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CAPITAL USE AND
FORMATION IN THE
AGRICULTURE OF
THE NETHERLANDS

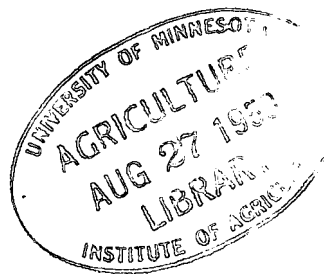
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*CAPITAL AND CREDIT
IN AGRICULTURE*



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CAPITAL USE AND FORMATION IN THE AGRICULTURE OF THE NETHERLANDS

THIS article deals with a number of aspects of the supply of capital and credit, but it may be useful first to obtain a general impression of the structure of the capital requirements of different farms.

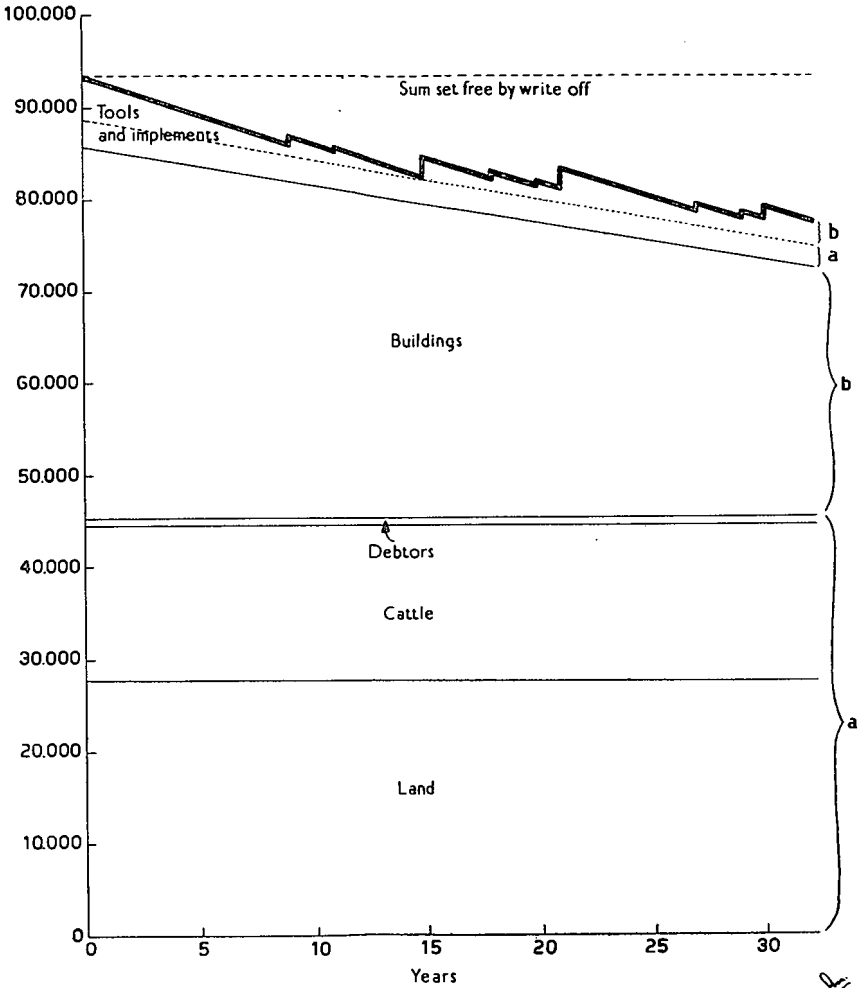
1. Some characteristic features of the capital requirements of farms

In considering a farm's capital requirements it is customary to distinguish between the short-term requirements—i.e. the demand that manifests itself within one year—and the long-term requirements. A part of the long-term requirements is constant in character, while another fluctuates over the years and is consequently of a temporary nature. This is illustrated in graphs 1 and 2.

Graph 1, relating to the situation on a typical farm of about 30 acres just beginning to be farmed by an owner-farmer, shows the composition of, and the changes in, the long-term capital requirements on a livestock farm, assuming that the pattern of farming remains constant during the period. The constant portion of the requirements derives in the first place from the land which, when put to normal use, does not set any capital free in the form of write-offs for depreciation as is the case with individual buildings and machines. In addition, the livestock—cattle particularly—requires constant capital investment for regular herd replacements, while the maintenance of the dead inventory gives rise to constant annual capital requirements, amounting to about 30 per cent. of the value when new, for the replacements which take place from time to time. The time-lag between the continual production of milk and the payment for this milk by the dairy factory also means that a fixed sum equal to the outstanding claim on the factory is permanently locked up in the productive process.

On an arable farm the constant portion of the capital requirements will usually be smaller than that on a livestock farm of the same size, because a far smaller number of livestock is kept. The mixed farm lies in between the two. Many farms will also show a greater demand

Capital requirements
in guilders
(10 guilders = £1 approx)



GRAPH I

The course of the capital requirements of a typical freehold dairy farm of about 30 acres
(without fluctuations within the year):

- (a) constant capital requirements;
- (b) long-term yet temporary capital requirements.

for long-term capital because of cattle sheds. Since on the mixed farm there are buildings that must be adapted to the demands of both crops and stock, the long-term capital requirements will be the greatest on farms of this type.

