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A CRITICAL SURVEY  
OF APPROACHES TO THE ROLE OF CREDIT  
IN SMALLHOLDER DEVELOPMENT

by

J.D. Von Pischke

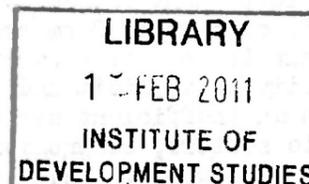
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ABSTRACT

Recent literature on farm credit in the context of rural development displays an exciting variety of conflicting opinions. The argument that farm credit is essential to smallholder development is often couched in terms of the "need" for credit, a concept which is frequently undefined and essentially undefinable. The complexity of the subject is often lost sight of behind such semantic and conceptual shortcuts and the discussion of farm credit's role and potential role in rural development is too often carried on without very much examination of the validity of implicit underlying assumptions. These errors may result in an inefficient use of resources in the agricultural, financial and public sectors, compromising the welfare of borrowers and of the community as a whole. Examples relating to Kenya and nearby countries are incorporated into this critique.

Forty Dimensions of  
the Small Farm Credit Problem

Cattle mortality  
Loan morality

Peasants' priorities  
Privileged minorities

Lenders' bureaucracy  
Welfare democracy

Credit worthiness  
Loan deserviness

Farmers' commitment  
Proper equipment

Farm planning a rarity  
Prices and parity

Financial constraints  
Donors' complaints

Extension activities  
State proclivities

Local dips  
Political quips

Savings capacity  
Rural tenacity

Grow more food for the good of the Nation  
Class and social fragmentation

Inappropriate recommendations  
Large and growing defalcations

Institutions, their organisation  
Ministries lacking coordination

Interest rates, their acceptability  
Intermediation, resource agility

Public sector intervention  
Rates of return (honourable mention)

Usurious devices  
Shadow prices

Market access  
Enclave excess

New varieties  
Trad. societies

Innovation  
Education

Motivation  
Speculation

J.D. Von Pischke

A CRITICAL SURVEY OF APPROACHES TO THE ROLE OF  
CREDIT IN SMALLHOLDER DEVELOPMENT

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Institutional credit provided to small farmers comprises a significant aspect of finance for rural development in many African countries. Frequently, however, the magnitude of small farm credit is small relative to flows of monetary capital in rural financial activity. Kenyan data provides an illustration of the quantitative weight of farm credit in a relatively advanced African context, as shown in Table 1. Although the various published statistics frequently are not adequate for precise comparisons in terms of what they purport to measure and the extent of disaggregation, they do provide indications of orders of magnitude.

The Table suggests that annual short term credit issued amounts to substantially less than 20% of gross marketed agricultural production and of value added by monetised agriculture, and perhaps to only about 3% of the marketed output of small farms. The inclusion of cooperative credit in the statistics could easily double this small-farm percentage, however. (Kenyan statistics include only "large farms" and "small farms". The former include mainly farms of more than 20 acres in the areas formerly reserved for European agriculture, excluding farms subsequently subdivided for African settlement.) Credit may play a somewhat more important role in supporting capital formation in monetised agriculture, although the accuracy of the data and of the assumptions may be easily challenged.

Institutional lenders in LDC's frequently finance only a small portion of small farm financial flows. Also, their clientele is usually small in proportion to the size of the rural population. In Kenya, for example, the commercial banks and the state-owned Agricultural Finance Corporation (AFC) were lending to probably not more than 30,000 bona fide smallholders (i.e. those without modern sector employment) on the nation's tenth anniversary of Independence.<sup>1</sup> The number of smallholders in Kenya is not known and there is apparently no local

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1. A much larger number of smallholders have access to short term credit for the purchase of inputs from cooperative societies. However, for present purposes this type of credit can be largely disregarded. Coffee is the primary commodity flowing through cooperative marketing channels in Kenya. The payment system is complex, but it would appear that many smallholders finance their crop for a considerable period after they deliver it to their primary societies. In many cases cooperative credit is analogous to an advance against coffee already delivered, and "borrowers" may in fact remain nett creditors to their societies.

