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THE ROLE OF THE AGRICULTURAL ECONOMIST IN AGRICULTURAL FINANCING

by J.J. DE V. BASSON
Trust Bank

INTRODUCTION

The agricultural sector today is in the midst of its third major revolution - that of financial and business management - having undergone the revolutions of mechanisation and technological change (Frey, 1980). In addition to the high demands technological management continues to make on the farmer, he is compelled to apply financial and business management principles in his farming enterprise in order to survive in the long term. It is generally realised that for the last decade or two farming has ceased to be merely a way of life.

In this revolutionary process the role of the agricultural economist has not only increased in importance but has also undergone a metamorphosis, with a shift in emphasis to the financial side of farm management. Since the shift in emphasis in farm management does not mean that technical and mechanisation management are no longer important, the agricultural economist still has a part to play in the economics of farming. The role of the agricultural economist in financial management is a new dimension that has developed over the past decade or two and has increased in importance.

This paper contains a brief review of the historical development of the role of the agricultural economist in financial management. This is followed by a more detailed discussion of the present function of the agricultural economist in financial mangement. Lastly, future prospects for this side of the agricultural economist's responsibility in South African agriculture are discussed.

INITIAL DEVELOPMENT

Although the first agricultural economists entered the service of financing institutions, namely the agricultural co-operatives, in the late sixties their function was more economic than financial. The role of the agricultural ecnomist adapted gradually in accordance with the needs of the market. The need for economic farming analyses emerged strongly during the seventies and it was during this period that the agricultural co-operatives largely employed agricultural economists. This corresponds to the period in South African agricultural history that was characterised by an acceleration in the inflation rate, a more rapid increase in the prices of agricultural inputs than in product prices and the unprecedented attention paid to yield levels and technical efficiency. The South African farmer initially counteracted this increase in input costs by an increase in unit yield. Although profit margins were under pressure, turnover was increased and fixed cost per unit reduced. In this process the task of the agricultural economist was directed mainly at physical farming analyses. With the increase in land prices, and all other inputs in agriculture, the total capital investment per unit has increased to such an extent since 1974/75 and the management of funds has increased in importance so greatly that the need for financial services has given rise to a new dimension in the function of the agricultural economist.

THE AGRICULTURAL ECONOMIST MOVES INTO FINANCING

The greater need for the agricultural economist to perform a function in financial management may be ascribed principally to a change in the capital structure in agriculture. The capital assets in agriculture increased by an average of 11,4 per cent a year over the period 1970 - 1982. During 1975 the total capital investment in agriculture was R16 974 million or an average of R242 485 per farm unit. This amount increased to R33 325 million in 1982 or an average of R476 071 per farm, which virtually means a twofold increase over a period of seven years. Investment in land represents about 65 per cent of the total investment in capital assets, fixed improvements 11 per cent, machinery and implements 10 per cent and livestock 14 per cent. It should be pointed out that in valuing these assets the rise in land prices since 1981 was based on historical data. The sharp rise in land prices of those years has therefore not been taken into account and so is not reflected in the value of the capital assets. (Abstract of Agricultural Statistics, 1984)

If the total burden of debt of farmers is brought into relation with the total capital assets, the period 1970 - 1982 shows an average growth rate of 12,4 per cent a year. When this is compared with the average growth rate of 11,4 per cent a year, conservatively calculated, in capital assets, an even and proportional increase is apparant. However, the problem is identified if the rate of increase in the burden of debt over the shorter term is analysed. For the period 1976-1982 the burden of debt increased by an average of 16,6 per cent a year and the increase during the period 1980-1982 (an average of 21,5 per cent) is especially significant. The ratio of the burden of debt to capital assets in agriculture decreased

from 15 per cent in 1970 to 12,1 per cent in 1976, after which it showed a gradual increase of 17,3 per cent in 1982.