Wear and tear result in an intermittently falling and rising demand for capital. The capital requirements to offset this factor will show a declining trend so long as the amount of investment is smaller than write-off sums yielded by the production process.

As regards the short-term capital requirements, the lack of continuity in arable farming (because crops can be harvested only at given times) results in much more pronounced seasonal fluctuations than does the continual process of milk production. This is illustrated in graphs 2*a* and 2*b* which are based on a group of arable farms and a group of livestock farms of 30 acres. In view of large differences in the quality of the soil, the type of building, the degree of mechanization, the number of cattle kept, the scheme of cultivation and the like, it is possible to give only an approximate figure for the absolute size of the *total* money requirements for both types of farm. The seasonal fluctuation, however, gives a good idea of the differences which exist in practice between these two extreme types.

On the arable farm the amount of stocks held and the amounts due from debtors are usually small, so the capital requirements for these assets have not been shown separately. On the cattle farm the farmer usually receives a delayed payment for milk delivered in the past year. This is why the 'debtors' item has been shown separately in graph 2*b*.

Graph 2*a* shows how on the arable farm a constant demand for capital arises from the overlapping of two production processes each of which individually makes demands on money for short periods only. Payments are made in respect of the second production process (line 2) before the capital tied up in the field inventory (crops in the field), stocks and debtors of the first production process (line 1), has become available again—and so on from production process to production process. To ascertain how much capital is necessary for the successive production processes, therefore, it is necessary to add line 1 to line 2 and line 2 to line 3 and so on (line 4). It then appears

¹ Part of the sums becoming available by way of write-offs for depreciation after a *new* farm has been got going will not be needed for replacements. The times at which the different implements and buildings require to be replaced will never, under normal circumstances, completely coincide, thus forming a parallel to the situation when the farm starts working for the first time. Assuming, therefore, that prices remain the same, there will *always* be less capital required at all future dates than was required at the start.

that to finance the annually recurring items of stocks and debtors, there are constant capital requirements amounting to more than 40 per cent. of the working capital required for a single production process.

Graph 2 also makes it clear that the seasonal fluctuation is much smaller on the livestock farm than on the arable farm. In contrast to the possibilities open to the livestock farmer, it is not easy to smooth out the capital required for the field inventory of the arable farm, since the times at which production begins and ends can hardly be altered by man.

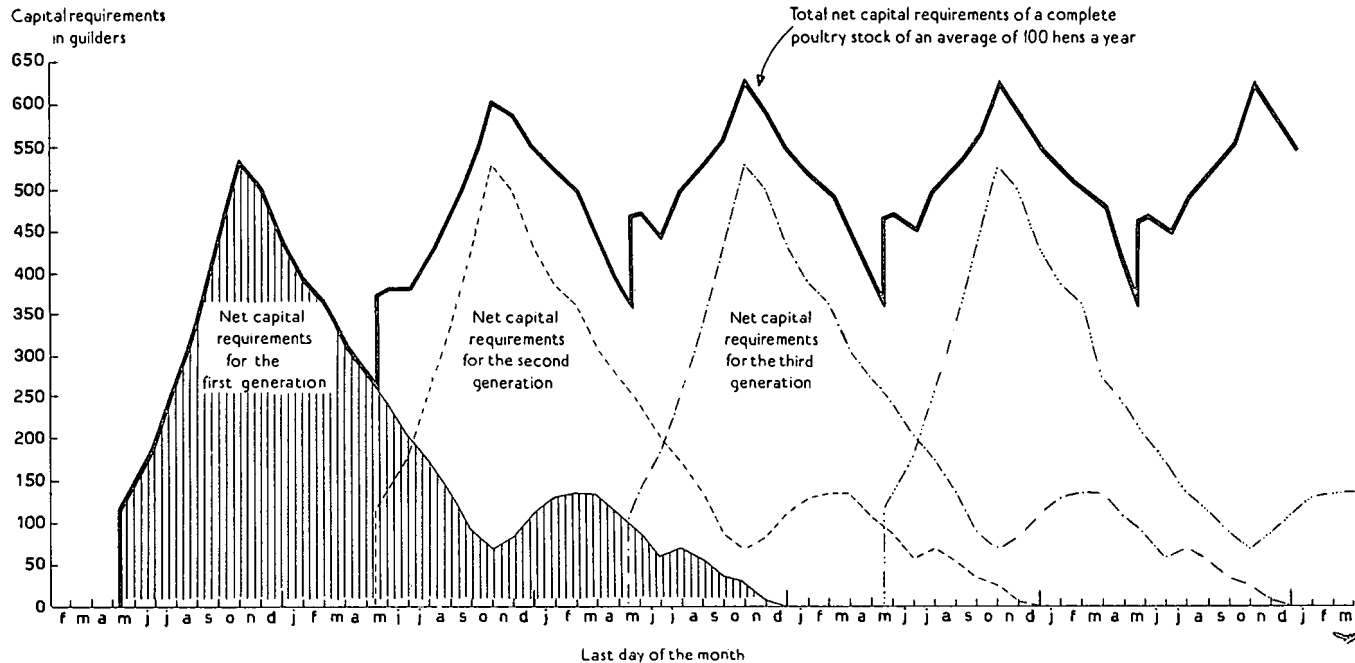
Differences between the livestock farm and the arable farm can also be noticed, moreover, in the time at which the maxima and minima short-term requirements occur. On arable farms in the Netherlands the maximum usually occurs in August and the minimum in the period December–March, while on the livestock farm the maximum demand for short-term capital occurs during March–May and the minimum in October–November.