TABLE I. COMPARISONS OF CREDIT STATISTICS WITH SELECTED FLOWS IN KENYA'S AGRICULTURAL SECTOR

<u>Item</u>	<u>Amount</u>
AA Contribution of the agricultural sector to GDP (at factor cost) in 1971:	
AB Outside the monetary economy	£ 95 million
AC Within the monetary economy	
AD Enterprises and non-profit institutions	74 million
AE General government	7 million
AF	<u>£176 million</u>
BA Gross marketed agricultural production in 1971:	
BB Small farms	£ 45 million
BC Large farms	42 million
BD	<u>£ 87 million</u>
CA Gross capital formation by the agricultural sector in 1971:	
CB Outside the monetary economy <sup>a</sup>	n.a.
CC Within the monetary economy	
CD Enterprises and non-profit institutions	£ 12 million
CE General government	2 million
CF	<u>£ 14 million</u>
DA New (presumably gross) agricultural credit issued by parastatal corporations in 1971/72:	
DB Small scale farmers - short term	£ 179,000
DC - medium term	728,000
DD - long term	46,000
DE	<u>£ 953,000</u>
DF Total issued -- all types of farmers - short term	1,429,000
DG - medium term	764,000
DH - long term	1,761,000
DI	<u>£ 3,954,000</u>
EA Commercial bank credit outstanding to the private agricultural sector at 31 December 1971:	£ 13 million

(continued)

TABLE I. (continued)

<u>Item</u>	<u>Amount</u>
FA Percentage comparisons:	
FB Short term credit issued by parastatal corporations (item DF) plus bank credit outstanding to agriculture (EA) as a percentage of:	
FC - private sector monetary agricultural GDP (AD)	19 % <sup>b</sup>
FD - gross marketed agricultural production (BD)	16 % <sup>b</sup>
FE Short term parastatal credit to small farmers (DB) plus 10 % of bank credit outstanding* to agriculture (EA) as a percentage of small farm cross marketed production (BB)	3 %
FF 25 % of bank credit outstanding to private agriculture (EA)* plus parastatal total medium term credit (DG) plus 25 % of parastatal long term agricultural credit (DH)§ as a percentage of gross monetary capital formation by the private agricultural sector (CC)	37 %

SOURCE: Republic of Kenya, Central Bureau of Statistics, Economic Survey 1973, various tables.

a. Non-monetary capital formation (with the exception of "construction of traditional dwellings") is not included in Government statistics pertaining to non-monetary economic activity.

b. These percentages overstate what they purport to measure. Banks lend to parastatal corporations in the agricultural sector, which introduces an element of double counting into the data. Also, ambiguities in classification of bank lending result in the inclusion of some credit which is extended to entities in production-processing-distribution chains beyond the point at which the flows in question are valued as agricultural production for national income accounting purposes.

The assumptions (very inaccurate estimates) upon which the percentage comparisons are based include:

\* 10 % of banks' agricultural lending is used to finance short term production inputs on small farms

+ 25 % of banks' agricultural lending is for medium term (exceeding one year) investment

§ 25 % of parastatal long term agricultural credit is devoted to capital formation.

consensus concerning an operational definition. However, the rural population approximates 10 million, concentrated most heavily in small farm areas.

The figures suggest that credit probably makes only a small direct contribution to smallholder development in Kenya, as development certainly is found on many more farms than those belonging to borrowers. (The indirect contribution of credit extended to the non-agricultural sector to farm development may of course be substantial, facilitating the flow of goods and services to and from agriculture.)

But in spite of the relatively small volume of small farm credit generally available from institutional lenders in African countries and the select nature of their clientele, a significant portion of public sector resources, including administrative effort, is frequently devoted to farm credit programmes. The degree of popular and political interest these evoke would also appear in many cases to be disproportionate to the resources involved. In Kenya for example, the development plan for the period 1970 - 1974 projects a total commitment of £ 39.6 million for development spending on agriculture, land settlement and cooperatives. Of this sum, £ 6.3 million or 16% of the total is projected for credit to farmers, of which slightly more than 75% was earmarked for supporting development on small farms and in pastoral areas.<sup>1</sup> If expenditure for land transfer and settlement (once only phenomena) is removed from total expenditure, the proportion of small farm and pastoral credit to the adjusted total is approximately 15%.

