

Inflation in Canada

Spring 1981 Review

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Preface

Double-digit inflation is back, and once again, we hear about the ineffectualness of monetarism and high interest rates. In past issues we warned that high rates of inflation were inevitable by merely observing the behavior of broad monetary aggregates. In this year's *Review*, we present a critique of the Bank of Canada's analytical framework by using a classical monetarist model, and draw, in our opinion, important policy conclusions.

We apologize if, by ruffling some people's feathers, we stir unnecessary controversy and create ill-will. Our true intent is to open an intellectual re-appraisal of what we perceive to be a misguided attempt at monetarism.

A Critique

"The first step is to measure what can easily be measured. The second is to disregard what can't be measured, or give it an arbitrary quantitative value. This is artificial and misleading. The third step is to presume that what can't be measured easily isn't very important. This is blindness. The fourth step is to say what can't be easily measured really doesn't exist."

Daniel Yankelovitch, sociologist and polster as quoted in *Paper Money*, by Adam Smith, Summit Books N.Y. page 37).

The Bank of Canada *Annual Report* is a most remarkable document.

Arrogating to itself the right to speak *authoritatively* about such things as monetary policy and inflation, it succeeds, rather admirably, in confusing us with concepts and interpretations that at best, are disputable and ineffective and, at worst, fraught with danger.

A case in point. In its 1980 *Annual Report*, the Bank states, "the basic way that anti-inflationary financial policy works in a market-type society such as we have in Canada is by *moderating the demand in the market for goods and labor*, making it more difficult for prices to be increased."¹ (Italics ours.) The Bank no doubt believes that an economic slowdown will help slow the rise in prices. Following this reasoning *ad absurdum*, a totally paralyzed economy would *show no inflation* because there would be no demand whatsoever for goods and services, *ergo* no observable transactions and no prices. Furthermore, following the Bank of Canada to its most logical conclusion, one would have to believe that to stabilize an economy beset by hyper-inflation, the Central Bank would have to cause an incredibly deep and prolonged depression—a perception that is patently absurd, as exemplified by the relatively minor loss of output experienced by Germany at the end of its great inflation in 1923-24.

The Bank makes it quite clear that it intends to "... ensure sufficient monetary expansion to accommodate as high a level of employment and output in Canada as proves to be consistent with a clearly moderating trend in the rate of inflation."²

¹Annual Report of the Governor to the Minister of Finance and Statement of Accounts for the year 1980, Bank of Canada, Ottawa, Ont. (1980), p.7

²Ibid. p.13.

In other words, to generate output, an economy *requires* money. Now we ask, Is it not possible that an economy can grow without money? Have we not seen barter economies raise the standard of living of their inhabitants? Is it not true that money is merely a *convenient* numeraire with which to barter goods and services quickly and efficiently? Is it not true, then, that with only a modest amount of money, an economy can generate real growth in an efficient manner? Except for purposes of "greasing the wheels" of production, money is not a real factor in the generation of output as are manpower, education, natural resources and incentives.

The *Report* is at times vague and imprecise. In discussing the difficulties associated with reducing inflation through market processes, the Bank acknowledges the fact that markets may be too unresponsive because of "... the degree to which power to control supply and prices lies in the hands of particular businesses or of trade unions or of marketing boards or of regulatory agencies."³ Such unresponsiveness "intensifies the problem." Which problem? Surely not the inflation problem! If trade unions press for *excessive real wages*, the only result is unemployment. If agricultural marketing boards price their goods above market clearing levels, the only result is a pile-up of unsold goods and consequently a drop in output and incomes.

Related to the above problem, the Bank points to increases in petroleum prices as "another impediment to the reduction of inflation in Canada." Acknowledging the fact that a rise in relative prices should not cause overall inflation, the Bank argues, nevertheless, that in the "inflationary environment that we have had, there is a tendency for any cost or price increase to be accepted as an adequate reason for other cost or price increases."⁴ But surely, we are forced to note, business and labor do not need *excuses* to increase prices and wages *if market circumstances were to permit such increases*.

Furthermore, unless the Bank accommodated such an acceptance by expanding money balances, increased prices and costs would not become permanent, and resources would be idled.

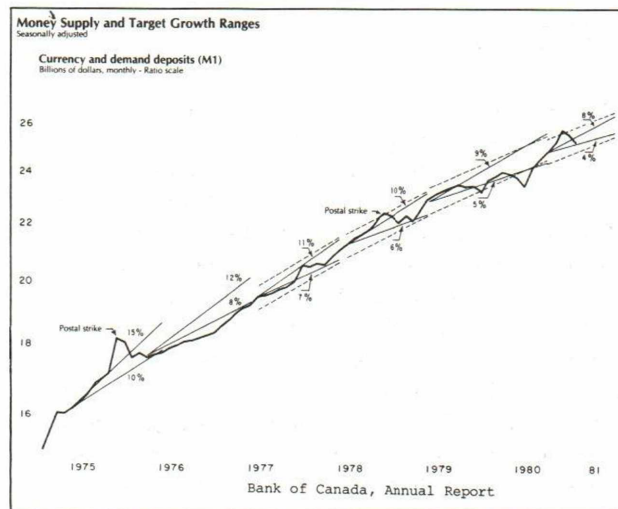
The *Report* becomes apologetic when it turns its attention to its accomplishments in reducing inflation. Reiterating its 5-year-long policy of moderating the growth of monetary expansion, it concludes, rather approvingly, that in fact it attained its predetermined target-limit of M_1 growth of between 5 and 9 per cent per annum. It characterizes its own response to the "extraordinary developments during 1980 in U.S. financial markets" as both "moderate and consistent" with a gradual path of descent in inflation and interest rates. The Bank absolves itself from the guilt of having to raise domestic interest

rates in line with U.S. interest rates because "while it was a response that was not triggered by current movements of M_1 , it was compatible with the operating objectives of our M_1 targets. ..." ⁵ It is a rather curious remark in light of the unusual 18.1 per cent annualized rate of growth shown by M_1 during the fourth quarter of 1980.

