POLICIES, PLANNING AND MANAGEMENT FOR AGRICULTURAL DEVELOPMENT

PAPERS AND REPORTS

FOURTEENTH
INTERNATIONAL CONFERENCE
OF AGRICULTURAL ECONOMISTS

Held at the Byelorussian
State University, Minsk, U.S.S.R.

AUGUST 23rd–SEPTEMBER 2nd 1970

OXFORD
INSTITUTE OF AGRARIAN AFFAIRS
FOR
INTERNATIONAL ASSOCIATION OF AGRICULTURAL
ECONOMISTS
1971

Agriculture in Relation to Monetary Problems and Policies: A Canadian View

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It is appropriate, I believe, for this Conference, organized around the theme of policies for agricultural development, to give some emphasis to the role of monetary and credit policies[1]. In this paper I propose to discuss in the Canadian context the impact on agriculture of using monetary policy as an instrument to stabilize economic activity and then to outline some of our experience with more selective credit measures. Our experience may have only limited relevance to policies in centrally planned economies or in the less developed countries but there may be some general interest in the problems we face. The problems of Canadian agriculture reflect the diversity of the industry. We have large highly specialized prairie farms concentrating on wheat production mainly for export: we have large modern farms producing livestock and dairy products for the domestic market and we still have many small mixed farms producing close to the subsistence level.

In Canada there has recently been a good deal of study and discussion of the process of development which is taking place in agriculture. We have had a Federal Task Force on Agriculture which developed position papers and presented them to a Canadian Agricultural Congress in 1969.[2] We have had a Report prepared by a Special Committee on Farm Income in Ontario[3] and we have had a Royal Commission on Farm Machinery[4]. The pattern which emerges from these and other analyses of the industry is that agriculture is still faced with major problems of adjusting to increased specialization and changing technology. The methods and structure of agricultural production and marketing must be changed in order for the public to be able to benefit from the most efficient methods available without imposing politically and socially unacceptable burdens on those who are personally committed to the traditional patterns of production. There have already been major adjustments in Canadian agriculture. Over the last 20 years farm employment has fallen by about 50 per cent, a drop of about half a million people. The

1 The author has benefitted from the comments of several colleagues. The author is personally responsible for the views expressed and no responsibility should be attributed to the Bank of Canada.

2 Proceedings of the Canadian Agricultural Congress, Ottawa, March 24–27, 1969, the Queen's Printer, Ottawa.

3 Ontario, The Special Committee on Farm Income, *The Challenge of Abundance* January, 1969.

4 The Commission's Final Report has not yet been published in March 1970. See, however, 'Technological Change in Farm Machinery and Canadian Agriculture,' *Proceedings of the Canadian Agricultural Congress,* pp.451–477 and the *Special Report on Prices* published by the Commission. The Queen's Printer, Ottawa, December 1969.

number of farms has also fallen by about 50 per cent since 1950 although the amount of land under cultivation remained unchanged and the real domestic product in agriculture has actually increased about 50 per cent. The volume of agricultural output in relation to the total output of the economy which was about 7 per cent in 1950, fell to under 4½ per cent in 1969.

One aspect of the problem which has arisen from changes in the technology of farming is the need to maintain farm income during the transitional period, another is the need to re-allocate resources. It is the case that if the most modern and efficient methods of production and distribution were adopted we would be faced with a serious problem of displaced surplus inputs–mainly labour inputs.

'The challenge is to create fewer, larger and better managed farms so the operators can obtain better incomes, while at the same time shifting surplus people to other forms of employment and surplus capital (including land) into other uses.'[5]

The impact of technological change has been felt particularly severely in agriculture because the competitive nature of the industry has led to rapid increases of output and much of the benefit of more efficient production has been quickly passed on to the consumer through a relative fall in prices. Now this is a very desirable thing and economists often laud the competitiveness of agriculture which produces this result. Nevertheless, in other industries where the benefits of technological change are reflected in increased profits it has been possible to make intra-industry transfers to those who were being harmed by the process of change over a transitional period.

If the paramount problem facing agriculture is to shift resources out of that sector to facilitate more efficient production and higher total output for the economy at large, how may government monetary and credit policies contribute to this goal? It is obvious that the effectiveness of policies will depend on the pattern of the credit flows which exist in the economy and the nature of the instruments of credit control which the policy maker has at his disposal. My observations will refer specifically to Canada where credit is bought and sold quite freely through a system of private financial institutions and there is a highly developed market network whereby financial savings are mobilized and made available to those who wish to borrow.