In comparison with the £ 6.3 million to be devoted to credit, the projected expenditure for agricultural education and extension was £2.2 million and for research £3.2 million.<sup>2</sup> The plan acknowledges that credit programmes invariably involve only a relatively small number of farmers. In contrast, education, extension and research could presumably benefit a relatively large number of farmers within the budgets projected, and have the potential for contributing to the welfare of practically every farmer in the country, were sufficient resources devoted to these activities. Few farmers are "creditworthy" - are any not "extensionworthy"? Thus the commitment

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1. Development Plan 1970-1974, pp.194 - 195, 214

2. Ibid., p. 195.

of a disproportionate amount of funds to credit schemes raises some very real questions of equity and the most efficient-use of resources. The extent to which credit is essential (if at all) and efficient for catalysing a critical group of farmers, for encouraging production of specific crops which have an importance to the economy not fully reflected in their market prices or for contributing to the welfare of some otherwise disadvantaged group etc., may of course justify its claim to a large portion of public sector agricultural development funds. However, the plan makes no such claims for credit as a developmental tool, and experience in Kenya suggests that credit farmers are frequently among the most progressive in their area and also, in the case of medium term borrowers, frequently have income from civil service or other off-farm employment.

Interest in farm credit is by no means confined to Kenya and is also found among major donors. The World Bank Group loaned more than \$ 400 million for agricultural credit schemes in the Third World between 1948 and 1971, about 17% of total group lending for agriculture,<sup>1</sup> while between 1950 and 1972 foreign assistance grants and loans issued by the United States exceeded \$700 million.<sup>1</sup> These magnitudes of commitment suggest that farm credit is indeed regarded as being of considerable importance in the development process.

#### Credit as a Need

One reason for the importance apparently attached to small farm credit as a vehicle for rural development in Africa is the belief that the lack of small farmer access to credit constitutes a critical constraint to the adoption of improved inputs and technologies which can lead to increased incomes and enhanced rural welfare. This belief, which may be called "the small farmer credit need creed", is articulated in development plans such as those evolved in Kenya.<sup>2</sup>

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1. E.B. Rice, History of AID Programs in Agricultural Credit, 1950-1972, AID Spring Review of Small Farmer Credit, Vol. XVIII, Washington, June 1973, p. 3.

2. Development Plan 1970-1974 Nairobi, Government Printer, 1972, p. 217. In spite of the plans emphasis on short term credit, the major programmes of the AFC have been and continue to be directed towards medium term credit.

"If farmers are to adopt improved farming methods, such as the use of improved livestock, better seeds and pesticides, etc., they will require credit, especially short term credit, to help them purchase these inputs". (emphasis added)

Eric Clayton adds that:<sup>1</sup>

"In Kenya, loan funds are needed by the farmer for such things as the purchase of fencing wire, improved livestock, cash crop planting material, water tanks, sprays, the installation of water supplies and buildings. It is needed too for payment of hired labour to undertake bench terracing and cash crop planting and to finance the 'waiting' or zero-income period before cash crops come into bearing." (emphasis added)

The Rockefeller Foundation also echoes those views in a special report which includes a chapter on hybridized maize in Kenya. After discussing the rapid increase in small farm acreage planted to hybrids, from 1,750 in 1964 to 344,300 in 1971, and noting there has also been an increase in the use of "synthetics," or fertile crosses, the report lists the obstacles to increased adoption of improved maize varieties. Those include "the lack of credit (perhaps the most serious)" impediment.<sup>2</sup> The report neglects to mention whether credit to smallholders played any role in the notable increase in acreage under hybrids. Local evidence suggests that during the period under review institutional credit to smallholders probably played a minor role, and that most institutional credit would probably have been trade credit extended to members by cooperative societies selling improved inputs. In the informal sector, shopkeeper credit may have played a significant role — there is insufficient documentation to specify whether this contribution was in fact substantial.

The need creed is also expressed by economists such as the World Bank's Uma Lele, who recently wrote (in a non-official capacity):<sup>3</sup>

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1. Agrarian Development in Peasant Economies: Some Lessons from Kenya, Oxford, Pergamon Press, 1964, p. 131.

2. Carroll P. Streeter, Reaching the Developing World's Small Farmers, New York, The Rockefeller Foundation, 1973?, p. 49.

3. Uma J. Lele, "Role of Credit and Marketing Functions in Agricultural Development," Prajnan (quarterly journal of the National Institute of Bank Management, Bombay), Vol. II, No. 2, April-June 1973, pp. 129, 130.

