit ceiling prevented any wide variations in this total. With the government showing substantial cash surpluses ($634 million for the year), Bank of Canada gold and foreign exchange holdings declined through the first three quarters to only $1 million at the end of September, rising to $49 million at the end of 1951. The overall effect was to decrease total liquid assets in the hands of the public by $653 million during the year.

The weaknesses appear when we analyse the classes of assets which were reduced. The active money supply declined by only $8 million; inactive notice deposits rose by $33 million, and public holdings of government debt were reduced by $678 million. This overall picture is not valid for particular periods during the year. During the first quarter, total liquid assets declined by $187 million, and a good part of this decline ($182 million) occurred in the active money supply, although there was an accompanying shift between debt and inactive bank accounts. Thereafter, however, active assets began to rise, and for the year as a whole, the decline was reflected in the movement of the inactive accounts and debt holdings.

Although we can discern an "impact" effect, the potentially anti-inflationary outcome of monetary restriction seems to have been largely nullified by the continued willingness of security-holders to part with government bonds. On the basis of the preliminary figures, only three groups were net purchasers: Bank of Canada, Government Accounts, and Non-Corporate Public, Non-Marketable Holdings. Every other class of holder sold on balance: Chartered Banks ($325 million); Non-Residents ($198 million); Non-Corporate Public, Marketable Holdings ($280 million); Corporations ($116 million) and Life Insurance Companies ($149 million).

An interesting feature of the monetary situation during the second period of inflation was the heavy selling of bonds by the life insurance companies.[1] Their sales in 1948 and 1949 had been readily absorbed by the monetary system since the chartered banks were net purchasers at that time ($311 million and $153 million). In 1950 and 1951, the banks were net sellers, and the insurance companies provided an additional large and persistent supply of bonds to the market. The only effective way of restraining the net sales of such institutions is through a flexible long-term bond market. This in turn suggests that the monetary authorities were correct in attempting to separate, insofar as this is possible, the individual and institutional investor by the device of the non-marketable bond.[2]

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[1]See "Liquid Assets", Table IV. Changes in the insurance companies' net holdings of direct and guaranteed Canadian debt were as follows: 1946, plus $107 million; 1947 - $12 million; 1948 - $169 million; 1949, - $171 million; 1950 - $185 million; and 1951 - $149 million.

[2]Insofar as the Bank's reluctance to make effective use of open-market operations in curbing credit has been based on adverse repercussions upon debt management, further support might be forthcoming for the

In the banking system, the changes were rapid. By the end of the first quarter, the cash position of the chartered banks was uncomfortably tight at 9.4% of deposits. The imposition of the credit ceiling and the freedom this gave to the Bank of Canada meant that the increase in cash during the next quarter served to bring the relationship back to its customary level of 10.0% on June 30, and this situation continued until the last quarter, when there was a new rise in chartered bank cash, the utilization of which was prevented by the ceiling, so that the ratio stood at 11.0% at the end of the year.

The ratio of cash and government bonds to deposits behaved in a similar fashion, falling from 48.6% at the end of 1950 to 45.7% at the end of the hectic first quarter, and thereafter leveling out at approximately that proportion for the remainder of the year.

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attempt to segregate individual and institutional investors. If the unsophisticated bond purchaser were provided with a non-marketable bond free from adverse capital fluctuations, the stultifying effect of "moral" commitments to bondholders might then be eliminated, since presumably corporate investors will not expect immunity from the possibility of adverse fluctuations in bond prices before maturity.

An objection to this arrangement is that as the proportion of the national debt in the form of non-marketable bonds increases (at the end of 1951, $1.2 billion of the estimated $5.1 billion of debt in the hands of the resident non-corporate sector was non-marketable), the potential inflationary danger becomes more serious. The monetization of this kind of debt is not subject to any form of direct control (except repudiation) other than "moral suasion". In any period of widespread flight from securities to money, the monetization of non-marketable debt would present a serious problem.

In this connection, it is our opinion that the increase from $2,000 to $5,000 in the maximum holding permitted in any one name is mistaken generosity. The Canada Savings Bond may legitimately provide an emergency reserve for the small investor, but holdings of any series in excess of $2,000, presumably for long-term purposes, could surely be subject to ordinary market fluctuations.

If Korea and the "bull" speculation in the Canadian dollar had made 1950 the monetary authorities' nightmare, 1951 must have caused many cases of ulcers. On the favourable side, it will be seen that the government operations (including exchange fund financing) were providing large current surpluses, and this enabled the Bank of Canada to discontinue, to a great extent, the direct financing of foreign exchange purchases.

