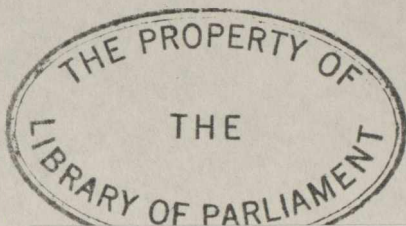


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SESSION 1939
HOUSE OF COMMONS

MEMORANDA AND TABLES

RESPECTING

THE BANK OF CANADA

EXTRACTED FROM THE EVIDENCE OF

G. F. TOWERS

GOVERNOR OF THE BANK OF CANADA

and

W. C. CLARK, C.M.G., LL.D.

DEPUTY MINISTER OF FINANCE

given before

THE STANDING COMMITTEE

ON

BANKING AND COMMERCE

together with

REPORT TO THE HOUSE



CONTENTS

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I. REPORT OF THE STANDING COMMITTEE ON BANKING AND COMMERCE

THURSDAY, June 1, 1939.

The Standing Committee on Banking and Commerce begs leave to present the following as its

EIGHTH REPORT

By order, February 20, 1939, the House of Commons referred the Report of the Bank of Canada for the year ended December 31, 1938, to the Standing Committee on Banking and Commerce to inquire into all matters pertaining thereto.

Your Committee has held thirty sittings on this reference and has heard considerable evidence.

Your Committee in the conduct of its inquiry has at all times had the active assistance and co-operation of Mr. Graham Ford Towers, Governor of the Bank of Canada, and wishes to express its appreciation of his valuable services. Your Committee is indebted also to Dr. W. C. Clark, Deputy Minister of Finance, for the historical background of banking and currency in Canada and glossary of monetary terms furnished by him.

Your Committee has been unable in one session of Parliament to complete its study of so wide a subject and recommends that the study of the subject be continued during future sessions of Parliament.

Attached to this report are extracts from the evidence by way of a collection of written statements made by the Governor of the Bank of Canada and the Deputy Minister of Finance, also tables supplied by Governmental Departments, which material your Committee recommends should be printed in blue book form with this report.

A copy of the minutes of proceedings and evidence is annexed hereto.

All of which is respectfully submitted.

W. H. MOORE,
Chairman.

II. GLOSSARY OF MONETARY TERMS

(Submitted by Dr. W. C. Clark in response to a request by the Committee)

(Volume 2, page 39)

1. Money

Money, in the broad sense (now sanctified by popular usage), is any medium of exchange which is generally acceptable in day-to-day business transactions and the settlement of debts and contracts.

To understand this function of money, we should contrast it with barter. Barter is the direct exchange of one commodity for another. It is an inconvenient and time-consuming method of trade, as it involves each individual who has some article to trade finding some other individual who wants that particular article and has something of equal value to offer in exchange which is acceptable to the first party. The inconveniences of the barter system gave rise to the development of a money economy under which the parties wishing to trade first exchange the articles or services they have to sell into a go-between or intermediate commodity (i.e. a medium of exchange) which can then be exchanged for the goods and services which they wish to secure from others.

Besides serving as a medium of exchange, money, or at least certain forms of money, also perform other functions, including the following:

- (1) It serves as a standard of value, as a yardstick by which the relative values of goods and services may be measured or their ratios of exchange determined, and as a unit of account, a unit in which debts and other contracts are expressed, in which prices are stated, and in which accounts are kept. (It may be noted that the standard unit of value, the "money of account," may not be used widely or at all as a medium of exchange.)
- (2) It serves as a standard of future or deferred payments, as a yardstick by which may be measured the amount to be paid by a debtor to a creditor as a result of a contractual obligation extending over a period of time. (Note that if the standard is one that is likely to fluctuate in value, this fact will increase the risks of business enterprise, disturb the equitable relations of the money incomes of different social classes, and restrict the efficient functioning of the whole economic system.)
- (3) It serves as a store of value, as a means of holding wealth in a form which can be immediately used. (The average size of an individual's holdings of coins, paper money, bank deposits and the gold reserves back of such currency and deposits may be taken as a rough indication of his use of money as a store of value. Everyone requires a certain stock of ready purchasing power on hand to meet day-to-day contingencies. This stock is a kind of revolving fund, as new current receipts are poured into it and new current expenditures are paid out of it. On the average a certain sum will be found adequate to enable the individual to pay all bills coming due and to meet unforeseen contingencies. He will not, normally at least, wish to build it up to undue proportions, because money as a store of value is an idle asset; only when he gets rid of it by spending or investing it does he receive benefit or gain.)

It should be noted that these functions of money all derive from its suitability as a medium of exchange; it is a means of payment, a measure of relative values and a means of holding wealth in liquid form only because it is "generally acceptable" in exchange for goods and services. In other words, the essence of money is general acceptability in the community concerned.

This rules out from the concept of money certain articles or commodities which may be sometimes used as a medium of exchange but which it is desirable to regard not as money but as local or temporary substitutes for money.

2. Legal Tender

Legal tender or lawful money means those forms of money which by the law of the country concerned must be accepted in fulfilment of contracts in terms of money—in settlement of debts, judgments, taxes, etc.

Unlimited legal tender refers to those forms of money which are legal tender for a payment of any amount.

Limited or partial legal tender refers to those forms of money which are legal tender for payment of only a limited amount stipulated by law.

In Canada, the following forms of money are legal tender up to the amounts stated:—

- (1) Bank of Canada notes—up to any amount. (Bank of Canada Act, S. 24).
- (2) Canadian gold coins—up to any amount. (Currency Act, S. 8).
- (3) British gold sovereigns (and any multiples or divisions thereof) of the weight and fineness prescribed by the laws of the United Kingdom on May 4, 1910, and which are not of less weight than the current weight specified as the least current weight at which they are legal tender in the United Kingdom—legal tender at the rate of \$4.86- $\frac{2}{3}$ per sovereign up to any amount. (Currency Act, S. 9).
- (4) Canadian silver coins—up to \$10 only. (Currency Act, S. 8).
- (5) Canadian nickel coins—up to \$5 only. (Currency Act, S. 8).
- (6) Canadian bronze coins—up to 25 cents only. (Currency Act, S. 8).

Note.—Up to January 31, 1934, United States eagles, half eagles and double eagles, coined after January 18, 1837, were legal tender up to any amount. (Currency Act, S. 10).

3. Credit

Credit is a very general term and has even an intangible meaning in reference to a person's or a corporation's financial reputation. It is derived from a Latin word which implies "trust." When a merchant sells goods on credit, he trusts his customer to pay for them in lawful money at the end of the month or on an agreed date. It would amount to the same thing if the merchant lent to the customer enough money to pay for the goods, on the understanding that the loan would be repaid by a certain date. To grant credit, therefore, is equivalent to a loan of money.

Credit is the opposite of *debt*. When a credit is granted, it involves both a creditor and a debtor—the one to whom the promise or obligation to pay is given and the one who gives the promise or obligation to pay. The former has an asset and the latter has an outstanding liability.

For the purposes of monetary discussion, *credit* or *credit money* may be defined as promises or obligations to pay legal tender money, which promises or obligations are generally accepted by the public in the settlement of debts and business transactions. It will therefore be apparent that not all credit is money. The ordinary individual's credit—his promise or obligation to pay legal tender money—is not money; he is known and "trusted" in too limited a circle to give his promise to pay that quality of general acceptability which is the essential characteristic of money. Credit money therefore must represent the promise or obligation to pay legal tender money on the part of some one or some institution (such as a government or a bank) which is sufficiently well-known and trusted to have its promises to pay possess the quality of general acceptability.

Bank credit is the promise or obligation of a bank to pay legal tender currency.

4. Various Kinds of Money Defined.

A. Currency—

Currency includes those forms of money (coins and notes) which circulate freely from hand to hand without signature, endorsement or other formality. In popular usage, the word "cash" is generally used to signify what is here included under the term "currency," although in an accounting sense, "cash" on the assets side of a balance sheet includes both currency and bank balances ("cash on hand" and "cash in banks") and later we will have to define "bank cash" in still another sense.

1. Coins—

Coins are those forms of currency issued by the State in the form of metal discs composed of a metal or combination of metals of a weight and fineness specified by law, stamped by the State to indicate and certify their value for monetary purposes and designed in such a way as to prevent clipping and sweating and to render counterfeiting difficult.

Coins are of two general classes:—

(a) A *standard coin* is a coin whose face value is equal or approximately equal to the market value of the metal contained in it. The value of the coin is tied firmly to the value of the metal from which it is made by the device of requiring the country's mints to stand ready at all times to coin any amount of the metal offered to it without charge or at only a slight charge. (See more detailed discussion later under Gold Standard). When Canada was on the gold standard, our gold coins were standard coins. (They might also be called commodity money).

(b) *Subsidiary coins* (sometimes called token coins) are coins whose face value is higher, usually substantially higher, than the market value of the metal contained in them. They are usually composed of silver or of the base metals and are used to supply the need for money in small denominations—"small change." Subsidiary coins are kept in circulation on a parity with standard coins by the adoption of the following principles for their regulation:—

- (i) by reducing the quantity of metal in them to such an extent that their intrinsic value is much below their face value;
- (ii) by limiting the quantity of them to the actual needs of the community for coins of their particular denominations;
- (iii) by limiting their legal tender quality to small sums; and
- (iv) by making them redeemable in standard money.

It will be obvious that the State makes a profit out of the coinage of subsidiary coins. This profit is called *seigniorage*—which is the difference between the face value and the intrinsic value of a coin less the actual cost to the Government of the process of coinage including the purchase of necessary alloys. *Brassage* is a term sometimes used to denote the charge made by a Government for coining bullion where such charge does not exceed the actual cost of coinage.

Under a gold standard, where the Mint stands ready to coin gold bullion into gold coins in unlimited amounts (that is, any amount that may be offered to it by private individuals), the system is referred to as *free coinage of gold*. This does not mean that no charge is made for the work of coinage; if no charge is made, it is called *gratuitous coinage*. The number of standard coins, *e.g.* gold dollars, which may be minted from an ounce of gold, is fixed by law, and is the *mint price of gold*.

2. Paper Money or Notes

Paper money or notes represent that part of the currency which takes the form of the promissory notes of a Government or of a bank. These notes are normally payable on demand in legal tender currency, either explicitly or implicitly. They are a form of credit money.

In some cases, the paper note is really a warehouse receipt or certificate for an equivalent amount of metallic coin or bullion and is directly convertible into that coin or bullion. For instance, a U.S. gold certificate (no longer in public circulation) bears an inscription of the following type: "There has been deposited in the Treasury of the United States of America dollars in gold." Similarly, a United States silver certificate is redeemable at the Treasury in standard silver dollars.

Paper money which is actually redeemable in standard coin or bullion (or foreign exchange) is called convertible paper money. As long as paper money can be redeemed in this way without expense, delay or other difficulty, its value will be the same as that of the coin or bullion (or foreign exchange) in which it is redeemable.

Inconvertible paper money or fiat money is money which is not redeemable in a standard coin or bullion. Its essential quality is that its value is independent of the material from which it is made as well as independent of any promise to redeem it in any other money or commodity. It may possess general acceptability as money because of its relative scarcity, the absence of alternative means of payment, the habituation of the people to the use of paper money, and the fact that it may be given legal tender power or be made acceptable in the payment of public dues. It may serve the purposes of money effectively as long as individuals for one or more of the above reasons are confident that other people will accept it as a means of payment.

Active note circulation is the term used to denote the total amount of notes in the hands of the public, that is, after deducting the amount held by banks. In the case of Bank of Canada notes, a portion is always held by the chartered banks as part of their cash reserves. In the case of chartered bank notes, a portion of the notes issued by one bank may be deposited with another bank and held temporarily by that other bank until presented through the clearing house.

B. Bank Deposits

Bank deposits, like bank notes and convertible government paper money, represent a form of credit money—indeed the most important form of credit money and much the largest portion of money in general.

Bank deposits are essentially credits entered on the books of a bank recording the obligation of the bank to pay legal tender currency to the persons in whose favour the entries are made. They are transferred from one person to another by a written instruction which normally takes the form of a bank cheque. It should be noted that it is the bank deposit itself and not the cheque which constitutes money. The cheque is merely the mechanism of transfer—the instrument drawn by the holder of the deposit instructing the bank to pay legal tender currency to a third party in whose favour the cheque is drawn. Normally, also, the transfer is effected without any withdrawal of currency.

1. Chartered Bank Deposits

The deposits of a chartered or commercial bank may be classified as follows:—

- (1) Public deposits, namely, those belonging to the general public, (individuals, firms and corporations) as distinct from those belonging to governments or other banks.
- (2) Government deposits, that is, those belonging to the dominion and provincial governments. While probably subject to more rapid and drastic fluctuations, they are otherwise not essentially different from public deposits.
- (3) Interbank deposits, that is, deposits belonging to other banks, either Canadian or foreign.

Another classification is based on the legal conditions of withdrawal. Demand or current deposits are those payable on demand and legally transferable by means of cheques. Time or savings deposits are those which the banks do not legally need to pay except after a certain number of days' notice or on a fixed date. In practice, however, Canadian banks always allow chequing against savings deposits and do not require notice. Normally most current deposits are non-interest bearing while savings deposits generally bear interest.

2. Central Bank Deposits

Central bank deposits are a special kind of money generally used only by banks and governments and therefore are not generally regarded as part of the supply of money in the hands of the public. In Canada, Bank of Canada deposits are of three kinds:—

- (1) deposits of or balances due to chartered banks which form part of the cash reserves of the latter and are used for transactions between banks and between banks and the Government;
- (2) deposits of Quebec savings banks which are used for cash reserves and for transactions with other banks; and
- (3) Government deposits—a portion of the cash balances of the Dominion Government are maintained with the Bank of Canada.

C. Bank Cash or Cash Reserves

Bank deposits, like bank notes, circulate freely as money because the public has confidence that the obligations they represent will be honoured by the banks whenever presented. This confidence is engendered by a number of factors, including the past record of the banks, the legislative provisions governing the operations of banks and the principles according to which banks are managed. One of these principles requires the maintenance of a certain proportion of their assets in absolutely liquid form and the balance in certain types of assets of varying degrees of liquidity. Cash reserve or bank cash is the term used to describe these assets which a bank keeps in absolutely liquid form. In Canada, only notes of and deposits with the Bank of Canada can legally be included in the cash reserves of chartered banks. By law, a chartered bank must maintain a cash reserve in this form equal to at least 5 per cent of its note and deposit liabilities in Canada. In practice, the chartered banks find it necessary and expedient to keep a substantially higher cash reserve; for the system as a whole it averages about 10 per cent.

The Bank of Canada is required by law to keep a gold reserve of 25 per cent of its note and deposit liabilities (although provision is made for a temporary suspension of this requirement), and may in addition keep a reserve in certain kinds of foreign exchange. In practice it maintains a gold reserve substantially higher than 25 per cent.

5. FORMS OF MONEY IN CANADA.

Money	{	Currency	{	Coins	{ Standard coins (No longer in active circulation) (Unlimited legal tender)	{ Canadian \$2½, \$5, \$10 and \$20 gold coins. British sovereigns.
				Subsidiary coins (Limited legal tender)	{ Silver \$1, 50c., 25c., 10c. (and 5c.) coins. Nickel 5c. piece. Bronze 1c. piece.	
		Notes	Bank of Canada Notes — \$1, \$2, \$5, \$10, \$20, \$50, \$100 and \$1,000. (Unlimited legal tender)			
			Chartered Bank Notes — \$5, \$10, \$20, \$50, \$100. (Not legal tender)			

Bank Deposits	{	Bank of Canada Deposits	{ Chartered Banks. Quebec Savings Banks. Dominion Government.
		Chartered Bank Deposits	{ Public Deposits { Current or Demand. Savings or Time.
			{ Government Deposits.
			{ Interbank Deposits.

Date	1922	1923	1924	1925	1926	1927	1928
Dec 31, 1922	484,336	472,255	462,311	450,808	439,305	427,802	416,299
Dec 31, 1923	500,000	488,000	476,000	464,000	452,000	440,000	428,000
Dec 31, 1924	516,000	504,000	492,000	480,000	468,000	456,000	444,000
Dec 31, 1925	532,000	520,000	508,000	496,000	484,000	472,000	460,000
Dec 31, 1926	548,000	536,000	524,000	512,000	500,000	488,000	476,000
Dec 31, 1927	564,000	552,000	540,000	528,000	516,000	504,000	492,000
Dec 31, 1928	580,000	568,000	556,000	544,000	532,000	520,000	508,000

(Amounts in thousands of dollars)
 (Людности в тысячах долларов)
 (Amounts in millions of dollars)
 (Людности в миллионах долларов)

6. AMOUNTS OF VARIOUS KINDS OF MONEY IN CANADA

I. CURRENCY

(Thousands of dollars)

—	Total	Canadian Coins ¹					Notes				Chartered Bank Notes
		Total	Gold	Silver	Nickel	Bronze	Total	Bank of Canada and Dominion Notes ²			
								Total	Active Circulation	Held by Chartered Banks	
Dec. 31, 1938.....	310,493	40,710	4,868	29,698	3,036	3,108	269,783	175,260	118,423	56,837	94,523
Dec. 31, 1937.....	306,370	39,364	4,868	28,613	2,872	3,011	267,006	165,330	111,430	53,900	101,676
Dec. 31, 1936.....	282,961	38,077	4,868	27,657	2,636	2,916	244,884	135,735	87,871	47,864	109,149
Dec. 31, 1935.....	255,980	37,374	4,868	27,242	2,434	2,830	218,606	99,677	59,098	40,579	118,929
Mar. 30, 1935.....	258,123	37,184	4,868	27,318	2,255	2,743	220,939	96,263	45,101	51,162	124,676
Feb. 28, 1935.....	383,162	36,904	4,868	27,100	2,209	2,727	346,258	220,280	35,232	185,048	125,978
Dec. 31, 1934.....	390,521	37,052	4,868	27,249	2,208	2,727	353,469	217,034	33,801	183,233	136,435
Dec. 30, 1933.....	352,299	37,596	4,868	28,032	2,025	2,671	314,703	182,644	30,311	152,333	132,059
Dec. 31, 1932.....	355,723	37,478	4,868	28,166	1,895	2,549	318,245	191,170	29,189	161,981	127,075
Dec. 31, 1931.....	352,604	37,201	4,868	28,265	1,726	2,342	315,403	174,390	30,479	143,911	141,013
Dec. 31, 1930.....	359,965	36,534	4,868	27,946	1,437	2,283	323,431	175,414	29,575	145,839	148,017
Dec. 31, 1929.....	415,802	36,373	4,868	27,984	1,261	2,260	379,429	203,932	31,613	172,319	175,497
Dec. 31, 1928.....	443,224	35,254	4,868	27,211	1,018	2,157	407,970	221,883	29,939	191,944	186,087

¹ Represents the net amount of Canadian coins issued up to the dates indicated (new issues less withdrawals).

In the case of gold, no coins have been struck since 1916, and the amount shown above represents the net amount issued and outstanding up to that time. No coins of the United States or the United Kingdom are included.

² Prior to the opening of the Bank of Canada (March 11, 1935) notes issued by the Dominion were legal tender in Canada. In addition to the ordinary notes for public circulation there were notes issued in denominations of \$1,000, \$5,000 and \$50,000, which were used only by the chartered banks for clearing purposes and for deposit in the Central Gold reserve. On March 11, 1935, the Bank of Canada assumed full obligation for the Dominion Notes outstanding as of that date, and has since replaced all but a small amount of such notes with bills of its own issue. Maintenance of deposits by the chartered banks in the central bank has made the use of the large notes for inter-bank purposes no longer necessary, and these have not been replaced.

6. AMOUNTS OF VARIOUS KINDS OF MONEY IN CANADA—Con.

II. BANK DEPOSITS

(Thousands of dollars)

	Bank of Canada				Chartered Banks					
	Total	Owing to Chartered Banks	Owing to Savings Banks	Owing to Dominion Govern'm't	Total	Public Deposits (in Canada)			Dominion and Provincial Govern'm't Deposits ¹	Inter-Bank Deposits ¹
						Total	Demand	Time		
Dec. 31, 1938.....	220,405	200,646	3,086	16,673	2,566,567	2,393,749	734,103	1,659,646	106,155	66,663
Dec. 31, 1937.....	210,580	196,040	3,457	11,083	2,410,771	2,282,013	699,187	1,582,826	52,611	76,147
Dec. 31, 1936.....	207,809	186,974	2,059	18,776	2,355,215	2,230,148	682,326	1,547,822	72,437	52,630
Dec. 31, 1935.....	200,319	181,636	766	17,917	2,229,752	2,126,898	640,921	1,485,977	52,592	50,262
Mar. 31, 1935.....	167,741	149,029	380	18,332	2,048,998	1,959,200	512,505	1,446,695	47,139	42,659
Feb. 28, 1935.....					2,047,980	1,944,561	516,238	1,428,323	58,807	44,612
Dec. 31, 1934.....					2,079,861	1,982,699	575,497	1,407,202	52,618	44,544
Dec. 30, 1933.....					1,971,472	1,858,788	501,871	1,356,917	61,247	51,437
Dec. 31, 1932.....					1,976,892	1,843,733	466,213	1,377,520	72,041	61,118
Dec. 31, 1931.....					2,116,070	1,926,627	566,585	1,360,042	130,886	58,557
Dec. 31, 1930.....					2,192,926	2,067,539	641,694	1,425,845	47,533	77,854
Dec. 31, 1929.....					2,378,173	2,163,720	729,315	1,434,405	91,605	122,848
Dec. 31, 1928.....					2,433,199	2,235,308	715,023	1,520,285	62,911	134,980

¹ Includes deposits outside of Canada.

6. AMOUNTS OF VARIOUS KINDS OF MONEY IN CANADA—*Con.*

III. TOTAL ACTIVE MONEY SUPPLY

(Thousands of dollars)

	Total Active Coin Circulation ¹	Total Active Note Circulation ²	Deposits of Chartered Banks payable in Canadian Funds ³	Total Active Money Supply ⁴
Dec. 31, 1938.....	30,683	206,741	2,498,000	2,735,424
Dec. 31, 1937.....	29,669	207,444	2,387,000	2,624,113
Dec. 31, 1936.....	28,190	191,097	2,323,000	2,542,287
Dec. 31, 1935.....	27,132	170,136	2,208,000	2,405,268
Mar. 31, 1935.....	25,709	163,412	2,034,000	2,223,121
Feb. 28, 1935.....	26,036	153,930	2,015,000	2,194,966
Dec. 31, 1934.....	26,184	157,284	2,050,000	2,233,468
Dec. 30, 1933.....	26,728	151,018	1,933,000	2,110,746
Dec. 31, 1932.....	26,610	144,117	1,928,000	2,098,727
Dec. 31, 1931.....	26,333	159,556	2,069,000	2,254,889
Dec. 31, 1930.....	25,666	162,581	2,128,000	2,316,247
Dec. 31, 1929.....	25,505	187,104	2,270,000	2,482,609
Dec. 31, 1928.....	24,386	193,092	2,315,000	2,532,478

¹ Total coins outstanding less amounts held by chartered banks (estimated prior to March, 1935) and less total gold coins assumed to be not in active circulation. (In fact, prior to 1932 a small amount of gold coins were in active circulation.)

² Total of Bank of Canada notes (prior to March, 1935, Dominion Notes) and chartered bank notes outstanding less amounts of the former held by chartered banks and of the latter held by other chartered banks.

³ Since March, 1935, these figures have been compiled by the Bank of Canada and prior to that date are estimates based on the monthly returns of the chartered banks.

⁴ This is the total of the previous three columns. It should be noted that all deposits at the Bank of Canada, including those of the Dominion, are excluded.

7. Definitions relating to Monetary Standards

1. Monetary Standard.—This term refers to the type of money which is used as the standard unit of value. Thus, a country may be said to be on a gold standard, a silver standard, a paper standard or an exchange standard, depending on the commodity or thing which is used as the standard of value. Prior to 1931 Canada's monetary unit was the gold dollar (not coined), consisting of 25·8 grains of gold $\frac{9}{10}$ fine and Canada was said to be on the gold standard.

2. The Gold Standard.—The gold standard is a monetary system in which the monetary unit is defined as equal to a specified weight of gold of specified fineness and the value of the country's money is maintained, by certain devices referred to below, on a parity with the market value of gold both domestically and in free international markets.

(a) Full Gold Coin Standard

The full gold coin standard is a monetary system in which (a) the monetary unit is defined as a specified weight of gold of specified fineness; (b) gold coin is full legal tender; (c) all credit money issued by the Government or the Central Bank and all legal tender money other than gold coins, are redeemable at par in gold coin on demand; (d) gold is coined without limit and without substantial seigniorage charge for all who bring it to the Mint; (e) there is no restriction upon the importation or exportation of gold in any form or upon holding gold or circulating gold coins; (f) the amount of money outstanding is determined, or at least limited, by the amount of gold reserves.

(b) Full Gold Bullion Standard

The full gold bullion standard is a monetary system in which (a) the monetary unit is defined as a specified weight of gold of a specified fineness; (b) gold is not coined but gold bullion in the form of bars is full legal tender; (c) all credit money issued by the Government or the central bank and all legal tender money, are redeemable in certain minimum amounts on demand at par in gold bullion (i.e., in the form of gold bars of a minimum size, say 400 ounces); (d) gold of standard fineness is purchased by the Treasury or Central Bank at a fixed price and without limitation from all who offer it; (e) there is no restriction upon the importation or exportation of gold in any form; and (f) the amount of money outstanding is determined, or at least limited, by the amount of gold reserves.

(c) Limited Gold Standards

In recent years various countries have ceased to observe all the requirements noted above for the full gold coin or bullion standards and yet have maintained the value of their money in world markets equal to the value of a definite quantity of gold. In order to stabilize the value of the money in terms of gold, it is not essential that the country permit its residents to hold, to export or to import gold, nor that it should guarantee to exchange its money for gold, nor that it should regulate the quantity of its money in relation to gold, providing that the authorities themselves will buy and sell gold on the world markets for their own currency at a fixed price (for example, through an exchange stabilization fund).

In practice there are all sorts of variations.