"Modernizing agriculture requires large infusions of credit to finance use of purchased inputs such as fertilizer, improved seeds, insecticides, additional labour, etc.... Because savings in traditional agriculture tend to be relatively small at initial stages of development, increased demand for working and fixed capital must largely come from increased supply of credit". (sic)

"Small farmers have meagre internal resources and, therefore, are most in need of production credit". (emphasis added)

Statements of the need creed are frequently based on a number of assumptions which may not always be valid when applied to a specific rural situation. The first is the pre-development blank page. Before the development planner or World Bank mission arrived on the scene there would appear to have been no stocks or flows worth bothering about or large enough to allow those managing them any realistic alternatives. While it is still possible to find classic subsistence cases among the agricultural systems of developing countries, it may be unrealistic to assume that most smallholder economies approximate that model - indeed, the Tanzanian literature contains references to bourgeois elements among the peasantry.<sup>1</sup> Relative to this picture of stagnant traditional agriculture it is also assumed that the requisites for change or at least their financial analogues are massive and indivisible. A Rockefeller Foundation report indicates that local maize yields per acre in Kenya can be increased from 8.8 bags to 21.8 bags simply by good husbandry, without fertilizer and without improved seeds.<sup>2</sup> Good husbandry is defined as early planting, recommended planting density and clean weeding until tasseling time; while 8 bag husbandry means late planting, half the recommended plant population per acre and only one weeding. The report does not discuss the comparative risks of each approach to production, however, or the assumptions behind its observation that the incremental costs of this change would be Sh 67 per acre and incremental benefits Sh 297 at a maize price of Sh 28 per bag. It appears that good husbandry could in some cases be secured without any additional cash costs to the cultivator, given certain assumptions about family labour availability and sufficient

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1. Consult any recent issue of the Proceedings of the East African Universities Social Science Council conferences.

2. Carroll P. Streeter, op. cit., pp. 47-48.

stocks of seed from previous harvests. The report also notes that fertilized hybrid maize yields may amount to only 14.6 bags per acre when husbandry is poor.

The possibility that change may occur gradually and involve a succession of small increments, which would appear to be consistent with the high degree of risk aversion frequently ascribed to peasant cultivators, is dismissed by need creepers. Also disregarded is the possibility that development may in fact enable cultivators to save and give them an incentive to save, and that within the confines of non-financial constraints these savings could be sufficient to finance further growth through on-farm reinvestment by the savers themselves.

In spite of the quantum leaps in farm output projected in many project appraisal documents, one frequently finds evidence that the project designers do not expect the financial priorities of participating farmers to alter significantly within the planning horizon. The provision of savings facilities for example, is rarely part of rural development projects which include credit schemes. The old hand-to-mouth patterns of resource allocation at the micro-level evidently are thought to persist in spite of the multitude of changes to be introduced and induced by the project, and the farmer remains with insufficient cash to meet the financial requirements of the changes envisaged. On this assumption schemes and institutions are established which, for a variety of reasons, provide credit at less than its accounting cost and at less than its opportunity cost to the economy. In spite of their poor performance, credit operations of this type frequently display a tenacity and momentum for survival equal to that of Lockheed or Concorde, both of which, like many farm credit suppliers, depend on governments for their continued existence.

It appears worthwhile at this point to digress in order to outline some of the implications of the need creep to the development of formal sector financial infrastructure in rural areas.

#### The Need Creep and Capital Market Considerations

From the point of view of capital market development, the need creep is the thin edge of the wedge, the handmaiden of the widespread belief that peasant farmers are "poor", and therefore suitable receptacles for subsidies of many types, including subsidised credit. Indeed, it

would appear that most institutional attempts to provide small farmers with credit in Africa are subsidised. Evidence rests in a) the financial statements of lenders, which are invariably weak and unprofitable (unless earnings from large scale agricultural lending or from mainstream commercial activities are available to offset the losses incurred on small scale loans), implying that credit is provided below its accounting cost, b) the provision of capital to agricultural lenders on soft terms, including at an interest rate below the going rate, and c) agricultural interest rates which are below those charged to borrowers for commercial and industrial activities, for example.