However, the monetary authorities were inundated by a rain of debt. Total absorption (i.e., disposals by the banking system and the general public for redemption or other purposes) was of the order of $1 billion, a level surpassed only in 1947 when the exchange fund was losing reserves and the cash surpluses of the government were consequently much greater than in 1951. Absorption was much greater in the first half ($659 million); thereafter falling bond prices and the slackening of inflationary pressure reduced the flow considerably.

Throughout the year, chartered bank deposits of the government were run down to finance its operations, and there was a considerable increase in government debt held by the central bank. Purchases of debt by the Bank of Canada were to a great extent offset by disposals of foreign exchange by that institution. However, a fall of $154 million in "Other Deposits" which occurred in the last half made possible an increase in notes outstanding and chartered bank cash, particularly in the last quarter.

At that time, the situation was saved only by the ceiling. There was some purchasing of foreign exchange by the Bank of Canada, and the decline in "Other Deposits" freed credit to the chartered banks, with the

result that reserves were up by $117 million.

The year saw the monetary authorities overwhelmed by the desire for liquidity on the part of the banks and the public. Despite the fall in bond prices, the most effective instrument of control was the arbitrary credit ceiling, which allowed the central bank to create new reserves, at least temporarily, without fear that those reserves would be translated into increased loans. Nevertheless, the monetary authorities absorbed sufficient debt to make it possible for the general public to maintain its active money supply in the face of huge government surpluses, and the effect of these surpluses, as anti-inflationary measures, was thus largely cancelled.

Chapter VI

SUMMARY AND CONCLUSIONS

By mid-1951 the wholesale price index turned down, and at the end of that eventful year, the cost-of-living index reached its postwar peak. The restraints imposed, both through the monetary system and through taxation and direct controls, together with the gradual disappearance of the psychological stimulus toward inflation, had brought about a return to more stable conditions. There is evidence of a recurring pattern in the two postwar inflationary periods. Each required the appearance of a stimulating factor, and the inflationary period was a time when the flow of spending and productive activity became adjusted to the new conditions. As this occurred, the stimulating factors disappeared, and equilibrium returned.

In the first case, the stimulus was inherent in the disequilibrium between the liquid position of the various sectors of the economy, the deferred demands for goods and services of all types, the volume of production, and the price level. The adjustment can be seen during 1947 and 1948, as the price system accommodated itself to a new level of production and demand.[1] In the second period, the stimulus was manifestly the Korean war. In the short run, the economy was faced with two adjustments:

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[1]See the excellent discussion of the postwar phases and the changing patterns of spending in Dominion Bureau of Statistics, National Accounts Income and Expenditure by Quarters 1947 - 1952, (Ottawa: Queen's Printer), 1953, pp. 7-27.

(a) the absorption of a considerable amount of precautionary buying by both producers and consumers in anticipation of shortages and price increases, and (b) the adaptation of the economic system to a much higher level of government spending, despite a very high level of employment. Although there is not yet sufficient evidence to enable one to draw a firm conclusion, the record of 1949 and 1952 suggests[1] that where there is no active external stimulus or continuing adjustment, the use of relatively easy-money policies will not alone be sufficient to bring about a short-run inflationary upsurge.[2]

In view of the fact that between the end of 1945 and 1951 the total stock of money in Canada increased by almost fifty percent while the constant-dollar gross national expenditures rose by only fifteen percent, it has been suggested that monetary policy "...would have been more rational if increases in bank reserves and bank deposits in response to rising external prices or increases in output had been deferred until the wartime inflation had worked itself out."[3]

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[1]In 1952, there was a substantial expansion in the active money supply of residents.

[2]However, should the public become convinced that the "easy money" policies being adopted will bring about an inflationary condition, then the reaction may very well generate the stimulus needed to induce such conditions. The study of self-justifying anticipations is one on which much work can still be done.