As a very general description, monetary policy operates in our market-oriented system by controlling the rate of growth of the volume of total credit outstanding and hence the price of credit at any given level of demand for it. The control is based on the power of the central bank to control the amount of the ultimate liquidity in the system (cash in the form of central bank liabilities). The fact that some financial institutions have legal minimum cash requirements and all businesses and individuals want to maintain at least a portion of their assets in the form of cash gives the central bank through its control over the supply of cash a great, if not exactly predictable, leverage over the entire credit system.

The broad objective of monetary policy is to achieve a rate of growth of credit which will produce (or at least be consistent with) a non-inflationary

5 The Challenge of Abundance, p.47.

level of demand for output. This is a level of demand which is not in excess of the supply potential of the economy so that inflationary pressures are avoided but at the same time is high enough so that the productive resources of the community are being utilized. I would not want to pretend that central bankers are completely successful in creating and maintaining the ideal economic conditions at which they aim. The attainment of this desirable state of affairs is much complicated in practice because there are lags between changes in the availability of credit and their resultant influences on the level of demand and because the whole economic system as well as being influenced by monetary policy is always being influenced by other developments inside and outside the country.

Probably the most important contribution which a central bank can make to agriculture is to provide an economic environment of stable prices and steady growth within which necessary adjustments can take place. To the extent that farmers are owners of land and have debt obligations, they would benefit from inflation that had not been anticipated and incorporated in land prices and mortgage interest rates but I don't think there is any evidence that inflation makes agricultural adjustment any easier, while in terms of current earnings it tips the terms of trade against farmers; that is, raises input prices relative to output prices. One of the most disruptive characteristics of inflation is its variability over time and I feel that in the long run a climate of inflationary conditions, combined with the measures necessary to keep inflation within acceptable bounds, tends to unnecessarily complicate planning and all sorts of calculations concerning the future. There is no doubt that steady and high levels of employment outside the agricultural sector are a very important requirement if labour is to move out of agriculture where most farmers have felt they had security, even if at a low level of income. It has been suggested, in fact, that increases in unemployment may force recently departed workers to return to the farm

I will only mention in passing that central banks have played an active role in attempts to strengthen the international monetary system. The existence of an appropriate amount of domestic credit can contribute to orderly growth and the efficient use of resources within a country. Similarly there is need for a dependable mechanism of international payments and co-ordination of economic policies between countries if we are to attain a continued growth of mutually beneficial trade.

An extremely simplistic notion of how monetary policy should work with a market-oriented financial system is that the central bank should simply seek to achieve an appropriate overall growth in the nation's supply of credit and leave it entirely to market forces and financial institutions to determine the distribution of this credit between the various groups in the economy. It is true that it is very difficult if not impossible to have distinctly different levels of interest rates and credit policies for particular regions or particular industries within a national economy where borrowers and lenders are served by highly integrated financial institutions and markets. Nevertheless it has been widely felt in Canada that with a completely 'hands-off' monetary policy, free market forces would produce a distribution of credit out of accord with social priorities. As a result the government has devised special arrangements to stimulate the flow of credit to particular borrowers and a number of these measures encourage credit flows towards agriculture. The Bank of Canada has direct responsibility for the use of monetary policy for stabilization purposes. The responsibility for selective credit programmes is rather widely distributed in our government.

The argument most frequently used in support of selective credit programmes is that government must accept responsibility because private lenders are overly cautious and are failing to provide the volume of credit that is needed at a price that is justified by actual risk. This may be because they have suffered losses at times of general crop failure, or because farm assets do not typically provide ready collateral for loans, or in some cases because the problems are so immense that only the government is capable of dealing with them. A second argument is that even though risks may in fact be quite high, other groups in the community as well as the borrower should be expected to bear part of the cost since otherwise there would be too little investment in some projects which have value to the community as well as to the borrower.

In thinking about special credit policies that will encourage the reorganization of agricultural capital, it is probably useful to recognize at least two broad categories of farms: those which are already, or have the potential for becoming, viable commercial farms and those marginal farms producing less than some minimum amount of saleable output. Current Canadian thinking is that broadly different types of measures are needed to promote the growth of the first group and to cushion the social hardship in the shrinkage of the second group. The objective with the first group is to accelerate the process of development by encouraging growth of larger, more efficient farms with increased capital intensity. It has been suggested that over a period of time special credit facilities should be withdrawn from these commercial farmers who would then compete with other businesses for the external credit they need for their businesses and that they should be able to pay going rates of interest because they would be able to earn comparable rates of return on their investments. The second group of more marginal producers will probably continue to need an element of subsidy to maintain minimum levels of income. To a considerable extent, small low-income arms are concentrated in particular regions, often quite cut off from centres of industrial activity. Government policy has been shifting towards comprehensive programmes of regional economic development and away from programmes to supplement low farm incomes.