The capital requirements will be different, of course, if there are differences in the pattern of farming. Thus on mixed farms both influences will be at work. There are also the influences exerted by poultry-breeding, pig-keeping, horticulture, &c. Poultry-breeding, for instance, calls for the largest amount of capital in the autumn and the minimum in the spring. Graph 3 illustrates the requirements for a stock of a hundred first-lay, second-lay and a small number of third-lay hens.¹ Pig-keeping results in a more spasmodic but more easily manageable cycle, as illustrated by graph 4.

On the whole, the total capital requirements of the mixed farm fluctuate less than those of the arable farm but more than those of the livestock farm.

Graphs 1 and 2 illustrate the position when the farms are owned by the farmers themselves. A very different picture emerges, of course, if the means of production are leased or rented, a point of great importance in the Netherlands where 56 per cent. of the acreage under cultivation is farmed by tenant farmers. By leasing or renting, the farmer limits himself to the purchase of the yield of a particular means of production (in this case, land) for one or more years, depending upon the period of the contract, in return for which he pays a regular rent. Instead of paying a large sum once, when the entire means of production are bought, a number of different smaller

¹ Assuming that day-old chicks are bought in April.



GRAPH 3

Capital requirements of a stock of poultry of an average of 100 hens (situation in 1954-5).

payments are made at successive intervals which can be distributed over the whole lifetime of the means of production. This has a markedly limiting effect on the total capital requirements. In the case illustrated in graph 1, the amount invested if the lands and buildings were leased would be only about a quarter of the amount required by the owner-farmer; and this is accompanied by a considerable reduction in the constant and long-term capital requirements. In most cases there will be no great change in the short-term capital requirements. These will only change in so far as the size and period of the rent and lease payments deviate from the size and period of the payments the owner-farmer has to make.

2. *The supply of capital*

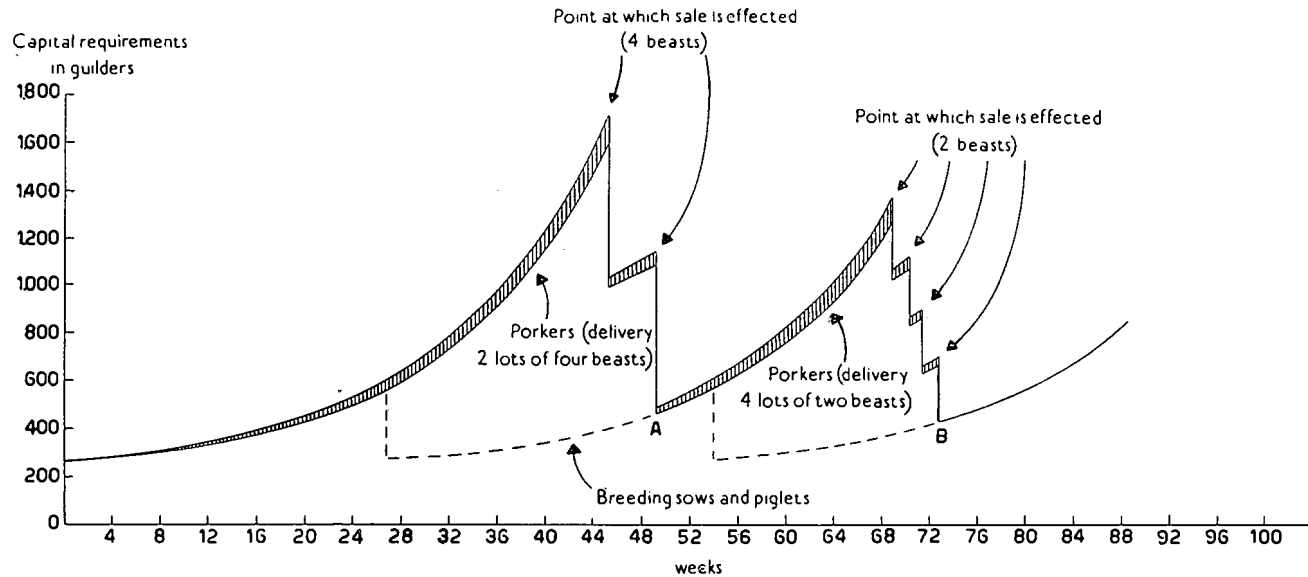
How can the farmer meet the capital requirements of his farm? What role does his own capital play in this? Can the latter be increased in the short run? How much of the farmer's own capital is actually involved in financing farming? What are the possibilities of obtaining credit? These are the questions now to be discussed.