The *Report* expresses frustration and disappointment at the relatively insignificant progress made in its anti-inflation crusade, despite five long years of so-called monetarism. It goes on to state, "... perhaps the first thing to say is that it was never realistic to suppose that the inflationary surge unleashed in Canada... would be contained either easily or quickly... It is clear that it took a long time to erode public confidence in the future value of money. To restore it will require sustained efforts and much patience. In this matter five years is not a long time."⁶ One could sympathize with this statement if only some sort of progress could be shown for the Bank of Canada's gradualistic approach. The sad truth, however, is that inflation peaked at 11.4 per cent per annum in the fourth quarter of 1975, trended down to a "low" of 4.7 per cent annualized rate in the second quarter of 1978, and has climbed back ever since, reaching an 11.5 per cent rate in the past three months.

Clearly, failure is due to one of three things: a) Gradualism does not work, a position reluctantly accepted by some officials at the Bank of Canada in recent speeches; b) M_1 is not a correct proxy for viewing and targeting monetary expansion; or c) "Monetarism" does not work.

Figure 1



The rest of the paper will attempt to show that while monetarism does work, if applied correctly, gradualism is literally a waste of time, and M_1 is not a proper proxy for

³Ibid. p. 7.
⁴Ibid p. 11

⁵Ibid. p. 10.
⁶Ibid. p. 11.

money supply.

In concluding our review of the *Annual Report*, we note the Bank's veiled reference to and sympathy for wage and price controls. The *Report* begins by telling us, rather innocently that "... one way that is sometimes proposed to improve the response of the economy to anti-inflationary policy is to impose direct controls."⁷ It does not think that this preposterous idea should be dismissed; rather, it goes on to say that "experience has shown that there are *difficult problems* involved in using direct controls..." and then, in a conciliatory manner, it adds, "... the only point I want to make here is that, to be effective, *direct controls need to be not only well designed and well managed but strongly underpinned by anti-inflationary financial policies so that market discipline reinforces the controls.*"⁸ (Italics ours.) One paragraph later, it decries the loss of basic freedoms to determine prices and wages produced by controls but "... there is no point in pretending that a painless solution is available..." and further, "... the long run interest of the Canadian economy requires that a *choice* in favor of anti-inflationary policies be made despite the difficulties associated with them."⁹ (Italics ours.)

Can clearer advocacy of a return to the nightmares and inequities of controls be made by this last bastion of conservatism? Is it possible that the Bank of Canada has become an accomplice to the plan of turning Canada into a state-controlled economy, already initiated by the Liberals' National Energy Policy?

Are we about to lose our basic freedom?

Inflation

We have been taught that inflation is a rise in prices. We have been taught incorrectly. Inflation can be *expressed* by a rise in prices, an entirely different proposition. A rise in prices can be *suppressed* by price controls, but that does not alter the basic inflationary condition. Like an overwhelming mass of water trying to overcome a dyke, inflation will find an outlet. What is inflation, then? Not an overwhelming mass of water, but an overwhelming mass of money—*excessive monetary balances*.

We just stated that a rise in prices can be suppressed through the use of direct price controls. Strangely enough, prices can also be suppressed by anchoring the currency via a fixed rate of exchange to a less inflation-prone currency. This proposition is remarkably simple: If the Canadian dollar is worth 85¢ U.S., and a pack of cigarettes costs U.S. 85¢ in the U.S., then this same pack of cigarettes cannot rise in price in Canada above \$1

Canadian (assuming, for simplicity's sake, a zero cost of transportation across the border and no import or excise duties). If cigarette prices rose in Canada above CD\$1, U.S. exporters would flood the Canadian market with cigarettes, thus equalizing prices. This process, well-known to commodity dealers, is called *arbitrage*.

When multiplied by the many thousands of items traded across the border, arbitrage operations can be seen to restrain any rise in Canadian prices beyond those obtained in the U.S. Stretching one's imagination a bit, one can arbitrage not only goods but also services, such as labor, money, insurance, automobile rentals (particularly around border areas), book binding, tourism, etc. Arbitrageurs on the other hand, will not be able to trade houses and office buildings because those are not movable—they are not tradable across borders. If, therefore, monetary balances are excessive in Canada, these non-tradable items could rise in price, tilting our inflation higher than that prevailing in the U.S. Clearly, depending on the degree of interchangeability and ease of entry, price inflation *above the internationally prevailing rate* will surface in Canada. This process is slow but inexorable. In the end, relative factor prices (as between internationally tradable and non-tradable items) will become so distorted as to put constant pressure on the balance of payments by foreign imports of goods and services through arbitrage operations.