3. The Silver Standard is the same as the gold standard but with silver substituted for gold.

NOTE: Historically many countries for long periods of time have used a silver standard but to-day no countries remain on the silver standard.

4. The Bimetallic Standard.—A bimetallic standard is one where the value of the monetary unit is maintained equal both to a fixed quantity of gold and to a fixed quantity of silver. Therefore, the authorities must be prepared to buy and sell both silver and gold at all times and without limit at the specified fixed prices. The standard of value is defined as either of the two metals, a definite quantity and fineness of each being specified, *e.g.*, 25·8 grains of gold and 412·8 grains of silver, each nine-tenths fine—a 16 to 1 ratio. All credit money and all legal tender money are redeemable at the option of the holder in either metal. There is no restriction upon the importation or exportation of either metal. Both metals are full legal tender, and there is free or unlimited coinage of both metals.

One implication of this standard is that if the ratio between the fixed prices for gold and silver (i.e., the coinage ratio) differs from the ratio between their prices in the open markets (i.e. the market ratio), the monetary authorities will have to buy one metal and sell the other until either the ratio of market prices comes into line with the coinage ratio, or the standard breaks down because they have sold all their stocks of one of the metals and all stocks of that metal have disappeared from circulation, either by export to foreign countries or into non-monetary uses.

NOTE: No country to-day is on such a standard.

5. Exchange Standard.—An exchange standard is a monetary system arranged or managed so as to maintain the foreign exchange value of the monetary unit at a fixed value in terms of some other monetary unit.

Thus, a gold exchange standard would be a monetary system which is tied to the currency of some other country which is on a gold standard. The essentials of this system would be the following:—

- (a) The standard unit of value is defined as equivalent to a fixed amount of the currency of a country on the gold standard which in turn is equivalent to a definite quantity of gold of a certain fineness.
- (b) The Government or the central bank establishes a credit balance in the gold standard country to whose currency it is desired to tie up. This credit balance may be built up by borrowing abroad or by depositing gold or exchange.
- (c) All credit money issued by the Government or the central bank, and all legal tender money is redeemed, in minimum amounts on demand in gold exchange at a fixed ratio. That is, the Government agrees to sell drafts drawn against its bank balances in the gold standard country, at a price sufficiently above par to cover the cost of actually exporting gold to the depository country, but no higher. The sale of this gold exchange at such a price is equivalent to redeeming the country's own money in gold delivered in the depository country, since the bank balances in such gold standard country are convertible into gold at par.
- (d) The Government agrees to buy bills of exchange on the depository country, at a discount sufficient to cover the cost of importing gold from that country. Thus a person having drafts on the depository country would receive as much domestic currency as if he were to obtain gold in the depository country, import it, and exchange it at the Treasury for domestic currency at par.

The chief advantage claimed for the gold exchange standard is economy in the use of gold. Internal circulation of gold is dispensed with. For a number of years, India was on a gold exchange standard—the rupee being tied to the pound sterling of Great Britain which was then on the gold standard.

In recent years we have had several instances of countries on a sterling exchange standard. Sterling today is not a gold standard but a managed paper standard; hence the monetary system of a country which today is tied to the pound sterling might be called a paper exchange standard. The principles of regulation are the same as those described above for the gold exchange standard—in essence, the monetary authorities must stand ready at all times to buy or sell at fixed prices any amount of drafts on the country with whose currency the domestic currency is linked up.

6. Paper or Fiat Standard.—The so-called paper or fiat standard is a monetary system in which the standard unit of value is merely a unit of inconvertible paper money or fiat money. The essentials of such a standard are:—

- (a) a unit of inconvertible paper money is defined as constituting the standard unit of value;
- (b) this standard paper money is given full legal tender power; and
- (c) all credit money issued by the government and the central bank, and all other legal tender money, are made redeemable in the standard paper money.

A paper standard differs from a commodity standard chiefly in the way in which the quantity of issue is governed. Under a commodity standard, there is a high degree of automatic control of supply. For instance, the supply of gold is directly limited by the discovery and exhaustion of gold mines and the costs of producing the metal. Danger of over-issue is at a minimum, because of the slow process of mining the metal and the cost of producing it. In the case of paper, the supply can be multiplied overnight. History has shown many instances of the danger that the supply of inconvertible paper money tends to be regulated by the needs of hard-pressed national treasuries and the capacity of the printing presses.

7. Managed Paper Standard.—A managed paper standard is a monetary system where a unit of inconvertible paper money constitutes the standard of value but where the supply of money is regulated in accordance with scientific principles of monetary management. Such principles include regulation of the supply of money in accordance with certain criteria related to the encouragement of full employment and optimum business activity, the trend of prices, the prevention of speculative excesses or other economic maladjustments, etc. The success of any such system will depend, of course, on the establishment of a regulatory body with sufficient courage and honesty to resist the temptation to over-issue, on the degree of intelligence and restraint exercised by that body in managing the system, on the extent to which their powers and the nature of the country's financial and economic organization enable them to exercise effective control, and on the extent to which public confidence can be maintained.

8. Other Monetary Terms.

1. Velocity of Circulation.—Velocity of circulation is a measure of the number of times money is used or circulated in a given period, usually the average number of times a year. It is obtained by estimating the total volume of transactions carried out by means of money and dividing this by the average amount of money outstanding during the period.

Sometimes it is desired to distinguish between the velocity of circulation of currency and that of credit. In order to estimate these two separately it is necessary to estimate the volume of transactions effected by currency and the volume of transactions effected by credit, i.e., bank deposits. The latter can be estimated from figures of *bank debits*, i.e., of cheque transactions recorded by

the banks, but since no records are kept of many currency transactions and what records are kept are not available, it is usually very difficult to make any precise estimate of the velocity of circulation of currency.

2. The Value of Money.—The value of money is what money will buy. In order to find it we divide the unit of money by the price of that thing in terms of which we wish to express the value of money. For example, if the price of wheat is 60 cents a bushel, the value of the dollar is $1.00 = 1\frac{2}{3}$ bushels of wheat.

If the price of wheat a year ago was 80 cents a bushel, the value of the dollar then was $1.00 = 1\frac{1}{4}$ bushels of wheat. Therefore we can also say that in terms

of wheat the dollar is now worth $133\frac{1}{3}$ per cent of what it was worth last year, or that its value in terms of wheat has risen by $33\frac{1}{3}$ per cent.

In order to state the value of the dollar we must do so in terms of some thing which we are supposing it to buy. Generally, we do not use a single commodity but a large group of commodities, such as "goods at wholesale" and state not the absolute value of the money but its value at one time relative to its value at another time. For this purpose, we may make use of an *index number of prices*. To make an index number of prices we select a certain date as the starting point (or *base period*), take a representative number of commodities (either at wholesale or at retail), calculate the prices of these products to-day (or at any other date) as percentages of what they were in the base period, and ascertain the average of these percentages. There are many problems connected with the selection of base periods, the choice of commodities, and the calculation of averages. But all methods reveal with more or less accuracy any general tendency affecting all commodities, that is, a change in the general level of prices. Such a general tendency constitutes a change in the value of money. That is to say, the monetary unit divided by an index number of prices may be used to measure changes in the value or purchasing power of the monetary unit.

For example, we may compare the value of the dollar in January of this year with its value in January of 1933 in terms of goods at wholesale as follows: The index of wholesale prices was 73.3 in January, 1939, and was 63.8 in January, 1933. Dividing 1 by these two figures we get approximately .01364 and .01567 which enables us to say that the value of money in terms of wholesale commodities had fallen by 13.0 per cent between January, 1933 and January, 1939.

3. Inflation.—It is very difficult to give a precise definition of inflation, because the term is rarely used precisely, without qualification.

Most people would agree that it involves a situation where the general level of prices is rising as a result of a process involving an increase in the supply of money.

It seems desirable, however, to use the term in a more restricted sense to refer to a situation where prices are rising more rapidly than the rate appropriate merely to sound economic recovery. Hence the following definitions are suggested.

Inflation or real inflation is a process which involves a rise in the general level of prices either of an extreme character, that is, at a more rapid rate than is incidental to the normal recovery of production and employment, or which is not accompanied by an increase in production.

Reflation may be used to refer to the phenomenon where the general level of prices is rising as a part of the process of recovery assisted by scientific monetary management.

Deliberate inflation may be defined as real inflation which is initiated, not by natural economic forces such, for instance, as the drastic increase in world production of gold which took place after 1890, but by conscious governmental action, for example, by an increase in the note issue or the credit base.

4. Deflation.—Deflation is less difficult to define because it is generally used only in the broad sense as meaning any situation where the general level of prices is falling as a result of a process involving a decrease in the supply of money.

III. FUNCTIONS, STRUCTURE AND OPERATIONS OF THE BANK OF CANADA

(a) General Review

(Submitted by Mr. Towers in response to a request by the Committee)

(Volume 1, page 10)

Part I—Functions

In dealing with the functions of a central bank I shall borrow freely from the report of the Royal Commission on Banking and Currency in Canada, and from the preamble to the Bank of Canada Act.

The major function of a central bank is to regulate credit and currency in the best interests of the economic life of the nation. The bank's efforts to perform this function must, of course, take place within the limits imposed by law and by its capacity.

Secondly, a central bank should, so far as possible, control and protect the external value of the monetary unit of the country. This responsibility is a definite and direct one if the country in which the bank operates is on a gold or other international standard. Otherwise, the responsibility is indirect and less clearly defined.

Thirdly, the bank should be a ready source of skilled and impartial advice at the disposal of the government—automatically in the case of the dominion government, and by arrangement in the case of provincial governments.

Finally, a central bank should provide machinery for cooperation with similar institutions in other countries. Obviously, cooperation on any matter of high policy must be dictated by the views of the governments of the countries concerned, but cooperation by way of information or in the performance of normal banking services is also a useful and important function.

By and large, the central bank should use its store of experience in the service of the community, without the desire or the need to make profit a primary consideration.

Part II—Structure

Obviously one could elaborate at some length on the functions of a central bank. But I doubt whether further elaboration would serve any purpose, particularly at this stage. I believe that further detail would be simply dotting the "i's" and crossing the "t's", including, no doubt, qualifications in regard to the difficulties which a central bank may encounter in endeavouring to achieve certain objectives.

I should like to turn now to the question of the structure of this organization which is designed to perform the functions I have outlined. The structure of a bank is revealed by its balance sheet, and the steps it takes to perform its functions are revealed by changes in its balance sheet, except to the extent that it may endeavour to attain its objectives by methods of advice or persuasion.

May I commence my discussion of the bank's balance sheet by making what is apparently a very trite remark, namely, that a balance sheet always

balances. By that I mean that any action we may take to increase or decrease our assets, automatically results in a similar increase or decrease in our liabilities; and our liabilities are other people's assets. It is through changes in these assets of other people that a major influence is exerted on the financial system. I shall try to develop this point when dealing with our operations.

As shown by the bank's balance sheet at December 31, 1938—copies of which are in the hands of the committee—our assets on that date totalled some \$405 millions, speaking in round figures which I shall use throughout. Of these assets, \$214 millions consisted of gold and foreign exchange, \$186 millions of dominion and provincial government securities, and \$5 millions was represented by other items. The liabilities balancing these assets were notes in circulation, \$175 millions; deposits, \$222 millions; capital and rest fund, \$7 millions; and about \$1 million of sundry liabilities. It will be seen that notes in circulation and deposits by the chartered banks were by far the most important items on the liability side of our balance sheet. Of our notes in circulation, of the total of \$175 millions, \$118 millions were held by the public and \$57 millions were in the tills of the chartered banks on December 31 last. In addition to these notes, the chartered banks had \$201 millions on deposit with us, the total of these two items being \$257 millions. This total represents the cash reserves of the banks against their liabilities in the form of deposits payable in Canadian dollars—and I use that wording, "payable in Canadian dollars" to distinguish it from deposits payable in U.S. dollars, pounds sterling or other foreign currencies which may be on the books of the chartered banks' foreign branches or even Canadian branches.

By law the chartered banks' cash reserves in the form of Bank of Canada notes and deposits with the Bank of Canada, must not be less than 5 per cent of Canadian dollar deposits. In fact, the banks try to maintain a ratio of about 10 per cent, and at December 31, 1938, when Canadian dollar deposits amounted to \$2,498 millions, cash reserves of \$257 millions represented a cash ratio of 10.3 per cent.

If someone were to ask me why the chartered banks try to maintain a 10 per cent cash reserve, instead of 5 per cent or 15 per cent, or some other figure, I could only reply that the working experience of many years has indicated that 10 per cent is a reasonable ratio which provides sufficient cash to cover any immediate demands, but is not so high as to constitute an unnecessary burden in the form of non-earning assets. The banking system of each country must decide from its own experience what ratio is appropriate, since conditions vary as between one country and another. I might add, however, that in Great Britain it has been the practice for many years to work to a cash ratio of about 10 per cent, the same as in this country, and up until recent years a ratio approximating 10 per cent also represented banking practice in the United States.

I have devoted some time to this question of the ratio of cash reserves to deposits, because it is of fundamental importance in the working of a banking system. If the amount of cash reserves held by the banks increases, the first effect naturally is to increase the ratio of cash to deposits. The second effect is to induce the banks to try to make use of the additional cash reserves through adding to their loans and investments, which would increase their liabilities in the form of deposits and, therefore, reduce the ratio of cash to deposits. It should be pointed out, however, that if the banks are unable to make suitable loans or to find investments which they believe it is safe to acquire, they will take no action of an expansionary character, and in such circumstances would be forced to allow the cash ratio to remain at a higher level.

Looking at the other side of the picture, if a reduction takes place in the amount of cash reserves held by the banks, the first effect is to reduce the ratio of cash to deposits. If the cash ratio is then too low, the banks will correct the situation by selling securities or calling loans, until the reduced volume of deposits bears an appropriate relation to the reduced amount of cash reserves.

Part III—Operations

I think that the description I have given of the banking machinery may be more readily understood if I am able to give a picture of the machinery in operation. I shall attempt to do this by reviewing the Bank of Canada's operations and their effects on the banking system since March 31, 1935. We actually commenced our operations on March 11 of that year, but I took the end of the month because in doing so I can then relate our figures to those of the chartered banks which are available to us only at the end of each month. I should point out that since that date, March, 1935, our operations have been on the side of expansion, that is, they will reveal only one type of policy, and will not indicate the effect of other policies which a central bank may find it necessary to adopt under other conditions.

I am commencing my remarks concerning our operations by referring to our active note circulation—that is, the notes of the Bank of Canada which are in the hands of the public—before turning to the more important subject of the chartered banks' cash reserves. On March 31, 1935, the active Bank of Canada note circulation (including dominion government notes for which we had assumed the liability) was \$45 millions. At December 31, 1938, the active circulation was \$118 millions, an increase of \$73 millions. If the chartered banks had been forced—it is the chartered banks, of course, to whom the public go when they require additional notes—to supply this additional \$73 millions of notes to the public by drawing to that extent on the cash reserves which they held at March 31, 1935, their cash reserves would have been reduced to \$127 millions, which amount would have provided a 10 per cent cash ratio against only \$1,270 millions deposits as compared with the \$2,498 millions which were actually in existence at December 31 last. I need not elaborate on the disruption which would have been caused by such a drastic curtailment in deposits, nor on the effects on markets and the public of the sales of securities and reduction of loans which would have had to take place. It is sufficient to say that we took steps to render any such move unnecessary by adding to our assets in the form of gold, foreign exchange and securities. I should point out at this stage that when the Bank of Canada makes such purchases of gold or foreign exchange or securities or assets of any kind, it makes payment by giving the seller a cheque on the Bank of Canada, a cheque on ourselves. The seller will deposit the cheque in his own bank and that bank in turn will deposit the cheque in its account with us. The credit balance in that bank's account with us forms part of the bank's cash reserves so that the increase in this balance arising from the deposit of a cheque issued by us results in an increase in the chartered bank's cash reserves.

Since March 31, 1935, the total addition to the Bank of Canada's assets in the form of gold, exchange and securities, has been \$134 millions. The initial effect of these transactions was to add an equal amount (not all at once, naturally, but over a period of years) to the chartered banks' cash reserves, of which \$73 millions was taken out of the banks again in the form of additions to the amount of our notes in the hands of the public, and \$4 millions deducted as a net result of sundry adjustments, leaving \$57 millions as the net addition to the chartered banks' cash reserves.

I should like to turn now to a consideration of the changes in the chartered banks' balance sheets, which accompanied the increase in cash reserves to which I have referred.

At March 31, 1935, the chartered banks' cash reserves were \$200 millions: their Canadian deposits \$2,034 millions, and the cash ratio consequently 9·8 per cent. On December 31, 1938, cash reserves were \$257 millions; Canadian deposits \$2,498 millions, and the cash ratio 10·3 per cent.

During this period, therefore, Canadian deposits have increased by \$464 millions, of which about \$213 millions has been in public time or savings deposits,

and \$251 millions in public demand and other deposit classifications. By public, I mean the "general public." The effect of this expansion therefore has been to give Canadian depositors some \$464 millions more money available for whatever purpose they care to use it, than they had four years ago.

In these comparisons I am taking March, 1935, as the starting point because that is as far back as our operations extend. I should point out that expansion commenced before we opened our doors; that is to a major extent between June of 1934 and March of 1935, and it arose through the expansion in the fiduciary note issue of the dominion government to which the Deputy Minister of Finance referred a little earlier this morning. Therefore, if one took the figures from June, 1934, to December 31, 1938, the expansion shown would be greater than the figures I have used.

The expansion of Canadian deposits was a result of the inducement given to the chartered banks, through the addition to their cash reserves, to seek new loans and investments. The banks would have preferred to increase loans rather than investments, but in order for them to make loans there must be responsible borrowers who are willing to use the chartered banks' facilities. In fact, loan repayments exceeded new loans during the period under discussion, when total Canadian loans declined about \$40 millions, chiefly because of a reduction in loans on securities, loans in the call loan category. The chartered banks, therefore, had to turn to investments in securities, which increased \$493 millions between March 31, 1935, and December 31, 1938. That was their avenue of expansion.

The ratio of cash reserves to deposits was but slightly higher at December 31, 1938, than on March 31, 1935, but in the interval cash reserves increased \$57 millions, Canadian deposits expanded \$464 millions, and loans and investments showed a net rise of \$453 millions.

Summary

I now come to the end of the brief outline in which I have attempted to describe first of all the functions, then the structure and finally the operations of the Bank of Canada and the effects of these operations upon the banking system in Canada, to the extent that these effects are disclosed by changes in the system's cash position and in its Canadian loans, investments and deposits. I have not attempted to deal with the broader subject of the relationship of these changes to the economic system, on the assumption that the aspects of the situation in which the committee is interested will be discussed at a later stage. To quite an extent I am afraid I have had to employ figures as a method of description, but I felt that it was necessary to do so at this stage, because such figures constitute the foundation on which any discussion of Canada's banking system must be based.

(b) Operations Compared with Former Monetary System

(Submitted by Mr. Towers in reply to Mr. Donnelly)

(Volume 12, page 365)

When Mr. Donnelly put certain questions last Friday he pointed out that all parties in the house had been in favour of a central bank, and I have no doubt he would agree that at the time of formation of the bank there was a widespread national interest in the new institution. I think we could say that there was public interest of the best kind. Dr. Donnelly went on to say that as a public man he was continually being asked throughout the country what the central bank did and how it justified its existence, and that he was at sea so far as an answer to those questions was concerned.

I know from experience that there is a great deal in what he said; in fact, I know the absolute correctitude of what he said, and we fully realize the desirability of public understanding of the bank's purposes and functions. However, the committee will understand, I think, that it is by no means easy to get the desired results. For example, I do not think it would be right for us to embark on an advertising campaign. A great deal of speech-making would take too much time from other work, and in any event, that kind of thing is easily overdone. What we have done has been limited to some explanatory speeches in various parts of the country, some radio addresses, and the publication of information in our annual reports. First of all these reports were addressed to the shareholders; and last year for the first time the report was addressed to the minister of finance. May I say that in relation to the subject I have been discussing, I think the meetings of this committee, and the record of these meetings are of great importance. The attitude of members of parliament towards the central bank—perhaps I might say the atmosphere in which the bank's affairs are discussed—is likely to be one of the major factors determining its standing and prestige in the country. I think the bank need have no hesitation in asking for the whole-hearted support of public men. Disagreements in regard to its policy may arise; but I hope that such disagreements will never take a form which will damage this public institution which parliament has created to serve the national interest. I believe that a good central bank is an asset to any country. But there is certainly no room for doubt that a poorly operated central bank, or one which is constantly the centre of strife, is a public liability of the worst kind.

The primary function of a central bank is the control of commercial banks' cash reserves, and the most important change introduced by the establishment of the Bank of Canada was the transfer of control over those cash reserves which are the major factor in determining banking policy—a point which I think I need not labour after the discussions which have taken place in this committee.

Prior to March 11, 1935, the date on which we opened our doors for business, the dominion government, through the Department of Finance, was responsible for the issue of legal-tender dominion notes which constituted the major portion of the cash reserves of the banking system, and in addition supplied the requirements of the public for currency of \$1 and \$2 denominations and, to a negligible extent, other denominations. The chartered banks also held some legal tender cash reserves in the form of gold, but when Canada was off the gold standard—and we have been off the gold standard some twenty-one years during the last quarter of a century—the banks had no practical means of varying the size of their gold holdings. Variations in the amount of their cash reserves, therefore, chiefly depended on changes in the amount of dominion notes in their possession.

The Dominion Notes Act provided for a certain fiduciary issue—i.e., unbacked by specie; a limited issue on the basis of a stated percentage of gold backing; and further issues secured by gold, dollar for dollar. For a number of years prior to 1934 the Dominion note issue was consistently at or very near the maximum limit provided under the Dominion Notes Act. Under those circumstances, the government had practically no power to vary the amount of dominion note issues of its own volition, except by asking parliament to change the legislation. In other words, it had practically no power to vary the cash reserves of the chartered banks or to prevent an undesirable contraction in those reserves if the public's holdings of notes increased.

We were then tied up in one of the most rigid monetary systems of the world, except for one factor—the Finance Act. Under the provisions of this Act the banks could borrow dominion notes from the government and increase their cash reserves. Dominion notes issued under the terms of the Finance Act were not required to have any specific gold reserve backing.

From the point of view of the country as a whole there were three major disadvantages in relying upon the Finance Act to impart the necessary flexibility to the monetary system:—

(1) Finance Act borrowings were never intended to be of a permanent or even semi-permanent character; and if a general improvement in business caused a demand for more cash—a demand which might persist for some time or even be of a permanent character—the Finance Act was not the proper source of supply. I find an example of such a demand in the record of the last few years. Between February, 1935, and December, 1938, the total active note circulation in Canada increased \$53 millions. If the major portion of that demand had had to be met by the use of dominion notes—as it would have under the old system—we would have had a banking situation of an extremely deflationary character, or, alternatively, have found that banks were almost permanently indebted to the dominion government. My guess is that the actual position would have been somewhere between these two extremes. But I have no hesitation in saying that the position would have been an extremely unsatisfactory one for the country.

(2) The second great flaw was this: If it seemed desirable to encourage expansion there was no way for the government to take the initiative. It is true that an exception to this rule is found in Mr. Bennett's action in November of 1932 when he persuaded the banks to borrow \$35 millions under the Finance Act. No more satisfactory way of accomplishing his purpose was open to him at that time. But the very fact that such a transaction had to take place in that form made it obvious that a central bank must be organized in Canada.

(3) Apart from the fact that no public authority could take the initiative in promoting expansion, there were other features of the system which were not satisfactory. The banks did not adopt any concerted policy in respect to Finance Act borrowings. It was not their place to do so. And there seems to have been some question as to the degree of supervision which the government exercised over loans under the Finance Act. I am not raising any question of safety of such loans, but I have in mind the general effect which the sum total of borrowings would produce on the banking system. Who was responsible for seeing that expansion did not go too far; that checks were applied if necessary; and what evidence is there that anyone exercised supervision of this character related to general banking policy? I do not know the answer to that question, and I doubt if anyone does.

I summarize my answer to the first part of Dr. Donnelly's question by saying that under the old system no one authority was responsible for the monetary policy of this country; and if anyone had been responsible the inflexibility of the existing machinery would have tied the hands of that authority. The present system places responsibility on the central bank and provides for great flexibility.

In speaking of the duties which are performed by the central bank which were previously performed by the government, I should add that we have not only taken over the operations of the currency section of the Department of Finance, but since March 31st, 1938, are acting as agent for the government of Canada in the payment of interest and principal and generally in respect to the management of the public debt of Canada. This latter function had been performed by the loans and interest branch of the Department of Finance, the staff of which joined the service of the Bank of Canada a little over a year ago.

Turning to the second part of the question, that is, what work the central bank does now that the chartered banks did formerly, I should point out that, broadly speaking, the central bank was not set up to do any work that the chartered banks did formerly. It was created for the purposes which I have just been discussing. It is true that the new legislation provided that the

chartered banks' note issue rights should gradually be reduced, which meant that the central bank's notes would gradually take the place of the chartered banks' issues. This was a question of policy. It is also true that the central bank now handles the government's business in foreign exchange, and holds part of the government's deposit balances. But these two changes were incidental to the establishment of a central bank, and are not in themselves matters of major importance.

✓ The third part of the question was an enquiry as to what the central bank does now that was not done formerly by the treasury board—perhaps I might say the government—or the chartered banks.

In answering the first part of Dr. Donnelly's question, I have pointed out that the central bank is responsible for monetary policy in a way which was not possible under the old system. This is the change of greatest importance. I shall refer, as briefly as I can, to other new features.

✓ The bank acts as the financial advisor and fiscal agent of the dominion government. Amongst other things it must tender advice to the government in respect to issues of dominion government direct or guaranteed loans, and it handles the mechanical operations connected with such issues. If the advice given to the government is to be good advice, the bank must have close contact with security markets both in Canada and abroad, and must also, I need hardly say, have people on its staff who are capable of appraising and interpreting the information they obtain. We operate a securities department which does in fact maintain touch with markets in Canada every minute of the day.

