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MANAGING FINANCES ON INDIVIDUALLY OWNED PRIVATE FARMS

by G. Strasoldo,

Farm Owner, West Germany

Let me begin my talk by explaining what I understand by financing and by finance management and by giving you a short survey of the current situation in German agriculture.

By "financing" I mean the provision of capital resources for a firm that is to say:

- firstly: With risk capital contributed by the owner himself;
and
- secondly: With outside capital made available to the enterprise by creditors for a certain period of time upon payment of a certain rate of interest.

However, there is a third factor involved in financing and this is:

The allocation and procurement of funds to maintain the solvency and liquidity of the enterprise in its continuous process of creating and consuming assets.

When I talk about finance management, I am referring to the activities of the owner and manager whose aim it is to combine an adequate return on the capital resources employed with the necessary level of liquidity or solvency. This also includes, however, a regular adjustment to meet the challenge of a dynamically growing economy with its external concomitants such as currency erosion, the rising cost of raw materials or technological progress which in turn lead to a decrease in the value of physical assets, price falls due to a fundamentally excessive production and changes in the pattern and level of demand.

According to the most recent farming report put out by the Government, there are at present 415,000 full-time commercially operated farms in West-Germany. In other words, farming enterprises whose owners derive their income from their agricultural activities. These agricultural holdings account for a total of about 9,100,000 hectares of agriculturally used land, that is to say an average of 22 hectares or 55 acres per farm. When considering this situation, we must bear in mind that efficient enterprises with an acreage of 100 hectares or 250 acres of farmland can be run by only one person. Nor should we forget the high density of land settlement and the consequent keen demand for building land. As a result, arable land has become scarce and dear in West-Germany. Prices are being paid for land which only yield a small profit or indeed none at all when it is used for farming. The price of land in our country is amongst the dearest in the European Community. On top of all this, we must remember that 20% rise in costs during the last six months due to the rise in the price of fertilizers, wages, energy costs and the price of machines and their spare parts. All these facts compel us to accord finance management a greater importance than hitherto.

(1) The Bases of Finance Management

Any entrepreneur who wishes to survive in a dynamic economy must be able to appreciate his opportunities and his risks. The former are reflected in his performance, which is rewarded by a profit. The inherent risk in a commercial undertaking is revealed by the structure of the capital resources or to put it most exactly, by the firm's percentage of own capital, the strain imposed on it by a substantial share of physical fixed assets and by the availability of cash assets.

As with entrepreneurs in other branches of the economy, the basis of a farmer's finance management is his financial book-keeping. This is consolidated every year in the result of business done as shown in the balance sheet and the profit and loss account. This setting out of the results is the annual report designed to explain the development and current state of the enterprise in question. In other words, the annual report represents the basis and the springboard position for finance management. It is up to the manager to study these results in the light of improving the flow of funds to his firm. Let me quote an example to illustrate what I mean by the bases of financing. If we take an enterprise of 100 hectares (250 acres) which produces solely marketable farming products, its balance sheet might look something like this:

<u>Assets</u>	Beginning 000 DM	Accruals 000 DM	Reductions 000 DM	End 000 DM	<u>Liabilities</u>	Beginning 000 DM	Accruals 000 DM	Reductions 000 DM	End 000 DM
1. Land	750	-	-	750	Own Capital	760	-	-	-
2. Buildings	50	-	3	47	Withdrawals	-	-	80	-
3. Machines	80	10	10	80	Deposits	-	-	-	-
4. Financial assets	10	3	-	13	Profit	-	70	-	-
					Loss	-	-	-	-
Fixed assets	890	13	13	890	Own Capital	760	70	80	750
5. Inventories	5	-	-	5	Long-term outside capital	200	-	10	190
6. Field values	90	-	-	90	Short-Term outside capital	40	20	-	60
7. Receivables	10	-	2	8	Outside Capital	240	20	10	250
8. Cash/bank	5	2	-	7	Accounting Apportionment				
Current assets	110	2	2	110					
Total Assets	1,000	15	15	1,000	Total Liab.	1,000	90	90	1,000

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In my example, I have used the type of capital flows statement now customary in Germany. This sort of financing table enables me to do without a profit and loss account. The only supplementary information which I would like to furnish is that the farm in question has a turnover of DM 200,000. What do these figures tell us about the basis for finance management? They reveal the provision of financial resources for the farm on a given date. They also reveal a certain trend, yet that is not enough to obtain clear aims and find a solution as to how to implement them. In recent years, criteria have been evolved in Germany about adequate financing and today these have met with general approval. In fact, they are being developed still further. I shall now describe these criteria and use the principles involved to assess the position of the farm and try to determine what will have to be done.

(2) The Criteria of Financing

These criteria were worked out after analyzing several annual reports from a fairly large number of farming enterprises. Two factors were examined:

- I. The earning power of the farm as measured by its profitability,
- II. The inherent risk as measured in terms of its stability and liquidity.

The following principles were determined:

- (1) The earning power of an undertaking must be big enough:
 - (a) To permit it to create enough capital resources of its own to enable it to protect itself against risks in the level of prices and at the same time to form the basis for growth
 - (b) Yield a big enough profit to ensure that the manager can withdraw sums of money to support his family and pay his taxes without impairing the financing equilibrium of the firm and the growth of reserves to cover possible risks.

The earning power is computed in terms of three figures indicating the firm's profitability:

- the rate of interest on one's own capital resources: Only if this is adequate is one justified in utilizing one's capital in the firm;
- the rate of interest on total capital invested - the precondition for borrowing and, being able to pay interest on, capital from outside sources;
- the profit ratio on turnover indicating the profit reserves in prices and keeping one informed of the level of rationalization compared with other firms.

(2) The inherent risk in an enterprise is measured by means of figures indicating its stability and liquidity.