Let us explain using a simple example. Inflation pushes non-tradable prices, such as real estate, well beyond their "normal relationship" with incomes. Those owning real estate, feeling (and being) richer, will buy large quantities of fixtures and furniture, tending to overburden the domestic industry, already operating at capacity. Since, as we said tradable items are arbitrated, Canadian fixture and furniture prices cannot rise beyond comparable American goods; nevertheless, the arbitrage results in a flood of imports. Furthermore, real estate owners demand the *services* of electricians, carpenters and gardeners. This overwhelming demand for services creates a need to import these services. Finally, hotel prices, a function of real estate price, become grossly overpriced, chasing away tourists. Each one of these developments creates a demand for foreign currency. Since the Bank of Canada is committed to maintaining a fixed exchange rate, say 85¢, it must necessarily supply the needed foreign currency lest the Canadian dollar fall below the desired parity. We now begin to lose foreign currency. Our international reserves get drawn down, and we find ourselves unable to supply the foreign currency at a *fixed price*. The Bank of Canada is faced with the following choice: It either tries to defend the exchange rate by borrowing funds from abroad or it decides to raise the price of foreign currency, i.e.,

⁷Ibid. p.8.

⁸Ibid.

⁹Ibid.

devaluation, so as to alter relative prices and the desirability of importing goods and services.

The first choice has some limits. Every country has a borrowing capacity that depends on its ability to service this debt. Sophisticated bankers speak about debt servicing ratios, debt/GNP ratios, and so on. Those are market-dictated limits beyond which no country can continue borrowing (witness Poland, Turkey and Zaire). It should be remembered that foreign currency borrowing causes a further outflow of foreign currency when this debt is serviced, thus aggravating the continuing problem.

The second choice, albeit the disastrous one as we shall soon see, is merely a *recognition of excessive inflation despite the fact that prices on the whole did not fully reflect this extraordinary excess*.¹⁰ Now the problem becomes more generalized. That pack of cigarettes, which cost US85¢, rises to CD\$1.0625* before the arbitrageur steps in, a 6.25 per cent rise in prices. The circle is complete. The original suppression of Canadian prices, caused initially by the anchor to a fixed exchange rate, was undermined by an excessive expansion of monetary balances, which in turn affected non-tradable items, relative prices, imports and/or exports, foreign currency reserves, exchange rates, and finally prices.

Neither of the two choices will stop the hemorrhage. Only a sudden stop to excessive monetary expansion will remove the symptoms. One should note that excessive monetary expansion is a *relative concept*, for it is only excessive in relation to the monetary inflation prevailing in the anchor *currency*, in this case the U.S. dollar. If the U.S. were experiencing a monetary expansion of say, 15 per cent per annum, then our anchor would permit us to float alongside, provided we did not inflate beyond this 15 per cent. It will not stop domestic inflation. Of course, a *relatively* deficient domestic monetary expansion will create a balance of payments surplus because of the need to supplement domestic monetary balances with foreign currency. Should this condition persist, our currency may be pegged higher than US85¢ so as to slow the torrential inflow. This reverse process is not only stabilizing but also anti-inflationary—our proverbial pack of cigarettes would drop in price to CD\$.944 if the Canadian dollar rose to US90¢.

Let us now digress for a moment. We postulated that excessive domestic credit expansion generates a demand for foreign currency via distortion in relative prices. Another way to look at this process is by imagining that Canadian residents' monetary balances, translated at the official rate of exchange, become *relatively* larger than their U.S. counterparts' balances, and enable them to compete advantageously for real resources in much the

same way as a rich man can compete successfully against his poorer neighbors in buying a house and hiring a chauffeur or domestic help.

The rich man may not be able to influence the *price* of eggs and potatoes at the supermarket, because they will be imported in unlimited quantities, provided the arbitrageur can profit by the developing differential. He will, however, be able to influence the price of houses and some services because, in these items, there is no arbitrage opportunity. Nevertheless, even in the case of eggs and potatoes, he will cause a net drain of foreign currency concurrent with his demand for imported goods. A devaluation will reduce, at the *new* official rate of exchange, excess monetary balances just as a stock market crash reduces the rich man's net worth so that he may no longer be able to draw away resources from his poorer neighbors. Moreover, monetary balances, in *real* terms, are reduced by the mere fact that tradable items rise in price (the pack of cigarettes rises to CD\$1.0625 from CD\$1.00, as we saw), thus offsetting the original impetus for foreign currency demand.

Devaluations, therefore, are effective in stemming the demand for foreign currency if, at the same time, excessive domestic credit creation is also slowed down. As we shall see, in Canada this has not been the case. Renewed monetary expansion has in fact recreated the original pressure that devaluations tend to correct, leaving us once again in the same pre-devaluation predicament. More on this later.

Two final technical notes. First, under a relatively fixed exchange regime (perhaps better characterized as a central bank-managed float) foreign currency outflows must not always be fully reflected in the monetary authority's balance sheet. Chartered banks may accommodate the demand for foreign currency by attracting foreign currency deposit liabilities. If foreign currency deposit liabilities exceed foreign currency assets, chartered banks are in fact running a "short book." To the extent that this short position is borne by the chartered banks, the monetary authority, or central bank, will be spared the loss of international reserves. Nevertheless, the nation's foreign currency position may still be viewed as deteriorating, since total foreign currency liabilities exceed foreign currency assets, including international reserves. This being the case, *we should be able to determine rather easily whether domestic credit creation is excessive or not by just observing the behavior of net foreign currency assets* (i.e., assets minus liabilities) in the consolidation of the central bank's and chartered banks' balance sheets.