While I am on the subject of our relations with the dominion, I should add that we are in a position to make loans to the government from time to time, and have done so. The primary function of any central bank is to control the volume of credit (and to some extent of currency) in the country, and it should not be, and is not, regarded simply as a source of supply of the funds required by a government. Temporary requirements of a government, however, can be supplied, provided the amounts involved are not so large that central bank action would cause disturbances in markets.

While I am on the subject of relations with government I feel I should mention our position in respect to provinces. Our Act says that:—

The bank shall act as fiscal agent of the government of Canada without charge, and, subject to the provisions of this Act, by agreement may also act as banker or fiscal agent of the government of any province.

It has been, and is, our view that a relationship with a province should be entered into on the understanding that it would be of a continuing character such as would normally be needed for the bank to acquire that full knowledge of a province's position which would enable it to give the province the best service of which it is capable in the matter of expert advice and frank opinions. The permanency of the arrangement, is, of course, a matter of intention at the time it is initiated, and I do not suggest that there should be a binding contract from which neither side could withdraw. Nor would a province be precluded from carrying accounts with or borrowing from its present bankers.

If a relationship of such a character were established, the bank could perform for a provincial government much the same kind of services as it undertakes for the dominion government. I should add that no province has ever requested the Bank of Canada to act for it in this way.

The existence of a central bank—to continue with certain new features—has made it possible to develop a treasury bill market in Canada. One of the advantages of this development has been that the dominion government has been able to borrow on treasury bills at very low rates, but I do not regard this advantage as the most important one. More important is the fact that the chartered banks have in treasury bills a form of liquid second-line cash

reserves. Under the old system the banks had to turn to the New York call loan market to find facilities for holding a reserve of this type. Such facilities are now provided at home.

✓ We operate a foreign exchange department which handles the dominion government's exchange business—a large business as you may imagine—and which is able to keep us in close contact with developments in exchange markets.

✓ Our research department is constituted to supply us with the best available information on matters related to government finance, private finance, domestic and external trade, and many other things which I need not recite here.

✓ The fact that there is a central bank in Canada makes it possible to achieve co-operation with the central banks in other countries. There is much which can be done in the way of interchange of information. Business conditions in a country's main markets have an important bearing on domestic trade. A central bank which contented itself with a knowledge of home affairs and turned a blind eye to developments elsewhere, would not be fulfilling its duty to its own people. The central banks of other countries constitute an excellent source of information. They can often provide facts rather than surmises. Co-operation along these lines is therefore extremely helpful, and can be developed by arrangement between central banks. Obviously, co-operation on any matter of high policy must be dictated by the views of the governments of the countries concerned.

The last point which I would like to mention concerns central banking activities of a general character. In speaking of this—very briefly—I will not try to define exactly the things in which a central bank might interest itself. One might say either that nothing is the bank's business, or that everything is its business. The bank must try to maintain a reasonable balance in that respect. It should not entertain the thought that it should have a finger in every pie, but it certainly must neglect no opportunity to make suggestions or give a lead when its knowledge of a situation gives it reason to believe that such action would be in the public interest. Its closest connection is likely to be with the financial activities of its market—with the operation of the stock and bond markets as well as with the business of the commercial banks. It is deeply interested in the machinery by which the savings of the people are mobilized and invested. Moreover, it cannot fail to be concerned with the progress and development of industry in general. If the bank has reason to believe that unsound developments are taking place, or unsatisfactory practices are being followed in any important department of the Canadian economy, it must try to find an opportunity to make suggestions which will bring about an improvement. I do not suggest for a moment that the central bank has superhuman intelligence, but a central bank is in a better position to accomplish something than any individual can be. Naturally, successful prosecution of activities of this character depends on experience and the wisdom and prestige which come with it. Ill-considered action, or an attempt to cover too wide a field, are equally fatal.

Further points raised by questions by Dr. Donnelly related to cost of operation and certain other features of the bank's activities, and in particular I think there was a desire to gain some idea as to what one might call the new costs of this relatively new institution. I have here a statement which in due course, with the permission of the committee, I will put on the record, which contains such an estimate, but I would like to add some explanatory remarks as to how it was made up.

First of all, we took the total amount of our operating charges. From that we deducted the costs incurred in operating departments which performed functions previously performed by the government. We know that if there had been no Bank of Canada, these functions would still be performed by the government. We know also that our costs of operation are no higher than they would have been under the old regime. In these various cases, as a matter of fact,

we took over the staff from the departments in which they were located. Now, those total charges for the year 1938 were \$1,750,000, speaking in round figures. The expenses attributable to functions taken over from the government, previously performed by the currency division of the Department of Finance and assistant receivers general throughout Canada, I have divided into two sections: the first amount, \$663,000 represents amounts paid out for the manufacture of bank notes and for their transportation by express or post throughout Canada; the other costs of operation of that department were \$365,000. I might explain that that department, in addition to handling all the work of putting out new notes during the course of the year, of making them available at the ten agencies throughout the country, and of redeeming and destroying notes which become unfit for use—in addition to that work the department in question has the custody of our gold stocks, it has the custody of the dominion government bond reserves and securities of other kinds, and is also the department which handles the work of dealing with subsidiary coins.

The second cost I have here is the management of the public debt division. That work which was previously being done by the government we took over last year. That is \$191,000, and the total of those two divisions is \$1,220,000. Now, from this I arrive at the fact that the expense directly attributable to new departments and the directing executive of the bank, excluding taxes paid to provinces and municipalities is \$439,000. Then I take the profits which could only have been obtained from operation of the new organization—let me say that those profits do not include any interest or discount on any of the investments of the bank nor do they include interest on advances which we may have made to chartered banks—they were negligible in any event. They include only profits which could not have been earned under the old form of organization. Such profits for the year 1938 were \$243,184.76. I therefore arrive at a cost of new functions of \$196,660.84 for the year 1938. In 1936 at the annual meeting of shareholders I made an estimate on a similar basis. In that year I figured that the cost of new operations net was about \$275,000; but I expressed the hope at that time that as years went on the cost would be reduced. It has been reduced in 1938 to \$196,000 odd. I expect it will be further reduced in 1939 and subsequent years.

ESTIMATE OF NEW COSTS ATTRIBUTABLE TO FORMATION OF
BANK OF CANADA FOR YEAR 1938

Total charges		\$1,750,522 28
Expense attributable to functions taken over from the Government:		
Previously performed by Currency Division and Assistant Receivers General throughout Canada—		
Cost of notes	\$ 544,278 07	
Shipping charges	119,057 33	
	\$ 663,335 40	
Other costs	365,830 13	
Management of Public Debt Division	191,602 94	1,220,768 47
Expense directly attributable to new departments and directing executive of bank (excluding taxes)		439,845 60
Profits which could only have been obtained through operation of the new organization (this excludes interest on investments or advances to chartered banks)		243,184 76
Cost of new functions		\$ 196,660 84

I have here a second statement, but before proceeding to that, may I take two or three minutes of the committee's time to mention the volume of certain of our operations, to try to give some idea at least of the character of our routine functions, which naturally have a bearing on our cost of operation. Perhaps the most important feature is this: under the old regime and under the Dominion Notes Act the active circulation of dominion notes—

that is circulation in the hands of the public—was in 1934 \$30,000,000. In 1938 our active circulation was \$107,000,000. In other words, there is more than a trebling of the figure of active circulation. Now, that active circulation figure has a very important bearing on the volume of work. Large denomination notes which rest in the hands of the banks require little in the form of transportation; they stay there a long time as they are not being actively used, therefore they do not require to be redeemed frequently and new notes issued.

The active circulation is active from our point of view in every sense of the term. The volume of that work as compared with 1934 has more than trebled. Just as an indication I may say that the number of new notes printed in 1938 was a little over 54,000,000. That is the number of notes, rather than dollar amount. The number of old notes destroyed was 47,000,000. The new subsidiary coin issued by our various agents to the chartered banks, amounted to \$1,483,000. In terms of small coins that represents a pretty substantial amount. The smooth and mutilated coins redeemed, including withdrawal of the large 1 cent bronze coin, amounted to 11,888,000 pieces.

The clearing items which we handled totalled 733,000, to a value of something over \$1,000,000,000. During 1938 4,300,000 coupons were paid, 330,000 interest checks on dominion government bonds were issued, bonds to a value of \$235,000,000, exclusive of treasury bills, were redeemed or converted, and bonds transferred and exchanged to a value of \$105,000,000. During the course of these transactions some 40,000 letters of inquiry or instruction were received and answered. I may say in speaking of the operations of our securities department, that through representatives in both Montreal and Toronto, for reasons which the committee will naturally understand, a constant minute to minute connection with Ottawa is in effect. Our purchases and sales of bonds in the market during 1938 amounted to about \$200,000,000. Our transactions in treasury bills with the market in the same year were about \$120,000,000. As regards our exchange department, I can only say there that the turnover runs into a good many hundreds of millions of dollars each year.

The number of our staff is 359, of which about 275 represent staff performing the functions previously performed by the government, and some 84 represent the additions caused by the organization of the Bank of Canada.

I come now to the second statement, which I shall also, with the committee's permission, put on the record. This statement brings in the figures of our total earnings. You will remember that in the earlier statement I referred only to those earnings which were of an absolutely new variety, and I eliminated all interest on investments or interest on advances to chartered banks. The total of those two items, interest on investments and advances to chartered banks—the latter amount being negligible—in 1938 was \$4,356,446.64. The expenses attributable to functions taken over from the government in accordance with the previous statement that I have put on the record are \$1,220,768.47; taxes, \$89,908.21; loss on silver bullion, \$135,740.18. I put that loss in this particular section of this statement because of the fact that taking over of silver was a duty imposed upon us by the government under the original Bank of Canada Act to carry out the terms of the London silver agreement. Had we not gone into operation the government would have had to do that and I estimate the government naturally would have taken this loss. The total of these items is \$1,449,911.39. Taking that from the interest earnings that I have already mentioned there is left an amount of \$2,906,535.25. I then deduct the cost of the new functions to which I have already referred, namely \$196,660.84 and I find that there is a balance available for depreciation in assets, for reserves, dividends and payments to government totalling \$2,709,874.41.

STATEMENT SHOWING DIVISION OF COST BETWEEN FUNCTIONS PREVIOUSLY
PERFORMED BY THE GOVERNMENT, AND NEW FUNCTIONS BASED
ON BANK'S PROFIT AND LOSS FOR 1938

Interest on investments, and advances to chartered banks (the latter amount is negligible)	\$4,356,446 64
Expense attributable to functions taken over from the Government as per previous statement	\$1,220,768 47
Taxes	89,908 21
Loss on silver bullion	135,740 18
Sundry additional expense	3,494 53
	1,449,911 39
Cost of new functions	\$2,906,535 25
	196,660 84
Balance available for depreciation in assets, for reserves, dividends and payments to Government	\$2,709,874 41

I have now a third and last statement which was made up in response to a question asked by Mr. Tucker in which he referred to the special issue of \$115,000,000 in bonds, 3 per cent bonds, which was delivered to us by the government at the time we commenced operations to balance a liability which we had taken over for redemption of the old dominion note issue. I should point out that this statement does not reflect as accurately the change in position as the first one which I put on the record. It necessarily runs back to the situation as it was in 1934 without making allowances for different things that have happened since then. It shows from the point of view of government a more favourable position than the first statement I put on the record. But I should say to the committee I think the first statement really more accurately reflects the situation, and I shall also add that while that first statement involved to a minor extent the making of estimates, the basis upon which it is made will tend to exaggerate the new costs rather than under-estimate them.

But returning to this present statement, the interest on 3 per cent bonds to the amount of something over \$115,000,000 issue is approximately \$3,450,000. That is the amount which is being paid annually by the government on the bonds.

Now, I deduct the old government costs transferred to Bank of Canada. These are not the figures which I mentioned in the first statement. These figures I am now using are, as well as we have been able to obtain them, the actual costs in the 1934-35 year to government. Those total some \$909,000, and I add as well the loss on silver bullion which would have been borne by the government.

And I find, as you will see in the statement which will be on the record, the gross new costs to government amount to \$2,375,455; that is, cost of interest of \$3,450,409, less charges which government would have had to bear of \$1,000,000 odd, leaving this gross new cost of \$2,375,455. I find that the profit of the bank, working on this basis only, for 1938 available for depreciation, payment to government and so forth, which I have previously recited, was \$2,410,046. In other words, there was an improvement in the government's position of \$34,000 in that year as compared with what it would have been had the Bank of Canada not been organized.

ESTIMATE OF EFFECT ON DOMINION GOVERNMENT COSTS ARISING FROM
FORMATION OF BANK OF CANADA

Made in response to a question from Mr. Tucker (Minutes of Proceedings and Evidence p. 207)		
New cost to Government		\$3,450,409
Interest on 3 per cent bonds delivered to Bank of Canada May 1, 1935, \$115,013,636.82 at 3% for 1 year	\$3,450,409	
Deduct: Old Government cost transferred to Bank of Canada		1,074,954
Estimated year's cost printing and distributing Dominion notes including cost of operating Currency Division and Assistant Receivers General Offices..	680,000	
Estimated year's cost of loans and interest branch ..	229,000	
1938 loss on silver bullion	135,740	
Proportion 1938 Pension Fund appropriation applicable to civil servants taken over	30,214	
Gross new cost to Government		\$2,375,455
Gross profit Bank of Canada 1938	\$2,550,046	
Less dividends paid to public	140,000	2,410,046
Reduction in net Government costs		\$ 34,591

(c) Effect of Security Purchases by the Bank of Canada

(Submitted by Mr. Towers in reply to Mr. Cleaver)

(Volume 24, page 829)

Suppose the Bank of Canada decides upon a policy of expanding the chartered banks' cash by, say, \$10,000. Suppose also that its gold ratio is already at the legal minimum of 25 per cent. The Bank will therefore have to buy \$2,500 of gold from, say, the Gold Mining Company. Suppose also that it buys \$7,500 of, say, Dominion of Canada 3's of 1955 from John Smith at par. In each case it pays in Bank of Canada notes. The Bank of Canada's balance sheet (which as given here is purely hypothetical as to figures and condensed in form) will change as follows:—

1. BEFORE

<i>Assets</i>		<i>Liabilities</i>	
Gold	\$ 3,000	Chartered Bank Deposits	\$ 6,000
Securities	11,000	Notes—in Hands of Banks	1,500
		in Hands of Public	4,500
Other Assets	1,000	Capital and Other Liabilities	3,000
	\$15,000		\$15,000

2. AFTER

<i>Assets</i>		<i>Liabilities</i>	
Gold	\$ 5,500	Chartered Bank Deposits	\$ 6,000
(Previous 3,000+2,500 purchased from Gold Mining Company)		Notes—in Hands of Banks	
Securities	18,500	in Hands of Public	16,000
(Previous 11,000+7,500 purchased from John Smith)		(Previous 6,000+10,000 issued to Gold Mining Company and John Smith)	
Other Assets	1,000	Capital and Other Liabilities	3,000
	\$25,000		\$25,000

There are now \$10,000 new Bank of Canada notes in existence. To the extent that some of the notes are needed for the purpose of making hand to hand payments, or to the extent that the Gold Mining Company or John Smith decide for other reasons not to deposit, the \$10,000 worth of notes will not come back to the chartered banks. They will be in active circulation or hoards. Let us assume, however, that John Smith does deposit his \$7,500 in a savings

account and that the Gold Mining Company deposits its \$2,500 worth of notes in a current account. The liability side of the Bank of Canada's balance sheet (No. 2 above) has now been determined in the following form:—

Chartered Bank Deposits	\$ 6,000
Notes—in Hands of Banks	11,500
in Hands of Public	4,500
Capital and Other Liabilities	3,000
	\$25,000

It is likely that the chartered banks would, for convenience of transfer, exchange some of their Bank of Canada notes for an increase in their deposits with the Bank of Canada. For present purposes it does not matter whether this happens or not. The important point is that their cash reserves have increased by \$10,000.

For convenience of illustration we shall now assume that there is only one chartered bank operating in Canada. The changes in its balance sheet (hypothetical as to figures and condensed as to form) are shown below:—

3. BEFORE

<i>Assets</i>		<i>Liabilities</i>	
Cash	\$ 7,500	Deposits	\$75,000
Loans and Investments	70,000	Capital	5,000
Other Assets	7,500	Other Liabilities	5,000
	\$85,000		\$85,000

4. AFTER

<i>Assets</i>		<i>Liabilities</i>	
Cash	\$17,500	Deposits	\$85,000
(Previous 7,500+10,000 deposited by Gold Mining Company and John Smith)		(Previous 75,000+10,000 from Gold Mining Company and John Smith)	
Loans and Investments	70,000	Capital	5,000
Other Assets	7,500	Other Liabilities	5,000
	\$95,000		\$95,000

As the balance sheets show the Chartered Bank's cash ratio has risen from the conventional 10 per cent (7,500:75,000) in No. 3 to 20.6 per cent (17,500:85,000) in No. 4.

The changes in earnings which have taken place up to this point are as follows:—

1. John Smith who had bonds giving him an income of \$225 per year has, for reasons of his own, exchanged them for the more liquid form of a savings deposit, giving him only \$112.50 per year. He has lost \$112.50 a year in income.
2. The Bank of Canada, on the assumption that it had decided upon an expansionist policy, i.e. on the assumption that it took no action to offset this purchase by selling other bonds, would have increased its income by the interest on the \$7,500 of bonds, i.e. by \$225 a year.
3. The Chartered Bank would have added nothing to its earning assets, while its savings deposits would have increased by \$7,500. Its net income would therefore have been reduced by the amount of interest it had to pay on the deposits, i.e. \$112.50 a year, plus whatever net additional costs it might incur in servicing its increased deposits.

Summary

Loss of income to John Smith	\$112.50 a year
Additional expense to Chartered Bank, at least	\$112.50 a year
	\$225.00 a year
Additional earnings of Bank of Canada	\$225.00 a year

The Chartered Bank has now an unnecessarily large amount of cash in relation to its deposit liabilities and, on the other hand, has suffered a reduction in earnings. After setting aside \$1,000 of the cash which it has just received as a reserve against its new \$10,000 of deposits it has every incentive to look about for loans which it can make or securities which it can buy with the remaining \$9,000 cash. Assuming that it has disbursed the whole \$9,000 in cash in this way its balance sheet would be as follows:—

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<i>Assets</i>		<i>Liabilities</i>	
Cash	\$ 8,500	Deposits	\$85,000
(Previous \$17,500 — \$9,000 paid to borrowers or sellers of securities)			
Loans and Investments	79,000	Capital	5,000
(Previous \$70,000 + \$9,000 of new loans made or securities purchased)			
Other Assets	7,500	Other Liabilities	5,000
	<u>\$95,000</u>		<u>\$95,000</u>

If we assume that the holders of the \$9,000 of notes just paid out do not need them for active circulation and wish to use the facilities of the Chartered Bank they will deposit the notes with the Chartered Bank and increase its cash accordingly. Its balance sheet will now be:—

6

<i>Assets</i>		<i>Liabilities</i>	
Cash	\$ 17,500	Deposits	\$ 94,000
(Previous \$8,500 + \$9,000 from new deposits)		(Previous \$85,000 + \$9,000 of notes deposited)	
Loans and Investments	79,000	Capital	5,000
Other Assets	7,500	Other Liabilities	5,000
	<u>\$104,000</u>		<u>\$104,000</u>

The first stage in the Chartered Bank's attempt to repair a loss in earnings through expansion on the basis of an abnormally high cash ratio may be summarized in two steps thus:—

	<i>Step 1</i>	<i>Step 2</i>	<i>Net Result</i>
Cash	— 9,000	+ 9,000 =	no change
Loans and Investments	+ 9,000	no change =	+ 9,000
Deposits	no change	+ 9,000 =	+ 9,000

The Chartered Bank has the same cash as it started with (though this is only possible because no additional notes are needed for active circulation and because the people who got the notes wish to use the facilities of the bank) but has \$9,000 additional loans and investments and \$9,000 additional deposits.

Its balance sheet (No. 6) still shows a cash ratio much higher than the normal 10 per cent. It would presumably feel safe if it had only \$9,400 in cash. It then takes the other \$8,100 of the total \$17,500 and uses it to make loans or buy securities. Again we assume there is no increase in active circulation and no hoarding and so again the cash comes back to the Chartered Bank, increasing its deposits by another \$8,100. They will now total \$102,100, loans and investments will be \$87,100, and the other items in the balance sheet will be the same as in No. 6.

A surplus of cash still exists, to the extent of \$7,290. The same cycle of operations will be repeated many times, each expansion of loans and investments on the asset side and deposits on the liability side being 9/10 of the last, and each cycle depending for its completion upon the willingness of the public to redeposit with the Chartered Bank the cash that has been paid out to it.

This tendency to invest surplus cash in loans or securities will continue until deposits have risen to \$175,000, i.e., until the customary 10 per cent ratio has been restored, when there will be no more surplus cash. The Chartered Bank's balance sheet will then be as follows:—

<i>Assets</i>		<i>Liabilities</i>	
Cash	\$ 17,500	Deposits	\$175,000
Loans and Investments	160,000	Capital	5,000
Other Assets	7,500	Other Liabilities	5,000
	\$185,000		\$185,000

The sequence of events would be only slightly different if the Bank of Canada originally purchased its \$7,500 worth of securities from the Chartered Bank rather than from John Smith.

In the first instance there would be no change in the Chartered Bank's deposits; it would simply have exchanged interest-bearing securities for non-interest-bearing cash. It would lose \$225 a year in earnings and the Bank of Canada would gain by a like amount. Its balance sheet would have changed as follows:

<i>Assets</i>		<i>Liabilities</i>	
<i>Before</i>			
Cash	\$ 7,500	Deposits	\$75,000
Loans and Investments	70,000	Capital	5,000
Other Assets	7,500	Other Liabilities	5,000
	\$85,000		\$85,000

<i>Assets</i>		<i>Liabilities</i>	
<i>After</i>			
Cash (previous 7,500 + 7,500 bonds sold to Bank of Canada + 2,500 deposited by Gold Mining Company)	\$17,500	Deposits (previous 75,000 + 2,500 deposited by Gold Mining Company)	\$77,500
Loans and Investments (previous 70,000 — bonds sold to Bank of Canada)	62,500	Capital	5,000
Other Assets	7,500	Other Liabilities	5,000
	\$87,500		\$87,500

In the second stage there would exist the basis for a \$97,500 expansion of loans or securities, and thus deposits, rather than one of \$90,000 as in the example previously given. The same considerations would apply and the Chartered Bank's final balance sheet would be the same.

The net result of the chain of operations which began with the Bank of Canada's open market purchase of \$2,500 of gold and \$7,500 of securities has therefore been to increase the Chartered Bank's deposits (and thus the volume of money in the hands of the public) by \$100,000. But this did not take place immediately, in a single step. A whole series of transactions was necessary and the process of expansion could have been checked at any time through any one of the following developments—a need for more notes for active circulation, a lack of desire to deposit, or a dearth of suitable loans or investments.

When the banking system includes not one but ten banks the process of expansion becomes still less automatic so far as any individual bank is concerned. If none of the surplus cash which it pays out for loans and investments at a given stage comes back to that bank then or later, its share in the expansion is finished. The expansion of assets and deposits of the system as a whole tends to go on, of course, so long as there is any bank in the system with a cash ratio perceptibly above normal. But the ability of any individual bank to gain its

share of the expansion depends on its ability to attract its share of the public's deposits of surplus cash as it is paid out in each cycle for the purpose of making new loans or purchasing securities.

Whether from a net profits point of view the Chartered Bank is better or worse off than it was before the operation began depends upon how the increase in its earning assets is distributed between loans, on which it earns, say, 5 per cent, and securities, on which it earns, say 2 per cent; and also upon the increase in its overhead and operating costs resulting from the increased volume of deposits. On the basis of its whole business, a rough guess at the relation of these costs to its deposits would be approximately 2 per cent a year. But if any leeway in the matter of staff or premises had existed before, the addition to costs would probably be less than 2 per cent a year on the new deposits, especially if the new deposits are relatively inactive. The increased earnings on the Bank's new assets would range between \$1,800 (all new securities) and \$4,500 (all new loans). The increased expenses would be, say, \$1,000 interest on deposits (an average of 1 per cent on \$100,000) and probably something less than \$2,000 in overhead and operating expenses.

The increased volume of deposits may be needed as medium of exchange for an increased volume of business. In that case larger average holdings of cash are one of the necessary expenses to business of an increased turnover.

Active use of the new deposits while the volume of business was not increasing would mean an inflationary rise in prices. The costs of a development of that sort in the way of a redistribution of income and the ownership of assets are well-known.

If, however, as under the conditions of the past few years, the new deposits remain relatively idle, or if, rather, their existence slows down the average rate of turnover of deposits as a whole, this will mean that the average cash holdings of individuals and businesses are greater than required. Those who can will attempt to exchange their deposits for some asset which is slightly less liquid but which gives a somewhat higher return e.g. a government bond. This competition for high-grade liquid assets will drive down the return obtainable from them and the quest for a little higher earnings at the expense of a little less liquidity will continue. How far down the scale of liquidity the pressure of easy money will be substantially felt depends on the circumstances, but it does involve some reduction in the rate of return to, and thus sacrifice on the part of, the investor class as a whole.

(d) Credit Expansion in Canada

(Submitted by Mr. Towers in reply to Mr. Cleaver and Mr. McGeer)

(Volume 19, page 621)

(1) Expansion of Credit by the Bank of Canada

The increase which Bank of Canada operations have produced in the cash reserve of the chartered banks, is shown in the table which has been prepared in answer to Mr. McGeer's question.

The changes in the volume of money which have accompanied the expansion in banks' cash reserves are shown in the following statement.

	(Millions of Dollars)					
	Mar. 31, 1935	Dec. 31, 1935	Dec. 31, 1936	Dec. 31, 1937	Dec. 31, 1938	Total Increase
Canadian deposits ..	2,034	2,208	2,323	2,387	2,498	464
Currency circulation .	163	199	220	238	238	75
Total	2,197	2,407	2,543	2,625	2,736	539

(2) *How much further could the Bank of Canada go to expand credit*

Theoretically, (a) on the basis of gold held as at May 10, 1939, the Bank of Canada could expand its note and deposit liabilities by \$415 mm. without reducing the gold reserve ratio below 25%.