From a normal business point of view a burden of debt of 17,3 per cent in relation to capital assets would mean an acceptable solvency ratio. The agricultural sector is an exception, however, and this applies worldwide. The increase in the capital assets of the average farmer is such that he always remains creditworthy. A deterioration in the farmer's net income position is disguised in time by the increase in the burden of debt in nominal terms but not necessarily in relation to the capital assets (McRorie, 1980). A deterioration in the net income can therefore lead to an increase in the debt ratio over a period or an increasing inability to pay off the growing burden of debt, which constitutes a cash flow problem.

If the burden of debt of the South African farmer is seen in relation to the net farm income, this is exactly what has happened over the past few years. From 1970 to 1974 there was an improvement in the ability of farmers to pay off their debts. The burden of debt improved from R302 per R100 of net farm income in 1970 to R121 per R100 of net farm income. From 1975, which can be regarded as the watershed year in agricultural financing in many respects, the picture changed drastically. The burden of debt in agriculture per R100 of net farm income amounted to R291 in 1982. Since then the position has merely deteriorated further. For the period 1976 to 1982 the net farm income increased by an average of 11,5 per cent a year in comparison with a 16,1 per cent average increase in the total burden of debt.

The above change in income and capital structure, together with the negative effect of the income tax concessions for farmers on their financial management and the traditional tendency of farmers to give attention to technical management aspects, were the reasons why agricultural economists started to play a part in financial management in agriculture, especially during the period 1975-1981. Financing institutions and agricultural co-operatives started to evaluate the increased risk in agriculture as a result of these factors, and realised the positive potential function of the agricultural economist in this regard.

The first agricultural economist was employed by a commercial bank in South Africa in 1975. The other banks followed suit during the period 1980 to 1981. At present 15 agricultural economists are in the service of banks in South Africa, additional posts have already been created and if they are filled there will be a total of 20 agricultural economists in the service of commercial banks by the end of 1984. In the case of agricultural co-operatives, the functions of agricultural economists are not as clearly demarcated in respect of financing but it is known that financing, especially with regard to the extension of credit, is included in the job description.

The question that arises from the above outline of the problem is whether the agricultural economist can make a positive contribution within a financial institution and, what is especially important, whether he can be of service to the farmer who is the client of the financial institution.

THE FUNCTIONS OF THE AGRICULTURAL ECONOMIST IN THE FINANCIAL INSTITUTION

The main reason for the involvement of the agricultural economist in the financial institution is to safeguard the investment the financial institution makes in agriculture or in an individual farmer. The change in the capital structure in agriculture and the increase in the average size of individual loans have increased the risk enormously. A single managerial error can have serious consequences.

Most financial institutions therefore use the agricultural economist in a staff function within the organisation, from which he acts as a monitor for agricultural financing in an advisory capacity. The common function of the agricultural economist in a financial institution is to advise the institution in regard to the granting of loans to clients. This means that the line functions or credit section at head office level use the agricultural economist in order to determine the risk for the bank. Certain financial institutions utilise agricultural economists on a regional basis, however, where applications for finance are investigated on a selective basis.

The other duties of the agricultural economist in a financial institution vary from internal training within the organisation to marketing the image or financing services of the organisation. Internal training is especially aimed at staff of the institution who are directly concerned with financing for the agricultural sector. Whereas the staff of a co-operative deal exclusively with agricultural clients, the major involvement of banks is in non-agricultural business. The task of the agricultural economist in this regard is to orientate the staff with regard to agricultural financing and to provide instruments for evaluating the managerial skill of the farmer.

Advice is given to clients in cases where a farmer wishes to tackle a new project, where problems arise or if a farmer desires planning advice. This is probably the field that takes up most of the time of the agricultural economist in the financing institution. The problem in this field from the point of view of the agricultural sector is that in the past extension and advice were extended on an *ad hoc* basis and continuity was possibly lacking. The reason for this state of affairs is still that the agricultural economist at a financial institution deals with a region or even with the whole country, which makes it impossible to give continuous attention to one client. Even the agricultural economists attached to co-operatives, who are better spread than those attached to banks, experience this problem. Unfortunately financial extension is a speciality that can best be presented on a one-to-one basis. The technical extension officer has an advantage in that he conveys his message to a large audience.