Second, the reader will take note that we speak about *foreign currency outflows* or *balance of payments deficits*

¹⁰It would, of course, depend on the GNP mix between tradable and non-tradable goods and services.

*Assuming a devaluation to US80¢

rather than *trade deficit* or even *current account deficits*. The reason is rather simple. In an open economy such as Canada's, with relatively easy movements of short- and long-term capital, overall adjustments to symptoms of monetary disequilibrium may take place in one or more areas. Disaggregating balance of payments items serves no useful purpose, as excess monetary balances will find their way out in a variety of ways. As an example, since 1976, net errors and omissions, a balancing item that recognizes the statistician's inability to categorize or account for inflows and/or outflows, has shown a dramatic outflow of nearly CD\$15 billion, nearly matching the country's accumulated trade surplus of CD\$19.6 billion!

Conceivably, in less developed nations (LDCs) that lack capital and money markets or in nations, like the UK until 1979, with strict foreign exchange controls, the balance on current accounts would represent a more meaningful proxy of determining the effects of excessive monetary inflation. In the case of Canada, however, there is no reason to suppose that foreign exchange outflows did not take the most efficient route possible under conditions of profit maximization.

The theoretical framework used in this paper is called the *Monetary Approach to the Balance of Payments* and is not novel. Quite the opposite. It has been used rather successfully by the International Monetary Fund for the past thirty years. Countries that run persistent balance of payments problems are seen to be *inflating* relatively faster than their trading partners. In those situations, the IMF will prescribe a set of measures that will inevitably include a sharp reduction in domestic credit creation in an attempt to extinguish latent inflationary pressures. These pressures are almost never couched in terms of price inflation because prices are only a manifestation of a much deeper malaise: monetary inflation.

Facts And Figures

We have seen how domestic credit creation is at the root of the problem of domestic inflation. If excessive, *vis à vis* other trading partners, it will undermine the foundations of price stability, which, in our model, means exceeding world inflation. If deficient, the economy will be forced to import foreign currency by way of creating a surplus in international payments. In any case, the economy will be rewarded by a relatively lower rate of inflation than the rest of the world. The anti-inflationary effect may be accentuated if, because of heavy inflows, the exchange rate is allowed to appreciate.

Has Canada's domestic credit creation been excessive in the 1975-1980 period? A look at Figure 2, Column I leaves no room for doubt. It has been grossly excessive.

Figure 2

	DOMESTIC CREDIT				end of period		I		II	
	UNITED STATES		Annual % CHANGE	CANADA		Annual % CHANGE	CDN. DCF DEFLATED BY EXCH. RATE*		% CHANGE	
	(bln US\$)			(bln CD\$)			(bln US\$)			
1975	842.70		4.23	68.77		19.50	67.66		16.53	
1976	910.60		8.06	81.79		18.93	81.04		19.78	
1977	1,004.80		10.34	95.84		17.18	87.57		8.05	
1978	1,116.50		11.12	115.85		20.88	97.68		11.55	
1979	1,248.20		11.80	142.05		22.62	123.61		24.50	
1980	1,345.70		7.81	158.67		11.70	132.81		9.21	

*Exchange rates : End of period

Source: International Financial Statistics

As can be seen, domestic credit expansion in Canada has totalled 123.9 per cent versus a rise of only 59.6 per cent in the U.S.—hardly the picture of restraint painted by the *Annual Report* of the Bank of Canada. In Column II, we “deflate” this increase in Canadian domestic credit by the nearly 20 per cent devaluation that took place over the 1976-1980 period. As we explained in the preceding section, a devaluation will reduce monetary balances, ideally correcting the *ex ante* pressure to obtain foreign goods, services and investment opportunities.

Even after this devaluation, however, Canadian dollar monetary balances, in terms of U.S. dollars, have increased by 89.4 per cent over the five-year period, clearly excessive relative to U.S. monetary expansion. One might argue here that in relation to the U.S., genuine savings in Canada and/or real growth have also been a great deal larger. It is doubtful, however, that the relative differentials in these factors have been as great as the numbers suggest, i.e., 50% (89.4% ÷ 59.6%).

As we learned in the preceding section, there is an objective way of determining whether a country has been running a relatively excessive rate of monetary inflation: by looking at the movement of net foreign currency assets. If net foreign currency assets show a persistent decline, domestic credit creation is excessive; conversely it is deficient.

Figure 3 is quite revealing. From a peak of CD\$8.02 billion in 1976, net foreign currency assets have declined to minus CD\$1.67 billion by November 1980, a total loss of CD\$9.69 billion in a span of five years. Because of a balance of payments accounting technicality, these figures are *understated*. During 1978-1979, Canada borrowed, *for balance of payments considerations*, CD\$3.2 billion in various bond issues denominated in U.S. dollars, deutsche marks, Swiss francs and Japanese yen (see Figure 4).