- The fixed assets ought to be covered by one's own capital resources because physical fixed assets in the form of machines and buildings are particularly exposed to the risk of depreciation by technological advances and, moreover, because land represents the basis of existence for a farming enterprise. If part of the fixed assets are financed by borrowed capital (and this possibility cannot be dismissed in the case of expanding firms), the formation of one's own capital resources must be so large that it can be redeemed within 10 years at the latest. Whether or not this principle is being adhered to is revealed by the percentage of fixed assets accounted for by one's own capital.
- The development of the undertaking is characterized by a steady increase in the fixed assets. The latter involves a considerable risk in regard to their conversion into money. For this reason, the share of fixed assets ought to be as small as possible. The ratio of fixed assets is measured in terms of the percentage of total capital represented by the investment capital.
- Suitable measures for counteracting too high a degree of fixed investment are letting the land on lease, using machines on a contract basis and quickly writing off capital goods.
- By German standards, the formation of one's own capital resources ought to amount to 10% of the profit. Where market risks are on the increase, they provide the necessary cushion to cover such contingencies and they constitute the basis for a future expansion of the undertaking.
- Viewed as the ability to meet due payments promptly, the liquidity of an enterprise is increasingly gaining in importance in the light of rising prices and a high rate of interest on short-term credits. It is measured by the ratio between the funds available within a short space of time in cash or from the bank and the short-term liabilities. Whether or not short-term liquidity reserves may be exploited by credits (usually at the expense of profitability) depends on the available scope for borrowed capital. This is measured by the percentage of current assets accounted for by outside capital. In our view, detailed financing plans are needed for the accounting year to solve liquidity problems and these plans must rest on precise figures for the production processes.

(3) The Application of Financing Criteria

The aim of finance management is to take the results indicated in the financial bookkeeping, find out where there are divergences from the target figures and then to initiate

corrective measures to improve the situation. Let me now take you back to our imaginary balance sheet and assess it on the basis of the established criteria, at the same time setting out what corrective measures we should take. However, before we set about relating profits to the other figures we have quoted, we should bear in mind that the profits contain the salary to which the manager is entitled for the work he has done in the firm. In our example, we have assumed that this amounts to DM 30,000 per year and the profits will have to be reduced by that amount.

Hence, the following figures result from our table for an assessment of the farm's earning power:

Rate of interest on own capital resources	5.1%
Rate of interest on total capital invested	4.0%
Profit on turnover	20%

These three figures point to an inadequate earning power inasmuch as comparable figures for well-run firms are higher than these values. Moreover, the owner's withdrawals are greater than the profits.

When seen against the criteria of stability and liquidity, the following situation emerges:

- The fixed assets are only covered by the enterprise's own capital resources to a level of 84%. If this outstanding amount is to be worked off in 10 years, an additional sum of DM 14,000 will have to be redeemed each year.
- 87.7% of the total capital invested is tied up in the form of physical assets. This indicates that the flexibility of the farm is, relatively speaking, modest.
- The formation of own capital is negative; the additional withdrawals and the redemption of the long-term loans have been financed out of the increase in short-term credits.
- The farm's liquidity is only being maintained by expensive, short-term borrowings. The short-term liabilities are several times greater than the funds available at short notice. Even the average annual availment of DM 50,000 in short-term resources at a rate of interest of 15% means a cut in profits of DM 7,500.
- Borrowed capital accounts for twice as much as the current assets. In other words, under the criteria we have already set out, there is no more scope left for further borrowings.

What conclusions can we derive from this analysis of the financial management and what corrective treatment should be applied?

(4) Finance Planning as an Instrument in Finance Management

The earning power of the farm is insufficient. A more detailed analysis would be necessary to find out whether further rationalization measures in production could be implemented by increasing the yield and cutting costs. We would also have to find out whether the capital being used in the farm is really required for operations in that only such capital as is essential to the running of the enterprise can command a satisfactory rate of interest. Finally, we would also have to draw up a detailed table of receipts and outgoings together with the dates of such payments. The basis for this are the statistics on quantities of working supplies. By these, I mean the quantities of seed fertilizers, crop protection agents and other working resources together with the envisaged quantities of products to be sold. The date of consumption and the earliest possible date of sales ought to be determined for the products.

This financing plan for the accounting year ought to be subdivided into months. It can be linked up with the short-term financing accounts by extrapolating them by the difference between receipts and outgoings. The pattern of such a finance plan or proposed financing scheme depends on the standard form of accounts used in bookkeeping. The classification of budgets and accounts ought, where possible, to correspond in the sequence adopted and in the details shown. In this way, it is possible at appropriate points of time to make a comparison between targets and actual results on the basis of the two sheets. The finance plan also enables us to pinpoint the anticipated trend in liquidity. The important thing is to include private withdrawals. After submitting the first draft, we should examine it to determine:

- which dates for inpayments and outpayments may be altered on the basis of the course of operations as well as of firm predetermined payments,
- if procurement and sales dates are changed, we should examine the influence exercised by other prices, discounts and allowances on profitability and by credit costs on liquidity.
- The next item to be checked is whether the financing method chosen to maintain liquidity is in fact inexpensive and what alternatives are available. In Germany, the credit allowed by suppliers is often generous, yet it proves expensive as a result of foregoing discounts and allowances and by tying the customer to a certain tradesman. The overdrafts granted by banks cost more than the credit given on bills. A decision on the final budget ought to be taken on the basis of theoretical accounts showing the influence of the various changes on liquidity and profitability. The budget, subdivided into months, forms the basis of continuous finance management. The monthly comparison between target and actual figures provides a timely indication of divergences and thus permits the manager to take counter-measures. It may be useful at this stage to refer to

the problem of excess liquidity, particularly in the case of enterprises managed by the owner since banks more readily grant credit facilities to owner-operated farms. In Germany it is usual even without any special agreement with the bank for credit balances on current accounts to attract 0.5% interest per annum and for the availment of short-term credits given by the bank to cost 15% and more in interest per annum. For this reason, excess liquidity can also cut profitability. Hence, we have to decide on the basis of the budget where, when and for how long credit balances can be operated at a profit. I have tried to indicate what opportunities are open to finance management in the field of short-term credit.

