

ESSAYS IN INTERNATIONAL FINANCE

No. 42, May 1963

A MEMORANDUM SUBMITTED TO THE
CANADIAN ROYAL COMMISSION
ON BANKING AND FINANCE

SIR DENNIS ROBERTSON



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

This is the forty-second number in the series ESSAYS IN INTERNATIONAL FINANCE published from time to time by the International Finance Section of the Department of Economics in Princeton University.

The author, Sir Dennis Robertson, is a Fellow of Trinity College, Cambridge, and was Professor of Political Economy at the University of Cambridge until 1957. At one time he was Cassel Professor of Economics at the University of London. In 1944 he was a member of the U.K. Delegation to the Bretton Woods Financial Conference. Sir Dennis holds several honorary degrees and is the author of numerous well-known books.

The Section sponsors the essays in this series but takes no further responsibility for the opinions expressed in them. The writers are free to develop their topics as they will. Their ideas may or may not be shared by the editorial committee of the Section or the members of the Department.

The submission of manuscripts for this series is welcomed.

FRITZ MACHLUP, *Director*
International Finance Section

With great sorrow and regret we have learned, at the moment of going to press, of the death of Sir Dennis Robertson [1890-1963]. We, like the rest of the economics community, feel this is a great loss to the profession in which he was a leader and discoverer, and an ornament by his style of writing, his humor, and his humanism.

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THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 551: QUANTUM MECHANICS

PROBLEM SET 10

DATE: _____

NAME: _____



1. A particle of mass m is confined to a region $0 < x < a$ by a potential $V(x)$ that is zero for $x < 0$ and $x > a$, and has a finite barrier of height V_0 for $0 < x < a$. The energy E is less than V_0 .

(a) Write down the wave function $\psi(x)$ in the three regions $x < 0$, $0 < x < a$, and $x > a$.

(b) Find the transmission coefficient T and the reflection coefficient R for a particle incident from the left.

(c) Find the probability density $|\psi(x)|^2$ in the region $0 < x < a$.

FOREWORD

IN October 1961 the Canadian Government approved the establishment of a Royal Commission on Banking and Finance. This decision was based, among other considerations, on the understanding

“That it is desirable periodically to undertake a broad review of the function of the Canadian financial system; . . .” and

“That orderly economic growth is dependent in no small measure on the adequacy and adaptation of the financial institutions through which funds are made available for expansion and development; . . .”

Seven Commissioners were appointed and were asked, among other things,

“to enquire into and report upon the structure and methods of operation of the Canadian financial system, including the banking and monetary system and the institutions and processes involved in the flow of funds through the capital market; and

“to make recommendations for the improvement of the structure and operations of the financial system. . . .”

In the course of their enquiries, the Commissioners invited a number of internationally known economists and other experts to give evidence on more general questions of monetary and financial policy. Among them were Dr. Edward M. Bernstein, formerly of the International Monetary Fund; Lord Cobbold, former Governor of the Bank of England; Dr. M. W. Holtrop, President of the Netherlands Bank; Professor Erik Lundberg, University of Stockholm; Professor Sir Dennis Robertson, University of Cambridge; Professor Paul A. Samuelson, Massachusetts Institute of Technology; Mr. Allan Sproul, former President of the Federal Reserve Bank of New York; Dr. Woodlief Thomas, former Advisor to the Board of Governors of the Federal Reserve System; and Professor Jacob Viner, Princeton University.

Most of these expert witnesses submitted statements to the Commission in the form of Memoranda of Evidence. Others presented only oral testimony. The Memoranda of Evidence are of great professional interest, not merely to those concerned with the Canadian economy but to economists and the financial community all over the world. The discussions were to a considerable extent centered on problems of international economics and on essential issues of policy in the economies

of the world today. In order to make them widely available without much delay, the International Finance Section of Princeton University requested the Canadian Royal Commission to approve publication of some of the statements of the experts in our series of essays. This approval was graciously granted.

The International Finance Section intends to publish several of the Memoranda as separate issues in this series of *Essays in International Finance*, either without any changes from the original text or with such revisions as the authors desire to make. The Section takes pride in presenting to its readers as the first of these issues the Memorandum prepared by Sir Dennis Robertson. He has chosen to have it reproduced without alteration.

It should be noted that loosely-bound folio sheets of the Memorandum, as well as the verbatim transcripts of oral testimony, can be purchased from the Commission's court reporters in Ottawa. The Royal Commission has not yet decided whether it will print all or any part of the Memoranda of Evidence in a separate volume or volumes. This decision will only be taken after the report of the Commission has been completed, probably in the fall of 1963. It is believed, therefore, that the International Finance Section is rendering a service to students of international economics by publishing some of the statements of the expert witnesses at this time. The Director and his associates express their gratitude to the Canadian Royal Commission and to the experts for their cooperation in this enterprise.

Fritz Machlup, Director

PREFACE

THIS memorandum is here reproduced in exactly the form in which it was signed for transmission to the Commission on July 28, 1962; no attempt has been made to revise it in the light of later events or of such better understanding of Canadian problems as I may have achieved during my short visit to Ottawa for oral questioning by the Commission on September 20, 1962.

It may therefore assist the reader to be reminded of a few dates. Mr. L. Rasminsky was appointed Governor of the Bank of Canada in July 1961. On May 3, 1962, the Canadian dollar, which had had no fixed par value since the autumn of 1950, was given a fixed par value of 92½ U.S. cents. At the end of June 1962, a number of emergency measures were taken to protect and restore the country's monetary reserves, which had fallen heavily since the end of 1961.

In the United Kingdom, Mr. Selwyn Lloyd, who since the previous July had been endeavouring to establish first a "pay pause" and then a policy of "wage restraint," resigned the office of Chancellor of the Exchequer, at the request of the Prime Minister, on July 13, 1962. The prospective establishment of a permanent National Incomes Commission was announced on July 26; but its terms of reference were not made known till the following November.

Dennis Robertson

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A MEMORANDUM SUBMITTED TO THE CANADIAN ROYAL COMMISSION ON BANKING AND FINANCE

1. *Introductory*

In the admirable statement issued on the morrow of his appointment, the Governor of the Bank of Canada alluded to the "broad economic objectives of high-level employment, price stability and sustained economic growth." As a means to the attainment of these ends, he emphasized the need for the coordination of *financial* policy with *general economic* policy, the former in turn consisting in the three "interdependent and to some extent interchangeable" strands of *monetary* policy, *fiscal* policy and *debt-management* policy. I shall try to arrange my remarks in the light of these two dissections, the one of ends, the other of means; bearing in mind as regards the second that, as I understand it, the Commission's *primary* concern is with the genus "financial," and within that genus with the species "monetary."