(A) *Financing with the farmer's own capital*

The farmer's own capital is of great significance and the amount of it has a considerable bearing on the resilience of an agricultural enterprise. The larger the amount of a farmer's own capital the less will setbacks interfere with the continuity of production. Generally, the amount of the farmer's own capital is one of the factors determining the amount of outside capital he will succeed in attracting and the conditions on which it is lent. So far as lenders are concerned, the farmer's own capital represents a fund guaranteeing that he will meet his obligations. Other things equal, the more risk-bearing capital there is in a farm borrowing from others the less chance there is of lenders suffering losses. This increases its chances of obtaining credit. This may be called the 'indirect financing function' of a farmer's own capital.

The 'direct financing function' of this capital is bound up with the fact that, in principle, provided that none of it is used for private expenditure or to cover losses, it is available unconditionally for an unlimited period. This means that the farmer's own capital is excellently suited for the purpose of covering a farm's constant capital requirements.

Another important consideration is that, when a farm is financed



GRAPH 4

Capital requirements for a sow and her porkers, with delivery at various live weights and resultant differences in dates of sale.

out of a farmer's own capital, no fixed interest or redemption charges are involved, which means that in times of declining returns, the more the farmer's own capital is being used, the easier it is to avoid straining the farm's finances.

In general, there are two ways of procuring one's own capital, viz. by issuing shares and by savings. Little need be said about issuing shares since it is extremely rare in Dutch agriculture. The private farming company, which can attract capital of its own by issuing shares to the public, has not made any headway. This must be ascribed, in the first place, to the relatively limited chances of making profits and to the fact that in most cases the amount of capital a farm requires is insufficient to justify the issue of shares and the expenses this involves. Moreover, the limited company is not an organization for farmers, the great majority of whom are traditionally minded, and it would not be a simple matter for the investing public to assess the worth of small farms.

Consequently, the private undertakings of which farming in the Netherlands is almost exclusively composed must look to savings for procuring their own capital—savings made in former generations and handed on by inheritance, or savings made by the present generation of farmers. The rate at which a farmer's own capital can be increased out of his own resources is mainly determined by agricultural income in conjunction with the inclination to save. It is seldom that a farmer has much opportunity to finance his farm out of the income he obtains from farming. It is characteristic of agriculture, as an industry, that its products are offered for sale by many producers none of whom individually can exercise any influence on prices. The ways open to the individual farmer to increase his income are limited, therefore, mainly to increasing production and to reducing costs. Set against this the fact that the demand for many agricultural products is relatively inelastic, and the amount of goods being put on the market can give rise to chronic pressure on prices, with a resultant tendency towards a low margin of profit per unit of product. The fact that agriculture is a 'mode of life' easily leads to a situation in which production goes on even if the income earned from it is lower than the income that could be earned in some alternative occupation. In principle, all this has an unfavourable effect on the entrepreneur's total profit and therefore on his ability himself to finance improvements, mechanization, &c. This effect is further aggravated by the fact that the rate of circulation of agricultural capital is low.

In view of this, it may come as a surprise to learn that an inquiry in the Netherlands in 1952 revealed that by far the greater part of the capital invested in farms consisted of the farmers' own capital. Some figures illustrating this are contained in Table 1. The fact that many

TABLE 1. *Farmers' own capital as a percentage of the total invested capital (1952)*

Groups	of the number of farms are financed with the farmer's own capital up to a percentage equal to or greater than:		
	1/6	3/6	5/6
<i>Size of farm</i> (1 hectare = 2.47 acres)			
4-7 ha.	98	91	67
7-15 "	97	88	65
15-30 "	94	84	61
30-50 "	91	81	59
50-100 "	87	76	57
<i>Property ratio</i>			
0-20% of area rented	96	83	57
80-100% " "	95	86	65
<i>Age of farmer</i>			
20-30 years	92	72	41
30-40 "	94	80	53
40-50 "	96	85	65
50-60 "	96	87	67
Over 60 years	96	88	67
<i>Area and type of farm</i>			
Marine clay (mainly arable)	91	79	56
Pasture areas	94	83	60
Sandy soils (mixed farms)	97	89	67
Total for the Netherlands	96	85	62

farmers prefer not to contract loans is certainly one of the reasons why the relative share of outside capital is small. The marked inclination to save, predominant in rural areas, on the other hand, has a favourable influence on the amount of the farmers' own capital invested in agriculture. In addition to this, it is possible to point to a number of special factors which strengthened the financial position in the years before 1952—particularly the facts that, during the war and immediately after, farmers obtained favourable prices for their products in view of the shortage of food and that the burden of debt was considerably reduced owing to the decline in the real value of money.