Apart from a possible increase in publicly held Bank of Canada notes, such an increase in note and deposit liabilities would increase banks' cash reserves by a similar amount.

(b) on the assumption either that the 25% minimum gold reserve ratio clause were suspended or that the Bank of Canada bought additional gold, there is no definite limit as to how far it could go in expanding banks' cash reserves.

(3) *Effect of Bank of Canada operations on chartered bank cash reserves*

CHARTERED BANK CASH RESERVE JUST PRIOR TO MARCH 11, 1935

Gold coin and bullion	\$ 37.5 mm.
Dominion notes	\$177.8 mm.
Total	<u>\$215.3 mm.</u>

This \$215.3 mm. of chartered bank cash reserves was transferred by the chartered banks to the Bank of Canada in exchange for Bank of Canada notes and deposits at the Bank of Canada. Involved in the setting up of the Bank of Canada there were various transactions affecting the amount of these cash reserves. The effect of these transactions and subsequent operations of the Bank of Canada on chartered bank cash, are shown in the following table.

Reserve	
Deposits in Chartered Bank of Canada	
Deposits	
Other Not Chartered	
Chartered and Bank of Canada	
Dominion Government Securities	
Other Note Chartered	
Dominion Government Securities	
Dominion Government Securities	
Other Note Chartered	
Deposits and Bank of Canada	
Other Note Chartered	
Gold Coin and Bullion	

EFFECT OF CHANGES IN BANK OF CANADA STATEMENT ON CHARTERED BANK CASH RESERVE

(Millions of dollars)

—	Mar. 11/35 - Dec. 31/35		Dec. 31/35 - Dec. 31/36		Dec. 31/36 - Dec. 31/37		Dec. 31/37 - Dec. 31/38		Mar. 11/35 - Dec. 31/38	
	Effect on Reserves		Effect on Reserves		Effect on Reserves		Effect on Reserves		Effect on Reserves	
	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease
Gold Coin and Bullion.....	73.9			1.1	.4		6.1		79.3	
Silver Bullion.....	.7		.6		.7		3.0		1.0	
Sterling and U.S.A. Dollars.....	4.2		4.9		5.8		13.5		28.4	
"Other Securities".....					12.2		12.2			
Dominion and Provincial Government Securities.....		35.6	46.0		13.6		11.6		35.6	
Dominion Government Advances.....	3.5			3.5						
Active Note Circulation.....		16.8		28.8		23.6		7.0		76.2
Dominion Government Balances.....		17.9		1.7	7.7		5.6		17.5	
Capital and Rest Fund.....		5.2		5.7		.6	4.5			7.0
Other Net Changes.....	.1		1.9			1.2		.4	.4	
	82.4	75.5	53.4	40.8	40.4	25.4	35.7	28.2	143.7	101.7
Deduct.....	75.5		40.8		25.4		28.2		101.7	
Increase in Chartered Banks' Cash Reserves*.....	6.9		12.6		15.0		7.5		42.0	

*Notes of and deposits with the Bank of Canada.

I should like to add very briefly that it is probably not in general a good thing that a central bank should publicly make any claims in respect to what its monetary policy has accomplished or anything of that kind. Of course, giving evidence to this committee is a different matter. I have tried, in response to requests from the committee, to indicate some of the major effects of the policy which has been followed. It is always difficult to define the exact effect because the obverse of the medal cannot be seen; but I am inclined to think that had there been no expansionary policy followed in Canada that interest rates would have been a great deal higher than they are, that governments would have found it a good deal more difficult to borrow to finance their deficits or capital expenditures, and that repatriation of foreign debt, other things being equal, would have been considerably more difficult. I think that in fact the repatriation would, probably, have taken place, but that the adjustment which would have made it possible would have taken the form of a higher exchange value for the Canadian dollar, and that rather than a premium on U.S. funds we might have seen a discount on U.S. funds and a premium on the Canadian dollar. To that extent, I should think, although I cannot prove it, the policy which has been followed has had an influence on exchange.

Finally, I would like to add that when the MacMillan commission was taking evidence in Canada I think various people suggested to them that one of the handicaps which a central bank in this country would face would be a difficulty of exercising control due to what they felt to be the narrowness of the Canadian money market, the lack of the form of money market organization which they have in London. I never felt that that would be the case—I mean I did not agree with that view, even in pre-Bank of Canada days—and I expressed such views to some of the people who were working for the commission. I think it has turned out to be correct that the central bank of Canada has not been in any way handicapped due to what some people regarded as the narrowness of our money markets. In fact, as anybody who examines our weekly statements will see, the variation in our total holdings of securities from time to time has been extremely substantial. Considered as a percentage of total assets and applying that percentage for purposes of comparison to, say, the statement of the Bank of England or the federal reserve system in the United States, one would have to see in those other two countries fluctuations in their security portfolios which they would consider of enormous magnitude, even to equal those which have taken place in Canada. And finally may I say this, that I believe that in no country and at no time have there been bank and market responses to central bank action and central bank policies, more complete, more full and more in line with anything that a theorist might have anticipated, than have taken place in Canada. I speak only of the past, because it would be foolish to say that that would always be the case. I do not know, but I expect that it will. But it certainly is the case that so far as monetary policy depends upon the control and influence exercised by the central bank, that has worked in Canada more accurately than in most countries that I know of, and certainly as fully and as accurately as in any country in the world.

IV. EFFECT OF MONETARY POLICIES IN CANADA

(a) Monetary Policy and the Price Level

(Submitted by Mr. Towers in reply to several Committee members)

(Volume 3, page 83)

At the last meeting—on March 24th—I was requested by several members of the Committee to prepare a statement on the inter-relations of monetary policy and the Canadian price level. The statement on this subject which I propose to make this morning will in part touch on matters with which I dealt during last week's meeting, and while I have not changed the tenor of my remarks on that occasion, I believe that they may be presented in somewhat clearer relation to the subject as a whole.

Part I—The Price Structure

Before discussing the inter-relations of monetary action and the price level, I would like first to speak briefly on the nature of the price structure itself, because in my opinion it is essential to a clear understanding of this subject that the fundamental inter-dependence of the price structure be kept constantly in mind.

The fact that prices are higher or lower than at some previous date is only significant of a change in economic position to the extent that it represents a change in balance within the price structure. Rapid changes in prices usually do represent a change in balance since costs are slower to adjust. Price movements over long periods, however, are usually accompanied by cost adjustments through renewals of fixed contracts and changes in productive efficiency. The conclusion follows that sharp changes in prices are bad by nature because they are disruptive, but that price movements over a period of years tend to be associated with broad adjustments throughout other phases of the economy, which may considerably lessen their net effect. It is essential when considering the effect of price changes over a considerable length of time to look beyond the mere fact of a change in price and ascertain the impact of the change on the net income of the individual, corporation, community or the country as a whole—which may be very different from the effect indicated by the change in price by itself.

Part II—Monetary Methods

The Committee has shown special interest in the effects which monetary policy may have on the level of prices with respect to the general level and the relationships between certain categories of prices. I now propose to discuss the two monetary methods which might be employed to effect an increase in prices—namely internal monetary expansion and exchange depreciation or a combination of the two.

Expansion of the volume of money in Canada *tends* to produce a rise in the level of prices by increasing the potential demand for goods and services. In general, however, an increase in the volume of money will increase the total amount of buying only if there has been previously an actual shortage of money. There may be important factors offsetting the effect of an increase in the volume of money, as the amount of spending is almost entirely a matter of individuals' decisions which are influenced by many other factors than the volume of money. I have omitted from consideration the type of price rise which follows the excessive issue of money when people through lack of confidence in the currency rush to convert their money holdings into goods—a situation which I am sure everyone will agree is thoroughly undesirable.

There is another important factor which limits the extent to which internal monetary expansion can effect an increase in the level of prices—namely, the importance in the Canadian price structure of export and import prices which are chiefly determined in world markets, and, as long as we maintain existing external currency alignments, are almost entirely outside the control of internal policy.

Under such conditions—i.e. exchange stability—expansion of the volume of money is likely to have small *direct* effect on the average level of commodity prices but will probably result in a lower price for money—the rate of interest—which will enable a reduction in debt charges to the extent that maturing obligations may be converted at lower interest rates—and which may increase the amount of new investment by lowering its cost—and which may also increase the amount of money being used for speculative purposes.

To the extent that the decline in interest rates is in line with a similar trend in other countries and if undesirable speculation does not ensue, the results of expanding the volume of money are likely to be favourable, but if expansion is carried too far, undoubtedly such an unfavourable internal situation will develop, that pressure on the balance of payments will result, which will force a decision as between reversing the direction of internal monetary policy and depreciating the external value of the currency which is the second of the two methods of monetary policy to which I previously referred.

Currency Depreciation

Currency depreciation ipso facto would tend to increase the prices of exports in Canadian dollars and at the same time to augment the cost of imports and foreign debt service when expressed in Canadian funds. The higher level of import and export prices would have a buoyant effect upon other price levels and ultimately lead to an adjustment of costs in line with a higher general level of prices.

The general effect of depreciation is to transfer income between various groups within the depreciating country through a rise in prices which reduces the pressure of relatively fixed internal costs such as wages and interest at the expense of wage-earning and "rentier" classes. Under certain conditions of severe maladjustments between prices and internal costs, a transfer of this nature may be desirable. It is necessary, however, to be quite sure that depreciation will chiefly benefit a majority of the people who are in real need of assistance and not impose undue burdens upon other large sections of the country.

The extent to which incomes in export industries increased following depreciation would depend upon the elasticity of demand in foreign markets for our exports and upon the domestic industrial structure. Export prices in Canadian dollars might not be increased by the full amount of depreciation, either because of an attempt to enlarge the volume of exports by selling at a lower foreign price or as a result of competition. Ability to expand our volume of exports by offering them at somewhat lower prices in foreign markets would depend upon foreign demand being responsive to lower prices and upon the willingness of our competitors to suffer a loss of market without having recourse to similar action. Actually neither of these conditions would be satisfied to any marked degree and Canada's ability to increase her volume of exports by competitive price cutting, distinctly limited. In certain Canadian export industries where heavy overhead costs and surplus capacity exist, competition between individual firms, each trying to increase its output and spread fixed charges over a larger volume might lead to prices being reduced without any appreciable increase in output for the industry as a whole. In general, it would be true to say that an increase in the value of Canadian exports following depreciation would

result from a higher level of export prices in Canada rather than a larger volume of exports and the increase in export prices would be somewhat less than the full amount of depreciation. The value of Canadian exports would expand at the cost of Canada paying a correspondingly larger amount abroad for imports and debt charges and other countries would obtain our exports at somewhat lower prices in their own currencies.

Import prices in most instances would increase by the full amount of depreciation; in only a few cases is Canadian demand large enough to exercise an appreciable effect on import prices. Higher prices for industrial raw materials coupled with additional protection afforded domestic producers by currency depreciation would probably mean an advance in the prices of products fabricated from imported materials. Higher prices for imported *finished* goods would directly increase the Canadian cost of living.

The increase in the value of Canadian exports would be somewhat less than the degree of currency depreciation, but when allowance was made for the rise in prices of imported goods and goods made from imported materials and the increase in interest charges payable in foreign currencies, the net benefit by export industries would be very much less than the amount of depreciation. Any net benefit that might be retained would be temporary, existing only during the period in which other costs lagged behind the general rise in prices. Some benefit in relation to debt might be retained, but an improvement in this respect could be obtained by means of internal adjustments either of a monetary or non-monetary character.

Currency depreciation would increase the dollar value of the Canadian national income by creating a higher level of prices, but its effect upon *real* national income would depend on the degree of stimulus given to economic activity by the internal realignment of costs and prices. An increase of export income in Canadian dollars achieved at the cost of paying a correspondingly larger amounts for imports, debt charges and other foreign obligations would not per se raise the real income in Canada.

The degree of stimulus imparted to domestic economic activity by an increase in prices relative to costs would depend upon the reaction of public confidence to the policy of currency depreciation, which would vary according to the circumstances under which the depreciation occurred; upon whether it was a correction of an existing maladjustment or the creator of new maladjustments. It is important to remember that there are very few instances of a country depreciating its currency unless subject to considerable pressure because of an unfavourable balance of trade or an outward movement of capital. Deliberate currency depreciation by a country enjoying a strong balance of payments position, in order to gain competitive advantage or to adjust price relationships, might react so unfavourably upon public confidence as to cause an actual fall in economic activity and a decline in real national income.

I would summarize my description of the two methods by which monetary action may attempt to raise price levels by saying that in view of the major importance of export and import prices in the Canadian price structure, a policy of internal monetary expansion is unlikely to produce a broad rise in the general price level unless it is carried to a point where the internal situation is badly enough out of line to force currency depreciation, a form of monetary policy which undoubtedly can raise the general level of prices above what it would otherwise be. Neither of these methods, however, is likely to affect appreciably the relationships between the prices of individual commodities or of groups of commodities.

Part III—Monetary Expansion in Canada and Other Countries

I would like to place before the committee a table showing the relative changes in bank deposits that have taken place in Canada and certain other countries during the period since 1926.

INDEXES OF BANK DEPOSITS: CANADA AND CERTAIN OTHER COUNTRIES

(1926 = 100)

Year*	Canada	United States	United Kingdom	Australia	Sweden
	(1)	(2)	(3)	(4)	(5)
1926	100	100	100	100	100
1927	109	105	102	102	101
1928	114	113	107	106	99
1929	112	110	105	106	101
1930	105	106	109	101	105
1931	102	91	101	103	103
1932	95	83	115	106	103
1933	95	77	112	107	105
1934	101	89	114	113	103
1935	109	98	121	111	105
1936	115	107	130	112	111
1937	118	105	130	121	116
1938	123	106 (6)	126	122	123

*December 31 for Canada, U.S.A. and Sweden; December average for U.K.; and a average for quarter ending December for Australia.

(1) Chartered banks' Canadian deposits.

(2) All banks in U.S.A.

(3) Ten London clearing banks.

(4) Trading banks.

(5) Commercial banks.

(6) Estimate based on latest available figure.

The amount of monetary expansion in Canada has been approximately in line with the increase in other countries where monetary policy has been considered an important factor in economic recovery. Comparing 1926—a normal pre-depression year—and 1938, the volume of Canadian bank deposits has increased 23%, considerably more than in the United States (+6%), slightly less than in the United Kingdom (+26%) and about the same as in Australia (+22%) and Sweden (+23%).

Part IV—Changes in Price Levels of Canada and Other Countries

I would like also to place before the committee a table showing the relative changes in general price levels of Canada and certain other countries since 1926.

GENERAL PRICE INDEXES: CANADA AND CERTAIN OTHER COUNTRIES

(1926 = 100)

Average	Canada	United States	United Kingdom	Australia	Sweden
1926	100	100	100	100	100
1927	98	95	96	99	98
1928	96	97	95	98	99
1929	96	95	92	98	94
1930	87	86	81	87	82
1931	72	73	71	78	75
1932	67	65	69	77	73
1933	67	66	69	77	72
1934	72	75	71	80	77
1935	72	80	72	80	78
1936	75	81	76	84	81
1937	85	86	88	90	92
1938	79	79	82	91	87

Broad movements in the general price levels of the United States and United Kingdom since 1926 have corresponded fairly closely with those of the Canadian index; all three had about the same severe decline in 1929-32 and about the same measure of recovery following 1932. The general price levels of countries with currencies depreciated below the Canadian dollar, have been appreciably higher in relation to pre-depression years, than the Canadian index; although not higher by nearly the full amount of depreciation.

During the last few years only about half of the severe fall in the general level of Canadian prices between 1929 and 1932, was recovered; but prices of primary products which fell more sharply than other prices in 1929-32 also rose more rapidly after 1932 and by 1937 the ratio of primary products' prices to the general price level was actually as high as in 1926. The ratio of farm products' prices to the general price level, for example, which had fallen from 100 in 1926 to 73 in 1932, was 103 in 1937. These and other inter-relationships of component price groups in the Canadian general index are shown in a table which I now place before the committee.

CANADIAN PRICE INDEXES

(1926=100)

Average	Actual Indexes			Ratios of Indexes		
	Farm products	Export goods	Import goods	Farm products to general index	Exports to general index	Exports to imports
		(1)			(1)	(1)
1926.....	100	100	100	100	100	100
1927.....	102	98	98	105	100	100
1928.....	101	94	96	104	98	98
1929.....	101	92	94	105	96	98
1930.....	82	77	84	95	89	92
1931.....	56	61	72	78	84	84
1932.....	48	55	71	73	82	78
1933.....	51	55	73	76	82	76
1934.....	59	61	77	82	85	79
1935.....	64	62	78	88	86	80
1936.....	69	67	79	93	89	84
1937.....	87	81	90	103	96	90
1938.....	74	71	83	94	90	86

¹Gold not included in index of export prices.

Although the general level of Canadian commodity prices remained considerably below the pre-depression level, the disparities between major component price groups, which developed during 1929-32, had largely disappeared by 1937. Taking into consideration that the level of interest rates declined more over the period than the level of prices, it is apparent that in so far as prices were concerned, a rough approximation of the equilibrium existing in 1926 had been re-established by 1937.

The price levels of countries which depreciated their currencies below the Canadian dollar have been appreciably higher than comparable Canadian price indexes, but the relation of primary products' prices to other prices, on the whole, has been no more favourable in those countries than in Canada. To illustrate this point I would like to place on the record a comparison of certain price relationships in Canada and Australia as compared with those existing in 1929—i.e., just before currency depreciation.

RELATION OF CERTAIN PRICE GROUPS: CANADA AND AUSTRALIA

(1929=100)

Average*	Ratio of farm products to general index		Ratio of exports to general index		Ratio of exports to imports	
	Canada	Australia	Canada	Australia	Canada	Australia
1929.....	100	100	100	100	100	100
1930.....	90	88	93	81	94	79
1931.....	74	74	87	68	85	55
1932.....	69	73	85	69	80	54
1933.....	72	73	85	71	77	54
1934.....	78	89	88	98	81	81
1935.....	84	80	90	76	82	61
1936.....	88	91	93	93	86	77
1937.....	98	98	100	108	92	88
1938 ¹	89	86	94	80	87	67

*Calendar year averages for Canada and averages for years ending June 30 for Australia.

¹Calendar year averages for both Canada and Australia.

Considering the period since 1929 as a whole, the relation of prices of primary products to other prices appears to have been somewhat more favourable in Canada than Australia. I do not suggest, of course, that Canadian monetary policy was the sole, or even the chief, factor responsible for the favourable relationship between major price groups in Canada, because there were many other important factors influencing price levels as between the two countries.

Part V—Non-Monetary Factors

That Canadian monetary policy of the last few years has not been accompanied by the return of a high level of economic prosperity in this country, is not, in my opinion, evidence that the scale of monetary expansion has been inadequate. No amount of monetary expansion can hope to restore a high level of *real* national income in Canada during a period when there is a major decline in agricultural yields or in the demand for our goods in foreign markets. These unfavourable developments result in a smaller return from the expenditure of labour and capital in important sections of the Canadian economy—a national loss, the incidence of which may be transferred from one group to another within the country, but the burden of which cannot be avoided by the country as a whole.

Monetary policy cannot solve such a problem because it cannot create an important domestic demand for goods which we would normally export nor can it in a short time create new industries to absorb man-power and equipment from depressed export industries. Such a transfer, even if possible, might turn out to be very wasteful if the depression in export industries proved only temporary. Immobility of labour, particularly in agriculture, would make a transfer of this kind a very slow and expensive task which would only be justified if the low level of demand for our exports were considered to be of a permanent character.

Part VI—Summary

In my opinion, the amount of monetary expansion which has taken place in Canada to date, viewed in relation to actual conditions, has been sufficient to offer all the incentive to a high level of economic activity and prosperity which monetary policy can be expected to offer in a country where non-monetary factors are so important.

The large increase in the amount of money that has taken place without causing inflation, does not mean that expansion could be continued indefinitely without serious inflation. Historical precedents show that this is not only a matter of opinion and that sufficient expansion can make a currency worthless. The proper amount of expansion is a matter of judgment in which the central bank should be neither timorous nor over-bold. In practice, Canadian monetary policy has been about in line with the policy of other countries, as I illustrated a few minutes ago.

(b) Monetary Expansion to Raise the Price Level

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 8, page 201)

Before replying to this question I should point out that while I have referred to the probable results of certain extreme policies which have been under discussion, I have not expressed any opinions as to what the future policy of the Bank of Canada should be. I have expressed the belief that a more substantial degree of monetary expansion in recent years would not have aided the country, nor would it have raised the price level unless it had been so extreme as to inspire lack of confidence and a flight from money. What the future policy should be can only be determined in the light of circumstances of the time.

My answer to the thought underlying Mr. Tucker's question is as follows:—

The importance in the Canadian price structure of export and import prices which are chiefly determined in world markets, makes it most improbable that internal monetary expansion can appreciably raise the general level of prices in this country unless the internal policy is such as to affect existing external currency alignments.

In replying to the two preceding questions I dealt with the various factors which should be taken into consideration before deciding on a policy of currency depreciation.

In any event, no monetary policy such as currency depreciation can hope to bring about more than a slight temporary improvement in the relationships between various price groups, which relationships are usually more important than the general price level. I have indicated in an earlier memorandum that the relation of primary products' prices to other prices does not appear to have been more favourable in countries which depreciated their currencies below the Canadian dollar.

I do not believe, of course, that the present level of Canadian prices is entirely satisfactory—far from it. But I do question the possibility that an intensification of the policy of domestic monetary expansion would have resulted under conditions as they have been, or would result under existing conditions, in an appreciably higher price level; omitting from consideration the rise in prices that follows lack of confidence in the currency and is desired by no one. The low level of Canadian prices in relation to pre-depression years, is chiefly the result of non-monetary factors and in my opinion an appreciable improvement in the situation depends upon non-monetary developments.

(c) Ability to Carry Increased Debt with a Lower Price Level

(Submitted by Mr. Towers in reply to Mr. Jaques)

(Volume 3, page 89)

I shall assume in replying to this question that Mr. Jaques was referring to an increase in the amount of interest charges payable on debts rather than to an increase in the principal amount of debts. If the interest rate declines, a larger principal amount of debt may not involve an increase in debt charges.

The burden of debt charges varies with the level of incomes rather than the level of prices. Debt charges may constitute a much heavier load when output is small and prices high than when output is large and the level of prices low.

The amount by which debt charges might increase would depend upon the concurrent change which took place in the amount of incomes. If the debt increase represented an increase in productive investment and resulted in a larger rise in incomes than in debt charges, the country's capacity to carry the increased debt would be greater. On the other hand, if an increase in debts is incurred for non-productive purposes there is no increase in incomes and the burden of debt charges rises, which is undesirable because it means an increase of fixed charges in relation to a highly variable income.

An increase in debt charges payable to foreigners or in foreign currencies is more undesirable than an increase in domestic debts for a country like Canada where variations in foreign trade may seriously affect the ability to make transfers abroad.

Domestic debt charges are an internal transfer between various groups of people. The maximum possible amount of such a transfer depends—as I have already mentioned—on the volume of income with which it is associated and on the psychological attitude of the public.

In my opinion, an increase in debt for productive purposes is desirable because it represents an increased ability to produce goods and services; no country has built up a large volume of production per capita without a great increase in productive debts. On the other hand, I believe that increasing debt for non-productive purposes is undesirable because it represents a move in the wrong direction, although it is impossible to define precise limits as to how far such an increase may go before something breaks down.

(d) Effect of Currency Depreciation on Farm Prices

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 8, page 201)

A further question of Mr. Tucker's was: How much more would be received by Canadian farmers for wheat, butter, cheese and bacon if the Canadian dollar were at a 25 per cent discount below the pound sterling instead of at par?

Currency depreciation is a measure so far-reaching as to affect almost every aspect of the economy and it would be impossible to present a statistical analysis of its effects on any particular group. It is equally impossible to ascertain *a priori* exactly what the effect of such a policy would be and to say afterwards what the effect has been, because inevitably there are a great many unknown factors which cannot be measured.

As I mentioned in the earlier memorandum "Monetary Policy and the Price Level", currency depreciation tends to raise the level of export prices in terms of Canadian dollars; but the actual increase in price which takes place may vary considerably from the amount of depreciation.

It is important to remember that several of the commodities named by Mr. Tucker, have an important domestic market as well as export markets. There is no way of forecasting the exact effect of currency depreciation upon the price which Canadian consumers are willing to pay.

Even if it were possible to calculate the extra dollar income which Canadian farmers might receive as a result of a 25 per cent currency depreciation, it would be very misleading to regard the result as being the benefit received by farmers from that policy. "... when allowance was made for the rise in prices of imported goods and goods made from imported materials and the increase in interest charges payable in foreign currencies, the net benefit by export industries would be very much less than the amount of depreciation. Any net benefit that might be retained would be temporary, existing only during the period in which other costs lagged behind the general rise in prices. Some benefit in relation to debt might be retained, but an improvement in this respect could be obtained by means of internal adjustments either of a monetary or non-monetary character." I quote from the earlier memorandum to which I referred.

The major effect of a policy of currency depreciation is an internal transfer; but it may involve a net loss to the country as a whole by giving something away to other countries, particularly if adopted under the conditions which have existed in Canada during the last few years.

It is with regret that I have to state that it is impossible to give a specific answer to Mr. Tucker's question, because it is one of a number of questions to which such an answer would simplify the problems of monetary management.

(e) Maintenance of the Canadian Dollar Exchange Value

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 8, page 200)

The next question of Mr. Tucker I have paraphrased slightly, perhaps, and the question is approximately as follows: Why has the Bank of Canada maintained the exchange value of the Canadian dollar in terms of other currencies rather than following a policy of keeping the dollar at a discount?

During the last few years the exchange value of the Canadian dollar has been maintained in terms of other currencies by the naturally strong position of the Canadian balance of payments—not because of support derived from the Bank of Canada. To have produced a discount in terms of other currencies, it would have been necessary to take some positive action in the exchange market *or* to have created such an internal situation as to have weakened the balance of payments position.