Fashions change. Fifty years ago, all the limelight might have been concentrated on stable prices, thirty years ago on high employment. But nowadays no public personage can afford to let slip an opportunity of reminding us of what in my young days was taken for granted, namely that modern communities normally both are and desire to be experiencing growth, in the simple sense of an increase over any span of years—not necessarily in any single year—in the total of measurable real output or income. So Mr. Rasminsky was quite right to include growth; and I am sure no one realizes better than he both that the available methods of measuring it are imperfect, and that growth itself is at best a means rather than an end, and moreover is apt to be accompanied, as it has been in Britain, by damage of various kinds, some of which is inevitable, and some, while not inevitable, is not very likely to be avoided.

2. *Population Policy*

The Commission will not wish to spread its net unduly wide; but I fancy it may find itself impelled to indicate whether it is more concerned to promote increase of *aggregate* real income or of real income *per head*; and further whether it therefore regards a "population policy" as one

of the things with which financial policy must be harmonized. It seems to me that special strains on those in charge of financial policy are likely to arise in countries (such as Australia) which are anxious for non-economic reasons to encourage a smart rate of growth of population, or in countries (such as India) where population is in fact increasing faster than the framers of general policy would wish. I should imagine that taking a long view Canada, with her friendly neighbours and her abundant natural resources, should be relatively free from such pre-occupations, and able more or less to let population matters, both in respect of natural increase and of immigration, take their course.

Nevertheless the difficulty which has been found in the last few years in attaining the objective of high employment—or more strictly of low unemployment—draws attention to a special trouble which may befall a country whose free institutions and rich resources have made her for decades a magnet to the robust and enterprising—namely that a short period of needed digestion and reappraisal after a specially rapid up-thrust may face her with a temporary problem of superfluity of manpower from which a less dynamic economy would be exempt, and with which purely financial policies may prove inadequate to cope. One can only hope that such *reculements pour mieux sauter* will prove of short duration.

3. *Regional Policy*

More likely to be persistent is a problem from which Canada, with her large physical span and wide variety of natural conditions, cannot hope to be immune, namely the attitude to be adopted in the face of widely varying *regional* propensities to growth or decay. Ought special efforts to be made to bring work to the workers in the less fortunate areas? Or will such efforts only serve to obstruct the more growth-promoting solution of intra-national migration of labour towards the points of higher return? Is there conflict here between two of the “Rasminsky objectives”?

I cannot illustrate the problem better than by quotation from the paragraphs in which, in a most interesting recent (1961) Report, Professor A. K. Cairncross seeks to justify his proposal for doubling or trebling over a span of years the numbers engaged in certain specially selected industries in the Atlantic Provinces. The argument, he urges, is twofold:

... the probability of a labour surplus after allowing for migration to other parts of Canada; and the probability that, for a limited range of industries, costs of production would not rise perceptibly (except perhaps in the first year or two) if a location in the Atlantic Provinces

were selected in preference to a location in central Canada. . . . I fully accept the need to push ahead with the development of those areas of Canada that have the greatest growth potential, and I see long term advantages in encouraging the movement of labour from declining to expanding areas. But I recognize that there are limits to the scale on which labour transfers are possible *without inflicting lasting damage on the economic and social life of both types of area*; and there appears to me a serious danger that, at current rates of population growth, these limits would have to be exceeded if no special efforts were made to develop new industries in the Atlantic Provinces.*

In this instance, the argument thus runs, a laissez-faire policy would not, as at first sight might appear, be superior to an interventionist one from the point of view of the effect on the overall rate of growth, partly because those workers who migrated would not in fact become much more productive elsewhere, and partly because migration would not in fact be on a large enough scale to drain off and re-employ all the redundant labour. I have neither the knowledge nor the desire to impugn Cairncross's conclusion; though the words which I have italicized suggest to me that in reaching it he has attached more weight than he makes quite explicit to a third concept more elusive than either productivity or employment, namely the welfare of "the region" as such, distinct from the welfare of the individuals who dwell, or who no longer dwell, therein.

4. *Growth Policy*

Let us return to the concept of the rate of increase of output, and be content for the moment to deal with it as a national average, computed over all regions and all occupations. Given the rate of increase of the working population and the length in hours of the working year, this rate of increase of output may be regarded as depending, over a run of years, on two things,—the rate at which the country's stock of capital instruments of one kind and another is growing, and the rate at which improvements are being effected in technology and organization. These two elements of growth are not independent of one another, and at the present time much high-powered intellectual effort is being devoted by economic "model-builders" to analyzing their inter-relations. I doubt if the Commission will desire to give the time to go deeply into these sophisticated argumentations; and if it does I am not the man to expound them! I venture to think that, up to a point at least, useful results can be reached by treating these two factors in growth, which I will call for brevity capital formation and technical progress, separately; since the

* *Economic Development in the Atlantic Provinces*, p. 19. Italics mine.

role of policy with regard to them is inevitably somewhat different. Governments can take steps of various kinds to encourage both; but not even a totalitarian Government is able to determine, or even to predict for any length of time ahead, the rate of technical progress. On the other hand, such a Government *is* in a position to determine pretty closely the proportion of a country's productive power which shall be devoted annually to increasing its capital equipment; and, even in a country in which the ultimate powers of decision in this matter are still mainly decentralized in the hands of private individuals or corporations, the Government may itself be charged with making the relevant decisions over such a sizable part of the field, and be so confident of its powers of persuasion or prediction over the remainder, that the overall rate of capital formation has come to be regarded as virtually a matter of national policy.

The Commission may or may not be so well satisfied that there are good reasons for desiring Canada to grow at one rate rather than another, and so confident that what is desirable in this matter is also attainable, that they are ready to follow some notable precedents in tossing a growth-rate figure into the arena of discussion. I must confess that my own sympathies were on the side of the recent United States Commission on Money and Credit in their refusal, in spite of pressure from some of their members, to take such a course (*1961 Report*, p. 31). But whether or no, there are questions about the implications of growth for the various branches of financial policy which do seem to be clearly within the Commission's responsibility to face.

5. *Prices Policy*

Boring and academic as it may seem, I think it is helpful to start by considering how a Monetary Authority should behave in a country which was isolated from the rest of the world, and in which it was desired so far as possible to leave the pace of capital formation to be determined by the unfettered interplay of the decisions of private enterprisers and savers.

In general terms, the answer seems to be that in such conditions it should be the aim of the Monetary Authority to generate such a flow of monetary demand for final output as to enable the participants in the growth process—enterprisers, savers and hired workers—to realize their intentions with a minimum of friction and of distortion of the true significance of the monetary contracts which they are making with one another. Attainment of this aim could be described as the preservation of "monetary equilibrium"; and, assuming the Authority to be working with and through a modern system of deposit banking, we can put the

same thought in different words by saying that its aim should be to ensure that the creation of money by the banks is being carried on in just such a way and on just such a scale as to ensure that the banking system really is what bankers believe it to be,—an efficient instrument for putting the genuine savings of the public at the disposal of trade and industry.