Let me now go into the medium and long-term aspects of finance management by referring back to our theoretical example. We have already noted the following: The withdrawals are higher than the profits; own resources only cover 84% of the physical assets; there is a high proportion of long-term investment; no capital resources of one's own are being formed; and the liquidity situation deteriorated considerably in the reference year. These are problems which cannot be solved within a year and which presuppose an analysis of the results for several years before further decisions in finance management can be taken.

Let me nevertheless attempt to draw certain conclusions. On past experience, withdrawals cannot be cut back or at least only for short periods of time. This means that the enterprise is either continuing to use up its assets and must then either grow or one day come to an end. The next question is: How large must expansion be and what is it limited by? Let us cast back our minds: DM 80,000 were withdrawn for private consumption and taxes. A further sum of DM 14,000 would have to be redeemed in order to reduce the outstanding amount of borrowed capital. Moreover, 10% of the profits would have to be set aside each year as a cushion of one's own capital resources to meet unforeseen contingencies. In other words, DM 100,000 would be necessary to ensure an adequate flow of funds to the enterprise and to increase stability.

A limiting factor is the high proportion of long-term (fixed) investments. Expansion should if possible be achieved by increasing the current assets - by taking more land on lease. An increase in the current assets would at the same time increase the scope for borrowed capital. Prior to increasing the size of the farm, its profitability will have to be improved since borrowed capital will not be available at less than 8% and this will further reduce the profitability of one's own capital. We are assuming that the anticipated pressure of costs can be absorbed partly by rationalization measures and partly by price increases for the products in question. Within this set of facts, the turnover of our firm ought to rise in the following way.

A profit of DM 100,000 is anticipated at a profit rate of 20%. DM 100,000 represent 20% of DM 500,000, that is to say the farm's turnover would have to be stepped up to DM 500,000. In view of the known limiting factors, the theoretical resolution of the problem

would be obtained by taking on an additional 150 hectares of land on lease. In such a theoretical solution or plan, we would also have to consider the effects on the various sectors of the enterprise. Provided that no additional machines or buildings are necessary and that the increased work can be handled by contract firms, only the current assets will increase as a result of the additional land leased in the form of equipment and field stock.

The effects of such expansion on liquidity and profitability ought to be examined in the light of an integrated finance plan. This means that we should extrapolate the annual budget in terms of quantities, values and dates in consideration of the changes brought about by the leasing of additional land. At the same time, we should bear in mind that growth is accompanied by the tying of current assets. The variable costs of production are determined up to the first productive output and not freed until the products are sold. For this reason, it may be necessary to finance the growth in current assets on a medium-term basis. There is a danger that the enterprise may be jeopardized by its lack of liquidity despite its increase in profitability. Let me now add a few points in brief form in view of the shortness of time at our disposal. Anyone who invests, that is to say converts his money into certain other assets, ought to ensure that the period of maturity of the land correspond to the period of depreciation. If the term of the loans is longer, then illiquidity will result and this may in turn lead to an increase in withdrawals and to merely perfunctory finance management. Although local interest-subsidies may help to overcome bottlenecks in liquidity, they often create excessively long terms of maturity and thus superficial finance management. Only if finance planning is firmly-knit, do they represent a real help for the firm. May I make one last remark about the effect of inflation on finance management - a subject which has been the subject of much discussion, at least in Europe. Substitute investments have to be financed from depreciations whilst net investments or capital expenditure on extensions have to be met out of profits. In our experience, it is not easy to draw a sharp dividing-line between these two kinds of investment. The two of them together are financed out of the "cash flow" in the strict sense of the word, i.e., the profits plus sums set aside for depreciation. This sum remains the same, independent of the way in which it is divided or classified. For example:

Profit	70
Depreciation	10
Cash Flow	80

If we increase the sum set aside for depreciation due to the increase in investment prices by twenty, the profit drops to fifty; the depreciation rises to thirty and the sum is again eighty. The problem which may arise is that the apparent profit has to be taxed. The antidote to this is to set aside large sums for depreciation (as large as the tax provisions permit) and to form one's own capital resources - a point I have often quoted in my talks. Needless to say, the payment of one's private taxes has to be borne in mind.

Let me conclude by summarizing the main arguments I have put forward today.

- (1) Finance management ensures the regular observance of certain rules in the provision of one's own capital resources for an enterprise. Such non-borrowed capital protects one against the risks of the market and of changes in prices. Moreover, it preserves the substance of a commercial undertaking for which the entrepreneur is accountable vis-à-vis his creditors in the case of wrong decisions or the emergence of risks.
- (2) Finance management also entails the provision and procurement of money to maintain liquidity as and when needed in day-to-day operations.
- (3) The aim of finance management is the linking of an appropriate return on one's capital with the requisite level of liquidity and a regular adjustment to a dynamically growing economy without impairing the financing equilibrium of the firm.
- (4) The basis and starting position for finance management is the balance sheet and the profit and loss account, reflecting the current state and the trend in the firm.
- (5) The goals for a step-by-step advance are defined in the light of criteria which may be either general or subjective. Suitable criteria are the earning power which may be measured in terms of the profitability on the capital and the turnover as well as the risk reflected in the percentage of own capital resources, the formation of one's own capital, the proportion of long-term (fixed) investments, the ratio between borrowings and current assets, and finally liquidity.
- (6) An essential instrument in all this is the budget based on precise statistics on the quantities of working supplies and adapted to the aims of finance management subject to considerations of profitability and liquidity.
- (7) Anyone who wishes to survive in a dynamic economy must be able to adapt by means of expansion. This presupposes having one's own capital - which has to be accumulated prior to that.
- (8) Growth processes tie up current assets for a short period of time. If this fact is not rendered quite clear by integrated finance planning, even profitable enterprises may have to face problems of subsisting due to liquidity difficulties.
- (9) The period to maturity of credits ought to correspond to the depreciation periods of the financed assets: Otherwise, excess liquidity may arise and that favours superficial finance management.
- (10) High rates of depreciation and a substantial formation of own capital resources are needed to counteract inflationary rises in prices.