In the short term, however, the farmer is not in a position to bring about any really large increase in the amount of his own capital. This means that in order to modernize, mechanize and intensify produc-

tion it is often necessary to resort to credit. It is accordingly extremely important for agriculture to have efficient credit machinery.

(B) *Possibilities of financing with outside capital*

There are a number of factors which put agriculture in a relatively unfavourable position for obtaining credit. These are:

1. The success or failure of a farm is in large measure dependent upon the farmer himself, on his ability, reliability and health. An impersonal undertaking offers a better guarantee as regards continuity of production. Not all farmers and market gardeners keep separate accounts for the finances of the farm and those of the family, so that it is often difficult to make out whether a loan will be used for productive purposes or for consumption. Good book-keeping is a help, but it does not make it possible to form an opinion on how the credit will be used. Later on, however, the books do afford an idea of the use to which the credit has been put. This can be of significance when considering applications for further credit.

2. The small size of many agricultural undertakings means that on the whole suppliers of credit can invest only small amounts per farm. (In the Netherlands 62 per cent. of the farms are of less than 10 hectares (25 acres).) The administration costs are accordingly relatively heavy per loan, a fact which is reflected in the rate of interest. Otherwise the investment yields only a small net profit and has little attraction for the investor.

3. The scattered nature of the farms makes it necessary to have a widespread system of credit. This factor also results in higher costs per loan or unit of credit, thus leading either to higher rates of interest for the farmer or to smaller profits for the lender.

4. Agriculture is dependent upon biological processes and on weather influences. Moreover, in principle, the price of agricultural produce reacts sharply to changes in supply and demand. In view of the great importance of the export trade to Dutch agriculture, the demand for agricultural produce is strongly influenced by commercial measures taken by foreign governments. This makes it difficult to judge whether commitments can be met. On the other hand, government measures influencing the operation of the market certainly mean that the price risk for the farmer is smaller than it would be if price formation were free of all interference. Government technical and economic information services and the stronger position which farmers are acquiring by working together in co-operative enterprises

have also brought about some reduction in the farmer's risks. These factors have, therefore, also reduced the risk entailed in supplying credit.

5. A farm's capital requirements are in most cases of a long-term nature. So far as liquidity is concerned it is a less attractive proposition if the possibilities of releasing the invested capital by means of the transfer of claims are limited.

Viewed historically, these five factors have had a hampering effect on the flow of credit into agriculture. The institutions active in short-term credit—the commercial banks—have refrained, almost without exception, from granting credit to agriculture. Others, it is true, are prepared to supply agriculture with credit but wish to cover themselves against risks by requiring good security. A farm's earning capacity is hardly ever the sole basis on which outside capital can be attracted. In the report issued in 1926 by the British Ministry of Agriculture¹ it was stated with justice,

It is not open to the farmer to borrow on 'estimated earning power', in the manner in which it is open to corporate industry; there is no commercial measure of these things in agriculture acceptable to the ordinary investor. Where therefore manufacture raises its capital by subscription, the farmer must raise much of his by credit. Agriculture must fall back on its tangible assets, its land, buildings, stocks and crops. To render these as fully available as possible as a basis of credit, should be the purpose of an agricultural credit system. In the absence of adequate credit facilities farming may be impoverished or forced on to a lower level of economic efficiency.

The lack of interest shown by the commercial banks drove farmers to traders for obtaining business credit and led in many cases to the charging of exorbitant rates of interest. This, together with the great emphasis on security when loans are made to agriculture, resulted in the Netherlands in the founding of institutions designed to remove these obstacles. Thus there came into being the farmers' credit banks and special institutions which provide loan banks with guarantees covering redemption payments and the payment of interest in those cases in which the borrower cannot put up sufficient security himself. These two salient features of the agricultural credit system in the Netherlands are worth further discussion.

(a) *The farmers' credit banks.* In the Netherlands the unsatisfactory operation of the credit system in rural areas around the turn of the

¹ Ministry of Agriculture and Fisheries: *Report on Agricultural Credit*, London (1926), p. 8.

century led to the founding by private enterprise of local agricultural banks on a co-operative basis and on the Raiffeisen model. The money required for granting credit in this way was obtained by these banks through their functioning also as savings banks.

Thanks to a certain uniformity in deposits and withdrawals it is possible to make part of the money deposited available to members in the form of credit.¹ In 1955, 40 per cent. of the money placed in the keeping of local farmers' credit banks, affiliated to the Co-operative Central Raiffeisen-Bank at Utrecht, was lent out in the form of credits. The figure in respect of the farmers' credit banks, affiliated to the Co-operative Central Agricultural Bank at Eindhoven, was 30 per cent.