When however we try to express this aim more precisely in terms of income and prices, we encounter difficulties. The first interpretation which suggests itself is that what from now on I will call for brevity the “money flow” should be caused to expand in proportion to any increase that may be occurring in the working force, i.e. that the aim should be (broadly) to preserve the stability not of prices but of money income per head. But that interpretation will be seen to be too restrictive when we reflect that another factor of production, namely capital equipment, is also growing, and that its owners will also be claiming their annual reward. So we are led on to think that the money flow should be expanded sufficiently to allow for this, though not sufficiently to balance that part of the increase in output which is due not to the growth of capital equipment but to technical progress. Thus the general level of prices of final output would be allowed progressively to fall, though by no means in full proportion to the increase of output.

When however we reflect further that what is going on may well be altering the relative scarcities of the two factors of production, Working and the Provision of Capital, we may well be hard put to it to see just how large an expansion of the money flow would be needed in order thus to preserve stability not of final prices but of what may be called the “average price of productive power.” And remembering at this stage the difficulties which Monetary Authorities have in achieving what they want to achieve—remembering also the various pressures which they will be under to implement or acquiesce in a continuous *rise* in final prices—we may well be tempted to throw perfectionism to the winds, and to accept for practical purposes what to many people seems, though in fact it is not, the most “natural” objective of all, namely stability of the final price level.

To this temptation I, in common with some whose judgment I most respect (I may mention Professors Haberler and Robbins), have succumbed—though always with a twinge of conscience when I see the more scientific view movingly expressed by some discerning non-economist.* This makes it the more incumbent on me to insist on three things.

* For example by the Archbishop of Wales in a letter to the *Times* of Jan. 11, 1962, which concludes:

To a simple fellow like myself it seems that the lower prices which increased pro-

First, if questions arise of a possible conflict, and therefore a necessary compromise, between the "Rasminsky objectives," it should be remembered that the price-stability objective is itself already a compromise. Secondly, the practical case for stability refers only to the *average* of prices and in no whit impairs the case for requiring that in lines of production where technical progress is specially pronounced prices should continuously fall. Thirdly, and in appearance somewhat paradoxically, an understanding of the true reasons for ensuing "stability" may prevent us from launching undeserved criticism at a Monetary Authority if in the face of a *reverse* movement of productivity, occasioned by bad harvests or other natural misfortunes, it permits a *rise* in the price level. For such action may be in the true sense stabilizing, provided of course it is not allowed to touch off a "compensatory" rise in money incomes.

6. *Taxation Policy*

But we are getting to grips a little too quickly with the real world! Let us return to our imaginary country (beginning of §5), and for such a country take, with some reservations, stability of prices as a sufficiently good indication that monetary equilibrium is being successfully maintained. The next thing to observe is that in principle such a happy state of affairs may exist also in a country in which the Government is taking a hand in the growth process. On examining such a country, we might find that the Government was running a surplus of current receipts over current expenditure and using the surplus to repay old debts, thus appearing only on the supply side of the capital market; or we might find that it was using such a surplus to finance the creation of capital equipment, thus appearing in equal strength on both sides of the capital market, i.e. (by and large) not appearing at all. Or again we might find that it was chronically appearing on the demand side of the market, either partly to finance a current deficit, or exclusively to finance the creation of capital equipment. The Finance Minister may be framing his policies in these respects in the light of a combination of principles and rules of thumb which do not perhaps commend themselves to his political opponents but are, as things go, intellectually quite respectable; and he may be so fortunate as to find that the Monetary Authority can take

ductivity makes possible would benefit everybody, but I recognize that there must be a flaw in my thinking, for increased productivity has not brought—and does not seem likely to bring—lower prices. Presumably there is good reason for this. Will someone explain?

Nobody did.

his decisions as data and yet do its particular job of preserving monetary equilibrium with success.

For instance, as Finance Minister in a country in which a number of branches of productive industry have passed into public ownership, I can easily see myself deciding that that fact affords no good ground for supposing that all their expenditures on capital development should be met out of taxation, and imposes on me therefore no obligation to achieve an "overall" budget balance. But I can also see myself deciding, with perhaps vulnerable logic but saving common sense, that I must turn a very critical eye on any suggestion that, because some piece of expenditure in the field of education or health is not only desirable in itself but should increase "productivity" in the future, it is therefore a proper subject for finance by loan rather than by tax.

Before giving limited endorsement, as I shall presently do, to the claims of Central Bankers and others that Fiscal Policy must be prepared to come to the aid of Monetary Policy in ensuing "monetary equilibrium," it is well, I think, thus to stake out a claim for Public Finance as a serious subject in its own right, with a philosophy and experience of its own, and incapable of being pushed around, in the interests of stability, beyond a certain point without damaging consequences.

7. *The Money Stock*

Still maintaining for a while longer the pleasant fiction of an isolated economy, let us put ourselves in the position of a Monetary Authority which, in the shape of a Central Bank, is endeavouring to pursue wholeheartedly the objective of monetary equilibrium. What weapons does it need, and what obstacles will it encounter?

As a minimum requirement it would seem that it must be in a position to exercise control, both in an upward and downward direction, over the quantity of money in the hands of the public. (I use the word "money" in the sense now common in Britain, and apparently also reasonably appropriate to Canadian conditions, of notes and coin plus *all* the deposit liabilities of the cheque-paying banks.) For the Bank to be in this position there must be a quantitative link, established by law or reliable custom, between the deposit liabilities of the banks and their reserve balances held with itself; and there must be an active market through which, by dealing in securities with the banks or their customers, it can operate on the magnitude of these reserve balances. These things the Bank of Canada has; and I gather that it is free from those inhibitions against dealing in long as well as in short-term securities

which in recent years have to some extent cramped the style of its United States counterpart.

But there seems to be need also for a third thing. In a free economy it is not easy to see a central-banking system functioning acceptably without the existence, in the hands of somebody or other, of a right of access to the Central Bank as a "lender of last resort," and there seems to be need therefore for some element of friction or stiffening to prevent such rights from being exercised on such a scale as to stultify the power of the Central Bank to prevent the total of bankers' balances from rising above the level which it desires to establish. In England the requisite "sting in the tail" used to be, and after a long period in abeyance is now again, embodied in the system by the Central Bank's right to charge a penal rate of its own choosing to those to whom it agrees to act as lender of last resort. So to English eyes the practice prevailing in Canada between November 1956 and June 1962, by which Bank rate was fixed mechanically week by week at a bare fraction above the previous week's average rate for Treasury Bills, had an odd air, and smelt somewhat of abdication from an important function.