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MANAGING FINANCES ON INDIVIDUALLY OWNED PRIVATE FARMS

By Mrs. J. Ferguson

Farm Owner, Canada

Our story begins in 1959, when John graduated from the two-year Associate course here at the O.A.C., and we were married that June. We had a million dollars worth of youth and a million dollars worth of ambition in our favour. Valuable experience was gained during the next five years when John worked for his father. Restless ambition led us to discussions with our Agricultural Representative, lawyer, accountant and friends as to ways and means of becoming either a partner or owner of the dairy farm. We felt a split management would not work for us as John's ideas tended to differ from his father's. Also, his father was of the generation who tended to feel that you must pay cash. Borrowing was a sin. Incorporation was not practical with our small size operation so we decided on individual ownership buying out Mr. Ferguson. An agreement was signed enabling us to assume ownership of Cliffshore Farms at a reasonable market value on Jan. 1, 1964. On the 200 acres, out of which 110 were workable, we had a herd of 70 grade Holsteins with 30 milking.

A statement made by the late Professor Thomas, Soils Dept. at O.A.C., has been a guiding light for us. He said, "Boys, when you go home to farm, don't spend your first money on shiny, new machinery. Spend it on the things that will make you the most money fastest. These are: tile drainage, if you need it, and you need it if it is too wet to grow alfalfa; fertilizer, according to soil tests; and cattle; and do them in that order." Keeping this in mind, we brought another 25 acres into production with tile drainage in the fall of 1964. Additional oats grown on this land necessitated more grain storage so we built a steel grain bin holding 3750 bushels. We try to get the best production from our land by soil sampling regularly and fertilizing accordingly. Our land has been low in potash for years. Fertilizing according to soil tests has brought that level up. By soil sampling, we are now able to reduce costs somewhat by using less potash. There is no need to apply potash in abundance now and throw other elements out of balance. Additional feed allowed us to keep more cattle. By this time, the George Jones message that oats were cultivated weeds had got to us along with the merits of corn production so we switched from oats to corn and built a 20 x 72 tower silo. Growing corn, we can average 90 bushels per acre, which gives us 4032 lbs. of total digestive nutrients, while the same land will average 75 bu. of oats per acre containing 2330 lbs. T.D.N. This additional 1700 lbs. of T.D.N. is significant considering today's high land values.

Our Ag. Rep., Mr. Dalrymple, recalled one of his first visits with John. He mentioned how there was no way John was prepared to divulge any information on financial matters. This was largely due to the fact that his father had always considered finances a very personal matter which you did not discuss with anyone. Over the next two or three years, however, we gained confidence in our Ag. Rep. and Farm

Management Specialist to the point where we offered any information or figures of use to a Farm Management Day which we hosted. Incorporation and individual ownership were discussed at this workshop type meeting which concluded that our farm is still better operated on the individual ownership basis.

Early in 1967, our barn began to overflow with cattle and it became necessary to make a decision whether to cutback or expand. Until this time, capital expenditures, except for the mortgage held by Mr. Ferguson, were looked after by Farm Improvement Loans. In order to make our decision, we involved our Ag. Rep., Farm Management Specialist, Agricultural Engineer and contractors. We visited several new dairy barns and with our Agricultural Engineer were able to draw up plans for a 70 cow freestall barn. With estimates on the cost of the barn, we went to our Farm Management Specialist. We had used the Ontario Farm Account Book since the beginning of our farm business. These records enabled him to make a projection of what effect the expansion would have on our business. Considerable time was spent filling out a Farm Management and Counselling Guide. The Counselling Guide convinced us that it would be a sound business venture to expand. Another factor in favour of expansion was being able to justify another man and allow rotating weekends for our help and ourselves. The Farm management Specialist advised us to apply for the maximum Junior Farmer Loan of \$40,000 at 5% which would require paying off the mortgage held by John's father. This we did and found the Counselling Guide quite helpful in presenting our case to the Ontario Junior Farmer Establishment Loan Corporation who gave us a favourable reply as well as the Canadian Imperial Bank of Commerce who set up a line of operating credit for us. June of '68 saw the completion of our new dairy barn and conversion of our old barn to loose housing for heifers and dry cows. Despite what we felt was very careful planning and budgeting, there were many unforeseen expenses not the least of which was the jump in interest rates.

The opportunity arose to purchase more fluid milk quota, at \$10 per lb., and registered cattle which would allow us to operate the barn closer to capacity. The bank considered us overborrowed at this time and would not extend further credit even though we could prove on paper that the quota would more than pay for itself in a reasonable length of time. The seller took a note without a penny down giving over four years to repay the loan. This was a tremendous boost to the morale as well as the financial picture. We were rather amused the following year when going over milk statements with our bank manager, he noted the surplus milk produced and asked if we shouldn't be buying quota. Price of quota had reached \$25 by this time. We realized, however, that there was a tight money policy the previous year. We feel too that possibly we might have received the loan if we had gone into a detailed Farm Management and Counselling Guide. At that time, we didn't feel it was a major enough expense to warrant this.

