

COMMENTS ON EVALUATIONS OF BID-FINANCED RURAL CREDIT PROGRAMS IN SIX COUNTRIES

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I - Introduction

The information gathering and discussion of the country studies seems to be underlain by a concept of agricultural development that is unrecognized as such by the analyst because it has become such a habitual way of discussing development. The implicit presence of this concept seems to obstruct somewhat the utilization of the rich raw materials that ~~the~~^{the} country projects have generated. Namely, the development "lens" through which the individual projects are described and evaluated seems to be that of "prerequisites" and "balanced growth," with its corollary explanations of "vicious circles" and "low-level equilibrium traps," which can be broken only by "big pushes" on one or all fronts. Through this type of evaluative "lens," agricultural development cannot occur without the prior existence of the "prerequisites" of agricultural credit, literacy, transport infrastructure, well-functioning market facilities, competitive rather than predatory intermediaries, land ownership, clear title to it, minimum economic-size land units, agricultural extension, etc.

The result of this way of looking at things is that one has ready-made explanations of failure and success, of a kind which occur throughout the country studies. As will be seen in the examples of this text, failure is "obviously" a result of the lack of one of the well-known prerequisites, or is an exception to the rule, caused by an unpredictable factor such as natural disaster. Success, according to this approach, is the obvious result of agricultural credit having been the last of the prerequisites to be put into place. Or it, also, is an exception to the rule--like the successful ACAR borrower who

achieved what he did "despite" the fact that he was illiterate (Braz, p. 31, pars. 1-3), or the other ACAR beneficiaries who were highly successful "in spite of" the fact that they didn't keep books (p. 33, par. 3). Or success is described as the result of a massive "big push"--like the corn program in Nicaragua (pp. 19-20, par. 1). The massiveness of the push is enough to explain the success, according to this concept of development, and hence further exploration of the elements of the success is not carried out.

The clearest outcropping of the "prerequisites" approach appears in the Guatemala study, where the growth potential of rural credit candidates is said to be a function of "size of farm, quality of land, land tenure system, entrepreneurial capacity (education and cultural aspects), location with respect to transport systems (marketing, access to credit, technical assistance, and suppliers of inputs, etc.)..." (pp. 25-26, last par). Yet the farmer who scored well in these attributes, one would think, would not need the assistance of a subsidized rural credit program. Hence this list is a description more of success than of the path that leads to it.

In general, the problem of such an analytic frame of mind behind this kind of evaluation is that one knows, by definition, the answers to why things worked or didn't work before one starts. The evaluation tends, therefore, toward categorization rather than toward a more open-ended and analytic exploration. One tallies up the problems and the achievements, and then places them into their appropriate box: existence of the classic prerequisites, lack of them, big pushes, exogenous circumstances, and exceptions to the rule. It has long been recognized, however, that prerequisites often turn out to be the result rather than the cause of development, that progress on one front often sparks--rather than being dependent on--progress on another front, that "big push" successes often turn out to be a function of factors unrelated to the push,

and that exceptions to the rule often, upon close examination, lead to the discovery of new "rules." In short, because we are still struggling to discover the possible sequences of agricultural development, an agricultural credit evaluation is an occasion to search for such sequences ⁱⁿ the rich material that the projects provide.

It might be argued that an agricultural credit evaluation cannot take upon its shoulders the whole burden of agricultural development. But the course of these projects is, willy nilly, being profoundly affected by the forces involved in such development and, just as important, is generating precious information about it. Hence one is, at the least, forced to work into the design of an agricultural credit project what is being learned about these forces of development. After all, it is often suggested that provision be made in assisted rural credit programs for forces that are even more remote than those of development--i.e., it is often suggested that the forces of weather be incorporated into rural credit policy by building crop insurance features into credit programs.

These opening paragraphs are meant less as a critique than as an explanation of the approach that underlies most of the comments that follow. In Section II, I have dwelled on some cases of success and failure. In Section III, I have tried to approach some of the substantive questions raised in the draft outline of the final report. Section IV takes care of some miscellaneous items.