This matter of Bank rate has other facets, to which I shall return; for the moment I want to stick closely to the question of the quantity of money. In England the experience of the post-war years has made it plain that even the exercise of the "sting in the tail" against the immediate wielder of the right to borrow is of very little use in guarding the Central Bank's control over the money supply if the *ultimate* borrower is one who also claims an implicit right not to be sent empty away and who is virtually impervious to any practicable increase in the cost of borrowing, i.e. is the Sovereign Government itself. It seems to me clear that the British Authority's loss of control over the money supply in the years culminating in 1957 was closely bound up with its unwillingness to see the establishment of appropriately high rates of interest in the longer-term capital market, and with the consequent need to put the banks in a position to supply by the purchase of Treasury Bills the heavy recurrent needs of Government for funds wherewith to implement the refinancing of war debt and the capital requirements of publicly owned industry. The Radcliffe Committee on the Working of the Monetary System deserves much credit for turning the limelight (1959) on this whole story, though they were themselves more interested in other aspects of it than in its bearing on the money supply; and my own impression is that the rectification of this situation since 1957, through the reduction of the Government's overall deficit and through the establishment of a higher level of long-term interest rates, has been

the most important and effective of the steps that have been taken in Britain to bring the long post-war inflation to a halt.

It is naturally in the light of this impression that I have studied the Canadian figures showing that in the four years 1958-1961 the deficits of the public sector (all branches, on the national-income-accounts basis) totalled some 3 billion dollars, while the money supply increased by some 3 billion dollars or over 25 per cent. One does not need, I think, to be a dyed-in-the-wool budget-balancer to regard these figures with some anxiety. In any case I find myself impelled to regard with retrospective admiration the crucial decision apparently taken at the end of 1958, when public-sector deficits of a billion dollars had already been reflected in an increment of a billion and a half in the money supply, to cause the reexpanding private demands for loans to be met not out of a further dose of newly created money but out of the proceeds of bank sales of securities to the public, entailing a substantial rise in the long-term rate of interest.

8. *The Money Flow—The Banks*

Control of the money supply is not an end in itself, nor a means to an end, but only a means to a means to an end. The end—itself one of several possibly conflicting “Rasminsky objectives”—is monetary stability, the means to the end is control of the rate of flow of monetary demand for final goods and services. There are a number of parties who, by taking initiatives of various kinds, can so alter the average speed at which the stock of money circulates as to aggravate, or alternatively to counteract, the influence exerted on the rate of money flow by the actions taken by the Authority with respect to the size of the money stock.

The first party to be mentioned in this connection is the banks themselves, which can alter the effectiveness of a given stock of money by changing the composition of their assets. I have just given an illustration from recent Canadian history of large-scale action of this kind which was presumably in accord with the intentions of Authority, who in keeping the money supply constant during 1959 presumably desired not that the expansion of trade activity should be stopped dead but that it should be kept under control. But it is easy to imagine circumstances in which such a shift would be unwelcome, and the question therefore arises whether the Authority should not be given some powers over the composition as well as over the total size of the banks' non-cash assets. A halfway house is to give it the power of prescribing the minimum proportion of these that must be of a specially liquid character, as is done

(by agreement though not by law) in both Britain and Canada. A further step, taken in Britain with some reluctance in 1961, is for the Central Bank to have the right of requiring a variable quantity of "special deposits" to be made with itself by the banks, these not counting as cash reserves or even as "liquid assets." It is not a very long step from this to prescribing a maximum level or proportion of advances. In Britain this final step has not been taken; on the other hand use is still being made of the power given by post-war legislation to indicate by directive the priority or posteriority to be accorded by the banks to various broadly defined categories of borrowers. I should regret this more than I do if I did not feel that the banks had served the community rather badly in 1959 by the alacrity with which they used their temporarily restored freedom in "going gay" over hire purchase and other ingenious devices for persuading the consumer to overspend his means. But I think there are dangers about the present degree of regimentation, especially if anything should come of the vogue now enjoyed by ideas about co-operative industrial planning on the French model, which appears to depend for its efficacy partly on the application of centrally inspired financial sanctions against individual firms found to be backward in cooperation with the plan.

Monetary control through a multiple-banking system has never been, as has sometimes been claimed, a completely indiscriminating or impersonal process. What it has done, even where, as in Britain and Canada, the banks are few and powerful, is to preserve a healthy degree of decentralization of judgment in the allotment of funds. Can the Commission find a formula which will help to perpetuate this advantage without hindering the Central Authority in its duty of safeguarding the value of the monetary unit?

It remains to notice that, as a whole batch of popular metaphors about taking horses to the water and pushing on shoe-strings bears witness, control of the money supply is generally recognized as being inadequate to prevent the money flow from *falling below* some assigned level. In §7 I neglected, as of no importance in Britain or Canada, the possibility that the banks will keep "excess reserves"; but we cannot neglect the possibility that under some conditions they will utilize a surplus of reserves in buying securities from some holders who will keep the proceeds of sale entirely idle, thus for the moment contributing not one whit to the expansion of the money flow as we have defined it.* This

* I had better perhaps explain that I do not agree with my ex-colleague Prof. R. F. Kahn in regarding this obvious fact as a valid reason for holding that "the velocity of circulation, as normally conceived, is an entirely bogus concept" (Radcliffe Committee Memoranda, vol. III, p. 144, para. 61).

indeed is the main reason for which public opinion has been won over to the necessity for associating fiscal policy with monetary policy in the quest for monetary stability. It is, however, important to remember that under other conditions the purchase of a security may succeed in bringing money into touch with goods and services as effectively and almost as speedily as the making of a loan.

9. *The Money Flow—The Public—Deflation*

We have now reached the central problem,—the extent of the power of the *users* of bank money to thwart the intentions of Authority by altering the speed with which the money circulates. It is generally agreed that there is a certain asymmetry between the two halves of this problem; and in continuation of the line of thought opened up at the end of the last section we may start with the limitations on the power of the banking system to stimulate expansion or arrest contraction in the flow of money demand. I do not myself doubt that if the general business atmosphere is reasonably good or even neutral, an opening out of credit facilities, or an easing of the terms on which they are supplied, can play a useful part in stimulating marginal capital expenditure and maintaining activity. So can the various possible methods of encouraging the production of dwelling houses. Moreover, now that in general estimation various other “durable consumption goods” have joined dwelling houses as objects for the acquisition of which it is proper to run into debt, a new potential weapon has been added to Authority’s armoury; and though experience has shown that it is a somewhat dangerous weapon, difficult to wield deftly and a good deal disliked by the industries which it affects, I do not think a modern Authority can afford to decline to learn to handle it.

But in the face of a general sharp decline, for good or bad reasons, in business confidence, such peripheral activities cannot do a great deal to outweigh an obstinate reluctance on the part of the large holders of money balances to use them, or entrust their use to others, for any purpose whatsoever; and it becomes legitimate, as I have already said, for Monetary Policy to call her sister Fiscal Policy to her aid. Nor do I think we can rely solely on the considerable degree of compensatory movement which is “built in” to many modern fiscal systems owing to the operation of unemployment relief on one side of the account and progressive scales of income tax on the other: there may well be need for further action on a discretionary basis.