Capital expenditures lay dormant for slightly over a year in 1969 but then there was a flood of shiny new machinery, which John enjoys so much. Since we were filling the silo with haylage in June and corn silage in the fall, we felt we could justify our own forage harvesting equipment and replaced two tractors with larger horsepower

as well. Custom operators are not always available at the time you want them and, therefore, with our own equipment, quality of feed should improve. Before applying for a bank loan on the machinery, we asked for a visit from our Ag. Rep. and Farm Management Specialist. A six-page Farm Management and Counselling Guide was prepared even though Dal and Doug were doubtful that we would get the loan. Except for a feed processing building, the new machinery would justify itself on a break-even basis only. Being able to show the bank manager that labour and ease of operation of the farm could be realized with possible efficiency and savings in crop handling and other material handlings convinced our bank to accept our application for further credit even though net income was not materially affected. This type of detailed planning before approaching our banker has proven to make a difference on whether or not credit can be expanded. If you cannot show your banker how you can repay a loan, it is understandable that he will hesitate to give you one. Our operating line of credit was not used to its full advantage the first couple of years. By paying off the operating loan with any available money through milk and cattle sales, and leaving notes on hand at the bank to cover cheques as they come through, we are able to save a considerable amount on interest. Even 1,000.00 less borrowed for a day or two makes a difference over a period of one year. We have worked to keep a good credit rating by being on time for payments. If for some reason a payment cannot be met on time, we have explained the situation and received an extension. We feel we can talk to our banker as a friend and discuss our ambitions and plans freely with him.

In 1970, we started to use the Canfarm system of recordkeeping. This is a computerized system which gives us up-to-date monthly reports as well as year-end ones including a Tax Management Report starting at the ninth month. There is no comparison between Canfarm and the old Ontario Farm Account Book which gave us a year-end report only, usually about March of the following year. We have made use of the Tax Management Report by projecting our income tax payment. Thus, by either increasing expenses or income, we are able to adjust our income tax to our best advantage.

In 1972, respiratory disease in our calves led us to build a calf barn to separate the calves from the mature cattle. No detailed financial analysis was done as we felt the financial loss due to the deaths and general unthriftiness sufficient to warrant a separate building. The Agricultural Engineer was helpful in arranging calf barn visits for us and drawing up satisfactory plans. Jan. 73 saw the first calves moved into the new building. This is a temperature and ventilation controlled building which we felt was the ultimate for good calf health but no so. Our problem still lingered on so welcomed the chance to attend a meeting at a neighbour's home on a herd health program sponsored by a local veterinary. He stressed preventative medicine, nutrition and general herd management which should in turn give us a healthier herd, regular calving interval and more production. We have accepted the complete program as of Dec. '73. Regular monthly visits by the vet gives us pregnancy checks, breeding condition, vaccinations, and any general problems. Recordkeeping on individual cows health and production are part of the program which will need a longer proving period that we have had but if calf health

is any indication, then the program looks promising.

A number of years ago, we were host to a Junior Farmer group on a Royal Winter Fair Farm Management Tour. We hope that the boys learned as much as we did from this meeting. The boys were given the herd R.O.P. records and told of any serious problems such as infertility which wouldn't be obvious. They were asked to select cows for culling. We have not been able to cull as much as we wish for production and type as we have needed the milk. We feel we have reached the stage now where we may begin to be more selective.

A good herdsman is well worth paying a premium for. John is essentially a crops man. He milks cows every other weekend to relieve the herdsman, Alf Ritchie, who has been with us a year and a half. We find it interesting to note our R.O.P. herd average dropped from a composite of 118% of the Breed Class Average to 100 B.C.A. in 1968 due to the crowding and stress during the year of construction of our new dairy barn. We more than regained the loss the following year with an increase to 126 B.C.A. which climbed slowing to 137 B.C.A. at the end of 1973. Alf's management of the cattle has increased this another three points during the first five months of '74 on 58 completed records. Our policy before Alf came was to milk the cows after the day's work was done. Alf has stressed regularity of milking for best production and we feel his results substantiate his views.

April of this year, we purchased a neighbouring 143 acre farm. Renting land was always a source of dissatisfaction for us. We felt that we always improved any land we used and therefore it was more of a loss when it was no longer available for rent. Real estate investment looked good in this area at the time. Speculation tax laws make it more imperative to justify the farm as a long term agricultural investment. The farm buildings had a negative value. Our Canfarm records proved very helpful in determining the number of additional milk cows we should keep to carry the cost of this farm. The Year-end Account Analysis shows profit per cow requires 13 additional milk cows to carry the interest, taxes and insurance. Farm Income Analysis shows us the percentage return on our average total capital investment. As long as the interest rate paid out is lower than the above, we can show a profit. The lower the interest rate, the more residue. The additional acreage should provide sufficient corn silage for our present herd of 70 mature cows and the 13 additional milk cows to carry the farm plus an additional four cows to cover the costs of feed storage and handling equipment. Last week, we completed construction of a 24 x 80 tower silo for corn silage. Our 20 x 72 silo was filled with alfalfa haylage this year. This combination plus some baled hay will make a large percentage of our feeds home-grown. A feed conveying system is planned to move the feed to our dairy barn and heifer barn so that our herdsman's time can be concentrated on management of the herd rather than physical labour.

We enjoy our work and the rewards we reap from the farm help us to enjoy other interests such as our cottage, boating, snowmobiling and our first winter holiday last March. The time spent planning pays better dividends than many long hours of slugging. Determine

your objectives, assess what is necessary to arrive at your goal, plot your course and use all the resources available. Don't be afraid to approach your Ag. Rep., Farm Management Specialist, Agricultural Engineer, Livestock and Crops Specialist, Banker, Lawyer, Accountant and any other person you feel could help your particular case. Once you have gathered all the information to guide you, make your decision and follow through with a determination to make it work.

The management of a farm is a complex task. It involves the coordination of many different activities, from the selection of crops and livestock to the marketing of the products. The manager must also be concerned with the financial aspects of the farm, including the purchase of equipment and the payment of taxes. The manager must also be able to deal with the uncertainties of the weather and the market.