[3]See Timlin, op.cit., p.52. No indication is offered here of the anticipated process by which the anti-inflationary effects of a restrictive monetary policy would become effective, i.e., whether by operating directly upon the general price level through the immediate effects upon the active money supply or indirectly via the consequences of rising interest rates. Our postwar experience suggests that the restraining influence of rising interest rates (as evidencing a tight supply of credit) might have been more important than mere changes in the money supply. As against the inequities stemming from the two periods of inflation, the lasting benefit has been the large increase in the Canadian productive capacity

Viewed in retrospect, it is certainly arguable that the much earlier use (i.e., in the immediate postwar period) of monetary restriction was highly desirable as an anti-inflationary weapon; but in view of the contemporary circumstances, it appears unduly harsh to suggest that the failure to implement such a policy involved irrationality. The Bank of Canada and the government could not realistically have been expected to ignore completely the implications of such restrictions for the management of the public debt, and in view of the general economic uncertainty, they may well have considered any substantial dislocation of the capital market as undesirable. However, what would constitute "substantial dislocation" is a point on which there would be considerable discussion. When it became apparent in the second inflationary period that the entire weight of the restriction could not be found in fiscal measures, a degree of variation was permitted in the capital markets which would have been unthinkable in the earlier years. To be fair, it should also be pointed out that the political consequences of this action during the second period (when the public had already experienced one substantial inflation) were in all likelihood considerably less than they would have been in 1947 and 1948.

This situation was most unfortunate, since the limitation on open-market operations appears to have been over-emphasized, with the result that the monetary policy was prevented from taking so much as a first effective

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associated with the unprecedented level of postwar capital investment. Against this gain must be set the possibility of serious cyclical disturbances arising from the stickiness of inflated postwar costs of production. It might be argued (as Miss Timlin undoubtedly would) that the same capital expansion could have been obtained at lower price levels; if this premise is granted, the remaining ground for a retrospective defence of actual monetary policy to late 1950 is severely hampered.

step in the direction of economic restraint. Had the restrictive monetary policies of the second period been applied in conjunction with the fiscal policies of the first, stabilization might well have been achieved more easily and quickly. Moreover, the record of the second period suggests that during that time, the monetary authorities discovered that the ability to impose pressures and penalties on the sectors seeking additional liquidity is perhaps as important as actually choking off the additional money flows. Uncertainty is a weapon which can be put to good use by the central bank. It is a factor which was virtually absent during the first period.

It is also apparent that as long as the government has to maintain revenue and expenditure at the levels approached during the early 1950's, fiscal policy will be of only limited use in restraining inflationary surges under circumstances short of war. The use of taxation as a deliberate anti-inflationary weapon seems almost precluded as long as rates remain at their present relatively high levels. Surplus budgeting is almost out of the question; higher taxes can be justified publicly only to cover new government expenditures. Therefore, despite the lack of selectivity which has been revealed in monetary operations, it will be necessary for the monetary authorities to equip themselves with as complete a reserve of weapons of monetary control as possible, and to be prepared to use such weapons vigorously upon the appearance of the inflationary stimulus. The monetary authorities and the government must also be prepared to accept public responsibility for monetary conditions, which are properly within their control. Few will question the propriety of governmental action to influence the monetary environment in which economic activity

is carried on. To rely on "co-operation" thus burdening the chartered banks with much of the overall responsibility does not seem to be a satisfactory long-term policy.

Economists are frequently accused of fighting the wrong war, and it has been suggested that a partial explanation of Canadian monetary policy lies in the fact that for too long a period the authorities were unduly preoccupied with the dangers of deflation and unemployment rather than with the problem of effectively restraining the continuing inflationary pressures. The question may, in fact, be important now. If the pessimistic expectations of the early years had been borne out, could monetary policy have been more effective in providing insulation against the impact of external forces? Unfortunately, this seems highly doubtful, but the central bank would at least have been able to exercise its main technique of control to obtain its maximum potential effectiveness, however limited that effectiveness might have been. Where the objective is monetary expansion, considerations of debt management present no crippling limitations upon open market activity. Moreover, at such times, there is no conflict between the interest rate considered suitable and "moral" obligations to bondholders.

Because of its extraordinary dependence upon markets for a relatively few staple exports, the Canadian economy has elements of instability which are <u>not</u> susceptible to basic modification by domestic monetary and fiscal policy. In addition, there is a large pool of liquid investment held primarily by American investors which could give rise to serious problems of capital flight if confidence were disturbed. Any policy designed to maintain national income must necessarily be directed toward those

industries with domestic markets, for in the face of adverse trends abroad little can be done directly for the export industries. A vigorous, independent full employment policy would therefore carry serious risks: (1) It might lead to permanent, uneconomic distortions of the national economy, such as appeared so quickly in 1948 after the imposition of import restrictions. (2) If the policies adopted appeared unduly radical to the foreign investor, capital outflows could develop which would constitute an important drain on the exchange reserves, and perhaps bring about additional regulations, particularly of foreign exchange transactions which would undermine the situation further.