The measures that have been taken to influence credit flows in Canada include efforts to influence private lenders through persuasion; encouragement for the establishment of co-operative lending institutions; controls or subsidies on the interest charges of existing institutions, and direct loans from government agencies.[6] Space permits me to mention only the most

6 One of these direct lending agencies in Canada is the Industrial Development Bank which is a subsidiary of the central bank. It was set up over 25 years ago to make long-term loans and to provide equity capital to small businesses. It extends credit to agricultural enterprises and makes about 6 per cent of its loans to this group.

important of the various schemes which have been used.[7]

The Farm Credit Corporation which dates back to 1927, has in recent years been the most important source of long-term mortgage finance for farmers. It is wholly owned by the Federal Government and all of its capital has been supplied by the government. At the end of March 1969 it had total loans outstanding of over $1 billion, about 60 per cent of all the long-term farm credit outstanding. Its loans have been primarily directed at farm expansion and modernization. Interest rates have tended to be below market rates and hence to involve an element of subsidy although they have recently been adjusted to be more in line with market rates. Each of Canada's provinces has its own agency for making mortgage-type credit available to farmers and together these have been the next most important source of long-term funds.

A number of criticisms have been levelled at the agencies engaged in direct lending. It is sometimes said that they are too restricted by their legislation and hence cannot lend in large enough amounts to a single farmer. This is particularly the view of those who feel that the primary reason for government intervention should be to encourage the growth of large efficient farms. A second criticism is that by lending at low rates they have discouraged the development of private lending institutions. This criticism assumes that private lenders could have achieved a broadly-based diversification of such loans to permit a pooling of risks and would have supplied the desired funds at somewhat higher rates. Another criticism that is sometimes raised is that these organizations have focussed too narrowly on the financing of land purchases and have not made enough provision for the need of increased working capital and machinery purchases or for investment in intangible inputs like management practices and good accounting systems. It has also been suggested that there may have been too much credit directed towards mortgage lending in some types of agriculture with the result that favourable interest rates have been capitalized into high land values.[8]

The Farm Improvement Loans Act is a scheme under which the government guarantees farm loans granted by commercial banks and other lenders. It was set up in 1944 and has been an extremely important channel for the provision of medium-term credit. Under this scheme banks are guaranteed from losses of principal provided certain conditions are met, and an interest rate ceiling is observed. Prior to 1968 this interest rate ceiling had been fixed at 5 per cent for many years and with the rise in other interest rates had gotten progressively out of line; as a result the banks found this type of lending increasingly unattractive and were reluctant to grant additional loans. In 1968 the ceiling on rates was raised and linked to the market rate of

7 For a more complete description see: *Proceedings of the Canadian Agricultural Congress*, pp.93–155, and Rust, R. S. *Farm Credit Legislation in Canada*, Publication 1360 of the Canadian Department of Agriculture, Ottawa 1967.

8 Anderson, W. J., 'Canadian Agricultural Policy–A Review,' *Agricultural Institute Review*, May–June, 1966.
Reprinted in: *Occasional Papers*, Publication No.9 of the Agricultural Economics Research Council of Canada, 1967.

interest on government bonds. While there is broad recognition of the value of this government guarantee, critics of the scheme contend that the low profitability of this business to the lender may have limited the development of counselling services and industry expertise within the banks. Another comment on this scheme is that its ceiling level of interest implies a differing element of subsidy on loans involving varying degrees of risk.

There are a number of other government measures which provide credit for very specific purposes. Some of these schemes are directed explicitly to particular crops. The most notable example here is the credit extended to the wheat industry. In Canada, although wheat marketing is under government control, much of the inventory of unsold wheat is held in private hands. The banking system provides most of the working capital to carry this inventory. The Canadian Wheat Board is the government marketing agency and holds part of the wheat inventory. It is financed through the chartered banks and it administers a programme of advance payments to farmers for farm-stored grain.

In recent years a number of programmes have been developed to deal explicitly with the problems of rural poverty and have involved major long-term efforts to develop particular depressed regions and to promote agricultural adjustments. The most important of these are the Agricultural Rehabilitation and Development Administration and the Fund for Rural Economic Development. A new Federal Government department has been established to co-ordinate such programmes and to organize joint projects with provincial governments.

In order to evaluate the importance of these programmes to encourage the flow of credit to the farming industry it is necessary to form an opinion about the extent to which the desired adjustments in agriculture have been impeded by a shortage of available credit. To form an opinion about the adequacy of credit I think it is necessary to evaluate the overall adequacy of capital in the industry. The main sources of farming capital are inheritances, accumulated savings and funds provided by external sources either in the form of debt or direct equity participations.