In order to be a successful farm manager, a person must have a good understanding of the business aspects of farming. This includes knowledge of the different types of crops and livestock, the different types of soil, and the different types of weather. The manager must also be able to make decisions about the best way to use the land and the best way to market the products. The manager must also be able to deal with the uncertainties of the weather and the market.

It is important to have a good record of the farm's activities. This includes keeping track of the amount of land planted, the amount of seed used, the amount of fertilizer used, and the amount of water used. The manager should also keep track of the amount of money spent on the farm and the amount of money received from the sale of the products. This information will be useful in making decisions about the future of the farm.

(1) A complete inventory and net worth statement: Such a statement will provide a complete picture of the farm's assets and liabilities. It will also provide information about the farm's income and expenses. This information will be useful in making decisions about the future of the farm.

(2) A profit and loss statement from the previous year's operations: This statement will provide information about the farm's income and expenses for the previous year. It will also provide information about the farm's net profit or loss. This information will be useful in making decisions about the future of the farm.

(3) A projected operating budget: Such a budget will project the farm's income and expenses for the next year. It will also provide information about the farm's net profit or loss. This information will be useful in making decisions about the future of the farm.

your objectives, assets, what is necessary to achieve your goals, and plot your course and use all the resources available. Don't be afraid to approach your Ag. Rep., Farm Management Specialist, Agricultural Engineer, Livestock and Game Specialist, Banker, Lawyer, Accountant and any other person you feel could help you in your particular case. Once you have gathered all the information to guide you, make your decision and follow through with a determination to make it work. It is not a matter of "if" but "when" and "how".

A good example of a plan is a plan to increase milk production. A plan to increase milk production is a plan to increase the number of cows, improve the quality of the cows, and improve the quality of the feed. The plan is to increase the number of cows from 100 to 120, improve the quality of the cows by increasing the number of cows that are bred, and improve the quality of the feed by increasing the amount of feed that is fed to the cows. The plan is to increase the number of cows from 100 to 120, improve the quality of the cows by increasing the number of cows that are bred, and improve the quality of the feed by increasing the amount of feed that is fed to the cows.

April of this year, we purchased a 100-acre farm. The farm is located in the northwestern part of the county. The farm is a good example of a plan. The plan is to increase the number of cows, improve the quality of the cows, and improve the quality of the feed. The plan is to increase the number of cows from 100 to 120, improve the quality of the cows by increasing the number of cows that are bred, and improve the quality of the feed by increasing the amount of feed that is fed to the cows.

We enjoy our work and the rewards we receive. We have a good plan and we are following it. We are increasing the number of cows, improving the quality of the cows, and improving the quality of the feed. We are doing well and we are happy.

MANAGING FINANCES ON INDIVIDUALLY OWNED PRIVATE FARMS

by G. W. Arnold

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As a credit supplier it is indeed a pleasure to consider with you the management of finances on individually owned private farms. Perhaps the greatest challenge facing the farm manager of today is financial management. Production and technology are not difficult to control and once mastered fall into place relatively easily but the financial management of farm businesses is always a dynamic moving target, one that keeps farm managers always on their toes.

In order to be a good financial manager, a farmer should know his financial structure inside out. He must monitor his financing at all times and exercise whatever financial control he deems appropriate. Few businesses are subjected to as many external factors as the management of a farm. The farm manager must in his stride make allowance for changing price and market conditions, adverse weather conditions, crop and animal diseases and still maintain optimum profits.

At the outset I have to suggest that the financial management of a farm is almost impossible without a good set of farm financial records. First let us consider the components of a good set of farm financial records.

- (1) A complete inventory and net worth statement: - Such a statement will provide a complete breakdown of all assets and all liabilities and the net worth. It outlines the physical quantities and qualities of the resources with which the farm manager has to work. I often think of the networth statement as a financial snapshot of a farm business at a particular point in time.
- (2) A profit and loss statement from the previous years operation: - Such a statement tells an important story about the business and about its management. It indicates how the business has performed in the previous year, given the resources with which the farm manager has to work, his management ability, and the production and economic restrictions of that particular year.
- (3) A projected operating budget: - Such a budget will project annual operating expenses together with farm income and inventory changes for the ensuing years. It can be taken a step further showing the anticipated family living expenses, income tax and last but not least the expected residual for debt servicing, capital expansion or savings.

- (4) A projected cash flow:- This projection will indicate both the magnitude and duration of operating funds which may be required.
- (5) A debt servicing worksheet:- This worksheet is simply a record of all debt commitments. By comparing the debt commitments with the anticipated residual for debt servicing both the farm manager and his lender will be in a knowledgeable position relative to his financing.

A farm manager should address himself to three questions:-

- (1) Where am I?
- (2) Where do I want to be?
- (3) How can I best get there from here?

He must link his production decisions to their financial ramifications and vice versa. He should know profitability, liquidity and solvency of his business at the present time. All of this information can be derived from the net worth and profit and loss statements.

It is most useful to calculate asset-liability ratios in the current, intermediate and long term time periods. The current asset liability ratios will indicate to him the value of current assets per dollar of current debt. Current debt will always include that portion of intermediate and long term debt that will come due in the current year, together with interest payments. If he has a strong current ratio of say 3/1 this means that he has 3 of current assets to service every dollar worth of current debt. If on the other hand his current ratio is 5 to 1 this means he has only 50¢ to service each dollar of current debt and spells trouble in the period immediately ahead. The calculation of current, intermediate and long term ratios will in most cases show the strength and weakness that exist in the financial structure and can suggest how the farm business can be financially restructured. For example, a business with a weak current ratio and strong intermediate and long term ratios may require the conversion of some of the current debt into intermediate or long term debt.