As to the factors, which should be taken into consideration before deciding upon a policy of this kind, I do not believe I can add anything to what I said in the memorandum contained in the minutes of proceedings and evidence of the meeting on March 31, pages 84 and 85. From that memorandum I should like to quote the following passage:—

Currency depreciation would increase the dollar value of the Canadian national income by creating a higher level of prices, but its effect upon *real* national income would depend on the degree of stimulus given to economic activity by the internal realignment of costs and prices. An increase of export income in Canadian dollars achieved at the cost of paying a correspondingly larger amount for imports, debt charges and other foreign obligations would not *per se* raise the real income in Canada.

The degree of stimulus imparted to domestic economic activity by an increase in prices relative to costs would depend upon the reaction of

public confidence to the policy of currency depreciation, which would vary according to the circumstances under which the depreciation occurred; upon whether it was a correction of an existing maladjustment or the creator of new maladjustments. It is important to remember that there are very few instances of a country depreciating its currency unless subject to considerable pressure because of an unfavourable balance of trade or an outward movement of capital. Deliberate currency depreciation by a country enjoying a strong balance of payments position, in order to gain competitive advantage or to adjust price relationships, might react so unfavourably upon public confidence as to cause an actual fall in economic activity and a decline in real national income.

V. EFFECT OF GOVERNMENT FISCAL POLICIES IN CANADA

(a) Government Deficit Spending

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 6, page 148)

It is only in comparatively recent times that deliberate unbalancing of budgets has been widely discussed, or, indeed, that fiscal policy has been generally regarded as having anything but a passive role to play in connection with variations in economic activity.

Formerly, the operation of dynamic factors such as rapidly growing population, expanding geographical frontiers, the development of new products which promised to fill obvious needs, and rising international trade, made it reasonable to assume a strong underlying demand for production and installation of durable goods. It was, of course, clear that maladjustments between costs and prices could put an effective brake upon the process of expansion; but, it was believed, costs and prices were sufficiently flexible and the basic forces of growth were sufficiently strong to ensure that the check to progress would be only temporary. Under such conditions there seemed to be no reason why fiscal policy should do anything to obstruct the course of the relatively short-lived deflationary process by means of which the necessary adjustments of costs to prices took place.

The depth and persistence of the depression which began at the end of 1929 led to the development of a theory which challenges this view of the responsibility of the state in regard to economic fluctuations. The theory runs broadly as follows:—

- (a) The strength of dynamic factors has suffered a secular decline.
- (b) The consequent fall in the average rate of economic expansion has revealed the need for adjustments so great as to amount to structural changes.
- (c) These are so formidable, the underlying factors promoting economic recovery or expansion are so weak, and certain rigidities are so great, that the usual deflationary process, if it is not checked by government action, is likely to proceed so far that it will strain the fabric of the present form of society.
- (d) In order to give idle men the opportunity of producing goods or services which they or others would be willing to buy if income were increased, the government is justified in borrowing either idle money, or newly created money, and using it to make good the decline in spending which occurs when existing money goes into idleness.

I should point out, that of course I am just reciting the lines of the argument as made by various people. I continue with the statement:—

It would be better still if idle money could be reached through taxation; but the difficulty of devising taxes which would affect only money which is not in use, and the harmful effect of any other type of taxation during depression, make it necessary, in the main, to resort to borrowing.

(e) The elimination of all but frictional or seasonal unemployment should be the basis upon which policy with regard to the size of expenditures and deficits is determined. At the point where deficits begin to have a purely inflationary influence, presumably increased national income will make possible tax revenues sufficient to eliminate the necessity for borrowing.

Those who reject the case for deficits disagree with the fundamental assumption, which I noted under (a). In (a) I mentioned that "the strength of dynamic factors has suffered a secular decline." The statement continues: They refuse to admit that the so-called dynamic factors are wholly or even chiefly independent variables, in the sense that they are unaffected by the actions of government. They believe these factors would regain much of their former influence, though perhaps with a somewhat different weighting, if only business distrust of governmental policies could be removed. Apart from the possibility of government projects competing directly or indirectly with private business, they feel that continuance of government spending will induce lethargy and dependence upon the part of business. More important, they think that mounting government debt gives rise to such fears of greatly increased taxation, or, alternatively, inflation, that private initiative is stifled by the resultant feeling of uncertainty with regard to the future.

One's view as to whether or not there has been a permanent weakening of the dynamic factors underlying the existing type of economic organization must, it seems to me, be largely a matter of faith. It must depend, for example, upon one's view as to the future of international relationships. Having in mind the economic expansion which has taken place during the past century, I find it hard to believe that a fundamental change in trend can have occurred as suddenly as the extreme supporters of deficits seem to assume. However, one does not have to subscribe wholeheartedly to their assumption to agree that their point of view is worth very careful consideration.

In any case, the weight of events since 1930 has been such as to force the governments of most countries to take some degree of action along the lines of deficit spending, regardless of the theories of fiscal policy which they happened to hold. The important point to consider at this stage is whether or not it should be continued in Canada, and if so, in what degree.

My first comment would be that most advocates of compensatory deficit spending have developed their theory with tacit reference to countries which, to a far greater extent than Canada, produce for internal consumption.

Canadian thinking on this problem is inevitably influenced by developments in theory and practice which are taking place in the United States. In that country only about one-twentieth of the national income consists of receipts from goods and services sold abroad. In Canada the proportion is about one-third. In the United States the problem of achieving full employment and production is mainly one of offsetting or compensating for a reduction in the private demand for durable goods. No one would attempt to deny the existence of a comparable problem in Canada; just because our growth through the later twenties was so rapid the drop in private demand for durable goods has been all the more severe. But in Canada there is superimposed upon this a problem which is perhaps more important and certainly more difficult, viz., what to do about a reduction in the demand for goods and services which we sell abroad.

Deficit spending in Canada can have little direct influence upon the course of foreign demand for our products. It can do little to increase domestic consumption of things which we normally export. Again, because of the specialized character of the production for which Canada is suited and equipped, it is unusually difficult to meet a decline in foreign demand by creating domestic demand for new things which this country can produce at a reasonable cost. And the necessary shifts of man-power and equipment might be definitely wasteful if the fall in export demand turned out to have been only of short duration.

Agriculture presents a particularly intractable problem in this regard, for farmers have very low industrial mobility. When demand for their exports falls off, the process of putting them to the production of goods or services which will make up for part of the fall in real national income is, at best, a slow and expensive one. Unless the fall in external demand is judged to be of a permanent character, the most that can reasonably be expected is that the farmer be made as nearly as possible self-sufficient during the period of his disability. But this does little to restore his buying power or swell national income.

There are, therefore, greater limitations upon what compensatory deficit spending can do to offset fluctuations in the Canadian economy than there would be in the case of a more diversified and self-sustaining country. There are also greater dangers involved, as I shall now indicate.

An export economy is in the position of having very little influence over the level at which many of its most important prices are set. It should, therefore, do all it reasonably can to keep its costs flexible and to avoid introducing elements of rigidity through borrowings on fixed terms. Otherwise its competitive position in foreign markets may be adversely affected.

I have already indicated why I think compensatory spending is likely to have less influence upon the course of real national income in this country than it would in most others. When large government expenditures are being made and debts are mounting rapidly, there will presumably be relatively less to show for them in the way of an immediate expansion of activity, and the possibility of harmful reactions upon private confidence and spending will be relatively greater.

The apprehension which large government deficits may arouse in the minds of business men and investors, even if it happens to be initially ill-founded, is none the less real. If it is sufficiently strong it tends to bring about its own realization, and is accordingly a factor which warrants most careful consideration when deciding upon fiscal policy.

Another of the main arguments advanced by opponents of a compensatory deficit policy is that it may lead to inflation. In the case of a largely self-contained economy general inflation is unlikely to occur so long as appreciable reserves of productive capacity remain in idleness. In the case of Canada, however, one must also take account of the fact that, under present conditions, there are fairly definite limitations upon the range over which domestic production can compete with imports on a cost basis. At least part of the active spending power created by government deficits is likely to increase imports rather than give work to unemployed Canadian men or machines. If the increase in imports is not offset by increased exports (or by borrowing abroad) the external value of the Canadian dollar will tend to fall and Canadian prices will tend to rise. In other words the mere existence in Canada of large amounts of unused capacity does not in itself preclude an inflationary rise in prices.

Whatever the immediate and intended effects of deficit spending may be, vis-a-vis the price level, if the deficits are financed largely by banks the government does to some extent surrender its power to control future developments

in the banking system. If bank deposits are greatly increased by purchases of government securities they cannot be readily contracted when, at the start of an inflationary movement, their velocity of turnover begins to rise.

I have now indicated the main factors which I think should be considered in any assessment of the extent to which deficit spending should be continued in this country. Some of these are shifting so rapidly that only a provisional appraisal can be attempted. However, it seems to me that if rising national income, in terms of goods and services as well as money, is to enable us to avoid both horns of the dilemma of crippling taxation or inflation, then all reasonable precautions should be taken to prevent discouragement of private initiative and expenditure. The onus should be on the advocates of any government expenditure, in the ordinary as well as in the special or capital categories, to demonstrate that it definitely will add to the strength and balance of our economy. Needless to say, deficits incurred merely for the purpose of increasing spending power should be avoided at all costs, particularly those resulting from needless expenditures which give rise to additional waste and rigidity by adding to operating expenses as well as to interest charges. How far borrowing for government expenditures which definitely improve the efficiency of the country as a whole, and do not have a harmful effect upon private spending, can be justified at any time, depends, of course, upon how far we are from full employment, upon what considerations arise in connection with the external value of our currency, and, incidentally, upon what fiscal policies are being pursued elsewhere.

(b) Employment of Unemployed Factors of Production

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 9, page 221)

At the last meeting of the committee Mr. Tucker raised certain questions which I might describe very broadly as relating to the problem of unemployed factors of production.

May I say I thoroughly agree with the thought expressed by Mr. Tucker that to the extent we have unemployed labour and productive equipment in this country, a potential means of bettering our economic status is being foregone.

With reference to a solution of this problem and whether such a loss is inevitable under existing conditions, I remarked during the meeting on April 21 that "I would be the last to deny that there are possibilities in Canada, even with the handicaps which we have as compared with a country such as Germany from certain points of view. But I did try to indicate in my memorandum to-day what I thought were some of the limiting factors which are found in Canada."

Before proceeding to a discussion on this subject I believe it is essential to agree that a decline in export income due to poor crops or reduced foreign demands, means a loss to the country as a whole which can only—if at all—be offset by building up domestic industries to supply goods or services which were formerly imported and which cannot be imported when our purchasing power in other countries declines. No other course of action—monetary or non-monetary—can offset that loss to the country as a whole.

Building up industries to satisfy wants hitherto satisfied by imports, is an expensive solution—one which is only justified if the decline in exports is considered to be of more than temporary duration.

Therefore, it follows that in the case of a temporary fall in export trade—and on the basis of Mr. Tucker's earlier remarks I believe he is thinking of a temporary situation—there is no feasible way in which we can hope to prevent a loss to the country as a whole. In fairness to Mr. Tucker I do not think he

suggests that under these conditions a loss can be avoided, but feels that unemployment in our domestic industries constitutes an unnecessary "doubling-up" of the necessary ill effect of a decline in exports, which could be avoided by maintaining the money income of exporters.

However, if it were possible by Mr. Tucker's proposal, to have full activity in domestic industries in the face of a decline in exports, there would be the implication that no one was adversely affected by the decline in exports. If the plan were feasible, exporters would be able to buy as much as if exports were normal and other industries would be operating at full employment to satisfy domestic demands.

I have already pointed out that it is impossible for the economy to function in this "normal" manner at a time when export income is depressed. "Normal" functioning of the economy would be in the ordinary course of things, produce a "normal" volume of imports for Canadian industries and consumers—a volume of imports which could not be paid for when export income was not "normal." I have dealt rather fully in previous memoranda with the implications of that situation.

Maintenance of activity in domestic industries would, therefore, have to be confined to those industries which do not depend upon imported materials. This limitation would automatically eliminate most of our major industries.

There would have to be restrictions placed upon the type of goods or services which the additional purchasing power in export industries might be used to buy. Otherwise a very large part of such buying would be of imported goods or goods made from imported materials.

I realize that one can point to a number of specific instances where Canadian consumers would use a larger amount of a purely Canadian commodity if they could afford it. However, I believe that such examples are deceptively simple. They do not take into consideration that additional purchasing power created to make possible such a transaction is not cancelled at the completion but remains in existence and ultimately—other things being equal—will chiefly result in an increased demand for imports and goods made from imported materials which would produce the situation to which I referred a moment ago.

In so far as the great majority of cases are concerned I would say that the depressed state of domestic industries is an unfortunate but inevitable result of low export income which forces us to curtail our demand for foreign goods, and is not an unnecessary "doubling-up" of the effects of the decline in exports.

If Canada were a relatively self-contained country such as the United States or Germany, there would be good grounds to suspect that our misfortunes were the result of ineffective domestic policy and certainly there would be much more scope to improve the situation by internal action. I believe there is a tendency to try to apply to the Canadian problem methods which have achieved a measure of success in other countries but which are of very limited usefulness under Canadian conditions.

As to the limitations and implications which various proposed methods would have in Canada, I do not think I can add anything to what I have just said and to what I have submitted in the various memoranda which have been placed on the record at previous meetings.

If action to stimulate domestic industries were confined to the quite limited field in which I have tried to indicate that such a policy would be practical in Canada, some of the proposals which have been made would be found unsuited for that purpose. Monetary expansion, for example, tends to affect the whole economy and if adopted only for a particular purpose of this kind it would require almost infinite accompanying regulation to confine the results in the desired section of the economy.

(c) Comment on "Full Employment"—*The Economist*, May 6, 1939

(Submitted by Mr. Towers in reply to Mr. Deachman)

(Volume 24, page 835)

Yesterday Mr. Deachman asked me to comment upon the following paragraph which appeared in *The Economist* of May 6 under the title of "Full Employment":—

In the most widely accepted economic doctrines of the moment, the concept of "full employment" is one of peculiar importance. Until "full employment" is reached, any increase in the monetary demand for goods has the effect, not of putting prices up so much as of attracting into employment resources of labour and capital that were previously standing idle. Until "full employment" is reached, so runs the theory, the creation of new demand by expansion of credit cannot result in what is commonly called inflation; on the contrary, it diminishes unemployment and, by increasing the national income, gives rise to savings that offset the original creation of credit. But after "full employment" is reached, any further expenditure out of credit expansion or money creation will not increase production or diminish unemployment: it will merely enhance prices and start the revolving spiral of inflation. In the layman's language, "full employment" is the point at which the financing of government deficits by credit expansion ceases to be "sound finance" and becomes "unsound finance."

No one will disagree with the statement contained in the second last sentence, "But after 'full employment' is reached, any further expenditure out of credit expansion or money creation will not increase production or diminish unemployment: it will merely enhance prices and start the revolving spiral of inflation."

In regard to the rest of the paragraph I do not think *The Economist* was passing any comment upon the validity of the theory which it was quoting. What it seemed merely to say, in effect, was, "If this theory is correct it is vitally important for us in Great Britain to determine how close we are to full employment."

In dealing with this question *The Economist* rightly pointed out that consideration of global figures of unemployment was not enough. And examining the number who were available for employment in the individual industries which would have to expand to meet government orders it came to the conclusion that important "bottle-necks" would develop some time before the irreducible minimum of unemployment was reached. In other words, the immobility of labour places important practical limits upon the validity of the theory that deficit spending cannot cause inflation while the over-all figures for unemployment remain large. This limitation does of course apply with special force to Canada where distances increase immobility and where the industrial mobility of its most distressed group, the farmers, is particularly low.

There is another important limiting factor which this article in *The Economist* does not mention but which has been widely discussed in the British press, viz., the nation's foreign resources. If government expenditure necessitates increased imports without producing correspondingly larger exports the currency will sooner or later depreciate, and prices will rise regardless of how much unused capacity may exist within the nation.

Even if a program of public expenditure in Canada was such that it did not call, directly, for any import of foreign materials, it is inconceivable that none of the income thus distributed would be spent on foreign goods or services,

in that or succeeding cycles of expenditure. Some increase in imports would result no matter how carefully the program was designed to employ exclusively domestic factors.

Mr. Deachman has pointed out that our present active balance of payments allows some leeway for an increase of imports. However, as I mentioned in a memorandum which is on page 561 of the record, this active balance exists only by virtue of very large exports of resources which are not being replaced, and the total volume of imports of consumption goods has, in fact, been well maintained. It is possible to argue that an increase in consumable imports should, as it has done, wait upon a growth in exports of the type which do not deplete our natural resources; and that the proceeds of quasi-capital exports should be *invested* either in imports of capital goods or in repatriation of foreign debt. During the last six years, because openings for profitable private capital development in Canada appeared to be lacking, the result has naturally been the latter of two alternatives.

This raises the question which has come up in a more general form many times during the past ten weeks: Would a program of government investment, which would stimulate imports of capital goods, have been preferable to the type of private investment which has taken place, viz., the repatriation of foreign debts? This is, of course, a matter of government policy. In so far as its economic effects are concerned, as I pointed out in a memorandum which is on pages 148-151 of the record, they are entirely dependent on the specific character of the expenditure. Perhaps the most fundamental problem facing this country is whether it shall stake its future on increased exports or greater self-sufficiency. There are so many major uncertainties at the present time that probably no basis for a reasoned decision exists. But unless or until the government of Canada has decided upon a policy of moving the country toward a much greater degree of self-sufficiency, it seems to me that a most important criterion of the desirability or otherwise of government expenditure is that it should strengthen the competitive position of our economy rather than weaken it by increasing any overhead or fixed operating expenses which are chargeable to exporting industries. As Mr. Deachman mentioned, we must, in order to stimulate private enterprise have either a rise in prices or a reduction in costs. In the export trades, where prices are largely outside our influence, the emphasis must always be on costs. That is why I think that the types of expenditure included in a government program are more limited in scope and should be chosen with much greater care than they would have to be in more largely self-contained countries such as the United States, Germany, or even Great Britain.

Finally I must mention once more a consideration which is vital in all countries; if private enterprise is to remain the motive force of a functioning economy every precaution should be taken to see that government policies do not have the effect of discouraging it.

(d) Considerations *re* Alternative Use of Balance of Payments Surplus

(Submitted by Mr. Towers in reply to Mr. Deachman)

(Volume 17, page 560)

During the last few years Canada has had a favourable balance of trade which has enabled her to repatriate some \$500 millions of foreign obligations. Before discussing the advisability or otherwise of reducing our foreign debt under existing conditions, I should like to mention a few factors concerning the situation in which this large favourable balance was created.

To a very large extent the lower level of our imports in recent years relative to 1926-29 has been due to smaller imports of capital goods—commodities which

were intimately associated with the much larger amount of capital investment in this country during the pre-depression years. The reduction in imports of this character has been due partly to the unfavourable outlook for some industries and partly is a natural reaction following a fairly large expansion in plant and equipment in the earlier years.

While the value of Canada's imported consumable goods has been considerably lower than in 1926-29, due to lower prices paid for such commodities, the volume of consumable goods imported appears to be at least as large as in pre-depression years. In other words, on the whole, Canadian consumers were importing a somewhat larger amount of consumable goods during 1937-38 than in 1926-29. When the fact that domestic industries are in many cases supplying a higher proportion of Canadian consumption than a decade ago is taken into consideration, it appears that the favourable balance of trade has not been achieved at the cost of a reduction in the volume of consumable imports in relation to 1926-29. Obviously, of course, the distribution of those goods and their products within the Canadian economy has changed—some areas have received less and others more.

Naturally, the fact that there has been a surplus available for repatriation of foreign debt means that there *could* have been a larger volume of imports, either of consumable or capital goods—or both. There are a number of factors to be taken into consideration in determining whether such an increase in imports would have been desirable from the viewpoint of the country as a whole.

Recovery in Canadian export trade during the last few years witnessed a great increase in the absolute and relative importance of non-ferrous metals and forest products, two items which together contributed more than one-half of our merchandise exports during the last two years. Although the importance of new metal discoveries in recent years has obscured the trend, yet it remains an indisputable fact that the products of these two industries are capital assets which are not being replaced in the case of mining and only partly replaced for the forest industries and which cannot be counted on as a major source of export income forever.

This factor and also the fact that the future markets for our agricultural products, which have declined in importance, remain uncertain because of the existing world trend towards nationalism and self-sufficiency, are two arguments which favour caution when considering the question whether Canada should live on a scale which would absorb all of our present export income.

Whatever action might be taken to increase our imports should be—as I have mentioned before—with a view to strengthening the economy particularly in relation to the future position of our balance of payments as it appears in the light of present conditions.

If it were considered that the low level of foreign demand for many of our exports were permanent, then there would be a case for revamping the Canadian economy to enable us to provide more of the things we need, at home. The heavy cost of such a program makes it impractical for dealing with a temporary situation.

In general, any action which would profitably increase our export income or reduce our payments abroad would be a strengthening influence. In this connection it is worth noting that a reduction in foreign debt results in a corresponding decrease in our obligations payable to other countries.

Mr. Deachman also asked what effect Canadian monetary policy had had upon the existing situation.

The "easy money" policy which has been followed during the last few years has improved the market for new and refunding issues of securities. Since the amount of new issues in view of existing conditions has been relatively small, refunding issues to repatriate securities held abroad have been an important feature.

If domestic monetary policy had been less expansive and domestic interest rates higher, it is probable that the relative interest rate structures here and abroad would have offered somewhat less incentive for Canadians to repatriate foreign-held securities. But even if interest rates had been higher in Canada, I think the favourable balance of trade would have been at least as large as it has been and the pressure of such funds upon the exchange market might well have raised the exchange value of our dollar to a point where repatriation would be as attractive as under the actual conditions of lower interest rates and a lower exchange value of the dollar.

(e) Real Cost of Increased Government Debt

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 8, page 202)

The next question was to this effect: Why is it said that taxpayers have to pay for debt increases and what justification is there for fear of an increasing amount of internal debt?

In my opinion one should not attempt to generalize upon the consequences of an increase in debt, because the burden depends upon the use to which the debt has been put and upon the future income of the country concerned.

When the government borrows, it acquires the use of a certain amount of labour and equipment. If the purposes to which these factors are applied, are at least as productive as the alternative uses to which they would have been put if the government had not borrowed, then I would say that there was no real burden upon the taxpayer. Although he would pay more in taxes to cover the government's interest charges, he would receive back the interest paid and have at least as large an income of goods and services as before.

However, when the government borrows for non-productive purposes or purposes that are less productive than the alternative uses to which the labour and equipment would have been put, then there is a definite burden on the taxpayer because he receives a smaller income in goods and services than he otherwise would have received. The real limitation upon an increase in non-productive debt is the extent to which people are willing or able to do without goods and services which they might otherwise have had.

Mr. Tucker's question appears to imply the suggestion that only if debt is paid off in the future is there any burden upon the taxpayer. On the contrary, the real burden of debt is borne at the time the debt is incurred, when factors of production are diverted to other uses than producing the goods and services which he has been consuming.

Paying off internal debt does not necessarily add to the taxpayer's burden and indeed may be in his best interests. In theory, it should not matter how great an amount of debt interest is collected by the government from the people and paid back to the people. But in a country such as Canada where national income and government revenues fluctuate quite widely, it is desirable to keep fixed charges as small as possible. Otherwise the pressure upon the government to obtain sufficient revenue to meet its fixed obligations during a period of depression, may cause serious maldistribution of income and further impair the general level of economic activity.

To summarize, I would say that it is very important to remember when considering the effects of an increase in internal debt, that in so far as the country as a whole is concerned whatever burden is involved is inevitably imposed at the time the expenditure is made—not at the time when the debt is paid off.

(f) Real Cost of Government Expenditures

(Submitted by Mr. Towers in reply to Mr. McGeer)

(Volume 3, page 64)

The real cost of government expenditure is use of labour and equipment. That is my general proposition. The real cost of government expenditure to the country as a whole is the amount of labour and equipment required to carry out the various projects. When the question is asked if we can finance a certain government expenditure, the fundamental problem is whether we can afford to devote a certain amount of our productive resources to the projects in question. The problem of how the government can obtain the money which will give it the title to the use of labour and equipment, may present considerable technical difficulties, but it is not the fundamental problem; and the particular fiscal method by which the government may decide to acquire the money from the public has little or no effect upon the *real* cost of these projects to the country as a whole, although it may have a considerable effect upon other factors in the economy.

(g) Tax Reduction Instead of Increased Government Expenditures

(Submitted by Mr. Towers in reply to Mr. Deachman)

(Volume 17, page 559)

It has been suggested that the effect of government "deficit spending" might be obtained by reducing rates of taxation rather than by increasing the level of government expenditures.

As I understand it, the theory underlying the proposal to lower tax rates is that such action would impart a stimulus to private spending which would restore general economic activity of a more normal character than might be obtained by increased government participation in various projects.

If I am correct in my understanding, then the fundamental consideration is whether lower taxes will actually result in an increase in private spending. In this respect the nature of the taxes involved and the particular time at which the reductions are made seem to me to be very important.

Insofar as taxes are paid with money which would otherwise remain idle, I do not suppose that there would be any increase in private spending if the rates were lowered. Only to the extent that existing taxes are actually impeding private spending would one expect to obtain a stimulus to increased private activity.

The circumstances in which a reduction of tax rates was made appears to me to be an important factor in determining the reaction upon the volume of private spending. When the level of business conditions is declining and the psychological attitude of the public is towards a further deterioration, I doubt whether a reduction in tax rates would be a sufficient stimulus to initiate a revival of confidence in the future and increase private spending. A rise in idle balances would be much more likely.

Not only is reduction in taxes a less positive stimulus to increased activity than government spending, under the conditions just mentioned, but it is a considerably less flexible technique. Very seldom is it true that depression is spread evenly over the fiscal area affected by any given tax. Therefore the benefit, if any, from the tax reduction tends to be diffused and to a considerable extent go to sections which relatively speaking are not in need. Government spending on the other hand, is a method which can in most cases come nearer to benefiting only the desired section of the economy.

An important feature in determining the relative advantages of tax reduction versus increased government spending, would be the productiveness or value of the type of spending in which the government might engage. If increased government spending would be non-productive, then probably it would be preferable to try and get even a partial response from private industry. On the other hand if there were productive avenues of investment open to the government, then an increase in government spending might well be better than relying on the results of an effort of the kind under discussion to encourage increased activity in private industry.