As to the form which such action should take, here is another matter (compare §1) in which fashions are apt to change. In the old days the cry of reformers was for capital works of a manifestly useful character,

organized and paid for by the State;* in those days the idea of promoting recovery by simply giving money away through the Budget would still have been thought rather shocking. Nowadays, however, we find Dr. Roosa of the United States Treasury assuring Congress** that foreign bankers would not be shocked at the sight of an American deficit caused by a reduction in tax rates, but might be if the deficit were caused by an expansion in Federal spending; and I suppose he may very well be right. On purely rational grounds I think I (and for all I know Dr. Roosa) would opt for the public works—of course carefully selected and organized; since I am not sure that in the supposed circumstances we could rely on taxes unconditionally remitted to wealthy persons or corporations being swiftly or effectively spent, and since I am Galbraithian enough to suspect that the United States is still a bit short of social capital.†

As for the third sister, Debt Management, I expect that in the conditions of pronounced depression now under analysis, she would be wise to keep rather in the background. Her long-term job, and it is a very important one, is to keep up a steady pressure against the shortening of the average life of the outstanding debt which occurs through the passage of time, and to keep the country up to paying such longer-term rates of interest as are necessary for that purpose. But there are times and seasons for all things; and without pretending to know the full facts I have a feeling that in Canada in 1958 she pressed her side of the story with an insistence not altogether appropriate to the conjuncture.

10. *The Money Flow—The Public—Inflation*

Let us turn to the other side of the picture. If it were not for the pressures from the side of Public Finance alluded to in §7, would there be any doubt about the power of a banking system, whose several parts are kept working in harmony through the network of rules and understandings described in §7 and §8, to prevent the level of money demand from *rising* to undesired heights? It used to be thought not; it used to be thought that, through a combination of rate manipulations and informal rationing procedures, such a Monetary Organ should always be in a position to exercise on business borrowers a deterrent ef-

* I find myself writing in support of such ideas in a book published in 1915; and a little later (1926), impressed by the difficulties of organization and timing which others had pointed out, alluding to the "once . . . heretical but now perhaps over-respectable policy of 'public works.'"

** *The Times* (London), June 21, 1962.

† Perhaps I am out of date; but I hope that she will not go through another major depression without doubling the number (viz. one) of public lavatories which in 1943 I was able to discover in her capital city.

fect sufficient to check and if necessary reverse an upward thrust of money demand.

I will first set out very briefly the general arguments which are nowadays brought against this optimistic conclusion, and then, at a little more length, a particular one which has been specially prominent in the recent literature. The general argument may be summarized under two heads as follows. First, so far as rates of interest are concerned, whether we are thinking of short rates and investment in inventories or of long rates and investment in machines, the practicable rises are too small, as compared with the anticipated rates of profit on which entrepreneurial action is based, to have any appreciable deterrent effect. Secondly, as regards availability of funds, many of the largest and most important enterprises are not in the habit of borrowing from their banks. Either they have large liquid funds of their own; or they can in effect avail themselves of other people's by forcibly taking "trade credit" from their weaker customers or suppliers; or again they will find that the upward movement of interest rates, while insufficient to affect their own desire to borrow, is proving sufficient to induce a number of owners of idle balances to lend them in the market.* Thus, one way and another, the velocity of circulation of existing money is increased (according to the extreme exponents of these views it may even become infinite!), and the stream of money demand continues to swell.

The particular argument is really a special case of the second branch of this general argument. It calls attention to the prominent part played nowadays in the capital markets by institutions which are not banks, and which are free therefore from the quantitative restraints imposed on the lending operations of the banks. They will thus be in a position to invite the owners of bank money to commit it to their charge, and will lend it out again to the purchasers of goods and services who are finding difficulty in securing loans directly from the banks. This churned-up bank money will exert just as strong a price-raising influence as would have been exerted by the additional bank money which *ex hypothesi* the banks are being prevented from creating. And this inflammatory process is none the less real, and none the less unfair to the banks, because the latter, fixing their gaze on the earliest phase of the process, are apt to mis-describe it as one in which they are "losing deposits," instead of as one in which they are losing profitable business, to the outside institutions.

* *Per contra*, it is argued (sometimes by the same people) that the passive holders of fixed interest *securities* (as opposed to *balances*) will be impelled by the rise in interest rates (fall in price of securities) to hang on to these securities when they would otherwise have sold them and lent the proceeds to the active entrepreneurs. Presumably this effect is regarded as going some way to cancel the effect mentioned in the text.

On the question of fairness, I myself feel that there is still a sufficiently clear difference between what is "money," i.e. an undisputed (even if not legally enforceable) means of final discharge of a debt, and what is not, to justify some degree of difference between the constraints placed upon banks—who have virtually become participants in the royal prerogative of creating money—and other institutions. As regards the public interest, appropriate action depends no doubt on the magnitude of the problem. The Radcliffe Committee, having in mind mainly the hire-purchase finance companies, regarded it as very important. In the United States, the hire-purchase companies are forbidden to accept deposits; and the American Commission, having in mind chiefly the general run of savings institutions, dismissed the whole problem as of no importance, pointing out that transfer of demand deposits into these institutions "is more likely to increase velocity in recessions than in booms and thus to assist rather than offset the effect of monetary policy." (*Report*, p. 79.) I am not in a position to offer any opinion on the importance of the problem in Canada, and will only venture to suggest that the British compromise, whereby certain "requests" made by the Bank of England to the clearing banks are now also made to a considerable number of other institutions, but no attempt is made to impose quantitative regulations on the latter, may be worthy of consideration.

On all these matters there is now a huge corpus of evidence to which the Commission will presumably be procuring additions, and only a little of which I can claim to have worked through. I shall no doubt be accused of wishful thinking if I say that, after Britain's experiences in 1957-62, I am still persuaded that "credit squeezes" can be made to bite over a sufficient range to be very effective, though they may take rather longer to operate and may require to be furnished with more varied teeth than used to be supposed, and though they may have differential effects which are not wholly welcome. Rather than attempting to defend this position at length, I will ask brief attention to two considerations arising out of it.

The first takes us back to Bank rate (see §7). In Britain Bank rate is not only part of the machinery by which the Central Bank guides the other banks but also, owing to the rigid conventional links between it and the rates for bank advances, part of the machinery by which the banking system as a whole influences the behaviour of the public. I am not sure that the extreme rigidity of these links is a good thing in this country, still less that it is to be recommended for imitation in others. But *some* connection between the various short rates of interest there must be; and it is important that the extent to which the Central Bank

is responsible for all of them should not be played down or camouflaged.