Figure 3

Net Foreign Assets - Billions of Canadian Dollars						
	Bank of Canada and Exchange Fund		Chartered Banks		Monetary Survey Net Foreign Assets	
	Assets	Liabilities	Assets	Liabilities		
1967	2.94	0.05	3.79	2.56	4.12	
1968	3.27	0.05	4.55	2.94	4.83	
1969	3.33	0.05	6.75	4.65	5.38	
1970	4.73	0.06	7.68	5.56	6.79	
1971	5.71	0.06	7.01	6.30	6.36	
1972	6.02	0.10	8.17	8.10	5.99	
1973	5.74	0.06	11.90	11.49	6.09	
1974	5.77	0.09	13.41	11.62	7.47	
1975	5.41	0.05	13.61	12.27	6.70	
1976	5.90	0.16	16.93	14.65	8.02	
1977	5.04	0.21	19.39	18.27	5.95	
1978	5.42	0.19	25.24	26.73	3.74	
1979	4.54	0.23	29.19	34.69	-1.19	
1980	4.81	0.25	41.61	48.48	-2.31	

Source: International Financial Statistics

Figure 4

Mid-and Long-Term Government of Canada Obligations Issued in Foreign Currencies During 1978-1979				
	Maturity	Rate	Issue	Amount
Payable in New York ⁽¹⁾	Apr. 1,83	8%	Apr. 1,78	\$ 298,450,000
	Oct.15,83	9	Oct.15,78	477,520,000
	Oct. 1,85	8.2	Apr. 1,78	298,450,000
	Apr. 1,98	8 5/8	Apr. 1,78	298,450,000
	Oct.15,98	9 1/4	Oct.15,78	417,830,000
	Sub-Total			\$1,790,700,000
Payable in Germany ⁽²⁾	May 20,83	4 3/4	May 20,78	\$ 363,000,000
	May 10,84	5	May 10,78	302,500,000
	Sub-Total			\$ 665,500,000
Payable in Switzerland ⁽³⁾	Mar.14,85	3	Mar.14,79	\$ 334,400,000
	Mar.20,89	3 5/8	Mar.20,79	200,640,000
	Sub-Total			\$ 535,040,000
Payable in Japan ⁽⁴⁾	Mar.27,84	6.40	Mar.27,79	\$ 176,250,000
	Sub-Total			\$ 176,250,000
	Grand Total			\$3,167,490,000

(1) Converted at \$1.1938 Cdn. (closing spot rate as of Dec.31/80)
 (2) Converted in Cdn.\$ (DM = \$0.5068 U.S. X \$1.1938 Cdn.)
 (3) Converted in Cdn.\$ (SFr = \$0.5602 U.S. X \$1.1938 Cdn.)
 (4) Converted in Cdn.\$ (Yen = \$0.004921 U.S. X \$1.1938 Cdn.)
 Source : Bank of Canada

Because of the relatively long-term nature of these borrowings (maturing 1983-1998), CD\$3.2 billion was not included in the liability position of the monetary authorities, despite the fact that *their proceeds went to swell the current portion of foreign currency assets*. While from a money management point of view this approach has some validity (recognizing only the debt portion coming due within one year), it does understate the true extent of foreign currency outflows and consequently masks the excessively expansionary monetary policy followed by the Bank of Canada.

Domestic Credit Expansion — The Culprit

There are two important sources of bank credit expansion. First, central bank monetization. Whenever the central bank purchases assets on a net basis, it injects resources into the banking system which, in turn, allows chartered banks to expand loans and investments. The expansion of bank credit is a function of reserve requirements (the deposits/reserve ratio) and public preferences for currency versus deposits (the currency/deposit ratio). The second source of monetary expansion, related to the deposits/reserve ratio, is the continued lowering of reserve requirements, either by decree (as in 1968 and again in 1981) or by a bank-induced shift of high reserve-requirements deposits (such as demand deposits) to low reserve-requirements deposits (such as time and notice deposits).

From 1975 to November 1980, chartered banks' reserves increased from CD\$3.95 billion to CD\$6.82 billion, a 72.6 per cent increase, mostly a result of the Bank of Canada's monetizing obligations to finance fiscal borrowing requirements. The Bank also succeeded, in a much subtler

way, in keeping interest rates below their 'clearing' levels, thus encouraging the extraordinary growth in bank credit.

Figure 5

	Government of Canada Net Financing Requirements (in Millions of Canadian Dollars)	Bank of Canada Purchases	Purchases/ Requirements %
1966 - 68	2,578	471	18.27
1969 - 71	3,671	925	25.20
1972 - 74	3,676	2,173	59.11
1975 - 77	16,967	3,266	19.25
1978 - 80	33,349	5,788	17.36