Now there can be no doubt that capital, by which I mean durable inputs or the means of purchasing them, are of tremendous importance in agricultural production. The importance of land and equipment is widely acknowledged. Perhaps less widely acknowledged is the importance of working capital and intellectual capital in the form of management techniques and the capabilities which come from a better general education. Working capital is becoming increasingly important because farmers must have the capacity to finance themselves, not only through the crop cycle from season to season but also to withstand the variation of good crops and bad from year to year and even to envisage the possibility of holding stocks of output in order to stabilize prices and maximize earnings over time. I think there can be little doubt that the adjustment process I referred to at the beginning of this paper involves an increase of each of these kinds of capital in relation to labour inputs. This does not mean that I am convinced that there is an absolute shortage of capital in Canadian agriculture at the present time. We have had studies which have attempted to measure the rate of return of capital in various types of farming and these have come up with the results that the estimated rates of return[9] are typically lower than in other types of Canadian business. This would imply either that there is no shortage of capital or that there are substantial variations between the return on capital which is being used efficiently and the rest of the capital which is now in the industry.

Even if the total amount of capital is now quite adequate it is still possible to argue that the adjustments to farming methods required by modern technology involve a substantial redistribution of the capital which is already in the industry. It is argued that any element of subsidy should be directed towards expenditures which will promote mobility and increase efficiency, such as retraining schemes, general education, and assistance that will help the more progressive farmers to move into the category of viable commercial farms. In referring to this adjustment process the Ontario committee concluded:

'the policies of subsidizing the prices of inputs or allowing easy access to credit are futile attempts to treat the symptoms of the disease, namely low farm incomes, rather than the disease itself. One of the diseases that must be treated is too many resources, particularly people, bottled up in agriculture with very few and limited programmes available to them . . . Subsidies that are not tied to inputs, but improve the management capacity of farm operators or otherwise assist them in adjusting to larger, better managed units, are of tremendous value.'[10]

The implication here is that the scarce inputs which are impeding the process of adjustment in Canadian agriculture are basic education, training in management principles and better opportunities for alternative occupations. This type of input is sometimes referred to as investment in human capital. There is little evidence in my country that schemes to make credit readily available to farmers on favourable terms have any very direct impact on their own rate of investment in human capital.

I hope that the comments I have made about the limitations of selective and direct credit programmes as a means of facilitating agricultural adjustment will not be misunderstood. I agree with those who claim that progress in agriculture requires continuous access to adequate sources of credit. I also agree that in some cases the risk and social circumstances may be such that it is appropriate for the government to make special provisions to ensure the availability of the necessary credit or to provide a broad pooling of risk. On the other hand, I do think that there is a possibility that in the past too much attention has been given to efforts to increase the amount of capital in agriculture through particular types of external debt with not enough attention given to the overall structure of the balance sheet of the agricultural

9 These comparisons of rates of return are complicated by the difficulties of measuring capital inputs on a comparable basis. The measures we have of the value of capital in agriculture are at current prices, whereas those of capital in other industries are measures at historical costs.
Cf. *Proceedings of the Canadian Agricultural Congress*, pp.102–105 and 132.

10 *The Challenge of Abundance*, p.43.

sector. If farms are to grow and evolve in a way which makes sense from an economic point of view, the capital structure of the family farm which has been constrained by traditional social goals may have to evolve more rapidly. Perhaps governments will have to take more initiatives to encourage equity investment in farming as well as encouraging debt investment.

In conclusion I would say that stabilization policies in general and monetary policies in particular can make an important contribution to agricultural development by providing a framework of stable prices and steady growth throughout the economy. The more specific problems of regions or industries require more specific policies and programmes for their solution. Even here government initiatives will be easier to undertake and more likely to promote desired adjustments if the overall performance of the national economy is satisfactory.

U. Koester, *West Germany*

Dr. Post would certainly agree that on the one side the development of agricultural prices and on the other of agricultural income are related to the main aim of monetary policy, securing a stable price level. It is thus necessary to investigate under which conditions the development of agricultural prices becomes a problem for monetary policy that can lead to inflationary tendencies. Looking at the question from the other side, we must investigate how agricultural prices affect agricultural incomes if inflation in the rest of the economy arises from other sectors. I will now turn to this question in order to get the discussion on a broader basis.

To begin with, I will examine how inflation in the economy can start from developments in agricultural prices. Within an economy inflation occurs when supply and demand for commodities get out of step with each other, you thus get a gap in supplies or an excess of demand. With free market prices this leads to a rising price level. With administered prices, prices remain stable but either delivery times or the overall availability of goods at current prices cannot be guaranteed. In the same way we can lay down that agricultural prices will become inflationary if the demand price lies above the supply price. By 'supply price' is understood that price which would allow parity of development of payment for factors in all economic sectors.