It was an essential condition for the proper fulfilment of their lending function that the farmers' credit banks should develop successfully as savings banks. That they have done so has been due chiefly to the great confidence that they have inspired among the public. About 40 per cent. of the total money deposited in savings banks is now being deposited with the farmers' credit banks. Membership is not limited to people of limited economic means, the well-to-do in rural areas also having become members. The unlimited liability of their members, the sound management stimulated by the central farmers' credit banks, the fact that the bank managers are personally acquainted with the farmers requesting credit and the necessity for supplying good security for credit granted have acted as a powerful stimulus in creating confidence in these banks. They limit themselves mainly to the supply of short-term credits on current account, and medium-term loans the average currency of which is about seven years. It is true that *formally* all loans are terminable at three months' notice, though *in fact* this is only to enable the banks to adapt the rate of interest to changes in the general rate of interest.

The supply of very long-term loans for financing land and buildings has in the main continued to be a matter for private persons and institutional investors. In view of the great liquidity of the farmers' credit banks in the post-war period the latter have, however, done a great deal in the way of granting long-term loans for land. So far as

¹ Experience has shown that while one group withdraws its savings or draws on credit, there is usually another depositing savings or paying back credit. The maximum money requirements of arable farmers make themselves felt later in the year than do those of livestock farmers whose requirements tend to be highest in spring. This diversity has been emphasized still further in the course of time by savings deposits from retail traders and labourers and by the extension of the farmers' credit banks' dealings in credit to cover various types of agricultural co-operative.

liquidity permits, loans on mortgage may be issued for periods up to forty years. With regard to the liquidity position, the maximum period of loans was recently reduced once more to twenty years. The large loans are given by the institutional investors while the smaller ones, which are less attractive to them, are left to the farmers' credit banks. In 1908 the Central Farmers' Credit Bank at Eindhoven did in fact take the initiative in setting up a special bank for long-term loans on mortgage to agriculture, this bank being known as the N.V. Boeren-Hypotheek Bank (Farmers' Mortgage Bank, Ltd.). This bank, which obtains the necessary money by issuing mortgage bonds, should be seen as an extension of the farmers' credit banks. Although it grants loans up to a period of forty years (which loans it cannot call in and for which the rate of interest cannot be increased during their currency) it has not expanded into a very large concern. This is probably because the rate of interest charged is rather higher than that charged on mortgages by other suppliers of capital. Dutch farmers have apparently little need for a specialized institution dealing in non-terminable long-term credit for land so long as it is possible to obtain capital from other sources at less cost. At the end of 1955 about 1,000 million guilders were out on loan from the joint farmers' credit banks, i.e. roughly 7 per cent. of the total capital invested in agriculture. This figure, however, is not limited to credit granted to farmers and market gardeners (whose share is probably about 60 per cent. of it); it also includes credit to dairy co-operatives, purchasing and marketing co-operatives, co-operative sugar mills, agricultural machinery co-operatives and the like (which, of course, represents an indirect financing of farmers), and also the issue of loans to agrarian shopkeepers and artisans, such as blacksmiths and so on.

Thanks to a marked degree of decentralization in their organization each of these banks has a small and clearly defined area of operation, which facilitates the issue of credit designed for the farming industry. At the moment there are more than 1,300 local farmers' credit banks in the Netherlands. A redemption scheme, which is adapted to the farm concerned, is decided upon for each loan. In addition, earlier redemption is always possible without involving higher rates of interest. The loans are relatively cheap owing on the one hand to low running costs—the absence of luxurious bank premises generally—and to the fact that the members of the supervisory councils and the boards of the banks very often receive no remuneration, and, on the other hand, to the absence of any endeavour

to make profits. The difference between the rate of interest paid on savings deposits and the rate charged on loans issued is consequently seldom greater than 1 or $1\frac{1}{2}$ per cent. In 1955 the rate charged on loans was from $3\frac{3}{4}$ to $4\frac{1}{4}$ per cent. At the moment interest rates vary between 5 and 6 per cent., percentages which are high in Dutch circumstances in comparison with the past. Taken as a whole, the interest charged by the farmers' credit banks on short-term credit differs only slightly from the interest charged on loans.

In a publication designed as a guide to the officials of the farmers' credit banks affiliated to the Co-operative Central Raiffeisen-Bank it is stated in connexion with the criteria these banks must apply that:

the personal soundness and suitability of the applicant to receive credit, his skill, industriousness and morality must form the basis of the decision to grant credit, besides the anticipation that he will be able to meet his commitments out of the proceeds of his farm. In coming to this decision, the security required, although indispensable, is a secondary consideration only. The granting of advances or loans solely on the ground of the security required, in the absence of sufficient confidence in the character and personality of the applicant himself and without the expectation that the yield from the farm concerned will be sufficient to meet redemption and interest payments, is not in the ultimate interest of the parties concerned and is consequently in conflict with the character of our farmers' credit banks.

It is clear from this that great importance is attached to the personal merits of the applicant and to the economic condition of the farm for which the credit has been requested.