I do not think the duty of the Central Bank in respect of interest rates, short or even long, can be properly expressed by saying that as far as possible it must leave them to be determined in a free market,—it is itself inevitably too much a part of the market for that to make sense; it is its duty to influence the rates, but in a direction and a degree consistent with the long-term forces operating in the economy. I venture to think it would help to make this plain if Canada, having partially* returned in June 1962 to the principle of a Bank rate fixed at the complete discretion of the Central Bank, were to complete the return to that principle, and not again to depart from it. Incidentally, I would suppose the limitation of the chartered banks' prime lending rate to 6 per cent to be an anachronism which should be abolished.

The second consideration takes us back to Fiscal Policy. We have seen (§7) that she must not actively sabotage her sister's efforts to control an inflationary situation. And both the Radcliffe Committee (para. 560) and a certain British White Paper (Cmnd. 1203 of 1960, pp. 6-7) seem to me to go too far towards suggesting that public capital expenditure should never be expected to make a serious contribution towards the scaling down of inflated demand; of course the directors of publicly owned enterprises do not like having to draw in their horns, but neither does anybody else. Provided, however, she makes some contribution on this expenditure front, can Fiscal Policy be allowed to stand aside on the ground that her sister can get on better without her help in an inflationary than in a deflationary situation? I think that would be wrong. As Professor J. M. Buchanan of Virginia has been pointing out,** while it is nice to be lent money, it is nicer still to be given it; and while it is nasty to be refused a loan, it is nastier still to have one's pocket picked. So since Governments like giving people what they like, they will have a certain built-in bias towards making expansions of the monetary stream predominantly by fiscal means and contractions predominantly by banking means; this would not be for the health of the economy, and must be resisted.

My reminder therefore of the independent status of Public Finance (§6) must not be read as a plea for her exemption from unpleasant anti-inflationary duty, but rather as a plea that in all phases of the conjuncture she has other things to think about than the pace of the econ-

* For, if I understand aright, the new method only applies so far to the quantitatively less important part of these support operations, viz. the advances to the banks, and not to the "purchase and re-sale agreements" with dealers.

** *Lloyds Bank Review*, April, 1962, pp. 17-30.

omy, and should not be expected to display a degree of flexibility which is foreign to her nature.*

II. *Cost Inflation*

Are we ready at last to throw open the frontiers to international influences and see what happens to the structure we have painfully built up? Not quite, even now. There is one more outside lion who has been described lying in the path of domestic monetary management, and whom we cannot avoid facing. This is the alleged tendency, under modern systems of collective bargaining supplemented by arbitration, towards a chronic spontaneous upthrust in the level of money wages, carrying with it a consequential rise in the level of prices and in the flow of money demand, which the Monetary Authority could only reverse or even check if it were prepared to see the occurrence of higher levels of unemployment than would be compatible with general Government policy or with public opinion.

Most prices of final goods nowadays and most standard wage rates are, as the phrase goes, "administered," i.e. are embodied in a formal announcement or a negotiated contract. But it seems to me most important to recognize that this is not in itself sufficient evidence that a rise in such a price or wage is the result of spontaneous or aggressive "push." It may be simply the institutional route through which a "pull" of increased monetary demand, itself due ultimately to a Government deficit or to a boom in private capital expenditure, makes itself felt; and this seems to me frequently to have been the case. In the words of one leading British expositor of this line of thought, "Wages do not rise at the whim of employers, or because the Trade Unions ask for increases, but because the demand for labour exceeds the supply, and employers can pass on higher costs in higher prices without losing sales."**

This being understood, however, it can I think be admitted that such a derivative cost rise may come both to exceed in intensity and to survive in time the upswing in demand which set it in motion. And one factor promoting such a divergence of result from primary cause is the existence of systems of wage determination which communicate a wage in-

* If I may quote from a paper of my own, read on the Continent of Europe thirteen years ago, "The curious habit of paying taxes is a very valuable, and a somewhat sensitive, plant. In my country at least, it has shown itself capable of standing up to very heavy burdens, imposed and administered with consistency and fairness. It remains to be seen how it would stand up against the frequent, swift and apparently capricious changes which might be needed to make fiscal policy function successfully as the sole regulator of economic activity."

** F. W. Paish, London and Cambridge Economic Service *Bulletin*, September, 1961, p. xi.

crease automatically from one region or industry to others, without regard to whether the increase in the first centre is really exerting any "pull" on the labour attached to the others and so creating an economic justification—as contrasted with a justification based on some vague and possibly obsolete conception of "fairness"—for an increase in wages in those other centres.

Anyway, for a Monetary Authority faced with a "cost push"—whether spontaneous, derivative or mixed—there may be a real and inescapable conflict between fastest possible *immediate* growth and fullest possible *immediate* employment, on the one hand, and smallest possible divergence from the path of monetary stability, on the other. But in this conclusion the word "immediate" is important; for the long-run prospects of growth and employment may be gravely damaged by any serious lapse from monetary stability.

The degree of skill and courage which the Authority will need in order to make a good decision will vary according to the phase of activity in which the economy finds itself. If it is clearly over-extended, with prices rising smartly and unemployment at a very low level, no great skill and no superhuman courage should be needed to give the necessary temporary priority to the objective of stability over those of growth and employment; and whatever is *said* (and it may be a good deal) in the way of routine abuse, the Authority may be rewarded by seeing a good deal of the steam vanish out of the wage push simply as a result of the change of atmosphere and without the occurrence of those alarmingly high percentages of unemployment which some of its (self-appointed) economic advisors will probably have been predicting. In my judgment this is very much what happened in Britain in 1957-8.

More difficult, both intellectually and politically, is the task of deciding, after the sky has cleared a bit, how soon and how much the flow of money demand can be permitted to reexpand without setting the whole cost-raising process once more in motion. With every month that passes another slice of moderate opinion, both inside and outside the circles of Government, will probably be found moving over from the side of the congenital curmudgeons to that of the congenital gay-goers. I do not claim to know how to hit the target, or even to know how to define the target to be hit. I incline to believe (as I have hinted à propos of the banks in §8) that in Britain a tougher line in 1959 might have averted much subsequent trouble. More generally, it seems reasonable to hold that a tougher line is appropriate in Britain, where average unemployment has remained throughout at a level which is extremely low, than in Canada or the United States, where it is still, for whatever combination of "monetary" and "non-monetary" causes, somewhat high. In

all three countries there is room for measures to soften the edge of the dilemma by reducing the amount of unemployment, and by reducing still more the amount of *distress* from unemployment, associated with a given level of money demand. But here too delicate dilemmas may arise, not so much for Authority as for the individual employer, who will be liable to attack from one quarter if he is harshly swift to sack, and from another if he "hoards" labour which were better released to seek its fortune elsewhere.