The role the agricultural economist plays at banks with regard to marketing the bank's services is probably the function that evokes most criticism in agricultural economic circles. It is even said that the function of these agricultural economists is watered down and they become mere liaison men. Why the role of an agricultural economist should be so strictly demarcated without any allowance for adaptability with regard to the function he fulfils within an organisation is difficult to explain. Marketing the image of banks includes the presenting of seminars to farmers, the giving of talks at farmers' days and the addressing of study groups. Although these activities can be indirectly regarded as "marketing", they have frequently caused farmers to reconsider their financial mangement methods. If these activities were not presented on a sound basis, there would be no demand for them. The contrary is true, however.

The degree of involvement of the agricultural economist in the work of a financial institution is determined largely by his success in making his function a *sine qua non* at the financing function. Although it is obvious why an agricultural economist should be utilised in a financial institution, he is only accepted in the organisation if he proves himself. To think that the agricultural economist has simply to walk into a financing institution and take over a clearly defined function is erroneous. If there is opposition as a result of prejudices the agricultural economist will have to prove that he is able to perform his function better and with greater benefit to the organisation.

REQUIREMENTS FOR THE AGRICULTURAL ECONOMIST IN THE FIELD OF FINANCING

Frey (1977) mentions ten requirements for the professional management of credit and the extension of credit in agriculture that can fruitfully be applied to the agricultural economist in financing. These are the following:

The knowledge to carry out a financial analysis of a farm

The agricultural economist must be able to carry out the analysis on a cost basis by using year-end balance sheets, net value change and a reconciled income statement. In agriculture it is necessary to carry out a similar analysis in which a balance sheet is drawn up at market values. Compilation of a source-and-application-of-funds statement is an important aid in identifying the use of funds. Floating capital should be thoroughly investigated in order to determine how much will be required as the farming enterprise grows. Advance planning should include more than merely business planning. A post-dated *pro forma* statement of income and a monthly projected cash flow budget are necessary prerequisites for a financial analysis of a farm.

Knowledge of accounting

Since most farming enterprises make use of accountants and audited statements a basic knowledge of accounting practices is an import- and prerequisite for the agricultural economist in financing. The reason for this is the experience that a large percentage of farmers have no other record system and the agricultural economist has to make an evaluation of financial management purely from the records drawn up for tax purposes. The major influence tax legislation has on managerial decisions in agriculture also necessitates an understanding of tax legislation.

Knowledge of corporate financing

The change in the size of farming enterprises requires more and more understanding of the corporate type of financing. The training of most agricultural economists in agricultural financing does not include knowledge of corporate farms.

Record systems and management information

The key to analysing the financial management of a farming enterprise is the information made available by means of a management information system. A thorough knowledge of the various record systems available and the shortcomings of the systems is necessary for professional credit management and therefore also for the agricultural economist at a financial institution. A thorough knowledge of the production cost data for each crop and livestock industry is indispensable in measuring a client's performance. As may be inferred from the above, knowledge of agricultural production economics is a useful asset.

Knowledge of investment analysis and financing methods

This comprises knowledge in respect of decisions on the method of obtaining resources. Should the resource be bought or hired? If the resource is bought, what form of financing would result in the optimum utilisation of funds? If the resource is hired, what form of lease is recommended? The principle that applies here is the influence on the decision of the application of the time value of money and the use of sophisticated techniques.

Knowledge of marketing strategy

This aspect is more meaningful in a country with less control over the marketing of agricultural products than is the case in South Africa. The production of any crop should always be viewed in the light of its marketing potential, however.

Knowledge of economic principles

The decision-making process of an enterprise interested in making the maximum profit has to be founded on basic economic principles. In evaluating a farming enterprise the agricultural economist is expected to establish whether rational decisions are being taken on the basis of sound economic principles.

Monetary policy and sources of finance

The policy change that means that the State will finance agriculture in a less inflationary way is so significant that the agricultural economist is expected to communicate well on this topic. A thorough knowledge of the monetary system, the flow of funds in agriculture, inflation and interest rates is required as well as an ability to communicate in this regard.