Source: Bank of Canada Review

Figure 6

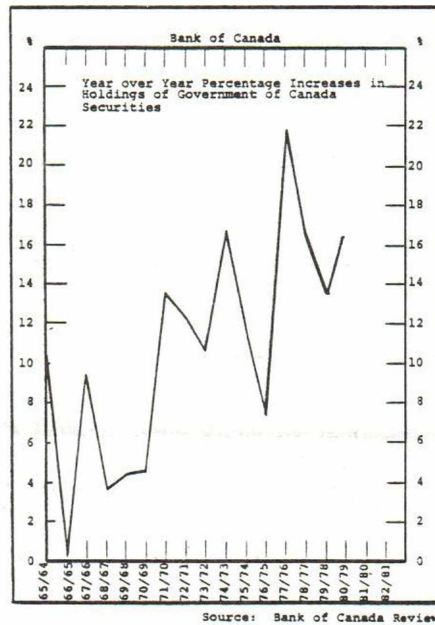
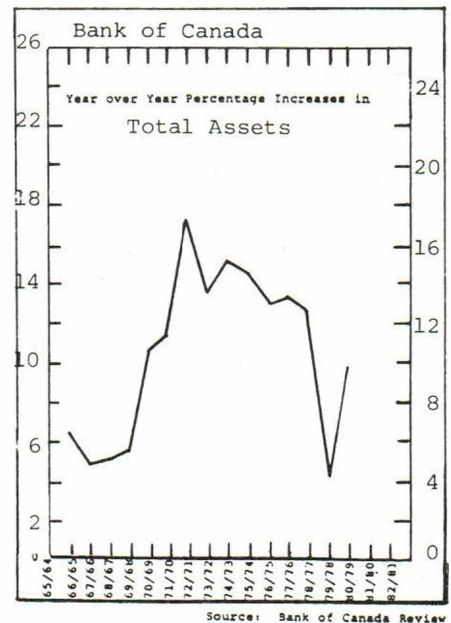
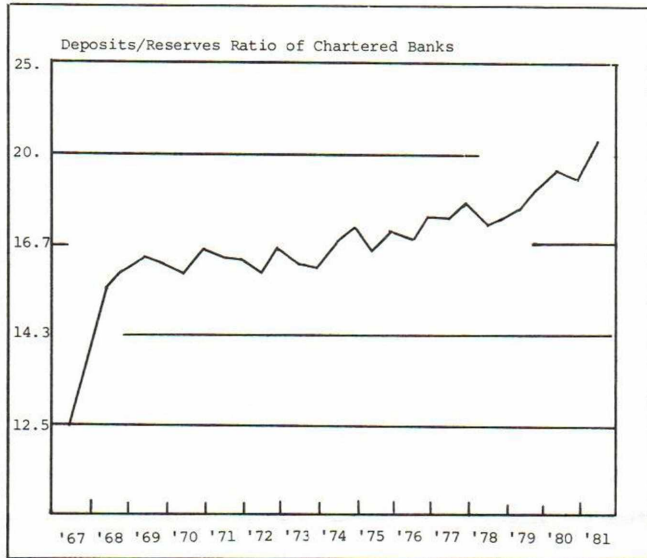


Figure 7



Given the 72.6 per cent increase in bank reserves, one would expect to see a similar expansion of bank credit. Bank credit,¹¹ however, increased from CD\$66.8 billion to CD\$144.3 billion, a 116 per cent expansion, significantly more than the growth of bank reserves. What happened? Very simply, the deposits/reserve ratio increased approximately 26 per cent, a direct result of a shift in the banks' composition of deposit liabilities. Figure 8 depicts this process graphically.

Figure 8



Source: Bank of Canada Review

Inverse of deposits/reserve ratio

The "system" is clearly vitiated. On the one hand, the Bank of Canada is politically unable to refrain from financing monstrous government borrowing requirements and thus "monetizes" government paper unashamedly. On the other hand banks, in keeping with their desire to maximize returns, accommodate soaring credit demands by making a dollar of reserves work harder and harder. The result is an explosion of domestic credit which generates intolerable inflationary pressures and an insatiable demand for foreign currency.

The 1976-77 Devaluation and the Present Exchange Policy

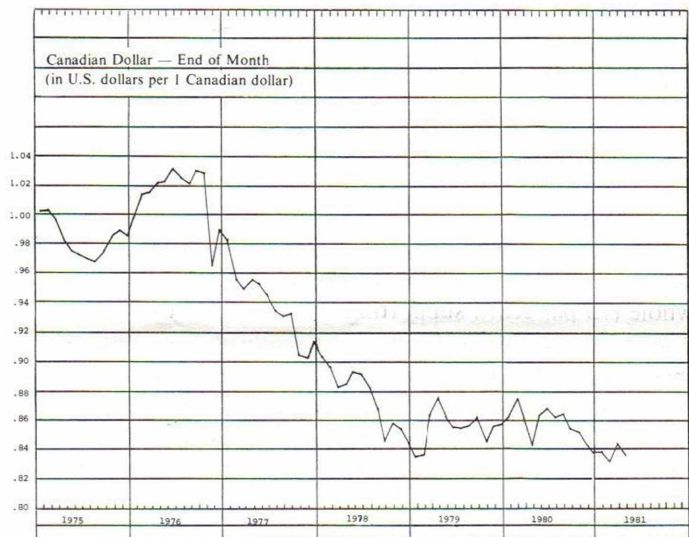
The 1976-1977 devaluation did not achieve the desired results. Despite an improvement in the balance of trade, only visible after a lag of a few years, foreign currency outflows continued to take place. The obvious reason was

the continued pace of excessive monetary creation which more than offset the reduction in real monetary balances resulting from the 20 per cent devaluation.