Systems of agricultural finance in LDC's which are heavily subsidised generally fail to serve a large segment of the rural population. They also fail to attract private domestic resources, including the savings generated and held by the rural sector. Specialised agricultural lenders in LDC's are often not financially or administratively strong enough to compete for local funds in the market place or attract and develop the expertise in operation and management which is required for the solicitation of deposits from individuals and others with surplus funds to place. The causes of this institutional immaturity are frequently related to the requirement that interest rates be kept "low" on the assumption that agriculture is not capable of or should not be subjected to paying the full cost of the funds it borrows. Earnings of agricultural lenders are consequently limited, and the "high" costs of lending to small farmers lead to losses, which imply capital impairment at worst or at least an inability to generate and attract the funds required for dynamic institutional development.

The spread between the going deposit rate of interest and the agricultural lending rate is too small to cover the overheads of the lender, so private local deposits, for which the going deposit rate must be paid, <sup>are not</sup> solicited. Treasuries and friendly (but frequently fickle) foreign donors prop up the exercise with soft money and other subsidies. With this support, agricultural credit institutions are not stimulated to go to the local money market or, more importantly, to the rural areas in search of funds for re-lending. Hence, these institutions are frequently isolated from local capital markets and from the rural economies they were designed to serve. They remain capital city or

enclave economy entities and public sector appendages. They frequently are not dynamic links between rural people and the financial sector. The lack of intermediation in rural areas (because "low" lending rates make it difficult if not impossible for any financial intermediary to venture into these markets without incurring losses) means that rural savings in the form of cash cannot easily or conveniently be converted into interest-bearing financial assets and that rural savings potential remains untapped and unstimulated. The lack of deposit facilities in rural areas results in low levels of rural deposits, reinforcing the belief that rural people are indeed "poor" and deserving of (subsidised) credit for developmental purposes. In rural centres where there is a financial institution, such as the branch of a commercial bank or of a post office savings bank, its balance sheet generally indicates that it is a nett supplier of funds to the larger economy, where business can be conducted at lower costs within the spread between deposit rates and lending rates.

An alternative approach, based on freeing lending and deposit rates to find their own level, determined by supply and demand in the market, has been attempted in several non-African developing countries with surprising results. Ronald I. McKinnon documents the growth of banking systems and financial services in several of these countries during periods of financial liberalisation.<sup>1</sup> The essential role of the financial sector in economic development and in achieving a more equitable access to financial capital through unsubsidised capital markets not shot through with public sector intervention is explored in detail in McKinnon's work and also by Edward S. Shaw.<sup>2</sup> Their arguments cannot be explored in detail here. Suffice it to note that financial services meaningful to rural people will grow to the extent that it is profitable to serve rural markets. It is profitable to serve rural markets only when the price is right, and "low" interest rates are virtually never the right price. The fact that the rural economy includes the bulk of the population makes it impossible for governments in

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1. Money and Capital in Economic Development, Washington, D.C., The Brookings Institution, 1973.

2. Financial Deepening in Economic Development, New York, Oxford University Press, 1973. Financial deepening refers to the accumulation of financial assets at a faster rate than of non-financial assets. This process inevitably occurs with development, and Shaw illustrates how this process is indeed essential to development.

LDC's, relative to their usually narrow range of tax and other revenue sources, to provide subsidies sufficient to spread credit and other financial services widely, with the result that subsidised agricultural lenders generally serve only a small and elite portion of the rural population.

The tendency of subsidised agricultural credit programmes to serve rural elites has been explored, by Dale Adams and his colleagues at Ohio State University, in Brazil and in other Latin American countries.<sup>1</sup> Their data suggests that "low" lending rates and consequent difficulties in attracting funds force lenders to use more stringent credit rationing than would otherwise be required. One form of rationing by rational lenders is to make a few large loans rather than many smaller loans, given economies of scale in the administration of large loans. Thus small farmers are rationed out of the market. The large farmers receiving credit at subsidised rates, frequently below the prevailing rate of inflation, were able to expand their asset portfolios and diversify out of agriculture. While it may be argued that the process of development generally involves a transfer of resources out of agriculture, this observation provides no justification for the provision of subsidised credit to agriculture, especially a select group of large farmers.

Thus, the danger of the need creed approach is at least two-fold. One problem is that it may obscure realities. The farmers are obviously "poor", and that is as far as project designers may go in their search for a rationale for their credit scheme. The second is that it may contribute to institutional rigidities dysfunctional to rural development and capital market development. The need creed is based on static assumptions about dynamic processes.