In the face of serious economic difficulties, it will be seen that Canada must necessarily rely heavily upon large-scale public works. Moreover, even abstracting the problem of speculative or "hot" capital flows, balance of payments problems become the more serious to the extent that the maintenance of employment and income is successful. Given carefully integrated monetary, fiscal and public works measures, domestic policy might well temper the impact of external deflation for a limited time, while Canada "lived" on her accumulated exchange reserves. But, under such conditions, no one should assume comfortably that the methods of the "New Economics" will shore us up indefinitely. If adverse trends abroad persist, we would soon be at their mercy.

A sound evaluation of Canadian postwar monetary policy must recognize the fact that inflation was a world-wide phenomenon, the impact of which was unavoidable in this country. The potential contribution of monetary action lay in the mitigation of inflationary pressures of domestic origin, and in the attempt to neutralize external influences. Similar-

ly, as we have suggested, any serious future deflation will also be world-wide, and presumably will centre on the United States. Under such circumstances, the aim of policy should be the same: mitigation rather than insulation. To attempt too much may well be to tempt failure.

In conclusion, granting that the effectiveness of Canadian monetary action left much to be desired during this period, how are the shortcomings to be explained and what modifications are suggested for the future? Our experience has indicated that the monetary authorities have displayed much greater resolution in dealing with external economic disturbances than in responding to internal pressures; this is quite understandable, since there is no better indicator of approaching economic disaster than exhaustion of the gold and exchange reserves. Both in 1947 and in 1950, the authorities acted with great vigour.[1] Yet, until 1950, the serious use of monetary policy was deliberately rejected, and even when it was finally used, the government seemed curiously reluctant to admit its existence. In the earlier years, this attitude appears to have been fostered in part by the prevailing emphasis on fiscal policy (e.g. in the United States and the United Kingdom) which in turn stemmed from a lack of faith in the effectiveness of monetary action. The attitude was further conditioned by the fact that whether effective or not, monetary restriction could be instituted only at the cost of disorder in the capital market, and this was

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[1] Too much credit for the rapid recovery in 1948 should perhaps not be given to Canadian internal policy. See Foreign Exchange Control Board, Annual Report 1948, pp.3-4. "This general summary...would be incomplete without specific reference to the important and helpful part played by the European Recovery Program...in preventing a severe contraction in the level of our exports...and in maintaining our receipts of convertible exchange from our European trade."

too high a price to pay for the possible damping of an inflation which was expected to be a temporary problem. With the failure of the anticipated recession to develop, the government increasingly relied upon fiscal policy as a deliberate and much tidier approach to the restraint of such pressures. As we have suggested, fiscal policy was "tidier" primarily because during the first period surplus budgeting involved merely delay in reducing tax rates to the "normal" levels of 1949 and early 1950. The later experience indicates that it will always be a difficult political problem to raise tax rates in order to budget for a surplus, and so restrain inflation. Moreover, by their nature, tax changes can only be brought about after some considerable delay. Monetary restraints, conversely, can be applied on short notice to counteract the important initial pressures of an inflationary surge.

To be successful, any restraining attempt must co-ordinate both monetary and fiscal measures to an extent which has not yet been attempted. In view of the error of the government's major premise, i.e. the imminent necessity of coping with recession, hindsight suggests much earlier monetary restriction than in fact occurred. The rigid insistence on debt management during the early period, as against some measure of flexibility which could have been introduced in a "compromise" approach may be seriously questioned. Again in retrospect, the concern for the necessity of keeping the market prepared for additional issues at any time was over-emphasized, although the possibility of war, with its financial implications, remains an ever-present threat.

If we assume that debt management will continue to receive priority in the determination of broad monetary policy, then the prospect of

the Bank of Canada being able to take effective action toward the restraint of inflation is far from bright. Any attempt to accomplish the objective via "moral suasion" - i.e., by resorting to direct interference with the market mechanism - would be not only basically unsound in a "free" economy, but also of temporary value. With open-market control largely ineffective, and direct influence of exceedingly limited usefulness, the Bank, as constituted, is left with no further possibilities.