If the supply and demand curves move differently relative to each other, an inflationary movement does not necessarily mean the same as a rise in agricultural price levels. Falling agricultural prices can bring about an inflationary tendency, i.e. always where the increase in productivity in the agricultural sector is above average and the benefits are not passed on in corresponding price reductions. If, then, the rate of technical progress in agriculture with constant factor inputs is smaller than the growth in demand for agricultural products, agricultural prices will show an inflationary rise. Since the increased demand for agricultural products arising from general growth in the economy depends on alterations in *per caput* income and is also dependent on income elasticity, this can be generalized. If there is high income elasticity of quantitative demand and the technical progress rate in the agricultural sector is smaller than the rise in labour productivity in the economy as a whole, inflationary tendencies will arise from the development of agricultural prices. With lower income elasticities, as in the case of industrial countries, the difference between the technical progress rate in agriculture and the growth in labour productivity in the economy as a whole can, on the contrary, be appreciable without the development of agricultural prices showing any inflationary tendencies.

A mathematical model, taking account of differential factor intensities, price and income elasticities, and the economic interdependencies of the individual sectors, can be used to show that the technical progress rate in the agricultural sector, under the conditions which apply in developing countries, must be of the same magnitude as the growth in labour productivity in the economy as a whole. In industrial countries, on the other hand, considerable differences in the technical progress rate in the agricultural sector and the growth in labour productivity in the remainder of the economy will be possible. So with a 10 to 20 per cent difference between the growth rate of technical progress in agriculture and the alteration in labour productivity in the economy as a whole, the development of agricultural prices need not give rise to an inflationary effect.

I will not go further into this, instead I want to make a few remarks about the relationship between inflation and the development of agricultural income. Instead of following the usual procedure, I will turn to the factor market. In doing so I shall assume a creeping inflation and that the inflation rate in the agricultural sector is the same as in the economy as a whole. Dr. Post has put forward the view that there is no proof that inflation assists agricultural adjustment, i.e. the change in agricultural structures. The view is widely held that inflation leads to an increase in land prices and therefore to a necessary change in the land/labour relationship. This statement is correct if inflation has the effect of slowing down land mobility and/or labour mobility. Land mobility decreases when the owners of the land are less inclined to give up their land, there is a decrease in the buying and selling of land and leasing and renting become more difficult to arrange. As a result of inflation the demand for buying agricultural land rises more than is accounted for by the average rate of inflation. On the one hand, the farmers are not inclined to invest money in land, and on the other there is a demand from farmers displaced by industry and from farmers who have sold land for building. If the supply curve is not altered, the change on the demand side will have the effect that the rise in land prices is above the average rate of inflation. If the supply is not completely inelastic, the quantity of land sold must increase. The effect of inflation on the supply side cannot be decided so unequivocally. The following groups can be distinguished among suppliers of agricultural land for sale: (a) farmers who have been compelled to leave their farms against compensation, their supply curve is not altered; (b) non-farmers who have inherited land and owing to rising costs are not in a position to farm it themselves. Apart from selling, they also have the possibility of leasing out their land to farmers who prefer to rent land in a situation of rising prices; and (c) farmers who change their occupation because of too low earnings. The decision to change occupation is determined more by low current income and less by the non-realised increase in asset values due to inflationary factors. Since the change in occupation opens up the possibility of realising their capital, it can be assumed that an inflationary rise in land prices encourages farmers to change occupation. However, the amount of land offered for sale can decrease relative to the amount offered for rent. As a result we can sum up by saying that altogether a reduction in land offered for sale is possible but this is however linked to an increase in the market for land for rent. As a result the total area of land which changes hands under the inflationary effects of a creeping inflation is greater than during a period of stable price levels in the economy.

Since a creeping inflation during a period of full employment improves rather than reduces the opportunities for farmers to find employment outside agriculture, no inflationary reduction in the movement of farmers out of agriculture is to be expected. Thus the effect of a creeping inflation on the structure of agriculture, when the rate of inflation of agricultural prices is the same as the rest of the economy, tends to be more advantageous than not. A final conclusion can only be drawn if the influence of the inflation on agricultural prices can be determined.

It is not possible to present a detailed theoretical analysis at this moment. I should therefore like only to draw attention to the empirical analysis of the connection between inflation and agricultural prices found in W. Germany. Between 1950/51 and 1964/65 the average recorded inflation rate of agricultural prices amounted to 0.4 per cent per year. Since this result, however, has a very wide margin of error the hypothesis that agricultural prices have risen by exactly the same amount as the general price level cannot be repudiated. Thus it can be assumed that creeping inflation in the period under review in W. Germany was such as to provide conditions for structural change. In addition, if the credit economy is taken into account, it follows that the creeping inflation had a beneficial effect on the development of agricultural incomes in the past and might also do so in the future.