Nevertheless, the farmers themselves have more than once raised the objection that it is not always possible to go to the farmers' credit banks for credit even if a loan is economically warranted, if the farmer cannot supply the security required. Some local farmers' credit banks are, of course, more lenient than others. It is a fact, however, that the banks attach great importance to obtaining good security owing to their special nature as savings banks. A favourable assessment of the farmer's professional skill and morality and the good earning capacity of his farm are, it is true, essential conditions for the supply of credit, though they are not sufficient in themselves. It is laid down in the statutes, for that matter, that advances or credits on current account may be granted only when the Board considers that there is sufficient personal and/or material security. Use is made particularly of mortgages and guarantees for this purpose, and also of stocks and shares, insurance policies, mortgage claims and other claims provided they are of sound quality (e.g. cession of claims on the auction) and

transfer of cattle, machines, &c., as a security for the banks.¹ More than 80 per cent. of the amount of loans outstanding in 1955 were covered by mortgage securities.

Their statutes do not generally permit these banks to grant open credit. The organization at Eindhoven, however, does offer facilities for granting small amounts of open credit, ranging from 500 to 1,000 guilders and known as 'tiding-over' credits. In 1948 a clause was introduced into the statutes to the effect that credits granted to members to maintain or improve their farms are not regarded as open loans if such members pass all receipts relating to the farm through the current account kept in respect of the credit. This, however, applies only in so far as they are suitable candidates for such credit by reason of the capital they possess. This opens up the possibility to existing holders of accounts who pass all their income through the bank to exceed to some extent the limits of the credit already extended to them. The bank can do this because it knows that by associating the credit with the current account transactions it has the assurance that any overreaching of the credit can always be set off against the income falling due to the farm. Recently the banks affiliated to the central bank at Utrecht also introduced the possibility of open credits to a maximum of fl. 3,000. Such credits will have a maximum currency of one year.

The farmers' credit bank organizations offer another facility with respect to security in credit guarantees via their guarantee funds which are specially set up for this purpose. These funds are the Mutual Guaranty Fund, Section C, of the Central Co-operative Raiffeisen Bank at Utrecht and the Guaranty Fund for Agriculture and Market Gardening of the Central Co-operative Farmers' Credit Bank at Eindhoven. A credit guarantee can be given in respect of viable farms which are not able to provide the security required by the banks' statutes. One-quarter per cent. extra interest is charged on the total amount of the credit for items guaranteed by the Mutual Guaranty

¹ Fear of incurring too much office work and the expectation that entry in public registers would hamper rather than promote the granting of credit (it is preferred, as far as possible, to avoid publicity) have meant that it has not proved possible to introduce chattel mortgages in the Netherlands. Instead there is a system of transfer of movable property as security, the borrower transferring his property rights in machines and/or cattle to the lender, from whom he receives them back on loan. As soon as the borrower is no longer in debt, his property rights are transferred back to him. An objection to this form of surety is that the lender has only a weak guarantee. Should the borrower misappropriate the assets concerned, the lender has no right of redress from third parties who acted in good faith in receiving the goods.

Fund, Section C. In principle, this possibility of obtaining credit guarantees has proved a satisfactory solution to the difficulties of security which applicants for credit sometimes meet. We shall see, however, that these special farmers' credit bank funds have not removed all the difficulties.

That so much attention should have been paid in this article to the co-operative farmers' credit banks is due to the fact that they represent an important addition to the structure of Dutch agricultural credit. It is as well, however, to ask what position these banks at present occupy in relation to other providers of credit to agriculture. There is not much detailed documentary material available about this, but some impression of the situation can be gained from an inquiry on 259 farms distributed over the whole of the country (Table 2).

TABLE 2. *Number of loans granted in the spring of 1955 by different groups*

<i>Groups of providers of capital</i>	<i>Loans on mortgage expressed as a percentage of the total number of loans</i>	<i>Non-mortgage loans expressed as a percentage of the total number of loans</i>
Members of the family	16	66
Other private persons	31	22
Churches and other institutions	4	2
Insurance companies	10	1
Savings banks	13	3
Farmers' credit banks	26	6
Total	100	100

As will be seen from this table, the most important moneylenders are private persons—members of the family in the case of non-mortgage loans and other private persons in the case of loans on mortgage. The quantitative significance of the farmers' credit banks is thus comparatively modest. This is confirmed by other data. In 1952 about 17 per cent. of Dutch farms had obtained loans from these banks. This does not alter the fact that they are a useful channel through which part of rural savings can flow into Dutch agriculture.

(b) *Credit guarantees provided by institutions specially set up for the purpose.* The co-operative farmers' credits banks are not the only means by which the natural obstacles in the way of granting credit to agriculture have been overcome to some extent. Particularly since the Second World War, the government has laid great emphasis on the desirability of modernizing, mechanizing and intensifying agriculture. Experience has shown, however, that the financing of what

are themselves profitable enough investments can lead to difficulties if a farmer or market gardener is not able to provide the security required. The credit guarantees provided by the farmers' credit banks in the form of the special funds mentioned above were thought to be an insufficient remedy.