Mercantile law

Frey is of the opinion that the agricultural economist in finance should also have a general knowledge of mercantile law. In South Africa, however, one finds that most financing institutions have a legal section that accommodates specialists in the field of mercantile law.

The ability to communicate

This aspect is very important in today's financing world. There is no room for misunderstandings in the granting of credit. The agricultural economist who comes directly into contact with the client must pose the correct questions in order to obtain meaningful information on which to base decisions. A good communicator is expected to interpret answers correctly and to be able to read between the lines. This is the area where the agricultural economist either succeeds or fails in the field of finance. Apart from oral communication skills he is expected to be able to put the information obtained into writing effectively and communicate it to a credit section or head office.

INSTRUMENTS USED BY THE AGRICULTURAL ECONOMIST

Apart from the qualities the agricultural economist needs and the requirements he has to meet, there are certain instruments that make his task in financing easier. The most important of these instruments is the information system which the farmer has available but which in most cases has certain shortcomings. Cases where information for a 12 month period has to be obtained from invoices and statements from co-operatives are quite common. In practice it is often found that at the stage of an application for a loan at which the agricultural economist is called in time is so short that an extensive investigation is impossible. Where the enterprise has no proper information available the risk involved in a decision is far greater. The agricultural economist usually finds himself in the position where the marketing section requires the decision as fast as possible and the credit section expects a meaningful management recommendation. Here the good judgement of the agricultural economist normally carries the day.

The second instrument the agricultural economist makes use of consists of the standards for measuring the efficiency of management. Here both physical standards and financial standards are in question.

Physical standards are required on a regional and district basis for various soil classifications and rainfall patterns. This information still shows great deficiencies in South Africa, mainly as a result of the manpower problem of the Department of Agriculture and Fisheries, although extension officers of the Department and agricultural co-operatives are able to help.

Financial standards probably constitute the area with which the agricultural economist has the most problems within a financing institution. Although certain co-operatives are already giving attention to this aspect ahd this information is available for certain branches of farming, it is a field which largely lies fallow. The Bureau of Agricultural Economics in Australia, for instance, has a research team that specifically gives attention to this aspect. Financial standards are determined on an extensive scale for branches of farming under various grades of risk, measured by yield potential and rainfall for various regions and even districts. The lack of these standards in South Africa means that financing institutions are independently arriving at standards. Serious attention is required from the authorities concerned so that research in this field can be carried out. A large-scale research effort is required if meaningful standards are to be arrived at. Co-operation for research of this kind will be obtained from financing institutions in most cases.

With regard to training, important adjustments in courses for agricultural economists have already been made and these will give the agricultural economist the necessary equipment to enter the field of financing. As may be seen from Frey's (1977) requirements, the training of the agricultural economist in financing should make provision in the first place for financing, accountancy and credit screening. The necessary adjustments in courses have already made it easier for the agricultural economist to enter this field. In practice, however, it is found that a basic knowledge of the technical side of branches of farming is of inestimable value. Technical subjects should therefore be included in courses as far as possible. The agricultural economist in the field of financing would be the first to admit that agricultural production economics remains the basis of this field of study.

A VIEW OF THE FUTURE

Since 1975 and especially from the eighties

onwards the agricultural economist has started to play a part in the financing of South African agriculture. Up to the present the agricultural economist has been busy establishing himself and formulating a strategy for the future. The initial task principally was to make the function of the agricultural economist known to the outside world and within the financing institutions to prove how necessary the function of the agricultural economist is. For the future the task of the agricultural economist is chiefly to encourage clients of the financing institutions to make use of scientific methods of management. In this way financial management within the agricultural sector will be placed on a sounder basis. If the agricultural economists in the service of the banks could upgrade the standards of their applications it would have a positive effect on the general financial management of farmers. In the past the difference in approach between financing institutions meant that a standard could not be forced on the farmer. Although a meaningful policy is unlikely to be arrived at among the financing institutions the agricultural economists can have an influence on the application of policy and in the extension of credit greater recognition can be afforded to sound financial management practices.