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1. Dale W. Adams, "Agricultural Credit in Latin America: A Critical Review of External Funding Policy," American Journal of Agricultural Economics, Vol. 52, No. 2, May 1971, pp. 163-172; Dale W. Adams, Harlan Davis and Less Bettis, "Is Inexpensive Credit a Bargain for Small Farmers? The Recent Brazil Experience," Studies in Agricultural Capital and Technology, Economics and Sociology Occasional Paper No. 58, Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, January, 1972, 13 pp.

Situational Approaches to the Role of Credit

However, there are no doubt cases in which the development process faces bottlenecks in the form of indivisibilities. Ronald McKinnon uses this point in his argument that capital markets have a critical role to play in rural development when he speaks of<sup>1</sup>

"...the virtual impossibility of a poor farmer's financing from his current savings the whole of the balanced investment needed to adopt the new technology. Access to external financial resources is likely to be necessary over the one or two years when the change takes place. (emphasis added)

Credit is not homogeneous. The uses to which it is put, controlled to some extent by lenders, are varied. The terms and conditions and the channels through which credit is issued also vary. Likewise, the rural community is not homogeneous, and patterns of credit use or credit use potential could be expected to vary with the size and nature of the asset structure and economic flows managed by different individuals or firms. Financial priorities are not uniform or constant. "Needs" may be more subtle and complex than suggested by bald expressions of the need creed.

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1. Op. cit., p. 13.

However, Mellor's distinction between productive and consumptive needs would appear to break down in theory and in practice. The distinction between production and consumption credit may be challenged by observations about the nature of the peasant farm and its decision-making dynamics:<sup>1</sup>

"It is only at later stages of agricultural development that the productive element in agricultural credit gradually increases. As long as agriculture is not a business but a way of life, cost price is a sheer fiction, and household and farm expenditure an inextricable knot, and it will be impossible to draw a clear borderline between credit for consumptive and credit for productive purposes".

Accounting theory also suggests that distinctions between production and consumption credit are less than watertight. Credit is essentially fungible, an undifferentiated contribution to a flow of funds. An input supplied on credit here may free funds (which the borrower would otherwise have used for the purchase of that input) for a little consumption or investment there. The purpose for which credit is given is not necessarily the use of funds or the only use of funds which is expanded as a result of the increase in resources made available to the borrower.

Even in practice the distinction is badly blurred. An acquaintance of the writer borrowed from a commercial bank for farm development (in this case a somewhat attractive and patriotic exercise for a banker in Kenya) and used the funds, given in cash, for the purchase of additional land. Doubtless others who talked farm development to their bank managers used their loan proceeds for investment in taxis, shops and for school fees and colossal binges. Even when loans are given in kind, as when disbursements are made by the lender directly to suppliers against their invoices, loan diversion is not infrequent. Suppliers and borrowers may conspire to submit fictitious claims, and borrowers may resell the credit goods in order to obtain cash for the things they really "need".

1. Food and Agriculture Organisation of the United Nations, Agricultural Credit Through Cooperatives and Other Institutions, Rome, 1965, pp.1 - 2.

An element of qualification and circumspection in approaching the role of farm credit in rural development is found in the ILO report on Kenya published in 1973.<sup>1</sup>

- " It is frequently argued that a shortage of working capital or seasonal credit is a serious hindrance to the adoption of new technologies and farming practices that require either purchased inputs or hired labour. The three types of cases in which such a shortage is most likely to be restricting agricultural development are
- a) cases in which the farmer, lacking purchased inputs, is unable to generate domestic savings .....
  - b) cases in which the purchased input or development item is available only in a relatively large indivisible quantity ...
  - c) cases in which there is a long period between investment and the beginning of a cash flow from the investment..... "

This statement provides a constraint-oriented strategy for credit deployment which goes well beyond the vague concept of the need for credit. The need creed contains the implicit assumptions that farmers or the rural capital market are not able to supply funds for the purposes which " need " credit. The view expressed in the ILO report challenges this assumption, properly implying that the real world contains a graded range of relevancies and irrelevancies.

However, the ILO statement does not explore in detail the useful classification it offers. As it suggests, farmers may not always require credit when the specified conditions are present. It appears worthwhile to list some exceptions.

What is meant by domestic savings? Some Kenyan smallholders who do not save any of their farm income are conceivably able to develop their farms from the proceeds of remittances from urban wage earners within their extended families, which may imply " extended firms " as well, given the classificatory problems of splitting the peasant economy into firms and households.