This analysis of Canadian postwar experience suggests that the monetary authorities should use the present relatively quiet period to develop new methods of monetary control which could be applied to give more positive monetary action against either recession or inflation. A useful addition to the Bank's armaments might be the power to vary the minimum cash ratios of the chartered banks. The present minimum cash ratio (5% of Canadian deposits) is irrelevant under the existing practice of the chartered banks of adhering as closely as possible to a 10% ratio. The legal minimum might well be brought into conformity with custom, with the Bank of Canada given power to vary the established minimum within prescribed limits. This device has been frequently employed by the Federal Reserve in the United States, and provides a means of immobilizing reserves without incurring the same securities price movements which accompany open market activity, and which present such awkward debt problems.

Such modification of existing arrangements would also give some immediate significance to the Bank's rediscount rate, since the chartered banks would have to be prepared to raise large amounts of cash reserves

on short notice in the face of an increase in the reserve requirement, and this might be most conveniently done through the rediscount mechanism. In this connection, it might be noted that the "stigma" attached to the use of central bank advances might well be overcome if all the banks were to agree to raise the cash necessary for financing the new mortgage operations in this way.

In addition to these structural changes, the use of government deposits to accomplish monetary expansion or restriction has been explained above. When possible, therefore, substantial government deposits should be maintained in the chartered banks as "insurance" against changes which might require swift restrictive operations outside the bond market. Despite the risks of uncontrollable monetization involved, the process of separating the "small" holder of government bonds from the larger holder, and particularly from the institutional investor, should be continued; in the long run this may reduce the possibility of political considerations interfering with positive monetary action.

In all such modifications, the test of the controlling mechanisms should be, basically, whether they involve any direct interference with the market mechanism, or whether they act to shape the environment in which the market operates. In the face of the uncertainties of the modern world, and the peculiar vulnerability of the Canadian situation, defective control of our monetary system can scarcely be risked. Whether our future economic problems are to be conditioned by war, which would lead to distortions of the economy and monetary system far greater than anything experienced in the past, or by lesser upheavals, some re-examination of

Canadian techniques of monetary restraint is essential. We must not assume that because the degree of inflation which we have experienced has been quite moderate compared to that in many other countries, we cannot find ample scope for controversy, and, through discussion, for important improvements in the existing monetary arrangements.

APPENDIX A

THE MONETARY AND DEBT STRUCTURE IN CANADA, 1946-52 (*)
(Millions of Dollars)

Item		31/12/45	
Gross Government Debt		17,479	
LESS: Debt Held by Government Accounts		821	
Government Deposits at Bank of Canada (a)		153	
Government Deposits at Chartered Banks		849	
Government Debt Outstanding		15,656	
Bank of Canada	Government Debt Held	1,842	
	LESS: Government Deposits	153	
	Net Debt Held	1,689	
	Foreign Exchange Assets	...	
	Notes in Circulation	966	
	Other Deposits	30	
Chartered Banks	Chartered Bank Cash	684	
	Government Debt Held	3,506	
	LESS: Government Deposits	849	
	Net Debt Held	2,657	
	Canadian Loans	1,292	
	Non-Government Securities	525	
	Total Loans and Other Investments	1,817	
All Other Related Assets of the Banking System		258	-
Total Bank Assets Related to the Money Supply		5,905	(b)
Liquid Assets of the General Public (Inc. non-residents)			
	Currency	1,055	
	Active Bank Deposits	2,459	
	Active Money Supply	3,514	
	Inactive Notice Deposits	2,391	
	Government Debt Held		
	Non-Marketable	692	
	Marketable	10,618	
		11,310	
	"Inactive" Liquid Assets	13,701	
	Total Liquid Assets	17,215	

(*)
Source: Bank of Canada, "General Public Holdings of Certain Liquid Assets", (Research Memorandum), and Statistical Summary, Various issues.

(a) Obtained from monthly statement of Bank of Canada. The chartered banks' government deposit figure is obtained by subtraction.

(b) Equals Currency plus Active and Inactive Deposits.

APPENDIX A (Ctd.)

THE MONETARY AND DEBT STRUCTURE IN CANADA, 1946-52
(Millions of Dollars)