It is clear that sound financial management cannot be forced on a farmer. If co-ordinated co-operation between all the bodies concerned, including the commercial banks, the agricultural co-operatives, the South African Agricultural Union, the Department of Agriculture and Fisheries and the agricultural faculties at universities could be established, an educational task that would benefit the farmer would be possible. The recent willingness of certain agricultural co-operatives and the Department of Agriculture to carry out this task can only be beneficial. Unfortunately for the agricultural sector, there are certain bodies that put their own interests first and possible co-operation in the past was prevented - at the expense of the farmer. The task of the agricultural economist at these bodies is to function as an instrument for co-operation between the bodies concerned in future. The characteristic of agricultural economists is a common interest in the economic and financial prosperity of farmers. It is therefore not unusual for the agricultural economists from the commercial banks to meet once a month, despite the cut-throat competition between the banks.

Although the agricultural economist has the interests of the financial institution at heart, he should consider it his duty to perform an educational task during each visit to a client (Jacobs, 1984). Another practical method is to launch a co-ordinated educational drive directed at farmers, through the South African Agricultural Union. The computerisation of the new record book for farmers by the Department of Agriculture is another promising development.

The particular set-up in South African farming enterprises, which cannot be compared with the "family farming" found in most western countries, lends itself very well to a shift in emphasis to the financial side of management. The owner of a family farm is personally involved in the physical and technical side of management and there is little time available for financial management and record keeping. The average South African farmer manages labour and capital to a greater degree - if labour is rationally managed time will be available for record keeping and financial management. The future task of the agricultural economist is to persuade the farmer that he should spend some of the time at his disposal on financial management.

Lastly, the agricultural economist at the financial institution has already established himself and his function will increase in importance in future. The benefits for the financial institution of having an agricultural economist at the regional level have already been spelt out; within the next five years any farmer will have access to an agricultural economist who has specialised in financing. The closer co-operation between the farmer and the financial institution that will arise in this way will result in better management of funds in agriculture. An adjustment in monetary policy by the Reserve Bank is being carried out at present. This also affects the financing of the agricultural sector in that preferential lending rates to the Land Bank are disappearing and will no longer exist in the near future. Although the adjustment process cannot yet be clearly spelt out, one of the possibilities is that in future commercial banks will finance the farmer directly to a greater degree. If this happens the agricultural economist at the commercial bank will fulfil an increasingly important function in financing. The result will be that the agricultural economist in the service of an agricultural co-operative will function more as an economic extension officer.

CONCLUSION

The role the agricultural economist played in South African agriculture could not initially be clearly defined. The reason was that agriculture was at a transitional stage where technical and mechanisation management were in the foreground. After that stage the agricultural economist started to perform a service by passing on economic principles; since about 1975 the emphasis has shifted to financial advice.

Movement towards a policy of less Government intervention, with regard to the agricultural sector as well, will in future lead to the survival of the farmer who applies optimum management in all fields. The application of sound business principles, including financial management, is a prerequisite for survival under these conditions. As a service to the farmer, the agricultural economist will to an increasing extent have to preach the principles of sound financial management.

REFERENCES

FREY, T.L., 1977. Professional Management of Agricultural Credit. Agricultural Economics. Staff Paper - University of Illinois, U.S.A.

FREY, T.L., 1980. Interpreting Financial Information. Paper read

at the 8th Congress on Agricultural Credit of the Canadian Bankers' Association

McRORIE, H.D., 1980. The present and future capital structure of Canadian farms: Paper read at the 8th Congress on Agricultural Credit of the Canadian Bankers' Association Assistant General Manager, Agricultural Services, Royal Bank of Canada

GROENEWALD, J.A., 1984. Professor of Agricultural Economics, University of Pretoria. Personal communication

JACOBS, A.S., 1984. Vice-President, S.A. Reserve Bank and Chairman of the Committee of Inquiry into the Economic and Financial Position of the farmer. Personal communication