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1. International Labour Office, Employment, Incomes and Equality, Geneva, 1973, p. 156.

The discussion of savings in peasant agriculture is easily confused by the non-monetised nature of a portion of the farm firm's productive activity. Some observers may restrict their definition of savings to cash surpluses, which is consistent with the conventions of modern finance and credit: i.e., principal amounts are expressed in monetary terms, loans are repayable in cash, etc. Rural capital formation involves non-cash elements,<sup>1</sup> however, in spite of the lack of Kenyan statistics on this type of activity in Table I, Item CB. Clayton notes that the potential for non-monetary capital formation is related to the periods of slack labour requirements found in typical farm operating cycles and also to the natural increase in livestock.<sup>2</sup> Among a sample of farms in Murang'a District in Kenya the writer found examples of substantial increases in cattle herds coupled with virtually nil cash investment in the enterprise. Relative to the range of assets in which Murang'a farmers are accustomed to investing, cattle are a liquid asset. Non-cash assets may be available for liquidation when farmers require cash for innovations. Acquisitions of grade cattle may be financed by sale of native stock, and standing trees may be sold in situ or converted into charcoal when cash is required for some particular (high return?) "need".

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1. An interesting and early essay which touches on the inappropriateness of monetary numeraires in the context of peasant agriculture in A.V. Chayanov, "Zur Frage einer Theorie der nicht-capitalistischen Wirtschaftssysteme," Archiv für Sozialwissenschaft und Sozialpolitik, Vol. 51, 1924, Part 3, pp. 577-613; also appearing as "On the Theory of Non-Capitalist Economic Systems," in Daniel Thorner et al., eds., A.V. Chayanov on The Theory of Peasant Economy, Homewood, Illinois, Richard D. Irwin, Inc., 1966, pp. 1-28.

2. Op. cit., pp. 131-132.

In Malawi the state-owned supplier of agricultural inputs offers a discount to cash purchasers of lorry load lots of fertilizer and also delivers the fertilizer to the point designated by the buyer, which is an important consideration given the state of the infrastructure in Malawi. Small farmers (10 acres is a large farm in Malawi), without access to credit for inputs or for farm development, have in many instances spontaneously grouped together for the purchase of a lorry load for delivery to their village, overcoming problems of indivisibility through joint action.

Coffee is a crop which involves a long period between the initial investment in land preparation and planting and the beginning of a cash flow from the crop. However, many Kenyan smallholders in Nyeri District adopted coffee quickly, without recourse to organized credit markets, when statutory prohibitions to their growing the crop were removed.<sup>1</sup>

Eric Clayton's statement quoted on page 6, that credit is needed to finance this zero-income or "waiting" period is based on the assumption that the land devoted to slowly maturing crop enterprises involves a relatively substantial opportunity cost in terms of a sacrifice of production which is assumed would have used the land in question<sup>2</sup>. However, not all farmers face a binding land constraint as elaborated upon by Clayton himself in an earlier work using data gathered in Nyeri,<sup>3</sup> and it is doubtful that Nyeri smallholders faced constraints of this type when the rush into coffee began. On Upland Murang'a farms studied by the writer, tea planting was almost always undertaken on land prepared from unproductive bush, or from low yielding

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1. J.C.de Wilde et al., Experiences with Agricultural Development in Tropical Africa, Volume 1, (Baltimore, Johns Hopkins Press, 1967) p.198. De Wilde offers no insights as to whether informal or non-institutional credit played any role in the examples of the growth of African agriculture in Kenya which he cites. This question cannot be answered satisfactorily from the literature, but it is well established that there is virtually no tradition of moneylenders in the Kenya Highlands. Kinship and friendship transactions are important, however, but the scope of these arrangements is not well documented. Credit from these sources may be used more for consumptive than productive purposes, although that distinction is basically spurious.

2. Op. cit., pp. 131 - 133

3. Economic Planning in Peasant Agriculture: A Study of the Optimal Use of Resources by Peasant Farmers in Kenya, Wye, Kent, Wye College, 1967

and virtually untended wattle stands. In marginal upland coffee areas, recent tea expansion frequently occurred on land taken out of coffee production, generally after several years of poor harvests, poor prices and delayed payments.