		31/3/46	30/6/46	30/9/46	31/12/46
Gross Government Debt		17,308	17,168	17,147	17,314
LESS: Debt in Govt.Accts.		727	796	871	918
Deposits: B.of C.		149	58	27	61
Deps. Chart. Banks		443	46	64	305
Govt. Debt O/S		15,989	16,268	16,185	16,030
Bank of Canada	Govt. Debt Held	1,853	1,756	1,780	1,904
	LESS: Govt. Deps.	149	58	27	61
	Net Debt Held	1,704	1,698	1,753	1,843
	Foreign Exchange	...	...	...	...
	Notes in Circul.	977	988	994	1,009
	Other Deposits	89	86	88	94
	Chart. Bank Cash	643	627	665	742
Chartered Banks	Govt. Debt Held	3,370	3,367	3,491	3,317
	LESS: Govt. Deps.	443	46	64	305
	Net Debt Held	2,927	3,321	3,427	3,012
	Canadian Loans	1,189	1,218	1,322	1,643
	Non-Govt. Secs.	575	589	611	639
	Total Loans etc.	1,764	1,807	1,933	2,282
All Other Banking Assets		104 -	163 -	205 -	285 -
Related Bank Assets		6,291	6,663	6,908	6,852
Liquid Assets of Public					
	Currency	1,065	1,075	1,079	1,096
	Active Bank Deps.	2,580	2,777	2,924	2,900
	Active Money	3,645	3,852	4,003	3,996
	Inactive Deps.	2,646	2,811	2,905	2,856
	Govt. Debt Held:				
	Non-Marketable	699	765	764	1,237
	Marketable	10,659	10,484	10,241	9,938
		11,358	11,249	11,005	11,175
	"Inactive" Assets	14,004	14,060	13,910	14,031
Total Liquid Assets		17,649	17,912	17,913	18,027

APPENDIX A (Ctd.)

THE MONETARY AND DEBT STRUCTURE IN CANADA, 1946-52
(Millions of Dollars)

		31/3/47	30/6/47	30/9/47	31/12/47
Gross Government Debt		17,051	16,880	16,697	16,707
LESS: Debt in Govt.Accts.		940	1,272	1,308	1,415
Deposits: B.of C.		160	106	128	69
Deps.Chart. Banks		382	140	57	203
Govt. Debt O/S		15,569	15,362	15,204	15,020
Bank of Canada	Govt. Debt Held	1,903	1,779	1,832	1,881
	LESS: Govt. Deps.	160	106	128	69
	Net Debt Held	1,743	1,673	1,704	1,812
	Foreign Exchange	...	...	...	...
	Notes in Circul.	1,006	1,001	1,002	1,027
	Other Deposits	65	54	62	68
	Chart. Bank Cash	684	626	651	720
Chartered Banks	Govt. Debt Held	3,203	2,941	2,786	2,648
	LESS: Govt. Deps.	382	140	57	203
	Net Debt Held	2,821	2,801	2,729	2,445
	Canadian Loans	1,676	1,815	1,937	2,104
	Non-Govt. Secs.	776	891	898	956
	Total Loans etc.	2,452	2,706	2,835	3,059
All Other Banking Assets		276 -	253 -	232 -	229 -
Related Bank Assets		6,740	6,927	7,036	7,087
Liquid Assets of Public					
	Currency	1,091	1,086	1,086	1,112
	Active Bank Deps.	2,582	2,756	2,737	2,832
	Active Money	3,673	3,842	3,823	3,944
	Inactive Deps.	3,067	3,085	3,213	3,143
	Govt. Debt Held:				
	Non-Marketable	1,265	1,245	1,225	1,440
	Marketable	9,740	9,643	9,546	9,323
		11,005	10,888	10,771	10,763
	"Inactive" Assets	14,072	13,973	13,984	13,906
	Total Liquid Assets	17,745	17,815	17,807	17,850

APPENDIX A (Ctd.)

THE MONETARY AND DEBT STRUCTURE IN CANADA, 1946-52
(Millions of Dollars)

		31/3/48	30/6/48	30/9/48	31/12/48
Gross Government Debt		16,472	16,512	16,479	16,478
LESS: Debt in Govt.Accts.		1,453	1,299	1,311	1,257
Deposits: B.of C.		42	138	87	98
Deps. Chart. Banks		69	156	154	222
Govt. Debt O/S		14,908	14,919	14,927	14,901
Bank of Canada	Govt. Debt Held	1,792	1,944	1,974	2,013
	LESS: Govt. Deps.	42	138	87	98
	Net Debt Held	1,750	1,806	1,887	1,915
	Foreign Exchange	...	...	...	...
	Notes in Circul.	1,014	1,049	1,096	1,098
	Other Deposits	87	107	78	81
	Chart. Bank Cash	686	674	723	738
Chartered Banks	Govt. Debt Held	2,788	2,879	2,915	2,959
	LESS: Govt. Deps.	69	156	154	222
	Net Debt Held	2,719	2,723	2,761	2,737
	Canadian Loans	1,986	2,014	2,099	2,249
	Non-Govt. Secs.	988	998	1,014	1,067
	Total Loans etc.	2,975	3,011	3,113	3,316
All Other Banking Assets		213 -	202 -	205 -	225 -
Related Bank Assets		7,231	7,338	7,556	7,743
Liquid Assets of Public					
	Currency	1,098	1,134	1,180	1,185
	Active Bank Deps.	2,835	2,896	2,973	3,150
	Active Money	3,933	4,030	4,153	4,335
	Inactive Deps.	3,298	3,308	3,403	3,408
	Govt. Debt Held:				
	Non-Marketable	1,322	1,277	1,238	1,410
	Marketable	9,117	9,113	9,041	8,839
		10,439	10,390	10,279	10,249
"Inactive" Assets		13,737	13,698	13,682	13,657
Total Liquid Assets		17,670	17,728	17,835	17,992