12. *Incomes Policy*

It is not surprising that during the last year or two these dilemmas should have caused a number of Governments to reflect how agreeable it would be if their efforts to contain the flow of monetary demand could be met half way by agreed action on the part of employees not to demand, and of employers not to concede, wage advances on a scale which, if applied over the whole field, would cause the flow of money demand to rise faster than the national output. So far only in Britain among the major countries have these ideas been crystallized into a definite attempt to establish what is called a "national wages policy." I had better confess that I have never been an enthusiast for this course; but provided it is understood that it is intended as a supplement to, and not as a substitute for, direct manipulation of the monetary and fiscal machines,* I am not prepared to regard it as fundamentally unsound; and during the past year I have felt it to be the duty of responsible persons in Britain to hope and work for its success.

But the difficulties are formidable. Of the two major ones, one has already raised its head in an acute form; for the Government, having designated $2\frac{1}{2}$ per cent per year as a "guiding light" to the average presently practicable rate of increase, has thought it right to attempt (not in all cases successfully) to impose this rate on its own (direct and indirect) employees, at the cost of disturbing those relativities between the rewards of public and private employment which in the longer run are likely to prove necessary for the adequate recruitment of the former. If the general policy is successful, this particular trouble should prove a passing phase; but the more general difficulty of finding any branch of activity willing to adopt a lower rate of wage advance than the designated "average," and so to prevent the latter from becoming not an average but a minimum, is in my judgment likely to persist.

* Contrast such a statement as this of Mr. Kaldor (*Economica*, November, 1959, p. 269): "All that is necessary is to recognize that the proper way of dealing with inflation is to damp down, or restrain, the rate of increase in money wages *as such*, instead of damping down the demand for goods and services."

The other main difficulty is that of defining an acceptable "profits policy" for combination with the "wages policy" into a comprehensive "incomes policy." This difficulty has not yet become acute in Britain, for, conformably with what is recommended above, the wages policy has been inaugurated in conjunction with a credit squeeze, a pressure on profit margins, and a decline in stock-exchange values which have made it difficult for the most hostile critic to attack it as an attempt to "do down" the worker for the benefit of the profit-maker; and that may become a more tempting line of attack as it becomes increasingly desirable for the Guiding Authority, in the interests of growth, to permit profit margins to reexpand. In that phase there is likely to be an increasing tendency to enquire whether there is not in the modern world an endemic tendency towards a spontaneous "profits push," analogous to the alleged wage push, and calling perhaps for direct methods of intervention of the kind foreshadowed by President Kennedy in his dealings with the American steel companies. At that stage it will be most important to remember that, whatever may be true about wages and salaries (grade for grade), there is no reason to suppose that, from the point of view of economic efficiency, the rates of profit should, either in the short run or the long, be the same in different branches of economic activity, nor that the differences between them should be constant over time. And this is a consideration which perhaps imposes some further limitation on the usefulness of a single uniform figure of "guiding light."

At the moment of writing, political changes have rendered it uncertain in what directions the British experiment is likely to develop. All in all, I do not feel that it has yet achieved such a record of success that it can be confidently recommended for imitation in other lands. But so far I have felt that it deserves respectful watching as a courageous attempt to persuade free men to cooperate for their own good in eschewing lines of action which may otherwise lead to disastrous consequences for them all.

13. *Commercial Policy*

Disaster is a strong word; as a step towards justifying it let us at last throw open the frontiers.

Left to themselves, the citizens of any country will desire to enter into business relations with the citizens of other countries, buying and selling, lending and borrowing. Over a wide range any Government is likely to regard it as among its duties to smooth their path; but even a Government which attaches high value to the preferences of the in-

dividual and the processes of the market may think it right in the public interest to interfere with the scale of some of these transactions, stimulating some and restraining others,—the whole complex of routine smoothings, special encouragements, and prohibitions or constraints, being welded together into a complicated but fairly coherent *commercial policy*.

Among the strands of such a policy some may be described as having their origin in concern over some particular commodity or group of producers. Thus a Government may limit the export of some scarce and exhaustible raw material, or the import of some sophisticated mechanical product for which it fears to become dependent on foreign skills. Thus, also, many countries have persuaded themselves that the welfare of their farming population is an objective of special importance, the consequent policy measures tending in some cases towards an “unnatural” expansion, in others towards an “unnatural” contraction, in the volume of international trade. This is a huge subject, at which we need to do no more than glance. Here also fashions change, under the impact of events. In the 1930s even Keynes could write “Let goods be homespun whenever it is reasonably and conveniently possible”; in the fifties and sixties vast if patchy progress, of which he would almost certainly have approved, has been made towards freedom of international trade in goods. In this development Canada has played an honourable part; may she soon be in a position to resume it.

14. *Balance-of-Payments Policy*

More closely relevant, I think, to the Commission’s purpose is the fact that interferences even with *current* trade are often motivated by concern over the effect of unrestricted dealings on the *capital* position of the country in question, so that what appears as a “commercial policy” is really a *balance-of-payments policy* in disguise. Now a balance-of-payments policy may be of a less or a more ambitious kind. The less ambitious kind is confined to the avoidance or removal of what I will for the moment vaguely call “financial difficulties”; and many countries may well be content if they can achieve so much. But the more ambitious kind is concerned also with some desired state of the whole difference between the annual flow of *current* receipts from foreigners in payment for goods and services and the annual flow of *current* payments to foreigners for similar purposes. For just as a modern democratic country may become self-conscious about the rate of growth of its aggregate stock of wealth (see §4), so it may become self-conscious about the rate of growth of that part of the stock—positive or negative—which lies outside its own frontiers.

A few examples will help to make this rather crabbedly phrased concept plain. It has long been a policy objective of the United Kingdom that the British people should earn a large enough current surplus overseas to enable it to make gradual repayment of some debts, to assist its kinsfolk in the development of their national estates, and to make some gifts and loans to the less fortunate peoples whose destinies have become entangled with its own. Much the same goes, *mutatis mutandis*, for the United States. The motives behind these policies may be a somewhat perplexing potpourri of profit, philanthropy and prestige, but they are not inherently ridiculous or discreditable. Conversely, it has till lately been the settled policy of Canada to acquiesce with a good grace in the desire of her neighbours, especially her rich and powerful neighbour to the south, to play an active and profitable part in the development of her estate; it has been her policy therefore to accommodate the sizable "adverse balance of payments on current account" which has been the inevitable instrument for the accomplishment of that desire. This, too, seems in the past to have been a thoroughly appropriate policy, not justly open to attack as though it were the action of a drug addict who *first* lays in his stores of hashish and *then* mills around looking for cash with which to pay the bill.