The profit and loss statement is an accurate measure of the profitability of the farm business in the year immediately past. In the "where am I" analysis, the farm manager must also take into consideration the depreciation allowances that were made in addition to inventory changes. Statements prepared by an accountant can be misleading as to the ultimate profit results and since the accountants' main function may be to reduce the tax liability to a bare legal minimum, all foot-notes must be read carefully before reaching conclusions. Therefore, we must assess the capital cost allowances that have been made and assess accurately inventory changes and the changes in accounts payable and receivable.

While a profit and loss statement is history, the story it tells can provide direction as to how the business should be managed in

the future. For example, study the profit and loss statement carefully as it can tell where costs can be reduced or income increased with a net result of more profit. Very few profit and loss statements are so good that they couldn't be improved upon.

In considering the "where do I want to be" question, the farm manager has to assess his current profitability, liquidity and solvency position with his goals and aspirations. He has to plan for the immediate future and also the longer range. In my experience, long term planning is usually a series of short term plans. Long range plans are usually very broad and general by nature and it is really the shorter range plans that get down to specifics. The projected operating budget for the year immediately ahead is a situation the manager can identify with. The profit and loss budget from the previous year will serve as a basis for estimating income and expenses and the resultant residual that should be available for debt servicing. In planning capital expenditures, it is important that they be programmed in with appropriate term financing so that operating revenues or loans are not taxed beyond capacity. It is important to match the capital expenditures with term credit that relates to the life-span of the asset. For example, breeding livestock and farm machinery may call for a five year loan, buildings perhaps a ten year loan and land, twenty-five years or more.

A cash flow projection will pin-point time periods that operating loans are required and the duration of such loans, bridging as they do the differences between "cash out" and "cash in".

By comparing the projected residual for debt servicing with the debt servicing worksheet, a manager can quickly ascertain as to whether he will be able to meet his commitments. He can also take this analysis a step further by calculating estimated net worth, asset liability ratios, etc. at the end of the time period under consideration.

If a major business change is contemplated he may wish to carry these projections three or four years into the future. In such an exercise, it may also be useful to analyze apparent financial trends against the historical financial trends of the past.

Another very worthwhile tool to the farm manager is the partial budget. Few, if any, farm businesses remain static in their growth or production patterns over time. Most progressive farm businesses expand from year to year, but is the expansion program planned on an orderly basis? Before increasing crop or livestock enterprises or changing from one enterprise to another, it is most worthwhile to analyze the additional revenues and costs attributable to the change. The partial budget is a practical tool to "zero in" on the economics of a change or expansion as it segregates that portion of the overall business that is changing thereby giving the net financial affects in terms of additional costs, additional

revenue, reduced costs and reduced revenues. A word of caution, however, is appropriate in the use of a partial budget and that is that the partial budget has to be used in conjunction with the other "planning tools" such as an annual operating budget, cash flow projection and debt servicing worksheet. For example, a partial budget analysis could indicate a dramatic increase in profit by increasing a business substantially, but is the businesses sufficiently strong financially to carry the increased costs and risks? We can all think of instances where good farm businesses have been pushed into dire financial straits simply by expanding too much in too short a period of time. Therefore, the partial budget has to be used with discretion and the other management tools in forward planning.

After a farm manager has ascertained where he is in relation to where he wants to be, his next step is to decide on how best to get there. In order to come up with a meaningful answer, he will have to use all the tools we have discussed, tempered with his own good judgment. He may have partial budgeted his way through several alternatives and changes and his responsibility now is to select the best of these alternatives. Having done so, he should work his way through three or four years of transition budgets which looks at projected annual cash flow repayment, profitability and solvency for each of the years until the change is complete. By taking this process to its completion, he would prepare a comparative trend analysis sheet showing levels of profitability, liquidity and solvency annually along with the levels of production that made it possible.

Therefore the financial analysis and planning tools I have briefly described all tie into the matters of profitability, liquidity in the past, the present and in the future. For this reason, records, projected calculations and planning are a most important part of good financial management.

Other Considerations in Financial Management

There are a number of other considerations in successful farm financial management. These considerations are very often based on other economic principles such as fixed versus variable costs, the opportunity cost principle, the principle of diminishing returns, marginal costs versus margin returns, the substitution principle, the principle of limited capital and equal marginal returns and others. While an academic understanding of such economic phenomena is helpful, I will attempt to translate them into a few practical suggestions.

- (1) Aim for optimum yields and profits:- It is quite possible to produce higher yields and lower profits. While this is a problem most often encountered by the better farm managers, they should bear in mind that maximum yields do not necessarily lead to maximum profits. It may be more profitable to produce 90 bushels of corn per acre rather than 120 bushels

per acre. If the price of inputs such as fertilizer becomes more expensive in relation to the price of corn, it is quite likely that a lower level of production will be more profitable. Therefore, the astute farm manager will always examine his input-out-put price relationships in order to achieve optimum yields and maximum profits.

- (2) Production Plans should be flexible:- Because of changing price, weather and market conditions, good financial managers will adjust to changing conditions. Over the years there will continue to be shifts in the market demands for most food products and astute farm managers will shift their production to meet a changing demand. Most capital expenditures in a farm business have a high percentage of fixed costs associated with these expenditures, costs which have to be incurred regardless of the level of production. Therefore, before committing himself to a large capital investment in fixed assets such as machinery or buildings or land, the farm financial manager should assess the flexibility which such investments will provide. For example, a huge investment in a beef feedlot facility will "lock in" a large fixed cost whether the facility is used or not. It is conceivable that in certain years it would be economically advantageous to sell the feed produced at opportunity cost and not feed cattle. Therefore the lower the level at which the fixed costs are established, the better. In forward planning it should be remembered that operating expenses vary with the amount of production and are a one year commitment while fixed costs are incurred even if there is no production and continue throughout the life-span of a fixed asset. Therefore, capital expenditures must be considered very thoroughly.
- (3) Expansions must be planned on an orderly basis:- Virtually no farm business will remain static in size over time. Improvements in technology and the labour saving aspects associated with such improvements have forced farmers to larger levels of operations throughout the world. Many farmers have adopted orderly expansion programs and will remain solvent and viable in the future. Others either have or will attempt to expand too rapidly and their fate is well known to us all. Very few farm expansions are simple. The expansion of one enterprise very often has profound effects on other enterprises. For example, the decision to expand a dairy enterprise by an additional ten cows may give rise to the need for more home grown feed which will effect the cropping program. Perhaps such an expansion may require more labour than presently available or perhaps a larger bulk milk tank or a new milk house. Therefore what appears as a simple expansion on the surface, can have rather far reaching effects throughout other parts of the overall business. While many farm inputs are indivisible by nature, the farm manager's responsibility is to balance all inputs of production so as to maximize profits.