APPENDIX A (Ctd.)

THE MONETARY AND DEBT STRUCTURE IN CANADA, 1946-52
(Millions of Dollars)

		31/3/49	30/6/49	30/9/49	31/12/49
Gross Government Debt		16,270	16,154	16,236	15,819
LESS: Debt in Govt.Accts		1,222	1,074	964	796
Deposits: B.of C.		63	112	141	31
Deps. Chart. Banks		166	321	352	150
Govt. Debt O/S		14,819	14,647	14,779	14,842
Bank of Govt. Debt Held		1,899	2,016	2,038	2,009
Canada LESS: Govt. Deps.		63	112	141	31
Net Debt Held		1,836	1,904	1,897	1,978
Foreign Exchange		...	...	...	...
Notes in Circul.		1,079	1,115	1,125	1,096
Other Deposits		85	74	64	127
Chart. Bank Cash		706	723	778	754
Chartered Govt. Debt Held		3,091	3,184	3,257	3,112
Banks LESS: Govt. Deps.		166	321	352	150
Net Debt Held		2,925	2,863	2,905	2,962
Canadian Loans		2,210	2,267	2,407	2,404
Non-Govt. Secs.		971	972	968	990
Total Loans etc.		3,181	3,240	3,375	3,394
All Other Banking Assets		196 -	160 -	78 -	161 -
Related Bank Assets		7,746	7,847	8,099	8,173
Liquid Assets of Public					
Currency		1,164	1,201	1,211	1,184
Active Bank Deps.		2,977	2,986	3,158	3,238
Active Money		4,141	4,187	4,369	4,422
Inactive Deps.		3,605	3,660	3,730	3,751
Govt. Debt Held:					
Non-Marketable		1,220	1,048	1,004	1,227
Marketable		8,838	8,852	8,973	8,675
		10,058	9,900	9,977	9,902
"Inactive" Assets		13,663	13,560	13,707	13,653
Total Liquid Assets		17,804	17,727	18,076	18,075

APPENDIX A (Ctd.)

THE MONETARY AND DEBT STRUCTURE IN CANADA, 1946-52
(Millions of Dollars)

		31/3/50	30/6/50	30/9/50	31/12/50
Gross Government Debt		15,846	15,778	15,871	15,934
LESS: Debt in Govt.Accts.		790	796	815	847
Deposits: B.of C.		71	35	22	25
Deps. Chart Banks		146	125	21 O.D.	255
Govt. Debt O/S		14,839	14,822	15,055	14,807
Bank of Canada	Govt. Debt Held	2,015	2,059	1,851	1,942
	LESS: Govt. Deps.	71	35	22	25
	Net Debt Held	1,944	2,024	1,829	1,917
	Foreign Exchange	...	...	293	226
	Notes in Circul.	1,108	1,121	1,139	1,136
	Other Deposits	151	216	258	207
	Chart. Bank Cash	718	699	735	810
Chartered Banks	Govt. Debt Held	3,240	3,057	3,188	3,079
	LESS: Govt. Deps.	146	125	21 O.D.	255
	Net Debt Held	3,094	2,932	3,209	2,824
	Canadian Loans	2,427	2,553	2,574	2,910
	Non-Govt. Secs.	985	981	1,019	1,015
	Total Loans etc.	3,412	3,534	3,593	3,925
All Other Banking Assets		135 -	126 -	122 -	180 -
Related Bank Assets		8,315	8,364	8,802	8,712
Liquid Assets of Public					
	Currency	1,181	1,196	1,216	1,214
	Active Bank Deps.	3,265	3,329	3,703	3,637
	Active Money	4,446	4,525	4,919	4,851
	Inactive Deps.	3,869	3,839	3,883	3,861
	Govt. Debt Held:				
	Non-Marketable	1,188	1,077	1,030	1,218
	Marketable	8,613	8,789	8,987	8,848
		9,801	9,866	10,017	10,066
"Inactive" Assets		13,670	13,705	13,900	13,927
Total Liquid Assets		18,116	18,230	18,819	18,778

APPENDIX A (Ctd.)