A. M. Khusro, *India*

I know Dr. Post's paper was concerned with Canada but I thought the spirit of that paper, and of this session, affirm the application of the sort of strategy that Dr. Post mentioned to other situations and I shall be concerned with some applications to underdeveloped countries like India. It is true that monetary policy is of general application and not of particular application, yet I think this is an old-fashioned view and some discrimination can no doubt be built within monetary policies so that sectors which you want to promote can be promoted. So in economies where there are two different sectors–dual economies–in one of which interest rates are high (let us say average 18 per cent–a very large agricultural sector) and another sector where interest rates may be normal (around 8 or 9 per cent) surely a uniform monetary policy will not achieve anything at all. Now I should argue that when the new banking systems encroach upon the agricultural sectors in developing economies and the idea is to saturate institutional credit in place of the money lenders non-institutional credit, what do you do under these circumstances? I suppose what you do is, you have to raise interest rates on deposits in order to mobilise deposits and the new savings of the agricultural community which is coming up fast as a result of agricultural transformations. If you don't raise interest rates say, from 6–8 per cent, why should any agriculturalist saver lend his money through the bank when he is getting in his own sector, something like 12–18 per cent of interest rates? Therefore, I think discriminating and differential interest rates become a necessity if the savings of the agricultural community are to be mopped up into the banking system. Now some people say that if you do that urban people will take their savings to rural areas and bring them to the back door. Checking up with bankers, it turns out that this is not a serious possibility. You can keep differential interest rates, have the differential very small so that the risk and the toil and trouble of transferring funds does not warrant such shifts. Now the point is, if you have to charge higher interest rates for deposits to the rural community then the implication of this is that you collect higher interest rates on advances that you lend to the agricultural community. Now here it is very difficult to convey to politicians and many others in these societies that it is important that we raise interest rates on advances in order to be able to pay higher interest rates on deposits. Politicians say, 'Ah, what about cheap lending to agriculture?' Now my proposition which I hope this house will agree with is, cheap lending under these circumstances is the enemy of cheap lending later on. If you want the banking sector and the institutional arrangements to co-operate in underdeveloped countries and if the money lenders' share instead of being 75 per cent as it is today in India is to become 10 per cent over ten or twenty years, how do you achieve this expansion? You achieve this only by expanding the assets of the banking sector. How do you expand the assets of the banking sector? You do that by raising their earnings and you do that by raising interest rates. If you do not do that then people borrow from you at 9 per cent and re-lend at 12 or 18 per cent and your assets fail to expand while the middle man's gains do.

I would therefore plead that differentiation in monetary policy and differential interest rates, are an absolute necessity.

I shall end up, Sir, by only one small paragraph. Most underdeveloped economies often make the mistake of creating too much credit and the reason for this is that they argue not only that money creation should go on in step with outward growth—say 3½ per cent—but also because the economies are getting monetised. More money should be created for the sake of monetisation. They fail to see the possibility that these economies are also undergoing a very major change in terms of institutional development and economising practices in the use of money so on that count the demand for money might rise less fast than is anticipated. Since governments in poor countries and developing countries do not see these possibilities clearly I think they invariably end up by creating more money than is wise.

W. J. Anderson, *Canada*

Post has made a clear statement about the objective of Canadian monetary policy which is to relate the growth of credit with the need for credit so as to sustain growth in the economy without inflation. As a special arrangement for agriculture the government has a scheme which provides some credit below the prevailing rate in the market for capital.

I would like to view this paper in a wider context as opening up the question of the monetary and interest rate policies which are crucial to providing a favourable atmosphere for economic development. These policies are also closely interrelated with policies with respect to external exchange rates for the currency and the fiscal policy with respect to taxation. Distortions imposed by any of these policies on the economy can create an economic environment which is highly restrictive to agricultural growth in a low income economy.

Once a developing country has allowed its currency to become over-valued one finds significant forces aligned against devaluation. One resistence group includes labour and consumers who fear price increases resulting from devaluation. Another group contains industries with vested interests because they import cheaply with an over-valued currency and make extraordinary profits out of the import licences which they hold.

For agriculture, however, the over-valued currency reduces the range of export possibilities and may virtually eliminate the best source of demand on which to base agricultural development because internal demand, in low income countries is too weak to support growth. Moreover, import substitution is also made difficult because it keeps prices of the competing import product relatively low.