Accordingly, the government and others have sought for some machinery to make it possible to obtain credit for profitable investments precisely in those cases in which lack of security formed the stumbling-block. The solution has been found in the form of credit guarantees supplied by organs specially set up for the purpose. The Agricultural Guaranty Fund Foundation offers credit guarantees for market gardening, arable farming and livestock farming all over the country, without additional costs for borrowers.

The reason for the setting up of this Fund was mainly the need to increase the productive capacity of farming and market gardening. This was to be achieved by making up the arrears in farm equipment, the improvement of cattle sheds, the provision of manure slabs, manure pits and electric wire fencing, raising the number of cattle per acre and so on.

The Fund, the board of which is made up of a representative of the Ministry of Agriculture, Fisheries and Food, a representative of the Ministry of Finance and a representative of the farmers' organizations, endeavours to do this by providing the suppliers of credit—chiefly farmers' credit banks—with a guarantee for redemption and interest payments in respect of certain credits. For this the sum of 25 million guilders was made available out of the Local Currency Account. The guarantees can be supplied only for investment credits, that is to say, loans of money made for the purpose of assisting the extension, modernization and improvement of the means of production. The conditions are as follows.

- (a) A guarantee cannot be provided if the applicant is in a position to finance the project himself.
- (b) The applicant must be of good reputation and must have met all his financial commitments in the past.
- (c) The investment must be necessary and appropriate to the farm concerned.
- (d) There must be a reasonable expectation that the applicant will also be able to meet his commitments in the way of redemption and interest payments after the envisaged project has been carried out.

(e) In principle, the applicant must finance 50 per cent. of the investment without a guarantee by the Fund.

In judging an application the assistance of the National Agricultural Extension Service is called in. So far the great majority of applications have been decided by a national committee, there being as yet only one province—the province from which most applications are received—in which such applications are discussed in a provincial committee.

The limit of a guarantee was originally fixed at 50 per cent. Those who could not supply 50 per cent. themselves were consequently excluded from receiving a guarantee from the Fund. In the market-gardening sector this led to the setting up of provincial guarantee institutes. These can supply additional guarantees to the banks, any losses which they suffer in consequence being borne by the province, the local authorities and the auction markets.

The field of operation of the provincial guarantee institutes is confined to market gardening. So far as arable and livestock farming are concerned, at the end of 1954 the Fund itself provided a solution to the difficulties still existing for some applicants who could not find 50 per cent. of the security themselves, by making it possible to supply guarantees up to a higher percentage.

3. *Conclusion*

In this article a sketch has been given of the capital requirements of farms in the Netherlands with the aid of a number of graphs, a comparison having been drawn between the purely livestock and the purely arable farm.

The discontinuity in production on the arable farm results in far greater seasonal fluctuations in capital requirements than does the continuous production of milk on the cattle farm.

On the whole, the capital requirements of the farm run by the owner-farmer display a large, constant core for which, on account of liquidity, it is necessary to have a constant supply of money available. The farmer's own capital is accordingly the most suitable means of furnishing these requirements, though use can also be made of outside capital for the same purpose (*a*) if loans can be obtained which do not require redemption and in respect of which substitution of one lender by another can easily be arranged (this is often the case with loans on mortgage) and (*b*) if loans capable of amortization and running for overlapping periods can be regularly obtained.

There are limits to financing with outside capital, owing not only to the attitude taken up by the providers of such credit but also to the amount of money a farm drawing on credit can raise out of write-offs for depreciation and savings to meet the redemption payments. The farmer's personal insight into the 'credit capacity' of his farm, the conditions attached to the credit and the possibilities of earning a profit, largely determine the answer to the question as to what portion of the constant money requirements must at least be covered by his own capital. He will seek to arrive at a compromise between his efforts to reduce the 'period risk' to its smallest possible proportions (the danger of illiquidity) and to achieve as high as possible a degree of profitability. Another matter demanding consideration is the extent to which a proper solution to the financial problem can be found by reducing the capital requirements by leasing land and buildings or by hiring (or joint use) of tools and machinery, and by contracting work. This aspect of reducing capital requirements deserves special attention, particularly when, as is often the case in agriculture, they are relatively high on the farm run by the owner-farmer compared with the stream of income.

Members of the family play an important role in financing farms. The capital they put forward often assumes the character of partnership in the farm and cannot always, therefore, be compared with credit received from others, such as other private individuals, farmers' credit banks, institutional investors and savings banks.

The setting up around the turn of the century of the farmers' credit banks meant a useful addition to the agricultural credit system. Their work lies chiefly in providing short-term and medium-term credit, and it is here, precisely, that they have filled a gap.

This system was completed after the Second World War with the setting up of the Agricultural Guaranty Fund, whereby a solution has been found, in principle, to the problem of security. In practice, however, no great use has been made of this fund so far. In so far as there is a latent additional need for capital to finance what are thought to be profitable investments, which cannot be met through the normal channels owing to inadequate security, assistance can be requested from the Agricultural Guaranty Fund. This can lead to the granting of credit, provided the banks are willing to lend and have sufficient money available for the purpose.