THE MONETARY AND DEBT STRUCTURE IN CANADA, 1946-52
(Millions of Dollars)

		31/3/51	30/6/51	30/9/51	31/12/51
Gross Government Debt		15,681	15,543	15,421	15,342
LESS: Debt in Govt.Accts.		845	875	919	1,009
Deposits: B.of C.		71	75	106	95
Deps. Chart Banks		224	177	107	65
Govt. Debt O/S		14,541	14,416	14,289	14,173
Bank of Govt. Debt Held		2,016	2,182	2,194	2,191
Canada LESS: Govt. Deps.		71	75	106	95
Net Debt Held		1,945	2,107	2,088	2,096
Foreign Exchange		106	43	1	49
Notes in Circul.		1,134	1,174	1,193	1,191
Other Deposits		207	220	140	66
Chart. Bank Cash		738	768	775	892
Chartered Govt. Debt Held		2,801	2,681	2,734	2,754
Banks LESS: Govt. Deps.		224	177	107	65
Net Debt Held		2,577	2,504	2,627	2,689
Canadian Loans		3,102	3,143	3,152	3,136
Non-Govt. Secs.		974	964	934	922
Total Loans etc.		4,076	4,108	4,086	4,057
All Other Banking Assets		132 -	160 -	157 -	154 -
Related Bank Assets		8,572	8,602	8,645	8,737
Liquid Assets of Public					
Currency		1,212	1,255	1,275	1,275
Active Bank Deps.		3,457	3,495	3,490	3,568
Active Money		4,669	4,750	4,765	4,843
Inactive Deps.		3,903	3,852	3,880	3,894
Govt. Debt Held:					
Non-Marketable		1,134	1,000	943	1,194
Marketable		8,885	8,805	8,631	8,194
		10,019	9,805	9,574	9,388
"Inactive"Assets		13,922	13,657	13,454	13,282
Total Liquid Assets		18,591	18,407	18,219	18,125

APPENDIX A (Ctd.)

THE MONETARY AND DEBT STRUCTURE IN CANADA, 1946-52
(Millions of Dollars)

	31/3/52	30/6/52	30/9/52	31/12/52
Gross Government Debt	15,226	15,140	15,182	15,174
LESS: Debt in Govt.Accts.	1,005	1,028	1,071	1,101
Deposits: B.of C.	15	27	31	16
Deps. Chart Banks	96	98	61	3
Govt. Debt O/S	14,110	13,987	14,019	14,055
Bank of Govt. Debt Held	2,062	2,069	2,135	2,227
Canada LESS: Govt. Deps.	15	27	31	16
Net Debt Held	2,047	2,042	2,104	2,211
Foreign Exchange	...	3	2	2
Notes in Circul.	1,186	1,222	1,238	1,289
Other Deposits	66	49	49	45
Chart. Bank Cash	864	798	826	899
Chartered Govt. Debt Held	2,939	2,953	3,028	2,784
Banks LESS: Govt. Deps.	96	98	61	3
Net Debt Held	2,843	2,855	2,967	2,781
Canadian Loans	3,047	3,186	3,228	3,444
Non-Govt. Secs.	872	858	913	916
Total Loans etc.	3,918	4,044	4,140	4,360
All Other Banking Assets	30 -	55 -	84 -	52 -
Related Bank Assets	8,779	8,889	9,129	9,302
Liquid Assets of Public				
Currency	1,270	1,307	1,323	1,377
Active Bank Deps.	3,531	3,563	3,692	3,796
Active Money	4,801	4,870	5,015	5,173
Inactive Deps.	3,978	4,019	4,114	4,129
Govt. Debt Held:				
Non-Marketable	1,140	1,061	1,011	1,250
Marketable	8,080	8,029	7,937	7,812
	9,222	9,090	8,948	9,062
"Inactive" Assets	13,198	13,109	13,062	13,191
Total Liquid Assets	17,999	17,979	18,077	18,365

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