All considerations must be made in an expansion program and it is foolish to expand a business to the point where its ultimate financial strength is jeopardized. In a balanced expansion program the financial strength of the business will increase at close to the same rate as physical growth. Finally, it is better to take well planned, orderly steps in an expansion plan than one hastily conceived suicidal leap!

- (4) Allowances should be made for unexpected losses:- As was indicated at the out-set, few businesses are subjected to as high a degree of risk and uncertainty as in agriculture. We are all very familiar with the devastating effects weather and changing market conditions can have on this primary industry. While all farmers must be prepared to incur at least some risk, there are many formal or informal schemes designed to reduce at least a portion of this risk. Of the formal schemes designed to reduce risk, the most common are life insurance, accident and liability insurance, crop insurance, and fire and wind insurance and such insurance schemes are well understood. Another method of reducing risk is to contract on the futures market whereby another party assumes part of the risk in price variability. These are all important formal risk reducing schemes and all have a place in a well managed farm business.

There are also other informal risk reducing schemes whereby the farm manager may reduce his risks further. It is always wise to plan for a comfortable margin between expected expenditures and commitments and expected income. If a livestock farmer wishes to reduce his risk in his feed producing capabilities, he will plan for a surplus in his inventory of feed supplies to help carry him through a lean year. He will probably purchase his input requirements well in advance of the time they are required to reduce the risk of shortages in the prime purchasing season. He may contract for the purchase of inputs such as feed well into the future, so that he protects himself from further inflation in prices. There are probably many more risk reducing schemes and all warrant consideration.

These are but a few of the points to be considered in the management of finances on farms. While time doesn't permit an exhaustive discussion of all phases of farm financial management, we have attempted to highlight the more important ones.

When using substantial amounts of borrowed capital, another dimension of financial management is involved. Suffice it to say that under these circumstances, it is important that lenders should always be kept informed as to the financial operation of the business. If I might offer a few words of advice in this regard, first, find a lender in whom you have confidence as a farm lender, work with him, keep him fully informed, and stick with the plan of operation on which he has agreed.

MANAGING FINANCES ON PRIVATE LIMITED COMPANY FARMS

In conclusion let me define what farm financial management is all about in this simple definition:-

"Good farm financial management is merely a process of using available resources in the right combination and the right amounts to produce the most suitable combination of farm products, giving attention to first things first".

There is no essential difference between the financial management of a privately owned farm or private limited company farm, let us first deal with those areas which are common to both, then with some areas which are different.

The basic objective of any business in our society is optimum returns for the different inputs, all of which can be boiled down to dollars and cents. Farming as a way of life, as a hobby, or as a means to keep potential unemployed persons under-employed and in poverty on the land away from the cities, as our governments attempt to do, as political expediency seems to dictate, clearly does not fall under the definition of farming, nor is this method of utilizing potentially scarce land resource likely to produce the needed food which a hungry world requires.

We farmers must, therefore, calculate just as sharply or possibly sharper, as any other business, whether we are incorporated or not, must, from that standpoint, little difference.

Financial planning is nothing but a logical consequence of short and long-range production planning. Unfortunately, in most cases the freedom of choice is limited by existing production systems, soil or climatic conditions.

I know of few farms which have started without being handicapped by a production system or method already carried out by the predecessor or the present operator himself. As much as the operator may wish to change, practical considerations such as rotation, available skills, available buildings, markets, etc., are limiting factors, even if plenty of funds were available.

In addition to these problems, the farmer is dependent not only on his own meteorological climate, and that in other faraway places, but also the political climate in his own and competing production areas. As we all know, both types of climate are fickle, and unpredictable.

Financial planning of a farm operation is, therefore, one of the major challenges, but as mentioned above, really only a logical consequence of a basic farm management plan, which must be objective oriented.

Farms come in many sizes, shapes and combinations, and one can only deal with principles. As any other business, we too, distinguish between short, intermediate and long-range financing, and let us add a fourth one, roll-over financing provisions.

Some of the guidelines which we have evolved and how we try to adhere to them are described in the following:

In conclusion let me define what farm financial management is all about in this simple definition - "Good farm financial management is merely a process of using the available resources in the right combination and the right amounts to produce the most suitable combination of farm products giving attention to first things first."

(4) Financial Management is the art of planning, organizing, directing, and controlling the financial operations of a business enterprise so that it may achieve its objectives. It involves the management of the firm's assets and liabilities, the raising of capital, and the distribution of funds.

The primary objective of financial management is to ensure the availability of funds to meet the firm's requirements. It involves the selection of the most profitable investment opportunities, the determination of the firm's capital structure, and the management of the firm's working capital. Financial management also involves the management of the firm's risk, the determination of the firm's dividend policy, and the management of the firm's taxes.

There are two main types of financial management: long-term financial management and short-term financial management. Long-term financial management involves the management of the firm's capital structure and the management of the firm's investment opportunities. Short-term financial management involves the management of the firm's working capital and the management of the firm's cash flow.

The long-term financial management of a firm involves the management of the firm's capital structure and the management of the firm's investment opportunities. The short-term financial management of a firm involves the management of the firm's working capital and the management of the firm's cash flow.