To return to the consideration of alternative approaches to the role of credit, it should be noted that some observers are openly skeptical of the need creed. In Arthur Mosher's classic manifesto credit is included among the "accelerators" of agricultural development rather than among the "essential" conditions for change:<sup>1</sup>

"There is an important difference between (the "accelerators") and the "essentials"..... There can and will be some growth in agricultural productivity whenever all of the essentials are present but without them there will be none. The case is different with the accelerators. Each of them is important but it is not indispensable".

"We must keep in mind that the purpose of production credit is to enable farmers to purchase productive equipment and supplies. Credit is therefore less important to agricultural development than is the ready availability of such supplies and equipment at convenient nearby markets. But where effective and profitable production supplies and equipment are available nearby, and where farmers have facilities for learning how to use them, production credit can accelerate the adoption of improved practices".

It is of course possible that credit could be a critical constraint if all of the essentials were operative and available to farmers. Rarely, however, would the development process appear to be this neat. The need creed school generally appears not to acknowledge the difference between essentials and accelerators and offers no systematic evidence that the essentials are available in sufficient quality or quantity to push development constraints into the realm of accelerators.

Judith Heyer, an observer of Kenyan agriculture and rural development since before Independence, also suggests that credit, especially subsidised credit to smallholders, should be used very cautiously in rural development schemes:<sup>2</sup>

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1. Getting Agriculture Moving: Essentials for Development and Modernization, New York, Praeger, 1966, pp.121, 152.

2. J. Heyer et al., Rural Development in Kenya, Nairobi, East African Publishing House, 1971, p. 112.

" It is only after formerly subsistence minded farmers have proved their willingness to innovate, to sacrifice present income for future, and to learn new techniques and methods that they become creditworthy."

Penny is also skeptical about the inability of farmers to finance their own modern production requirements.<sup>1</sup>

" If they cannot afford to buy modern production requisites or to finance the cash component of any other investment the situation is desperate and calls for far more drastic action than a mere credit programme".

Presumably Penny means " any other investment" within the confines of non-financial constraints facing the farmers in question. But what other factors are involved? Where is drastic action required? Mosher's essentials may provide an outline of the answer to that question: markets for farm products, constantly changing technology, local availability of supplies and equipment, production incentives and transport. This context should make many planners and lenders blush.

Penny concludes that:<sup>2</sup>

" A government credit programme will be profitable — to the government itself, and to the economy as a whole— only if :

- 1) there is unexploited productive potential in the farming areas where the loans are to be made;
- 2) the farmer-borrowers and the lenders know what the economic opportunities in each locality are;
- 3) the farmers are willing to borrow and to use the loans productively; and
- 4) steps are taken to raise the propensity to save."

#### THE NEED CREED RECONSIDERED

To return briefly to the need creed: In spite of the numerous qualifications and refutations which can be found in the literature, why does it survive? Momentum and politics, plus the tendency to search for simple, reassuring answers to complex problems may help to postpone its demise. But even greater difficulty in explaining its endurance is encountered when one asks why many economists and planners, with their

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1. Ibid., p. 39.

2. Ibid., p. 42.

array of sophisticated specialized concepts and tools, invoke the language of psychologists ( as in need hierarchies, the need for achievement, etc.) or merchants (" How much do you need today? ") when discussing agricultural credit in the context of peasant farms and developing agriculture. Can economists measure and compare needs? Can a lender finance a need? Are needs finite over operational ranges? Whatever happened to demand and comparisons of costs with benefits? The reasons for this desertion, from the front lines of economics are not explored here. Perhaps it is simply an indication that the theory of farm credit, in harmony with the practice of farm credit, as manifested by a) the frequent reorganization of lending institutions (e.g. in Tanzania), b) the massive write off of ~~loans~~ loans (e.g. in Zambia) and c) frequently dismal repayment rates (e.g. settlement credit in Kenya ), is still in the quill pen era.

The views presented here have been organized in ascending order of sophistication and, presumably, of validity. The ~~obstinate~~ need creed statements are based essentially on narrow assumptions about the nature of peasant cultivators or subsistence agriculture, and on generally unstated assumptions about the nature of the development process. More fruitful approaches to the question of the role of credit in rural development include considerations of specific situations in which farm credit may or may not be essential to achieve a certain developmental goal or complex of goals. The most useful statements, in the sense that they provide guidelines which are suitable given the complexities of the development process, consider a range of factors including those specific to the farms and finances of borrowers and potential borrowers, and also the configuration of the local and the larger economies in which the borrowers and potential borrowers operate.