The Bank of Canada does not see it this way. It has insisted that monetary expansion, as reported by M_1 , has been *moderated* over the past five years, ignoring broader, and much more comprehensive, measures of money supply, such as domestic credit. Furthermore, they have been blind to the extraordinary loss of nearly CD\$14 billion of foreign currency, *the very proof that monetary growth has been excessive.*

What have they done? Operating under the guise of an M_1 oriented quantitative target, they have struggled to maintain a relatively fixed rate of exchange, at least for the past two years (see Figure 9).

Figure 9



This has forced the Bank of Canada to follow up the course of U.S. interest rates. In fact *the Annual Report* makes it abundantly clear that the "devaluation route" is no longer a valid alternative. It states, "... to have courted significant further exchange rate depreciation in 1980 when the economy was already clearly competitive internationally, and when the real problem was to avoid intensifying upward pressures on Canadian costs of production that were already distressingly strong, would have compounded rather than eased Canada's economic problem."

In retrospect, the 1976-1977 devaluation was a grave error. While it is true that Canada's trade balance had shown some deterioration from the strong showings experienced in the early 70s, and while it is equally true that Canada's current account deficit widened progressively through 1976, overall inflows of foreign currency exceeded outflows by a comfortable margin (see Figure 10).

¹¹In previous issues we have made references to *total money*, a deposit liability concept and counterpart to bank credit (an asset concept). Except for very minor adjustments, both measures have grown at approximately the same rate.

Figure 10

	Balance of Trade	Current Account	Change of Foreign Assets
	(in millions of Canadian dollars)		
1970	3,052	1,106	1,410
1971	2,563	431	- 430
1972	1,857	- 386	- 370
1973	2,735	108	100
1974	1,689	-1,460	1,380
1975	- 451	-4,757	- 770
1976	1,388	-3,842	1,320
1977	2,730	-4,301	-2,070
1978	3,601	-5,046	-2,210
1979	3,972	-5,098	-4,930
1980	7,953	-1,538	-1,120

Sources : Bank of Canada Review
International Financial
Statistics

This meant that Canada's *monetary* inflation was not excessive, *at least in relation to its trading partners*. In fact, a simplistic comparison of U.S. and Canadian wholesale price indexes for the 1970-1976 period reveals a slightly greater rate of inflation in the U.S. (65.7 per cent) than in Canada (61.4 per cent). Furthermore, implicit price indexes of domestic demand in Canada for the same period show a relatively lower rate of inflation (68.3 per cent) than the one shown for the GNP price deflator as a whole (73 per cent), supporting our argument that 1) domestic monetary expansion was *relatively* deficient and that 2) therefore, Canada's high rate of inflation was a *result* of worldwide inflation being transmitted by way of the exchange-rate mechanism. In fact, we would attribute Canada's better price performance to the revaluation of the Canadian dollar that occurred between 1969 and 1975. Be that as it may, Canada's monetary authorities clearly erred in opting for a substantial devaluation during late 1976 and early 1977.

By choosing to maintain a relatively fixed exchange rate at the present time, the Bank of Canada is trying to avoid a renewed escalation of prices. Fixed exchange rates, however, can only succeed in holding prices in line with those prevailing in the world market and, at that, only those items can be traded freely across borders. In the interim, excessive domestic credit-creation is an inflationary time bomb that will soon begin to affect the overall level of prices. Furthermore, the 20 per cent plus devaluation that has occurred in the 1976-1980 period is only now beginning to surface, threatening to send price inflation in Canada skyward.

More comparisons

In the days of the gold standard, significant increases in money supply took place only as a result of monetarized gold inflows. A fixed exchange-rate regime possesses very

similar characteristics: Foreign currency inflows become monetized and ultimately produce an increase in bank reserves, and bank deposit liabilities. If monetary authorities are disciplined therefore, and play strictly by the rules, money-supply increases bear a well-defined relationship to foreign currency inflows. It can be said that domestic currency is "backed" to a certain extent by foreign currency and/or gold. Conversely, loose monetary management will result in totally flat increases in money supply.

Figure 11 shows that the increases in Canadian broad money-supply over the 1975-1980 period were the exclusive results of increases in domestic credit—and then some! Foreign currency outflows were not allowed to contract money-supply growth but instead were offset by extraordinary dosages of domestic credit. Standing out in stark contrast are the relatively deflationary policies adopted in the 1977-1980 period in the U.K. and the 1975-76 and 1980 period in the U.S. Similarly, Japan's and Germany's recent current account woes were foreshadowed by the monetary excess of the 1979-80 period.

Figure 11

	Change in DCE as a percentage of change in broad money supply						
	1975	1976	1977	1978	1979	1980	1974-1980
Canada	107.4%	90.8%	117.3%	112.4%	123.2%	107.2%	110.7%
Germany	80.2	99.2	98.2	101.6	112.7	97.3	98.7
Japan	104.2	96.3	88.5	98.0	129.6	111.2	102.7
Netherlands	72.4	101.7	107.4	97.4	99.2	83.3	94.7
Singapore	26.4	72.9	45.8	32.0	48.4	83.7	56.5
Switzerland	77.3	72.8	109.2	70.1	116.4	97.3	92.2
United Kingdom	105.9	132.6	72.7	78.1	89.6	88.4	92.1
United States	69.1	84.6	100.9	92.2	118.6	69.4	90.2

Source: International Financial Statistics

Defending the Canadian Dollar

Canada possesses sufficient resources at its disposal to defend a fixed parity for the foreseeable future. Figure 12 indicates that Canada's net monetary assets, as at the end of 1980, were the highest in a decade, thanks primarily to the extraordinary increase in the price of gold since 1978. Net monetary assets as a percentage of balance of payments debit entries stand today at little under 18 per cent, only slightly below the readings of the early seventies. Two stand-by credit facilities, one for US\$2.5 billion with Canadian banks and one for US\$3.0 billion with foreign banks, add further substantial support to Canada's external defences. Nevertheless, unless domestic credit expansion is brought under control, those defences will go the way of France's Maginot Line.