The other policy to which I will refer pertains to interest rates. I am referring to the situation where these rates are kept below the open market rate. The objective is to aid development by providing low-priced loans to industry including agriculture. Though adopted in the name of development, the policy actually discourages savings which are at the root of capital formation. The economy, therefore, becomes increasingly dependent on foreign aid and loans and the government is forced into taxation as a means of mobilising domestic savings. This raises a host of issues concerning equity in the forced savings and public investment decisions which are exceedingly complex and difficult to administer.

I suggest that agricultural economists pay too little attention to issues of monetary policy and capital markets in developing countries.

We would be well advised to put more emphasis on them because of the critical influence which they have on agricultural growth.

A. Gilshon, *Israel*

The first point I would like to touch upon refers to a question dealt with by my colleague from India and I could not agree with him more. Mr Post's paper deals with the effects of a free credit market on agriculture and the difficulties of maintaining different credit levels and interest rates for different regions or industries within one national economy; this point is worth some elaboration.

The experience of my own country, Israel, shows that even if, with good intentions towards the farm sector, the authorities (government or central banks) can create a policy of favourable interest rates for agriculture whereby commercial banks are obliged to grant credit to agriculture at an interest rate 1 per cent lower than the going maximum rate to other sectors (Until recently there has been a legal ceiling on interest rates in Israel) this policy has proved to be a 'curse in disguise' because it made agricultural credit less profitable to the banks. Therefore, they were more reluctant to grant credit to farmers, and kept from expanding it. In such cases, where there is a general policy of tight money, farmers were probably ready to pay more for bank credit (which would still be lower than the other private sources of credit), if they could only get more volume. In such an event agriculture would have been better off if banks had been allowed to charge agriculture 1 per cent more rather than 1 per cent less than the rate to other recipients of credit. This example applies, of course, only in similar conditions but it serves, in my opinion, to show that an over-simplified approach often produces opposite results from those intended.

The second point I would like to make relates to one of the main obstacles to making credit to agriculture, more easily available, or on better terms, which is mentioned in the paper also, namely risks–high risks, of crop or produce failures due to natural hazards. My question to the author would be whether in his opinion this difficulty could perhaps partially be overcome by the implementation of general crop and produce insurance, with or without substantial participation by governments in subsidising the programme. On the basis of Canadian experience would he recommend it as an aid to improving credit terms for agriculture?

Albert Kiss, *Hungary*

This report is most interesting to me since, in a socialist country, such as, Hungary, a credit policy is being implemented by other means. It is especially interesting as regards the developing countries and enterprises which are weakly based. Do firms which are in a difficult position receive credit on favourable conditions? In Hungary agricultural enterprises which suffer bad climatic conditions receive special credits under favourable conditions, moreover they receive special help from the state because their resources are not enough for the favourable development of their farms. As regards social aspects, it is a problem to maintain the necessary living standards of those who are engaged in the work of the state farm. The areas of such collective farms are quite large. We have about 150 people working per 100 hectares of land. Now our country is very poor in natural resources and so agriculture plays a very important role in the development of our economy because we have to export large quantities of farm produce into other countries. We give special importance to this problem in regional development. In order to increase harvest yields we follow a policy of favourable credit, especially to those enterprises and farms which are in a difficult financial position due to unfavourable natural resources. Experience has shown that when a farm operator is not sure of his future his crop yields will inevitably fall. Due to the policies of the government in recent years (1960–1969) the proportion of farms which are in a weak position has decreased.

Shafi Niaz, *Pakistan*

I must congratulate Mr Post on such an excellent exposition. I have two practical points to raise. He mentioned that something has to be done regarding low income farms. In a developing country like mine most of the farms are either at or close to, subsistence level. Small farms are very poor and financing such farms does not catch the attention of institutional agencies for credit supply. In Pakistan, for example, only about 10 to 15 per cent of the credit needs is met by such institutions. Commercial banks do not come forward because of the serious risks involved in such loans. Whatever means exist for credit are mainly for the large and medium sized farms even though the inequality between the small sized farms and the medium and big sized farms is increasing. Such a situation can be explosive, particularly if it leads to political instability. I was wondering whether Dr. Post has anything in view for the developing countries where such a situation exists.

The second question concerns his statement that over the last twenty years in Canada the number of farms has gone down by 50 per cent which means that the labour displaced must have been absorbed somewhere outside agricultural pursuits. In Canada industrialisation might have been able to absorb the displaced labour but I would like to know what he has in mind for a country with a labour surplus which experiences such displacement.