Changing rates of taxation impose burdens which established rates usually do not, according to the axiom that "an old tax is a good tax." It is quite likely that if a decrease in tax rates had to be reversed at a later date there would be more dislocation than would be caused by a proper easing-up of government expenditures as private spending recovered.

Quite apart from the question of reducing taxes, I believe that uncertainty on the part of the public, regarding the nature and extent of future tax increases may be an appreciable factor in holding back private spending. Private business initiative has of course been curtailed not only by the international political situation but also by domestic uncertainty.

To summarize, I would say that reducing taxes to promote recovery is not a plan which is likely to be widely effective in raising private spending and at the same time has disadvantages from the viewpoint of flexibility. I do believe, however, that it is a proposal which is worthy of careful consideration with respect to the limited field in which it might be a practical alternative to increased government spending.

(h) Domestic versus Foreign Borrowing

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 8, page 203)

This further question was asked: Why is it necessary for Canada to borrow abroad instead of making use of its domestic credit facilities?

Before attempting to reply to this question I would like to point out again that during the last few years Canada actually has reduced its obligations abroad by over five hundred million dollars.

One should remember that the decision between foreign and domestic borrowing does not simply rest upon whether it is possible to create a certain amount of money in Canada. The real consideration is the amount of our obligations and requirements abroad in relation to our means of paying for them.

For instance, the amount of foreign debt which can be repatriated at any given time depends upon the credit balance on international account. Repatriation of foreign debt cannot exceed the amount of that credit balance and if maturities of foreign issues are larger, then it is necessary to make refunding issues abroad.

If borrowing is for domestic purposes which may require an increased import of goods and services from abroad, it may become necessary to borrow abroad rather than internally in order to obtain the needed purchasing power in other countries.

(i) Tax of $\frac{1}{12}\%$ per Month on Savings Deposits

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 17, page 562)

The first effect of the proposal to impose a tax of $\frac{1}{12}$ per cent per month on savings deposits would be to reduce the net interest return on personal savings deposits from $1\frac{1}{2}$ per cent to $\frac{1}{2}$ percent per annum. Other effects would depend upon the action taken by the depositors concerned.

If savings depositors considered that even at $\frac{1}{2}$ per cent per annum net interest return, a cash balance was preferable to any other form of investment, then savings deposits would remain the same and the government would receive increased revenues of say \$17 mm. per annum at the expense of a similar reduction in net interest received by depositors.

If savings depositors felt that a net interest return of $\frac{1}{2}$ per cent per annum was so small that they preferred some other uses for their funds, I think it would be very unlikely that they would increase their purchases of goods and services. In all probability they would turn towards other forms of investment.

In so far as corporate securities are concerned there is every incentive already for the public to purchase any sound new issues which come on the market. The supply of these, however, is quite small so that the important avenue of investment to which savings depositors might turn would appear to be government securities.

An increase in demand of this kind for government securities would reduce the yields on government securities which would force the banks ultimately to reduce the rate of interest paid on deposits. I assume that there is no intention that the tax on savings deposits would be a capital levy and that the tax would be lowered in step with the reduction in deposit interest rates. Under these circumstances the effect of the tax on deposits would be the same as that of an extension of the easy money policy which has been followed during the last few years and which could be extended if it were thought desirable.

The tax on deposits as a fiscal measure is open to objection because of its inequity. It would fall particularly heavily on the small depositor who would have very little, if any, chance of profitably employing his funds elsewhere. It might lead him to withdraw his deposit and hold notes. This would be a most undesirable development, both from a social and financial point of view.

**VI. FINANCING GOVERNMENT EXPENDITURE BY THE
ISSUE OF MONEY****(a) General Considerations Involved**

(Submitted by Mr. Towers in reply to Mr. McGeer)

(Volume 4, page 95)

The main proposal upon which I was asked to comment related to the issue of currency or central bank credit to the government as an alternative method to borrowing or taxation in financing government expenditures.

There is no doubt, of course, that it is possible to issue currency to finance government expenditures and that it is within the powers of parliament to provide the necessary legal authority. However, I believe that this proposal has been made because its advocates consider it to be preferable to other methods of financing—not simply because it may be possible or legal.

First of all, I think that I am correct in saying that those who give consideration to this form of procedure do not wish it, if adopted, to result in inflation. No doubt they fully realize the disrupting influence of inflation and the social injustices and other hardships which it causes. A great number of Canadian people would—if they understood the situation—violently object to measures likely to produce such unfortunate results. For example, there is no reason to believe that the reaction of organized labour in Canada would be any different than in the United Kingdom and United States where labour leaders have declared vigorously against inflation.

Other countries whose governments resorted to issuing currency in order to finance government expenditures, experienced very unfortunate results. With the committee's permission, I shall not describe these experiences in detail, since the disastrous inflations of the post-war period and more recent, if less extreme, examples are a matter of common knowledge.

I believe that those who advocate issuing currency to finance government expenditures, do so in the belief that in some manner inflation may be prevented and that it will be a cheaper method of financing than borrowing or taxation.

I have already dealt—in a memorandum placed on the record at the last meeting of the committee—with a suggestion made by Mr. Tucker that the inflationary effects of financing government expenditures by means of issuing currency should be offset by raising the legal minimum cash ratio of the chartered banks. It would be repetition for me to discuss this suggestion again in detail, and perhaps it may be sufficient to say that this proposal is, in essence, a form of discriminatory public taxation which is bad because it is not graduated in accordance with ability to pay. The adjustments which it would cause would be of a most unusual and disturbing character, and would create a certain loss of public confidence.

When it is claimed that a proposal of this type is "costless," I suppose that what is meant is that it is costless to the *government*. I cannot, however, conceive that a policy which is expensive to the people—as this proposal would be—can be costless to the government which is simply the representative of the people. If the government wants to adopt such a policy, it is possible for it to do so; but the result is a levy upon the public which counteracts the saving to the government.

If the additional money which the issue of currency to finance government expenditures would provide were actively used—as in the other countries to which I referred earlier—the result would be inflation. In my opinion, the onus is on the advocates of this proposal to prove that the results would not be the same in this country as history has shown to have occurred in other countries.

When the establishment of a central bank was being discussed in Canada, one of the chief reasons advanced against its foundation was that a central bank would provide such an easy way of creating money that the temptation to make immoderate use of it would be too great to resist. The period of four years during which the Bank of Canada has been in operation, has been too short to prove that those fears were unfounded, and the real test of our ability to adhere to a policy of moderation has yet to come.

(b) Financing Public Works by an Advance from the Bank of Canada

(Submitted by Mr. Towers in reply to Mr. Woodsworth)

(Volume 17, page 557)

Questions by Mr. Woodsworth on the effects of the Government borrowing \$50,000,000 from the Bank of Canada at $\frac{1}{2}\%$ per annum, to use for public works.

(1) *Would \$25,000 per annum pay the Bank of Canada's expenses?*

If the Bank of Canada's participation were limited to creating first a deposit in the Dominion Government account and later deposits in the accounts of the chartered banks, then \$25,000 per annum, obviously, would more than cover any additional cost to the Bank. However, if it were necessary to issue and service Bank of Canada notes, the total cost involved would be much greater than \$25,000 per annum, as is illustrated by the statistics in the table on page 402 of the Minutes and Proceedings. (See page 27.)

(2) *What would be the procedure?*

The are two possible methods of procedure:

- (a) The Government might withdraw the \$50,000,000 in Bank of Canada notes and use them to pay contractors and others.
- (b) The Government might issue cheques on its account in order to make payments to contractors and others.

(3) *The Effect on the Accounts of the Chartered Banks?*

(a) Regardless of which of the procedures just mentioned was adopted, the result would be to increase the cash reserves of the chartered banks by about \$50,000,000.

(i) If the Government had used Bank of Canada notes as a means of making payments, almost all of those notes would find their way back to the chartered banks increasing their cash reserves.

(ii) If the Government drew cheques on the Bank of Canada, those cheques would be presented by the banks and credited to their balances at the Bank of Canada, thus increasing their cash reserves by \$50,000,000.

(b) The Canadian deposit liabilities of the chartered banks would be increased by about \$50,000,000 through the deposits by the public. This increase in chartered bank liabilities would balance the increase of assets in the form of cash.

(c) The increase in cash reserves would stimulate the banks to add their earning assets, which might, if the banks could find suitable loans or investments, increase by \$450,000,000 and increase deposit liabilities by the same amount. Deposits would then be \$500,000,000 larger than before this transaction occurred and assets larger by the same amount in the form of \$50,000,000 cash and \$450,000,000 other assets.

(4) *The Effect on the Accounts of the Bank of Canada?*

(a) The first effect would be to increase Bank of Canada liabilities by \$50,000,000 in the form of a deposit of the Government—accompanied by an increase of the same amount in assets held in the form of Government securities or advances.

(b) If the Government withdrew its deposit at the Bank of Canada in Bank of Canada notes, the second effect would be to decrease the Bank of Canada's liability in the form of a Government deposit by \$50,000,000 and increase its liability in the form of Bank of Canada notes by the same amount. There would be no change in assets.

(c) If the Government withdrew its deposit at the Bank of Canada by drawing cheques on the Bank of Canada, the second effect would be to decrease the Bank of Canada's liability in the form of a Government deposit by \$50,000,000 and increase its liability in the form of a deposit of the chartered banks, by the same amount. There would be no change in assets.

(d) If the Government had paid out \$50,000,000 in Bank of Canada notes, presumably when the public deposited such notes at the chartered banks, the latter would return most of them to the Bank of Canada, so that the Bank of Canada's liability in the form of notes would decrease and its liability in the form of a deposit of the chartered banks, increase by the same amount. There would be no change in assets.

(e) On the basis of present gold reserves an increase in note and deposit liabilities of \$50,000,000 would not reduce the reserve ratio to 25% and therefore the minimum gold reserve section would not have to be suspended.

(5) *Methods of recall of notes, if inflation ensued?*

As I have already mentioned, there would be a very small increase, if any, in the amount of Bank of Canada notes in public circulation. I assume, therefore, that Mr. Woodsworth had reference to the methods by which the chartered banks' cash reserves could be reduced if the circumstances of inflation ensued.

The ordinary central banking method of effecting the desired reduction in chartered banks' cash reserves would be for the Bank of Canada to sell the required amount of its assets, payment for which by the public or the banks would reduce the chartered banks' cash in the form of notes of and deposits with the Bank of Canada.

The fiscal methods by which Mr. Woodsworth suggests that the result might be obtained, namely, taxation or Government borrowing, would be effective if the Government deposited the proceeds of taxes or borrowing at the Bank of Canada, the effect of which would be to decrease banks' cash reserves by the same amount. I should like to point out that in these circumstances, the Government is practically in the same position as if it had taxed or borrowed from the people to obtain the \$50,000,000 in the first place, instead of obtaining a loan from the Bank of Canada.

(6) *The possibility of inflation?*

In raising this question Mr. Woodsworth pointed to the currently low level of the general wholesale price index as compared with 1920 and 1929, as an indication, I assume, of the probable remoteness of inflationary results from the \$50,000,000 transaction which he described.

Internal monetary expansion of this type may not produce a marked increase in the general price level for a time because of the importance of export and import prices in the Canadian price structure. It will, however, tend to lower the rate of interest and increase the burden borne by savings depositors, policy-holders and, in general, those who receive fixed interest incomes.

The further effects of such an internal monetary expansion depends upon when and to what extent the additional money created is actively used by the public. In this connection I should like to point out that the potential increase of \$500,000,000 in bank deposits would be a 20 per cent increase over their present amount.

Active use of the increase in the volume of money would produce an internal situation which would force a decision between reversing the policy of internal expansion and depreciating the external value of the dollar.

Currency depreciation would increase the burden borne by fixed-interest recipients and extend the burden to wage-earners who would bear a major share of the internal transfer caused by depreciation.

As I have mentioned on a number of previous occasions, I am not saying that a policy of this kind should or should not be adopted, but merely trying to show that the problem is one of deciding where the burden will be imposed and that a policy of the sort described is not a costless one.

(c) Issuing Money in Depressed Areas as Long as There is Unemployment

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 7, page 194)

The question to which I shall attempt to reply is not how much assistance should be given to depressed areas—because that is a matter of government policy—but is whether assistance to such areas in the form of additional money, may be made without involving sacrifice by other sections of the country.

I shall assume that the state of depression which this particular suggestion is proposed to alleviate, is considered or hoped to be temporary—not a permanent feature which would justify the costly procedure of revamping the whole economy in order to make ourselves a more self-contained country. I believe Mr. Tucker indicated at last week's meeting that he was thinking of a temporary problem.

In order to clarify the discussion by relating it specifically to Canadian conditions, it may be assumed that a large payment is made to western wheat growers to restore their income to normal pre-depression levels.

The first results of such a policy would be an increase in western purchasing and consequently some degree of stimulus to industrial activity elsewhere in the country—although for reasons which will be mentioned later such an increase in activity would be less than proportionate to the amount of the payment to western wheat farmers and would be of a temporary nature.

If the increase in purchasing by western wheat farmers were confined to goods produced wholly in the domestic market and if the increase in domestic industrial activity were accompanied by a corresponding increase in demand for the products of western wheat farmers, then the basis would exist for a continuous exchange of goods and for a general improvement in economic conditions.

To suggest that actual developments would follow this pattern is to lose touch completely with the realities of the Canadian situation. It is an assumption applicable only to relatively self-contained economies such as Germany and the United States to which we have referred at previous meetings.

By far the major problem in western Canada is wheat and as it is quite impossible that an increase in Canadian demand would absorb a large part of the decline in foreign demand for this product and almost equally improbable that the increase in western buying would be satisfied chiefly in the domestic market, such a payment to western wheat farmers as we have envisaged, would undoubtedly entail sacrifices for other sections of the country.

Increased purchases both by western farmers and resulting from the stimulus to domestic industrial activity, would increase the demand for imported goods—partly in the form of finished products and partly in the nature of raw materials for Canadian industries. Imports in general would tend

to rise to about the same level as if Canadian wheat exports were of normal value and the income of wheat growers derived from foreign trade rather than to a large extent from an internal payment.

In the absence of the normal receipts from foreigners in payment for our wheat, such an increase in imports would bring pressure on the balance of payments and depreciate the Canadian dollar in relation to other currencies.

The effects of currency depreciation have been covered in some detail by an earlier memorandum which has been placed on the record. I believe that it would involve an undue amount of repetition for me to go over that ground again and that it would be enough at this time to mention the major results of such a policy—which are the increased cost of all payments abroad and a general rise in the level of internal prices and later of costs. Bearing these developments in mind, I believe that the existence of a sacrifice by important sections of the country becomes clear.

In concluding, I would like to emphasize again that what I have said has not been related to the amount of assistance which it is desirable to give to depressed areas in our economy because that is a matter of government policy and is entirely outside my province. I have simply attempted to show that the suggestion made by Mr. Tucker would not be, under existing Canadian conditions, a method which would not involve sacrifices on the part of other sections of the country.

(d) Increasing Per Capita Currency in Order to Redeem Government Debt

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 3, page 89)

At the last meeting of the committee, Mr. Tucker requested me to deal with the points raised in his speech of February 16th inst. in the House of Commons.

One of the suggestions which he made on that occasion was that if we issued the same amount of money per capita in Canada as they have in issue in the United States, we could issue another \$220 millions, and use that money to retire interest-bearing debt. I should point out that in using the words, "money per capita" Mr. Tucker was referring to currency in circulation per capita.

I think I am correct in saying that the suggestion was based on a comparison between the active currency circulation in Canada and in the United States. I fully appreciate the desirability of examining the situation in other countries to see whether something can be learned which would be advantageous for Canada. But I am afraid that comparisons of active circulation have no meaning. To my mind, the amount of currency in circulation at any given time merely represents the amount of money which the public chooses to keep in its pockets rather than on deposit with the banks. The amount which the public chooses to keep in the form of currency is partly determined by the extent to which people make payments in currency rather than by cheques, which in turn is partly dependent upon the availability of local banking facilities. The amount is also influenced by the activity of business, the level of prices and the velocity of circulation; it may also increase as a result of hoarding, either through lack of confidence in the banking structure or as a result of foreign acquisitions. For example, the note circulation of Great Britain has been swelled by reason of the fact that many people on the Continent have desired to hold the currency of that country. Part of the increase in United States currency circulation has been due to the same cause, but in that country there have been also important domestic factors.

As the influence of the different factors which I have mentioned can never be accurately measured, comparisons of per capita note circulation have no value. Moreover, even if the factors could all be measured, the results might only indicate that the level of business activity in one country was not the same as that in another, without showing why the difference existed.

In Mr. Tucker's remarks on this subject I note that he said:

"As a matter of fact, we have in the past three years, to a very limited extent, actually increased our currency and circulation."

Perhaps I should point out that between December 31, 1932, and December 31, 1938, the active circulation of Bank of Canada notes and chartered bank notes, plus circulation of coin, rose from \$171 millions to \$238 millions, an increase of no less than 39 per cent, which brought total active currency circulation back to the pre-depression level.

Finally, it may be pointed out again that the amount of active circulation is determined by demand from the public. Notes which were issued in excess of demand would immediately find their way back to the banks, and produce an increase in the banks' cash reserves.

(e) Issuing Currency to Redeem Maturing Government Securities

(Submitted by Mr. Towers in reply to Mr. Kinley)

(Volume 13, page 433)

Mr. Kinley raised the question at yesterday's meeting as to what effects there might be from using the issue of currency to meet security maturities. The answer to this question depends upon the circumstances in which such a transaction occurred and upon the amount involved. I believe I can best deal with the various aspects of the problem by referring to sections of memoranda submitted at previous meetings which are relevant to this question.

At least a corresponding increase in the volume of money must necessarily follow an expansion in the volume of currency. If the currency issued is legal tender there may be a ten to one expansion in the volume of money on the basis of increased banks' cash reserves.

The general effects of an expansion in the volume of money have been outlined on pages 83 and 84 of the minutes and proceedings. If the amount of expansion were enough to result in currency depreciation there would be certain other results which are referred to on pages 84 and 85 of the record.

The general effects which are mentioned in these references have been those which I would expect to occur if the additional amount of currency were permitted to perform the usual functions. If, however, there were an attempt to neutralize the effect of an increase in the volume of currency by some such measure as 100 per cent cash reserve requirements for the chartered banks, there would be certain other results to which I have drawn attention on pages 198 and 199 of the proceedings of this Committee.

I believe that the important effects of a transaction of this kind depend upon the amount involved and attendant circumstances because the technique involved in creating the additional currency by retiring securities is much the same in effect as the present system under which the Bank of Canada buys securities in order to expand cash reserves.

(f) Review of Considerations Involved

(Submitted by Mr. Towers in reply to Mr. Cleaver)

(Volume 24, page 833)

Many times during the past two months the belief has been expressed or implied that somehow or other there did exist a "costless" method of government financing, and although I have dealt with this question from many different angles it is so fundamental that I am glad to have an opportunity of going over that ground once more.

Government expenditure necessarily involves a transfer of goods and services from one section of the community to another. Where the expenditure is financed by taxation, or by borrowing savings, the incidence of the sacrifice is plain enough, and in this case the money equivalent of the sacrifices passes formally through the government coffers. The reason for calling the financing of expenditure by issuance of new money "costless" is, apparently, that under that procedure the government has no direct dealings with those who forego goods and services in the course of the transfer which government expenditure entails. But the sacrifices still exist in spite of the fact that their money value does not pass through the government's books in the process of being made, and I should now like to indicate how they do arise. I shall do this in connection with Mr. Cleaver's request to trace the effects which might be expected to follow a decision on the part of the government to finance its expenditure, to the extent of \$250 millions in a year, by issues of new money, presumably in the form of non-interest-bearing loans from the Bank of Canada.

As the government spends the \$250 millions of new money most of it is normally deposited with the chartered banks and if so increases their cash reserves and deposits accordingly. As I have pointed out in the memorandum which has just been placed on the record, this reduces the banks' earnings by the amount of interest paid on the new deposits and by the increased operating costs incidental to servicing them. The banks have both the necessity for and the means of acquiring additional earning assets by way of making loans or buying securities; and in doing so they would of course add to their deposits and thus to the volume of money in the hands of the public.

I. It might be that the banks would not take advantage of the opportunity to expand their assets and thus restore their earnings. They could certainly be prevented from doing so by government action of one type or another which would have the effect of sterilizing the money which it had spent. This would amount to the government forcing the banks to make it a non-interest-bearing loan. The cost to the banks would necessarily be passed on to the shareholders, the staff, or, through a decreased rate of interest on deposits or increased service charges, to the banks' customers.

If we assume that the money requirements of the country, i.e., its medium of exchange needs, are already being adequately supplied, and if we also assume that the addition of \$250 millions to the volume of money in the hands of the public remains idle, then average cash balances of individuals and businesses throughout the country will be larger than necessary. As I mentioned in the previous memorandum those who can will attempt to exchange their deposits for some asset which is slightly less liquid but which gives a somewhat higher return, e.g. a government bond. This competition for high-grade liquid assets will drive down the return obtainable from them and the quest for a little higher earnings at the expense of a little less liquidity will continue. How far down the scale of liquidity the pressure of easy money will be substantially felt depends on the circumstances, but the policy we are discussing does always entail some lowering of interest rates and thus a sacrifice on the part of the investor class as a whole.

II. Suppose alternatively that the banks do utilize the \$250 millions increase in their cash reserves to expand their earning assets, and thus their deposits, in the way I have mentioned in the preceding memorandum, by \$2,250 millions. If we assume that the additional deposits, now totalling \$2,500 millions, remain idle, then the developments which I outlined in the last paragraph will be enormously intensified. For example, the interest return on high grade bonds and all other types of liquid assets would fall sharply, and the rate paid on bank deposits would have to be cut still further or eliminated. To give only a few instances of the possible repercussions of such developments, insurance companies would probably have to raise premiums on new policies and reduce or eliminate dividends on existing ones; in the case of the endowments of educational institutions the reduced return would force those institutions to raise fees or reduce salaries; and the decline in the average rate of return to municipal or government utility sinking funds would necessitate increased tax levies or service charges for debt amortization.

I make no attempt to give an exhaustive account of what might follow the injection into our economy of a very large block of money which remained idle. Perhaps enough has been said to indicate that the government financing out of which this arose would in fact involve substantial sacrifices on the part of at least one large group within the community. In any case, I believe the assumption that the additional \$2,500 millions in deposits would remain idle is quite unrealistic. I believe that such an assumption is unrealistic because it would run contrary to what has happened in every other country which has been exposed to such monetary conditions. To argue that a doubling of deposits would not cause apprehension, coupled with a fear in respect to further increases in the future, and would not form the basis for a flight from the currency into commodities, foreign balances or some other form of real wealth, is to assume a lack of sensitivity or perception on the part of the Canadian people which I am sure does not exist.

I do not propose to enlarge upon the disastrous effects of inflation because they are well known to members of the committee. Suffice it to say that in so far as the deposits are used actively they will tend to increase sharply all prices which are free to rise. Many forms of return such as wages, interest and pensions are, however, more or less fixed over short intervals and would lag behind commodity prices. Profits would encroach upon the real income of wage-earners, and organized labour in the United Kingdom and the United States has shown it is well aware of this by declaring vigorously against inflation. Capital values which are fixed in terms of the monetary unit, e.g. bank deposits and insurance policies, to mention only the most obvious examples, would depreciate with respect to goods and services in the same way as fixed incomes. As inflation progressed the shift in the distribution of our national income and the ownership of our real assets would become so great as to distort and disrupt the economy.

I have shown how the financing of \$250 millions of government expenditure in Canada by the issuance of new money would inevitably entail sacrifices on the part of certain groups within Canada. It is true that their sacrifice, or its money equivalent, would not be collected by the government before being passed on to those who benefit from the expenditure; it would merely be remitted by another route. But if this is all that the adjective "costless" implies, I find it meaningless. In connection with any government expenditure and the method by which it is financed the vital questions are, "Does this particular transfer of goods and services strengthen the economy as a whole?" and "Is the necessary sacrifice equitably distributed?" Compared with these the question of the manner of transference is unimportant.

VII. EFFECT OF 100% CHARTERED BANK CASH RATIOS

(a) Comment on the 100% Reserve Proposal

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 3, page 90)

The major point raised by Mr. Tucker on February 16th in the House of Commons was, in effect, that the central bank should advance Bank of Canada notes to the Government free of charge, and that the Government should use this money to repay maturing obligations, or perhaps to finance its current expenditures.

For whatever purpose the Government used these notes, and no matter to whom it paid them, the result would be to increase the cash reserves of the commercial banks. The initial effect of the transaction upon the banks is the same as if they had been forced to invest in non-interest-bearing Government securities. Subsequent effects depend upon the use which the banks make of their increased cash reserves.

If the increase in cash reserves persuaded the banks to make loans or investments which on the basis of their former high cash ratio they had considered undesirable or which would cause inflation, it would become the duty of the Bank of Canada to prevent such credit expansion. This might be accomplished by reducing cash reserves to their former level, or by increasing the legal minimum ratio of such reserves to deposits.

If the Bank of Canada were to reduce the amount of cash reserves by selling Government securities, the effect would be to put both the banks and the Government in the same position as if the Government had originally sold securities to the public instead of taking notes from the Bank of Canada. Although the Government in the latter case would not have increased its interest-bearing debt it would be paying interest on issues formerly held by the Government-owned central bank which transfers the large part of its net profits to the Government.

If the situation were dealt with by raising the banks' legal minimum cash ratio, instead of reducing cash reserves, the effect would be the same as if the banks had voluntarily refrained from credit expansion on the basis of the increase in cash reserves. Since a large part of the increase in bank deposits occasioned by the return of the additional Bank of Canada notes to the banks would be in interest-bearing deposits, without any increase in banks' earning assets, the result would be to reduce banks' net earnings.