But these "capital" policies, however sensible, may call for reappraisal in the light of changing events, lest they should conflict with more imperative requirements. The Commission may not be directly concerned with the reasons for which the two Lady Bountifuls mentioned in the last paragraph are having to take stock of their ways and consider which, if any, of their sacred cows must be led out to slaughter or at any rate put on half rations; but it is bound to be concerned with the repercussions of the stock-taking process on Canada, to whose troubles it has already added. For some years warning voices in Canada have been preaching that the time had come for her to do more of her saving for herself: and though the argument was sometimes overplayed, with inadequate distinction between the 5 billion dollars of *debt* and the 13 billion dollars of equity investment in foreign hands, it was impossible not to feel in one's bones that, even from a strictly economic point of view, there was a good deal in it. Now what there was in it stands revealed. For while I think that historically, as I have said above, the adverse balance of current payments is to be regarded as the result rather than the cause of the inflow of foreign capital, this seems to be another case (like the "push" of wages described in §II—indeed it is perhaps another facet of the same story) where a "result" once established acquires an autonomous power of survival after the "cause" has

been withdrawn or reversed. Thus for the designed capital inflow which has temporarily shrivelled away there has had to be hurriedly substituted first the "crisis" type of capital inflow which consists in the sale of reserves or emergency borrowing from private sources, and then the "rescue" type which consists of support from international agencies and friendly Governments and Central Banks.

Perhaps what has been going on can be instructively put in this way. In Britain and the United States the desire to invest (in the broadest sense) abroad has tended to outlive the capacity to do so; in Canada the need to attract capital has tended to outlive the capacity to do so. It may seem a paradox that two such opposite conditions should produce, or threaten, the same result, namely an embarrassing shortage of ready cash. But is not the explanation that both conditions are manifestations of the same underlying malaise,—the malaise of the bullfrog who wanted to grow faster than the laws of nature permit?

I am well aware that to many people this will seem a very shocking suggestion, since they are convinced that all our difficulties could be removed by a more liberal provision of international reserves, whether through a raising of the currency prices of gold, a further extension of the powers and functions of the International Monetary Fund, or some combination of the two. Let me hasten to say, therefore, that I agree that there *is* a formidable problem of international reserves, or rather at least two problems,—one of protecting the leading national currencies against the raids of speculators, and one of providing a reasonable annual increment in the base, whatever it is to be, of the world's monetary system. But I agree with Dr. Holtrop that these problems are most likely to be resolved with success if tackled in conjunction with policies "directed to preventing continuance of deficits and surpluses running into billions of dollars,"*—or, in Dr. Roosa's words, "with heavy reliance on the discipline provided by the balance of payments."** I do not believe countries have often been compelled to pursue for emergency balance-of-payments reasons courses of action very different from those which it would have been in their true long-run interest to pursue for domestic reasons if they had realized it in time. There have been exceptions, doubtless, especially in the 1930s; I doubt if Canada in 1962 is a true exception, even if she is being compelled for a time to give a distasteful priority to monetary stability over the other "Rasminsky objectives."

* *Report of Netherlands Bank for 1961*, p. 19.

** Address to Conference of American Bankers Association, Rome, June 1962.

15. *Exchange Policy*

I must add a few sentences, even if they be only in the nature of a funeral oration, on what was still, when I received the Commission's invitation to submit a memorandum, the most conspicuous feature of the Canadian financial system, the mobile rate of exchange. Having been engaged at a low level in the hammering out of that extraordinary document, the Articles of Agreement for an International Monetary Fund, to the framing of which Canadian wisdom made such notable contribution, I admit that I felt a kind of personal pang when in 1950 Canada saw herself obliged to run out on one of its leading provisions. But one had to remember that many other signatories were only managing to keep within the letter of the law by sheltering for far longer than had been anticipated in the "transitional" annexe; and one had to recognize Canada's peculiar difficulty in providing by any other means some kind of freedom of financial manoeuvre vis-à-vis her all-powerful neighbour. One had to recognize, too, that she cast loose originally from strength and not from weakness,—not to evade the penalties of misconduct, but to give her people the legitimate real-income advantages of a strong exchange position by a less devious method than the officially approved one of attracting scarce gold to serve as a basis for an engineered expansion of credit; while yet preserving for herself a relatively painless line of retreat if the wind should change. There are good economists who would say that that is just how these things ought always to be done, Bretton Woods or no Bretton Woods! Only, they would say, if the exchange rate is completely free to move can a virtuous country hope to pursue its own chosen blend of the "Rasminsky objectives" without risk of seeing it fatally contaminated by inflationary or deflationary poisons imported from abroad.

I think the balance of argument is against again attempting to make such a system work as between the major currencies of the world; in the end we should get tired of it, as we did in the later 1930s, and begin to make fumbling efforts towards tying up again. But I think it would be hard to show that the practice of this device by Canada between 1950 and 1960 did herself or anybody else much harm.

The last phase of the policy, the contrived depression of the exchange rate announced in the budget speech of June 1961 and put into effect during the succeeding months, is a trickier story, and I am not sure whether I have got it right,—the Commission will be in a position to judge. It seems to me to have been the outcome of a correct judgment of what was required, combined with a (very naturally) erroneous fore-

cast of what was going to happen. It was decided rightly that it was high time to make some attempt to reduce the adverse current balance; and since other ways of doing this were regarded as ruled out, it was held that it must be done by lowering the exchange rate, thus checking imports and encouraging exports. But it was expected that if left to itself the exchange would move, if at all, in the wrong direction, under the impulse of the continued inflow of capital; therefore this must be prevented from happening, and the pressure of the inflow of capital accepted in the orthodox form of an increase of reserves.

And thus indeed things happened until the end of the calendar year. But thereafter everything turned round. Of those two puzzlingly intertwined snakes, the capital inflow and the adverse current balance, it was, as we have seen in §14, the latter not the former which turned out to have the greater survival power. And in the last phase of all, a fixed rate of exchange came to look more like a home of refuge than like a prison.

I do not think it would be well to break out again. I expect it is a case of

And always keep a hold of nurse
For fear of finding something worse.

But there is no reason to regret the depreciation, which in the circumstances was rightly seen as part of what the doctor ordered. Only let there be care not to expect too much of it, or of the internal effects of the import taxes by which it has now been buttressed. For, if I may quote once more from the thirteen-year old talk cited in §10:

Depreciation is like a pill rolled in jam; a clever child will swallow the jam and spit out the pill. Purchase-taxes are like taking away, spoonful by spoonful, jam which has been solemnly handed over; a clever child will not forget, nor let you forget, that he once held the whole jar in his hands.

16. *Coordination and Communication*

This subject has two main aspects,—the relations between Government and Central Bank and the relations between Central Bank and the other elements of the market. It is evident that in some periods in Canada both have left something to be desired. On the first, it seems to me impossible to better the statement made by Governor Rasminsky on his appointment; and, on the second too, I have no doubt matters are now in better trim.

In both cases, it is a question of how much to attempt to tie up in legislative knots and how much to leave to the operation of good sense. That is a matter on which I doubt if the opinion of a non-Canadian academic would be worth much, even if he could find precise words in which to express it!

DENNIS ROBERTSON

Cambridge
July 28, 1962.

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