Figure 12

	(a)	(b)	
	Year-end Net Monetary Assets (Gold at Market Value)	all Balance of Payments Outflow Items	a/b Ratio
	(in millions of United States dollars)		%
1970	4,699.8	19,636	23.9
1971	5,703.9	23,809	23.96
1972	6,492.6	27,304	23.78
1973	6,977.4	31,861	21.90
1974	8,379.5	43,602	19.22
1975	7,959.1	46,528	17.11
1976	7,662.6	55,429	13.82
1977	6,922.3	56,905	12.16
1978	5,133.4	65,377	7.85
1979	9,365.9	74,967	12.49
1980	14,946.1	84,897	17.60

Sources : Statistics Canada
International Financial Statistics

Policy Implications

The Bank of Canada must stop targeting its monetary policy around M_1 and instead should concentrate on the growth of its domestic portfolio. In substance, the Bank must stop intervening in the government bond market—the most important source of fiat monetization. Total abstention from purchases of Government obligations in the face of mounting fiscal financing requirement, will see interest rates climb to record levels. They should be allowed to rise to whatever level will clear the money market.

This policy departure will mean the following:

- a) abandoning gradualism in favor of shock therapy;
- b) penalizing short-term borrowing at the expense of long-term funding;
- c) drawing genuine savings to finance government and corporate requirements;
- d) drastically curtailing inflationary expectations;
- e) eliminating domestic inflation;
- f) stopping the hemorrhage of foreign currency.

There is no need for wage and price controls. Canada already uses, in the form of a fixed exchange-rate, an effective mechanism for suppressing domestic price-inflation. This time-honored device is being blunted at present by the 1976-1977 devaluation and the excessive monetary inflation undergone over the past five years. Canada is about to pay for these two sins in the form of the highest future price-inflation anywhere in the industrialized world, with the possible exception of Italy. No good will have been accomplished by attacking the consequences of yesterday's misdeeds with an irrelevant and ineffective incomes policy. No good will have been accomplished by blithely ignoring the *causes* of tomorrow's results.

Indexing

The *Annual Report* asks, "... is it possible that they think that society could develop some way of indexing all money payments so completely that changes in the purchasing power of money would be neutralized and could therefore be ignored in the formation of public policy? The fatal weakness of this idea is that the more vigorously a country applied it, the more rapidly any inflationary impetus causes prices to accelerate. That system would be too unstable to be workable...".¹²

These statements fly in the face of historical evidence. Brazil was able to reduce its 51 per cent rate of annual inflation experienced in 1965 to 25 per cent in 1967, 20 per cent just two years later, and 18.5 per cent in 1972—in spite of indexing savings, prices, wages and taxes throughout this period. More recently, Chile reduced its 600 per cent per annum rate of hyper-inflation attained in 1973 to a mere 24 per cent by early 1981, despite the most extensive use of indexation witnessed in economic history. Furthermore, these two nations achieved extraordinary rates of real growth during this time, averaging well in excess of 7.5 per cent per annum.

The Bank's position on indexation also flies in the face of basic justice. Governments confiscate an ever-increasing share of illusory incomes, profits and investment returns; weak labor organizations and pensioners see their standard of living eroded; speculators, through the clever use of cheap long-term credit, gain at the expense of uninformed savers, etc.

While no panacea, indexation is the most equitable adaptation to inflationary conditions imaginable under the circumstances. It is also the only method available to produce balanced real growth and stop intelligent, and otherwise honest, citizens from going underground.¹³

Canadian Monetarism — A Rejoinder

Given the extraordinarily high level of interest rates and the consequent desire to economize on non-interest bearing "moneys," currency and demand deposits (M_1) no longer constitute a valid monetary proxy on which to conduct policy. An M_1 growth-rate of 7 per cent during 1980 could easily equate with an overall rate of monetary expansion of 10 to 20 per cent, depending on turnover ratios or velocity. Furthermore, velocity itself has been on a steep upward path, a factor not easily quantifiable.

Some progress has been made in acknowledging that

¹²Ibid. p.6.

¹³An ever increasing amount of transactions go unreported to tax authorities.

exchange rate considerations supersede domestic monetary considerations, as quoted elsewhere in this report. A more honest and intellectual appraisal of monetary policy would force the Bank of Canada to concentrate on broader proxies of money supply, such as domestic credit (monitoring its effectiveness by the residual movements of foreign currency). If an outflow persists, as it has through early 1981, monetary policy should be termed *highly*

expansionary. This condition, fixed exchange rates notwithstanding, would wreck Canada's chances for regaining price stability in the not-too-distant future.

Finally, the treasury and the central bank should give serious considerations to widespread and systematic use of indexation to reduce the real burden of inflation on Canadians, increase incomes, savings and, consequently, economic growth.

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Notes

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