It is important to remember that financial institutions, of which banks are one example, hold securities and have earnings for the benefit of their creditors, who, in the case of banks, are depositors. Any action such as the policy under discussion, which reduces the earnings of these institutions, acts to the detriment of their creditors and becomes a form of discriminatory taxation without regard for ability to pay. As an illustration of the course which these adjustments take, lower banks' earnings in recent years, due to smaller security yields and the decline in the volume of loans, have been offset to a large extent by a 50 per cent cut in the rate of interest paid on savings deposits.

A later suggestion was to the effect that the cash reserve requirements should be gradually increased until every cent owing by the banks to their depositors, was covered by legal tender. What I said earlier in respect to the proposal to increase minimum reserve requirements applies to this suggestion, but naturally with greater force. It is a proposal which, broadly speaking, involves two things:

- (a) Taxation of bank depositors, and
- (b) The setting up of some new form of banking system to make loans.

Obviously, if the banks were forced to carry 100 per cent cash reserves against deposits, their loans and investments, in fact all their assets other than cash, would be restricted to an amount not exceeding their capital and reserve funds. At December 31st last this amount was \$279 millions—an amount which is obviously inadequate to finance the requirements of agriculture, industry and individuals. As the banks would have very little in the way of earnings, they would be forced to eliminate any interest payments to depositors. To cover their operating expenses they would, in fact, have to require anyone who wanted to maintain a deposit account to pay a substantial charge for that service.

I am not sure that the suggestion was *intended* to convey a recommendation that the banks should be practically debarred from making loans and investments, and that presumably some other form of organization should be set up for this purpose. I say that I am not sure, because at a later point in the speech it is recommended that the reserve requirements should be increased “to a point where the banks will be able truly to say that for every dollar they loan they have to have a dollar on deposit.” It is the case to-day that for every dollar the banks loan or invest they have a dollar on deposit. Under the system proposed they would have a dollar in *cash* for every dollar on deposit. But, as I have already stated, their loans, investments and other assets in that case could not exceed the amount of their capital and reserve fund.

Any policy of monetary expansion which leads to a material reduction in interest rates undoubtedly causes suffering to many people; but to the extent to which such a policy remedies maladjustments and raises the level of economic prosperity, there is some justification for it—a justification, however, which disappears when further monetary expansion becomes unnecessary. Quite apart from any risk of inflation—which might be offset by counter measures—an additional issue of currency to finance Government expenditures could be criticized as being a discriminating policy which would not ensure a fair distribution of the burden it would impose. In essence, therefore, Mr. Tucker’s proposal that the Bank of Canada should issue additional currency to the Government, and that any inflationary effects should be obviated by an increase in the legal minimum cash ratio of the chartered banks, is not a proposal related to monetary policy but rather to taxation. As such, it comes within the sphere of Government fiscal policy rather than central banking activity.

I have gone into this matter at some length—perhaps the Committee will feel at undue length—because I am convinced that there are certain fundamental misconceptions—widely held—in respect to banking operations. If I am right in this belief, it must often be the case that proposals for changing the present procedure refer to a procedure which, in fact, does not exist. A discussion on this basis necessarily leads to considerable confusion.

(b) Further Analysis of the 100% Reserve Proposal

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 8, page 197)

I should like to make these remarks before replying to Mr. Tucker’s question. During the meetings of the committee many of the questions which have been put to me have been really questions on matters of government policy. In such instances I do not believe that it is proper for me to state that certain policies should or should not be adopted. I have tried to indicate, therefore, the various implications of those policies, the nature of sacrifices involved and generally the pros and cons of the situation. I mention this method of reply at the present time because it affects the treatment of some of the questions to which I shall attempt to reply to-day.

I shall deal first of all with the 100 per cent cash reserve proposed by Mr. Tucker. During the course of the last meeting Mr. Tucker suggested that the maintenance of 100 per cent cash reserves against bank deposits would not involve a restricted loaning policy by the banks, if such loans were eligible for rediscount at the central bank in return for a charge of $\frac{1}{2}$ per cent. Mr. Tucker stated that a plan of this kind would offer certain advantages over the present procedure:

- (a) Government debt charges would be reduced.
- (b) Bank depositors would continue to receive interest.
- (c) There would be more control over banking operations.

In my opinion the only way to discuss this proposal and at the same time avoid utter confusion, is to relate it directly to its effect upon the financial statements of the institutions concerned. With that in mind, I should like to place upon the record summary balance sheets of the Bank of Canada and the chartered banks in millions of dollars, as at December 31, 1938.

BANK OF CANADA

<i>Assets</i>		<i>Liabilities</i>	
Gold	186	Banks' Cash Reserve	257
Securities	186	Active Notes	118
All other (net)	3		
	<hr/> 375		<hr/> 375

CHARTERED BANKS*

<i>Assets</i>		<i>Liabilities</i>	
Cash Reserve	257	Canadian Deposits	2,498
Govt. Securities	1,162	Note Circulation (net)	88
Loans	1,005	Shareholder Equity	279
All Other (net)	441		
	<hr/> 2,865		<hr/> 2,865

*Canadian business only.

Since an important feature of the proposal under discussion is its effect upon the income position of the banks, I should like to indicate roughly their earnings and expenditures on the basis of such approximate rates as I mentioned the other day. I would repeat that these are my own guesses, but I believe they are accurate enough for this purpose.

Earnings are about as follows:

on \$1,162 mm. Government Securities	\$25 mm.
" \$1,005 mm. Canadian Loans	50 mm.
" Earnings on all other Canadian assets, totalling \$441 mm. plus earnings from exchange dealings and all other services	12 mm.
Total (approximately)	<hr/> 87 mm.

Expenditures are about as follows:

Operating costs (including taxes) at least	\$50 mm.
Interest paid to Depositors	25 mm.
Dividends paid to Shareholders	12 mm.
Total (approximately)	<hr/> 87 mm.

Let us suppose that Mr. Tucker's plan were adopted, government securities being redeemed in cash and the banks obtaining sufficient additional cash to provide a 100 per cent reserve against deposits, by rediscounting loans or other investments at the central bank. I believe it will be easier if we assume as a first stage that only government securities held by the banks have been redeemed in cash.

At this point I should like to place on the record the summary balance sheets as of December 31, 1938, adjusted for the effects of the assumed transactions.

BANK OF CANADA

(At December 31/38—100% cash reserve for banks)

Assets—		Liabilities—	
Gold	186	Banks' cash reserve	2,498
Securities . . . . .	.....	Active notes	118
Government advance	1,348		
Discounts	1,079		
All other (net)	3		
	<u>2,616</u>		<u>2,616</u>

CHARTERED BANKS

(At December 31/38—100 per cent cash reserves)

Assets—		Liabilities—	
Cash reserves, of which		Canadian deposits	2,498
Loans rediscounted	1,005	Note circulation (net)	88
Other rediscounts	74	Shareholders' equity	279
Other cash	1,419		
	<u>2,498</u>		
Total	2,498		
Other assets (net)	367		
	<u>2,865</u>		<u>2,865</u>

The amount of chartered bank deposits would still be \$2,498 millions but against those deposits the banks would be holding cash of the same amount.

The effect of the assumed transaction upon government finances would be a reduction of \$25 millions in debt interest formerly paid to the banks and an increase in revenue of \$5 millions from the $\frac{1}{2}$ per cent charge on rediscounts at the central bank—a total improvement of about \$30 millions.

The banks, on the other hand, would not receive the \$25 millions formerly paid on their government security holdings and would have to pay \$5 millions on the rediscounts at the central bank. Other operating expenses would remain at about \$50 millions and the banks would be forced to make a choice between increasing their charges on loans and services and reducing their payments to the public in deposit interest and dividends, in order to offset a net decrease in income of \$30 millions.

If we assume that the redemption of government securities by payment in cash, were extended to include the \$3,000 millions government securities held by the Canadian public, the effect upon the balance sheets of the Bank of Canada and the chartered banks would be that shown in the tables which I now place on the record.

BANK OF CANADA

(At December 31/38—100% cash reserves—all internal government debt redeemed)

Assets—		Liabilities—	
Gold	186	Banks' cash reserves	5,498
Securities . . . . .	.....	Active notes	118
Government advance	4,348		
Discounts	1,079		
All other (net)	3		
	<u>5,616</u>		<u>5,616</u>

CHARTERED BANKS

(At December 31/38—100% cash reserves—all internal government debt redeemed)

Assets—		Liabilities—	
Cash reserves, of which		Canadian deposits	5,498
Loans, rediscounted	1,005	Note circulation (net)	88
Other rediscounts	74	Shareholders' equity	279
Other cash	4,419		
Other assets (net)	367		
	<u>5,865</u>		<u>5,865</u>

The cash given to the public in payment for the \$3,000 millions government securities held by them, would be deposited at the chartered banks increasing deposits from \$2,498 millions to \$5,498 millions and raising cash reserves by the same amount.

On the assumption that all internal government debt would be converted into cash, the reduction on government interest charges would be about \$150 millions, of which \$125 millions would represent a reduction in security interest received by the Canadian people and \$25 millions a reduction in interest received by the banks which decline as I pointed out a few moments ago would be passed on to the Canadian people in one form or another.

Variations in the detail or scope of the proposals which in general may be referred to as 100 per cent Money, will naturally effect the magnitude of the changes involved, but it remains true in every case that for each dollar by which the government reduces its interest charges there is a corresponding decline in the income of the public, in the form of a smaller return on investments, a reduction in interest on bank deposits and probably through increased charges on bank loans and banking services.

I can only repeat what I have already said on several occasions, namely, that I do not see how a proposal of this kind can be "costless" to the country as a whole nor how it can fail to cause widespread inequality of sacrifice.

In regard to the other argument which is advanced in favour of the 100 per cent cash reserve plan, that is, its value as a method of monetary control, I should like to make a few comments.

The first point is that if the redemption of government debt in cash is applied to the publicly-held debt, there is an increase of about \$3,000 millions in the volume of bank deposits—approximately doubling the existing volume of money in Canada. If this large increase in the amount of money remained idle, there might be no serious effects beyond the inequitable taxation which has been discussed. But if the additional money were used by its owners there would be very marked effects—effects which the Bank of Canada does not believe would be favourable or it would have taken steps under the existing system to provide the basis for such an expansion.

Secondly, in regard to the suggestion that 100 per cent cash reserves would provide more control over the lending activities of the banks, I would point out that if the central bank merely rediscounted whatever loans the banks chose to present, there is no reason to believe that bank's loaning policy would be any different than it is to-day. If, on the other hand, the central bank were to assume the responsibility for deciding what loans should or should not be made, I believe that to perform such a task efficiently would require a huge organization. As to whether the results would be better than under the present system, I could not say, but I believe the determining factor would be the experience and judgment of the persons involved.

(c) Estimated Chartered Bank Expenses

*(Submitted by Mr. Towers in reply to Mr. Quelch and Mr. Deachman)

At the close of the meeting on Friday, May 26, Mr. Quelch and Mr. Deachman asked if I could give any breakdown of my estimate in regard to the operating and overhead costs of the chartered banks, viz. 2 per cent on total assets (exclusive of interest paid to depositors). On their Canadian business in 1938 this estimated 2 per cent would work out to about \$55 millions a year.

I had, of course, stated that my figure was only what I thought to be a reasonably accurate guess, and I am not in a position to give complete details. In regard to two of the major items I can, however, supply some figures which have been published by the chartered banks and which may be of interest to the Committee.

The number of people employed in Canada by chartered banks was reported in 1938 at 25,000. Over the ten fiscal years 1928-37 the average amount paid out in Canada in wages and salaries was \$37.6 millions a year; I should think the 1938 wage and salary bill was very little below this average. The amount paid to the Dominion, provinces and municipalities in 1937 by way of taxes was \$8.5 millions; this item was probably a little higher in 1938.

VIII. CHARTERED BANK LOANS IN CANADA

(a) Certain Factors Affecting the Volume of Current Loans

(Submitted by Mr. Towers in reply to Mr. Deachman)

(Volume 14, page 435)

You will remember that the question mentioned, first of all, the effect of the decline in the price level; next the desire for liquidity; thirdly, possible changes in business practices, and, fourthly, any effect which anxiety in regard to the fulfilment of contracts might have had on borrowing and lending.

My answer this morning must necessarily in certain sections of it at least be of a very general character. It is impossible, I think, to calculate how much of the fall in commercial bank loans is due to each of the various factors which were operative during the period of the decline. All that can be done is to indicate that various factors for known reasons must have had an appreciable effect on the volume of commercial loans.

The lower price level—which is the first factor suggested by Mr. Deachman—undoubtedly has been an important reason for a smaller amount of commercial lending. A large part of banks' advances are for the purpose of financing the current inventories of industry. With lower prices the same volume of inventory represents a smaller dollar investment and therefore probably less need for bank credit.

During the years when general business activity was contracting—say 1930-33—and there were relatively few opportunities for profitable expansion of industrial production, a great many firms attained a very liquid working capital position, i.e., not seeing profitable avenues for investment they paid off bank loans and built-up cash balances. There were other firms, of course, which were unable to weather the financial crisis unassisted and had to increase their borrowings from the banks. The results of this situation upon the course of bank loans during 1934-1938, have been two-fold. First, firms which attained a position of liquidity in 1930-33 have been able to finance a considerable degree of recovery out of their own cash resources, without recourse to the banks.

* This statement was filed after the last sitting of the Committee and consequently does not appear in the minutes of proceedings and evidence.

Secondly, improvement in business conditions permitted many of the firms which were forced to increase their bank loans in 1930-33 to repay those advances out of their earnings from a larger volume of operations. Together, these two factors were to a large extent responsible for the failure of commercial loans to rise more quickly and to a larger extent during 1934-38.

There has also been, as Mr. Deachman mentioned, a tendency for many concerns to operate on a lower volume of inventory in recent years. In some cases this development is undoubtedly an outgrowth of the depression when businessmen found that if necessary it was possible and efficient to operate on a smaller inventory than had previously been customary. Improvement in transportation and manufacturing technique probably has also been a reason. On the whole, I would ascribe to this factor considerably less importance than to the first factors which I mentioned, namely, prices and liquidity.

In the case of at least one important commodity—wheat—smaller volume due to poor crops has been an important factor in reducing the amount of bank loans required for financing.

While it is impossible to say how much of the decline in commercial loans has been due to each of the factors which Mr. Deachman mentioned at the last meeting and which I have attempted to describe in a general way this morning, I believe that in total these factors account for the great part of the decline in current loans.

I have not made any reference as yet to the possible effect on the situation of doubt in respect to contracts and in respect to the fulfilment of contracts. What psychological effect that may have had, there is no question but that to the extent which doubt enters into business dealings it is a factor of importance and a hindrance to business development. To assess it quantitatively, as Mr. Deachman knows, would be impossible,

As a last remark I might say that in certain industries it should be possible to obtain a more accurate idea of the bank loan situation by taking companies' annual balance sheets and putting them together. In doing so, one will not be able to distinguish between the three factors, namely, the effect of a decline in prices, the desire for liquidity, or a change in habits, because these balance sheets only show the total dollar value of the inventory and will usually not indicate volume. But something more might be done along those lines to get an idea here and there of the changes in the picture. It is quite a piece of work; in fact, I may say we could not have anything very extensive for these meetings of the committee. It is a type of work which we intend to proceed with as soon as we have an opportunity.

(b) Decline in Bank Loans and Increase in Investment Holdings

(Submitted by Mr. Towers in reply to Mr. Stevens)

(Volume 8, page 203)

At the last meeting Mr. Stevens referred to the lower level of banks' commercial loans which are some \$164 millions below the 1926 level and asked if these loans could not be greatly increased, at the same time decreasing bank holdings of government securities which are some \$858 millions higher than in 1926.

The low level of commercial loans at the present time as compared with pre-depression years, is partly because of a somewhat smaller volume of business, partly because of a lower general level of prices and partly because of the relatively liquid working capital position of many Canadian firms.

I should expect that commercial loans would rise when the volume of business and level of prices increased and when Canadian industry required more working capital. Under these conditions I should hope that government

debts would be declining and public savings available for investment, rising, so that a considerable reduction in banks' security portfolios could take place without unduly affecting the interest rate structure.

Incidentally, I do not think that an attitude of hopelessness towards the commercial loan situation is warranted. Between December, 1936, and December, 1938, these loans rose from \$675 millions to \$806 millions—an increase of \$131 millions or 19 per cent.

Naturally, I do not suggest that the position in respect of commercial loans is satisfactory, because I agree that business conditions are not satisfactory; but I do think an improvement in one will give an accompanying improvement in the other.

(c) Chartered Banks: Annual Classification of Loans in Canada, 1934-38

(Submitted by Mr. Towers in reply to Mr. Landeryou)

(Volume 21, page 704)

(Department of Finance)
(Millions of Dollars)

As at October 31	1934	1935	1936	1937	1938
Financial:					
Call loans and other accommodation to brokers and dealers.....	90.7	66.7	97.4	73.5	62.4
Loans to specified institutions.....	70.0	63.1	73.8	69.0	66.9
Loans to individuals against securities.....	115.2	101.2	111.5	142.8	120.5
Total Financial.....	275.9	231.0	282.7	285.3	249.8
Provincial Governments.....	26.8	29.7	14.7	26.4	22.8
Municipal Governments and School Districts.....	107.4	96.8	92.0	94.2	114.5
Farmers Loans, Cattle Loans, Fruit Raisers.....	64.2	59.9	54.0	57.5	56.8
Merchandising, wholesale and retail.....	117.5	113.8	115.9	129.6	133.7
Manufacturers of and dealers in lumber, pulpwood and products thereof.....	74.3	73.0	64.9	62.9	75.2
Other manufacturing of all descriptions.....	140.1	119.2	130.0	156.6	138.4
Mining.....	6.6	6.8	6.9	6.1	8.9
Fishing, including loans to packers and curers of fish.....	7.0	7.2	8.2	7.7	8.7
Loans to Building Contractors and others for building purposes.....	21.8	24.1	23.7	33.6	39.2
Loans to Churches, Hospitals, Charitable and Religious institutions.....	19.7	16.1	14.8	16.4	19.4
Other Loans.....	66.5	52.3	53.0	61.6	74.7
Sub-Total.....	927.8	829.9	860.6	937.9	942.0
Public Utilities, including Transportation companies.....	71.4*	71.3*	8.4	11.9	24.9
Loans to Grain Dealers, Grain Exporters and Seed Merchants.....	150.5	166.4	64.5	30.8	91.7
Total Loans in Canada.....	1,149.7	1,067.6	933.5	980.6	1,058.6

* Includes \$48 mm. of special loans to C.P.R. which were guaranteed by Dominion Government and which were repaid from the proceeds of bonds issued early in 1936.

(d) Annual Classification of Loans and Discounts in Canada: 1927-1933
Estimated by Bank of Canada

(Submitted by Mr. Towers in reply to Mr. Landeryou)

(Volume 21, page 705)

(Millions of Dollars)

As at Nov. 30*	Call	Other Financial	Total Financial	Govern- ments	Agri- cultural	Manu- facturing (including Mining and Forest)	Merchan- dising	C.P.R. Special	All Other	Total ex Financial	Grand Total
1927.....	223	175	398	94	235	325	200	.....	145	999	1,397
1928.....	250	250	500	116	250	350	250	.....	138	1,104	1,604
1929.....	250	350	600	126	300	375	275	.....	143	1,219	1,819
1930.....	212	250	462	123	250	325	225	.....	134	1,057	1,519
1931.....	157	225	382	160	225	300	175	.....	178	1,038	1,420
1932.....	108	175	283	141	220	275	150	.....	179	965	1,248
1933.....	105	150	255	124	220	200	125	60	129	858	1,113
As at Oct. 31											
1934.....	108	168	276	134	215	221	118	48	138	874	1,150
1935.....	74	157	231	127	226	199	114	48	123	837	1,068
1936.....	109	174	283	107	119	202	116	.....	107	651	934
1937.....	82	203	285	121	88	226	130	.....	131	696	981
1938.....	66	184	250	137	149	223	134	.....	166	809	1,059

* Except in the case of call loans and loans to governments, statistics for the years 1927-33 are estimates, given in round figures.

IX
INDEX TO STATISTICS

Bank of Canada

Proceedings and Evidence, volume 2, page 44.

Proceedings and Evidence, volume 18, page 681.

Proceedings and Evidence, volume 19, page 681.

IX. INDEX TO STATISTICAL TABLES*

(a) Bank of Canada Operations

(1) New Costs Attributable to the Bank of Canada—1938.
 Pages 27-30; *Proceedings and Evidence, volume 12, pages 370-1.*

(2) Chartered Bank Advances from the Bank of Canada.
 (Submitted by Mr. Towers in reply to Mr. McGeer)
(Volume 13, page 432)

(Dollars)

As shown on Return of the Chartered Banks of the Dominion of Canada: Department of Finance

Date	Montreal	Nova Scotia	Toronto	Provincial	Commerce	Royal	Nationale	Dominion	Imperial	Barclays	Total
1935											
Nil											
1936											
Nil											
1937											
Nil											
1938											
Oct. 31					\$5,000,000						\$5,000,000
1939											
Nil											

* Statistical tables are shown only when they are not included in the previous memoranda; when they have been so included, the page reference is given.

(b) Chartered Bank Cash Reserves

- (1) Cash Reserve Just Prior to March 11, 1935.
Page 35; *Proceedings and Evidence, volume 19, page 622.*
- (2) Effect of Changes in Bank of Canada Statement on Cash Reserves.
Page 36; *Proceedings and Evidence, volume 19, page 623.*

(c) Volume of Money

- (1) Forms of Money in Canada.
Page 11; *Proceedings and Evidence, volume 2, page 44.*
- (2) Volume of Canadian Money 1867-1938.

(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 8, page 205)

(Millions of Dollars)

Dec. 31	Subs. Coin			Dominion or Bank of Canada Notes			Bank Notes			Canadian Bank Deposits		Total Money*
	Issue	In Banks	Net	Issue	In Banks	Net	Issue	In Banks	Net	Public	Total	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1867.....	—	—	—	4.3	—	—	9.8	—	—	32.6	—	
1871.....	—	—	—	11.0	6.9	4.1	24.5	—	—	50.3	—	
1881.....	—	—	—	15.0	9.9	5.1	32.4	—	—	59.6	—	
1891.....	—	—	—	16.2	10.1	6.1	35.6	—	—	152.8	161.5	
1901.....	9.0	—	—	30.3	21.4	8.9	54.4	—	—	335.7	347.6	
1902.....	9.8	—	—	34.4	24.7	9.7	60.6	—	—	370.1	382.9	
1903.....	10.4	—	—	41.1	30.9	10.2	62.5	—	—	399.9	411.9	
1904.....	10.8	—	—	47.8	38.4	9.4	64.5	—	—	453.4	471.8	
1905.....	11.3	—	—	49.0	38.1	10.9	70.0	—	—	512.2	529.5	
1906.....	12.1	—	—	56.5	44.3	12.2	78.4	—	—	590.9	611.7	
1907.....	13.4	—	—	62.6	50.0	12.6	77.5	—	—	559.8	585.3	
1908.....	13.4	—	—	79.4	66.1	13.3	73.1	—	—	639.9	663.8	
1909.....	14.1	—	—	87.0	73.2	13.8	81.3	—	—	760.4	797.3	
1910.....	15.3	—	—	90.7	76.0	14.7	87.7	—	—	825.1	860.6	
1911.....	16.7	—	—	115.2	97.7	17.5	102.0	—	—	926.1	966.1	
1912.....	18.0	—	—	115.8	94.6	21.2	110.0	—	—	1,012.3	1,058.6	
1913.....	19.0	—	—	131.2	111.2	20.0	108.6	—	—	1,006.1	1,046.2	
1914.....	19.7	—	—	162.4	143.2	19.2	106.0	—	—	1,012.7	1,052.3	
1915.....	19.8	—	—	178.8	156.7	22.1	122.2	—	—	1,144.7	1,207.7	
1916.....	21.1	—	—	181.0	156.5	24.5	148.8	—	—	1,303.2	1,348.3	
1917.....	23.0	—	—	272.9	245.1	27.8	192.9	—	—	1,565.4	1,610.6	
1918.....	25.5	—	—	327.4	298.1	29.3	224.5	—	—	1,669.5	1,842.2	
1919.....	28.8	—	—	318.7	288.3	30.4	232.5	—	—	1,841.5	1,994.7	
1920.....	30.3	—	—	311.7	279.3	32.4	228.8	—	—	1,950.5	1,993.4	
1921.....	30.3	—	—	280.9	253.7	27.2	184.6	—	—	1,781.8	1,855.3	
1922.....	30.2	—	—	257.3	229.9	27.4	176.2	—	—	1,722.3	1,784.1	
1923.....	30.2	—	—	248.7	220.5	28.2	180.2	21.1	159.1	1,739.9	1,834.9	
1924.....	30.1	—	—	261.7	233.4	28.3	165.7	16.8	148.9	1,832.9	1,911.7	
1925.....	30.1	—	—	227.2	208.9	18.3	173.9	16.2	157.7	1,916.3	1,972.8	
1926.....	30.0	7.0E	23.0E	210.4	179.6	30.8	175.1	15.7	159.4	1,981.7	2,024.8	2,238.0
1927.....	30.0	5.9E	24.1E	220.3	191.6	29.2	182.7	19.6	163.1	2,129.0	2,204.4	2,420.8
1928.....	31.0	6.3E	24.7E	221.9	191.9	30.0	186.1	22.9	163.2	2,235.3	2,314.9	2,532.8
1929.....	32.3	6.2	26.1	203.9	172.3	31.6	175.5	20.0	155.5	2,163.7	2,270.3	2,483.5
1930.....	32.4	7.0	25.4	175.4	145.8	29.6	148.0	15.0	133.0	2,067.5	2,127.8	2,315.8
1931.....	32.8	5.7	27.1	174.4	143.9	30.5	141.0	11.9	129.1	1,926.6	2,068.8	2,255.5
1932.....	33.4	6.6	26.8	191.2	162.0	29.2	127.1	12.1	115.0	1,843.7	1,928.0	2,099.0
1933.....	33.3	7.0	26.3	182.6	152.3	30.3	132.1	11.4	120.7	1,858.8	1,933.0	2,110.3
1934.....	33.7	6.6	27.1	217.0	183.2	33.8	136.4	13.0	123.4	1,982.7	2,050.4	2,234.7
1935.....	33.7	5.4	28.3	99.7	40.6	59.1	118.9	7.9	111.0	2,157.2	2,208.4	2,406.8
1936.....	34.0	5.0	29.0	135.7	47.9	87.8	109.1	5.9	103.2	2,295.2	2,322.9	2,542.9
1937.....	34.5	4.8	29.7	165.3	53.9	111.4	101.7	5.7	96.0	2,334.7	2,386.8	2,623.9
1938.....	35.8	5.2	30.6	175.3	56.8	118.5	94.5	6.2	88.3	2,459.9	2,498.1	2,735.5

*Total of Columns 3, 6, 9 and 11.