H. Frankel, *U.K.*

I wish to make three points if I may. First, that monetary policy is much too general to be of much use in agriculture. The general monetary policy is also much too traditional and much too cautious as far as agriculture is concerned. The broiler industry which has been created in the last ten years or so has had little encouragement from the banks, it used mainly private risk-bearing finance at a high rate, and those people who created it made millions out of it. As far as caution is concerned, obviously the example which comes to everybody's mind are the loans only for land, only to property owners, not to the operators of farm businesses. An operator of a farm business can buy from manufacturers of fertilisers and feeding stuffs and other inputs at interest rates equivalent to 30 per cent per annum but the input manufacturer gets the interest at the ruling rate which is usually much, much lower than 30 per cent. I should like, therefore, to ask Mr Post whether, in his opinion, in some countries, if not in most, a specialised institution such as an agricultural bank or maybe an agricultural department of the central bank should not be created. I should like to point to the experience in England during the last 50 years. Before 1958 a farmer had to repay everything he borrowed at the end of the year—he repaid it on 31st December and he borrowed it again on 1st January but this was difficult and he had to find the money once a year. There was a demand on behalf of the farmers to create a specialised agricultural institution, which was rejected by a special committee, but the big banks agreed to create agricultural departments. They never lent without any security, but they started to lend money in fairly large amounts since 1958 and since then the agricultural departments have not had any appreciable losses, just a few per cent of bankruptcies.

Dr. Post, *in reply*

I have only a few comments. To Dr. Koester I acknowledge quite freely that in treating the incidence of inflation in a rather cavalier and casual way in my paper, that I was open to exactly the sort of criticism that he directed towards me. I realise that, depending on elasticities of demand and supply, depending on the distributional effects of the inflationary process, it is possible that my comments would not be correct. I guess my comments should be taken to reflect simply that, given the elasticities of supply of agricultural output such as I am familiar with, given the elasticities of demand for food type products, given the level of incomes that I am familiar with, it is my belief that in fact inflation turns the current terms of trade against agriculture.

The terms of trade on capital items I realise is a little more difficult to pin down.

On the more specific comments, I was surprised, to say the least, to find that three of the discussants, if not four, actually suggested that what agriculture needs is higher interest rates. I find that terribly encouraging as a conservative central banker. I was also interested that crop insurance got applauded. We have experimented in Canada with some crop insurance programmes, particularly for grain crops—I think, with some success. Perhaps there are additional possibilities there. The pooling of risks is indeed one of the most important advantages of scale and one of the more important reasons for wanting to involve the government in some of these problems. More than one discussant referred to the need to do something directly for low income farmers. The experience in Canada of dealing with low incomes is perhaps not very relevant in other countries. What we have done is special because it is a rapidly growing country with a rapidly growing industrial sector. In fact there has been no problem in absorbing surplus labour in the service and manufacturing and primary resource sectors outside of agriculture.

The government has recently adopted a fairly broad and comprehensive set of policies directed specifically at geographical areas rather than at industries or at occupations. The government has established a new department of regional economic expansion which has taken over a number of programmes which were formerly agricultural programmes or rural development programmes. Perhaps I should say that it is very costly and it takes a long while. To this extent what we have been trying to do may not be very relevant to people whose problems are of an entirely different dimension. It is an investment in human capital, it is an investment in mobility and education, it is an effort to capture the people between the ages of ten and twenty and give them skills which will be saleable when they join the labour force. It is an effort to isolate, to identify activities which are not firmly geographically rooted and to bring those activities to the areas where a centre of growth potential is required. So it is partly an industrial location problem although again as a general comment, Canadians experience with subsidising the relocation of industry has raised a number of problems itself. Our experience is rather mixed.

Mr Niaz asked about the relevance of what we had done about low income farmers for developing countries. I would say it is questionable. Mr Frankel speaks about monetary policy, cautiousness and traditional nature of monetary policies. I would regard that not as monetary policy but as the traditional practices of the banking industry. I admit that there has been great conservatism; perhaps this is an area where moral suasion could have greater long term impact by influencing the bankers to take on business which is genuinely profitable and desirable although they have been so dominated by tradition that they do not realise it, till after the broiler industry makes a lot of money.

One of the most interesting questions that arise in our country, studying our financial system, is why these blind spots develop and persist for so long. Why are there no sources of funds between nine and eighteen per cent in a society where there is nothing to stop somebody going into the business, borrowing one side and lending the other. We do have both in developed countries and in developing countries these anomalies of institutional rigidity which perplex me. Perhaps our governments might in fact take a greater interest in policies to promote greater competition or greater freedom of entry. Mr Frankel again mentioned the special lending institution. Our experience in Canada is of special lending institutions for longer term credit but short term credit is private. The special lending institutions have been I think, very successful. As to the development of specialised departments within private banking institutions to deal with the problems of retailers or miners or farmers, it would have seemed to me that a banker wanting to make some money would in fact develop some specialism so that he could evaluate risks more appropriately. It puzzles me that it has not happened. If it does not happen, I suppose the only answer is to develop such specialised institutions either under state or private ownership.