- (3) Amounts of Various Kinds of Money, 1928-38.
Pages 12-14; *Proceedings and Evidence, volume 2, page 45.*
- (4) Increase in Volume of Money March, 1935-December, 1938.
Page 34; *Proceedings and Evidence, volume 19, page 621.*

(5) Volume of Money and Volume of Business: Canada, U.S. and U.K.

(Volume 10, page 274)

(Submitted by Mr. Towers in reply to Mr. Moore)

	INDEXES 1936 = 100												
	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Canada—													
Volume of Money	100	108	113	111	103	101	94	94	100	107	113	117	122
Volume of Industrial Production	100	106	118	127	108	90	74	77	94	104	114	127	115
United States—													
Volume of Money	100	105	112	109	105	93	86	80	92	100	110	107	109E
Volume of Industrial Production	100	98	103	110	89	75	59	70	73	83	97	102	80
United Kingdom—													
Volume of Money	100	102	105	103	106	100	112	111	113	119	128	131	127
Volume of Industrial Production		107	106	112	103	94	93	99	111	119	130	139	130
													(1924 = 100)

NOTES: Volume of Money includes coins, notes and bank deposits—December figures.

Volume of Industrial Production—Canada: D.B.S. }
 —U.S.: F.R.B. } Annual averages.
 —U.K.: B. Tr. }

(6) Indexes of Bank Deposits 1926-38, Canada and Other Countries.
Page 41; *Proceedings and Evidence, volume 3, page 86.*

(d) Chartered Bank Loans

- (1) Annual Classification of Loans in Canada: 1934-38.
Page 74; *Proceedings and Evidence, volume 21, page 704.*
- (2) Estimated Annual Classification of Loans in Canada, 1927-33.
Page 75; *Proceedings and Evidence, volume 21, page 705.*

(e) Savings Deposits

(1) Canadian Savings Institutions Other Than Chartered Banks: Deposits.

(Submitted by Mr. Towers in reply to Mr. Moore)

(Volume 17, page 547)

(Millions of Dollars)

	Calendar Years-ends ¹											
	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
DOMINION POSTAL SAVINGS	*31.9	*31.1	28.4	26.1	24.8	23.9	23.9	23.2	22.5	22.0	21.9	22.6
PROVINCIAL INSTITUTIONS—												
Ontario Savings Office	18.4	18.8	19.8	22.8	23.3	26.9	23.7	21.5	21.4	32.0	37.7	40.3
Manitoba Savings Office	15.3	15.6	15.4	15.0	14.7	12.4	*	*	*	*	*	*
Alberta Savings Certificates ²	10.1	11.8	11.6	11.8	11.0	9.2	7.6	5.7	5.6	4.8	4.5	4.1
SAVINGS BANKS—												
Montreal City & District	56.3	57.9	58.4	55.3	55.4	55.8	54.3	52.9	52.7	54.9	57.8	61.6
La Caisse d'Économie	13.1	13.7	13.0	12.7	12.9	12.7	13.2	13.0	13.1	13.0	13.6	13.5
CAISSES POPULAIRES	6.3	7.9	8.1	8.1	7.8	7.4	6.2	5.6	6.1	6.9	7.7	13.1
LOAN COMPANIES	32.3	37.6	40.0	37.7	39.7	38.4	36.9	31.8	32.6	33.5	33.4	33.8
TRUST COMPANIES ³	17.2	22.2	27.9	31.4	35.5	38.4	41.1	44.7	45.1	47.1	49.2	50.3
TOTAL	200.9	216.6	222.6	220.3	225.1	225.1	206.9	198.4	199.1	214.4	225.8	239.3

¹Figures are for respective fiscal year-ends of institutions and are shown under nearest calendar year-ends.²Includes Dominion Government Savings Bank figures.³Demand deposits only.⁴Only companies incorporated in Ontario; not available for other companies whose deposits would be a relatively small amount.

*Transferred to chartered banks in 1932.

(2) Ontario Savings Offices.

(Submitted by Mr. Towers in reply to Mr. Vien)

(Volume 11, page 364)

(Millions of Dollars)

	1935	1936	1937	1938
Liabilities—				
Depositors' balances	22.3	32.0	37.7	40.3
Reserve	0.3	0.3	0.3	0.3
	<u>22.6</u>	<u>32.3</u>	<u>38.0</u>	<u>40.6</u>
Assets—				
Funds on deposit with Ontario Government* . .	21.9	31.3	36.9	39.4
Cash on hand and in banks	0.7	1.0	1.0	1.2
Accounts receivable . . . . .	.....	.....	.....	.....
Office furniture and equipment	0.1	0.1	0.1	0.1
	<u>22.6</u>	<u>32.3</u>	<u>38.0</u>	<u>40.6</u>

Current Public Deposit Interest Rate

Under \$10,000	1.50%
Over \$10,000	1.00%

* Chiefly invested in debentures of the Agricultural Development Board.

(3) Canadian Post Office Savings Bank Deposits.

(Submitted by Mr. Towers in reply to Mr. Lawson)

(Volume 11, page 363)

(Millions of Dollars)

	1935	1936	March 31 1937	1938	1939
Depositors' balances	22.5	22.0	21.9	22.6	23.1
Current interest rate 2.00%					

(4) United Kingdom Post Office Savings Banks.

(Submitted by Mr. Towers in reply to Mr. McGeer)

(Volume 11, page 363)

(Millions of £ Sterling)

	1934	1935	1936	1937	1938
Depositors' balances	354.8	390.3	432.4	470.5	508.8
Current interest rate 2.50%					

(5) Interest Bearing or Savings Deposits of Certain Australian Banks.

(Submitted by Mr. Towers in reply to Mr. McGeer)

(Volume 11, page 363)

(Million of £A.)

	1934	1935	1936	1937	1938
Trading Banks—					
Deposits bearing interest (Dec. quarter)	189.0	178.8	179.8	192.1	197.7
Commonwealth Savings Bank—					
Depositors' balances and interest (Dec. 31)	127.3	132.5	134.8	140.4	146.8
Commonwealth Bank—					
Deposits bearing interest* (ex. Govt.)	28.3	24.1	26.2	.....	.....
(Dec. quarter)					

* Other than Government; includes deposits of savings banks and quasi-govt. bodies

INTEREST RATES ON INTEREST BEARING OR SAVINGS DEPOSITS IN AUSTRALIA

Trading Banks—

December, 1938

Three months	2.00%
Six months	2.50%
Twelve months	2.75%
Two years	3.00%

Commonwealth Savings Bank—

Up to £500	2.00%
£501 to £1,300	1.75%

Commonwealth Bank—

Three months	2.00%
Six months	2.50%
Twelve months	2.75%
Two years	3.00%

(f) Miscellaneous Banking

(1) Total Branches of Canadian Chartered Banks in Canada—Dec. 31.

(Submitted by Mr. Towers in reply to Mr. Moore)

(Volume 10, page 275)

1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
4,049	4,089	3,972	3,778	3,640	3,528	3,423	3,355	3,329	3,324

(2) Chartered Bank Earnings, Paid-up Capital and Rest Fund from Cash Premiums.

(Submitted by Mr. Towers in reply to Mr. Cleaver)

(Volume 18, page 611)

Millions of dollars

	Capital paid-up	Rest fund from cash premiums**	Total	Net earnings available for divid. and surplus	Ratio of net earnings to capital and rest fund from cash premiums
* 1929	141.7	63.7	205.4	21.8	10.6%
1930	144.0	66.8	210.8	20.5	9.7%
1931	144.0	66.8	210.8	18.0	8.5%
1932	144.0	66.8	210.8	16.2	7.7%
1933	144.0	66.8	210.8	14.0	6.6%
1934	144.0	66.8	210.8	13.0	6.2%
1935	144.0	66.8	210.8	12.7	6.0%
1936	144.0	66.8	210.8	13.4	6.4%
1937	144.0	66.8	210.8	13.5	6.4%
1938	144.0	66.8	210.8	13.1	6.2%

* Figures are for respective fiscal years of the banks; excluding Weyburn Security Bank and Barclays Bank for which full figures are not available.

** As shown in the Canadian MacMillan Report for 1932, adjusted for increases in capital during 1929 and 1930.

(3) Chartered Bank Earnings and Shareholders' Equity.

(Submitted by Mr. Towers in reply to Mr. Clark)

(Volume 18, page 612)

Millions of dollars

*	Shareholders' Equity			Total	Net earnings available for divid. and surplus	Ratio of net earnings to shareholders' equity
	Capital paid-up	Reserve fund	Undistributed profits			
1929..	141.7	157.2	8.1	307.1	21.8	7.1%
1930..	144.0	161.5	8.2	313.7	20.5	6.5%
1931..	144.0	161.5	8.7	314.2	18.0	5.7%
1932..	144.0	161.5	5.4	310.9	16.2	5.2%
1933..	144.0	132.0	6.4	282.4	14.0	5.0%
1934..	144.0	132.0	7.1	283.1	13.0	4.6%
1935..	144.0	132.0	7.5	283.5	12.7	4.5%
1936..	144.0	133.0	7.5	284.5	13.4	4.7%
1937..	144.0	133.0	8.7	285.7	13.5	4.7%
1938..	144.0	133.0	9.6	286.6	13.1	4.6%

* Figures are for respective fiscal years of the banks; excluding Weyburn Security Bank and Barclays Bank for which full figures are not available.

(4) Deposits in Chartered Banks and Savings Institutions.

*(Submitted by Mr. Towers in reply to Mr. Macdonald)

(Millions of dollars)

	Calendar Year Ends ¹		
	1928	1932	1938
Chartered Banks—			
Public: Demand..	715.0	466.2	734.1
Public: Time..	1,520.3	1,377.5	1,659.6
Savings Banks—			
Montreal City and District..	58.2	54.3	66.4
La Caisse d'Economie..	12.7	13.2	14.2
Caisses Populaires..	8.1	6.2	13.1†
Dominion Postal Savings..	28.4	23.9	23.1
Provincial Institutions—			
Ontario Savings Office..	19.8	23.7	40.3†
Manitoba Savings Office..	15.4	+	+
Alberta Savings Certificates ² ..	11.6	7.6	4.1†
Loan Companies..	40.0	36.9	33.8†
Trust Companies ³ ..	27.9	41.1	50.3†
Total of above..	2,457.4	2,050.6	2,639.0

¹ Except for Chartered and Savings Banks, figures are for fiscal years of the respective institutions and are shown under the nearest calendar year-end.

² Demand deposits only.

³ Includes only companies incorporated in Ontario; not available for other companies whose deposits would be a relatively small amount.

+ Transferred to chartered banks in 1932.

† Latest available figures for 1937.

* This statement was filed after the last sitting of the Committee and consequently does not appear in the Minutes of Proceedings and Evidence.

(5) Bank Suspensions in the U.S.A.: Deposits Involved in Suspended Banks—1926-1938.*

(Submitted by Mr. Towers in reply to Mr. Stevens)

(Volume 15, page 488)

(Thousands of dollars)

	Non-member		All Banks
	Member Banks	Banks	
1926..	67,464	192,914	260,378
1927..	63,489	135,840	199,329
1928..	46,730	95,850	142,580
1929..	58,073	172,570	250,643
1930..	372,845	480,518	853,363
1931..	733,128	957,541	1,690,669
1932..	269,303	446,323	715,626
1933..	2,393,948	1,205,027	3,598,975
1934..	40	36,897	36,937
1935..	5,313	4,702	10,015
1936..	507	10,799	11,306
1937..	9,087	10,636	19,723
1938..	247	13,017	13,264

* The ultimate loss to depositors is not available.

(6) Average Rate of Interest Earned on Loans by U.S.A. Member Banks
in First Half of 1936.

(Submitted by Mr. Towers in reply to Mr. Kinley)

(Volume 21, page 707)

(Source: Federal Reserve Bulletin, April, 1937)

Federal Reserve District	Central Reserve City Banks	Reserve City Banks	Country Banks
Boston.....	2-88	4-88
New York.....	2-36	3-98	4-94
Philadelphia.....	3-58	5-16
Cleveland.....	4-38	6-00
Richmond.....	4-62	5-68
Atlanta.....	4-34	6-32
Chicago.....	3-22	4-02	5-66
St. Louis.....	3-78	5-90
Minneapolis.....	3-72	5-48
Kansas City.....	4-46	7-58
Dallas.....	5-00	8-80
San Francisco.....	4-90	6-32

(g) Commodity Price Indexes

- (1) General Price Indexes: Canada and Other Countries, 1926-38.
Page 41; *Proceedings and Evidence, volume 3, page 86.*
- (2) Canadian Price Indexes, 1926-38.
Page 42; *Proceedings and Evidence, volume 3, page 87.*
- (3) Relation of Certain Price Groups: Canada and Australia, 1929-38.
Page 43; *Proceedings and Evidence, volume 3, page 88.*

(h) Government Debt

- (1) Dominion of Canada Funded Debt and Interest.
(Submitted by Mr. Towers in reply to Mr. Tucker)

(Volume 8, page 204)

(Millions of Dollars)

As at March 31	Gross Amounts Outstanding ⁽¹⁾			Annual Interest Payable ⁽²⁾			Total Average Coupon %
	Dominion Direct	Dominion Guaranteed	Total	Dominion Direct	Dominion Guaranteed	Total	
1929.....	2,325-4	714-2	3,039-6	116-8	31-8	148-6	4-89
1930.....	2,250-8	837-0	3,087-8	112-9	38-2	151-1	4-89
1931.....	2,345-8	954-9	3,300-7	116-7	43-6	160-3	4-86
1932.....	2,545-9	1,000-5	3,546-4	120-5	45-6	166-2	4-69
1933.....	2,682-6	996-2	3,678-8	125-6	45-4	171-0	4-65
1934.....	2,825-3	993-3	3,818-6	127-3	45-3	172-6	4-54
1935.....	3,028-7	987-3	4,016-0	123-7	44-6	168-3	4-28
1936.....	3,232-0	994-6	4,226-6	125-6	41-4	167-0	4-07
1937.....	3,304-0	1,003-3	4,307-3	122-6	40-8	163-4	3-93
1938.....	3,281-2	1,050-6	4,331-8	114-7	42-0	156-7	3-75
December, 1938.....	3,372-4	1,035-5	4,407-9	117-4	41-7	159-0	3-74

(1) Including Treasury Bills; excluding School Land Debenture Stock and matured items.

(2) Excluding charges on discount Treasury Bills.

(2) Dominion-Provincial Government Deficits, 1930-38.

(Submitted by Mr. Towers in reply to Mr. Cleaver)

(Volume 19, page 621)

Comparable and complete figures on the deficits of Dominion and provincial governments are not available from the published statistics. During the years 1930-38 the increase in Dominion-provincial debt less sinking funds, provides a rough indication of the amount of deficits, probably exceeding the actual deficit figure by about \$200 mm. over the nine-year period.

INCREASE IN DOMINION-PROVINCIAL DIRECT AND GUARANTEED DEBT
LESS SINKING FUNDSDuring Fiscal Years nearest to Calendar Year
(Millions of Dollars)

1930	1931	1932	1933	1934	1935	1936	1937	1938	Total
355	370	225	220	235	305	140	135	185*	2,190

* Estimate.

(i) Balance of Payments

(1) Estimated Canadian Balance of International Payments: 1937-38.

Dominion Bureau of Statistics

(Submitted by Mr. Towers in reply to Mr. Stevens and Mr. Cleaver)

(Volume 21, page 721)

Millions of dollars	1937			1938*		
	Exports or credits	Imports or debits	Net credit Net debit	Exports or credits	Imports or debits	Net credit Net debit
Current Account						
Merchandise..	1,009.7	-796.4	213.3	847.0	-666.5	180.5
Non-monetary Gold..	145.1	— .1	145.0	156.5	....	156.5
Total Merchandise and Gold ..	1,154.8	-796.5	358.3	1,003.5	-666.5	337.0
Invisible Items						
Tourist Trade..	294.7	-124.4	170.3	267.0	-122.0	145.0
Interest and Dividends..	78.8	-325.0	-246.2	70.0	-312.0	-242.0
Freight..	111.7	-137.2	- 25.5	101.0	-121.0	- 20.0
Miscellaneous Services..	25.2	- 63.9	- 38.7	24.6	- 59.8	- 35.2
Total Invisible Items..	510.4	-650.5	-140.1	462.6	-614.8	-152.2
Total Current Account..	1,665.2	-1,447.0	218.2	1,466.1	-1,281.3	184.8
Capital Account						
New Issues or Retirements of						
Canadian Securities..	89.5	-177.9	- 88.4	89.9	-150.0	- 60.1
Other Security Transactions..	506.6	-511.4	- 4.8	367.0	-340.0	27.0
Other Capital Movements..	24.0	-129.6	-105.6	....	-127.0	-127.0
Total Capital Account..	620.1	-818.9	-198.8	456.9	-617.0	-160.1
†Balancing Item..			- 19.4			- 24.7

*Preliminary. †This balancing item measures unavoidable errors and omissions in current and capital account.

(2) Estimated Canadian Balance of International Payments: 1927-38.

NET RECEIPTS OR CREDITS: NET PAYMENTS OR DEBITS (-)

Dominion Bureau of Statistics

(Submitted by Mr. Towers in reply to Mr. Stevens and Mr. Cleaver)

(Volume 21, page 722)

Millions of dollars	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938*
Current Account												
Merchandise.. ..	139	131	-131	-122	- 17	74	147	148	193	322	213	181
Non-monetary												
Gold.. ..	11	13	36	22	43	61	79	110	117	131	145	157
Invisible Items												
Tourist Trade ..	130	168	188	179	174	155	66	82	119	141	170	145
Interest and												
Dividends.. ..	-211	-221	-260	-289	-280	-262	-224	-212	-209	-234	-246	-242
Freight.. ..	- 12	- 19	- 39	- 32	- 25	- 28	- 22	- 28	- 14	- 18	- 26	- 20
Miscellaneous												
Services	- 8	- 16	- 28	- 25	- 21	- 34	- 34	- 26	- 29	- 34	- 39	- 35
Balance on Current Account ..	49	55	-234	-267	-125	- 35	12	75	177	309	218	185
Capital Account												
New Issues or												
Retirements												
of Canadian												
Securities.. ..	141	7	133	290	9	- 1	- 26	- 58	-154	-164	- 88	- 60
Other Security												
Transactions ..	-184	-188	-105	- 13	- 24	- 16	51	9	51	8	- 5	27
Other Capital												
Movements ..	39	99	126	38	62	6	- 51	- 67	- 70	- 98	-106	-127
Net Capital Move-												
ment.. ..	- 4	- 82	154	315	47	- 11	- 27	-116	-174	-254	-199	-160
Monetary Gold ..	15	77	38	- 20	47	13	8	....	....	....	....	....
†Balancing Item..	- 59	- 50	42	- 29	31	34	7	41	- 3	- 55	- 19	- 25

*Preliminary. †This balancing item measures unavoidable errors and omissions in current and capital account.

(3) Canadian Bonds: Net New Issues Abroad (+)* or Repatriations (-)*: 1927-1937.

(Submitted by Mr. Towers in reply to Mr. McGeer and Mr. Landeryou)

(Volume 21, page 706)

(Par Values in Millions of Dollars)

Calendar Years	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Dominion Direct and Guaranteed Bonds (excluding Railways).....	- 3.4	- 8.8	- 47.1	+103.8	- 46.0	+ 56.4	+ 64.1	+ 6.9	+ 58.5	- 4.6	+ 18.1
Provincial Direct and Guaranteed Bonds (excluding Railways).....	+ 41.1	+ 11.2	+ 48.0	+ 69.6	+ 14.1	+ 3.3	- 36.7	- 15.0	- 24.3	- 15.1	- 17.8
Dominion Guaranteed Railway Bonds.....	+ 48.4	+ 17.4	+ 71.0	+ 21.8	+ 48.5	- 3.6	- 1.8	- 18.5	-111.5	- 31.0	- 1.3
Provincially Guaranteed Railway Bonds.....			- 1.6	- 19.3						- 1.1	
Municipal Bonds.....	+ 21.6	+ 0.4	+ 6.6	+ 29.3	+ 11.2	- 25.7	- 16.0	- 2.4	- 15.0	- 19.4	- 23.3
Total Government Bonds.....	+107.7	+ 20.2	+ 76.9	+205.2	+ 27.8	+ 30.4	+ 9.6	- 29.0	- 92.3	- 71.2	- 24.3
Railway Bonds Unguaranteed.....	- 22.5	- 18.7	+ 42.5	+ 52.3	- 0.4	- 8.3	- 8.3	- 11.7	- 19.5	- 26.2	- 5.0
Other Corporation Bonds	+ 97.1	+ 38.2	+ 56.8	+ 65.0	- 23.9	- 20.1	- 31.3	- 12.5	- 25.1	- 46.7	- 54.0
Total.....	+182.3	+ 39.7	+176.2	+322.5	+ 3.5	+ 2.0	- 30.0	- 53.2	-136.9	-144.1	- 83.3

* This table takes no account of net international sales or purchases of outstanding securities, statistics of which are not available for the whole of the period here covered.

	Total 1927-1932 (incl.)	Total 1933-1937 (incl.)	Total 1927-1937 (incl.)
Dominion Direct and Guaranteed Bonds (excluding Railways).....	+ 54.9	+143.0	+197.9
Provincial Direct and Guaranteed Bonds (excluding Railways).....	+187.3	-108.9	+ 78.4
Dominion Guaranteed Railway Bonds.....	+203.5	-164.1	+ 39.4
Provincially Guaranteed Railway Bonds.....	- 20.9	- 1.1	- 22.0
Municipal Bonds.....	+ 43.4	- 76.1	- 32.7
Total Government Bonds.....	+468.2	-207.2	+261.0
Railway Bonds Unguaranteed.....	+ 44.9	- 70.7	- 25.8
Other Corporation Bonds.....	+213.1	-169.6	+ 43.5
Total.....	+726.2	-447.5	+278.7

(4) Canadian Net Non-Monetary Gold Exports: 1927-37.

(Submitted by Mr. Towers in reply to Mr. McGeer)

(Volume 21, page 706)

	(Millions of dollars)		(Millions of dollars)
1927..	32.2	1933..	81.7
1928..	40.1	1934..	113.6
1939..	37.2	1935..	118.7
1930..	38.9	1936..	131.6
1931..	56.9	1937..	145.1
1932..	70.0		

(5) Exports of Goods and Services in Relation to National Income.

(Submitted by Mr. Towers in reply to Mr. McGeer)

(Volume 21, page 705)

UNITED KINGDOM

(Millions of Pounds Sterling)	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Income from Exports of Goods (Domestic Exports).....	650	710	720	730	570	390	370	370	400	430	440	520
Income from Exports of Services (Estimated).....	260	280	270	270	230	160	150	140	150	150	170	220
Total Income from Sale of Goods and Services Abroad (Estimated)....(1)	910	990	990	1,000	800	550	520	510	550	580	610	740
Total National Income (Estimated)....(2)	4,200	4,400	4,300	4,400	4,300	3,900	3,800	4,000	4,200	4,500	4,800	5,100
(1) as a percentage of (2).....	22%	23%	23%	23%	19%	14%	14%	13%	13%	13%	13%	15%

CANADA

(Millions of Dollars)	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Income from Exports of Goods (Domestic Exports).....	1,290	1,240	1,380	1,190	900	650	560	610	760	840	1,070	1,140
Income from Export of Services (Estimated).....	330	370	400	420	350	320	260	170	200	290	340	410
Total Income from Sale of Goods and Services Abroad (Estimated)....(1)	1,620	1,610	1,780	1,610	1,260	970	820	780	960	1,130	1,410	1,550
Total National Income (Estimated)....(2)	4,600	4,900	5,300	5,400	4,700	3,800	3,000	2,900	3,300	3,500	3,700	4,100
(1) as a Percentage of (2).....	35%	33%	34%	30%	27%	26%	27%	27%	29%	32%	38%	38%

(j) Sundry

(1) Comparative Statistics: Canada and U.K.

(Submitted by Mr. Towers in reply to Mr. McGeer)

(Volume 21, page 707)

	United Kingdom	Canada
Population—1938..	47.5 million	11.2 million
National Debt (Direct and Guaranteed)—1938..	£7.5 billion ¹	\$6.7 billion ²
National Income—1937..	£5.1 billion	\$4.1 billion
Bank Deposits—March, 1939..	£2.7 billion ³	\$2.5 billion ⁴
Bank Deposits (as above) plus Notes and Coin outside banks—March, 1939..	£3.1 billion	\$2.7 billion
Government Expenditures (ex Defence and Post office), 1937-8..	£660 million	\$810 million ⁵
Advances—March, 1939..	£990 million ⁶	\$940 million ⁷
Domestic Exports—1938..	£470 million	\$1,000 million
Retained Imports—1938..	£860 million	\$670 million

- ¹ Excluding £1,032 million of War Debts and £429 million of Local Loans.
- ² Dominion, Provinces and C.N.R.
- ³ London Clearing Banks plus Post Office Savings Bank.
- ⁴ Canadian Deposits of Chartered Banks.
- ⁵ Dominion and Provinces.
- ⁶ London Clearing Banks.
- ⁷ Chartered Banks—Current Loans in Canada.

(2) United Kingdom Gold Reserves* 1931 and 1938.

(Submitted by Mr. Towers in reply to Mr. Moore)

(Volume 11, page 363)

	(fine ounces)	
Dec. 31/31	March 31/38	Sept. 30/38
28,000,000	119,000,000	99,000,000

* Gold held by Bank of England and Exchange Equalization Account.