II - Success and Failure

It might be useful to make a reference list of expected problems or failures, those that appear in every textbook on agricultural development, and are familiar to those working in the field: inadequate marketing organization, inordinate price fluctuation, oligopsonistic marketing structures, lack of transport infrastructure, illiteracy, etc. Such traditional-type failures are

reported, for example in the Guatemala paper (p. 21, pars. 1, 3). Because these problems are so familiar and common, there is perhaps little need to spend much time on them in explaining the causes of problems in the evaluated projects. It may be more useful to find out if these problems were recognized at the time the loan was conceived, if attempts were made to overcome them, and what happened to the attempts. Most important are the suggestions^{ions} that the experience generates as to how these problems can be overcome, or circumvented, the next time around. Take marketing, for example. In the case of Nicaragua, marketing was a problem even though a government marketing entity existed (pp. 35-37, #2). Might it not be helpful, the next project around, to give equal financial and technical importance in an agricultural credit loan to the marketing institution in existence? (This credit-marketing "package" approach is also suggested, in general, in the outline of the final report, p. 7, F.)

In contrast to "unsurprising" failures, considerable attention should be given to the unexpected cases of failure, where all or most of the prerequisites were in place. Take the case of the coffee farms subject to the eradication program in Minas Gerais--and the subsequent decay of the area (Braz, p. 6, par. 1). Here one had all the prerequisites one would want--one of the richest regions of the state of Minas, a previously successful agricultural experience with coffee, and eradication payments high enough to induce people to pull out their trees. If a smooth switch to another crop had been made, and the area had continued to flourish, then this would have been hardly noticed, or explained as a "natural" success--due to the prerequisites that were already there. Because the failure is unexpected, then, one wants to know more about the anatomy of it. Did the region decay as a result of bad luck by the ex-coffee farmers with new crops? Or did it decay as a result of abandonment?--i.e., the coffee farmers took their eradication payments and invested them in

commerce and industry? The latter phenomenon might be considered much less of a problem result than the former.

The same kind of analytic approach should be taken with the success stories that appear in the country studies. They are important not so much because they happened, but for what they can tell us about what we are trying to do--i.e., bring about agricultural development through credit programs. These successes should be examined minutely to see if cause-and-effect sequences can be discovered which will help in the better designing of future loans.

One important feature of this success-story kind of information is that it is often attainable by very informal methods, with little need to resort to quantitative data that may be difficult to obtain and of dubious value. Most of the success stories are given straightforward descriptive treatment in the country studies, with little discussion of, or conjecture about, what brought them about. In some cases, a success story is not even presented as such--since the success takes the form of the absence of one of the traditional problems that usually bog down agricultural credit programs. For example, the marketing problem is not mentioned in the success story of a massive corn-incentive program in Nicaragua (pp. 19-20, par. 1) until much later in the paper (pp. 36-37, par. 3). In the meantime, one wonders how this considerable increase in corn output (yields were almost doubled) was handled by the existing marketing system--in that the lack of an adequate or equitable marketing system, or the clogging of it caused by significant increases in output, are the most commonly cited problems of agricultural credit programs. If the marketing system had given no problems, then that in itself would have been a success story. It is important in such cases to find out why, since this will help provide an understanding of how to decrease the probability that there will be no problems in this area in future projects. I want to go over briefly some cases of

success that I found in the country studies, listing the questions or possible explanations that came to mind. Most of the success stories, ~~on~~ my questions about them, are discussed in the more extensive topic-oriented Section III.

A. In the conclusion of the Panama paper, it is said that one of the most "positive and interesting" aspects of the IFE credit program is the mobilization of local resources at the public sector level--and at the private level, in the form of the savings and labor of the beneficiaries (p. 18, #5). I didn't see this mentioned in the text, and would normally assume that it refers to an extra financial and physical effort made by the farmer-borrowers in the use of their additional credit funds. But since this would be the result of any credit program, I thought the sentence might refer to a result peculiar to this specific program. If this was the case, what form did this effort take?

Also, what was the extent of, and what explains the considerable independent financial support of the program by the government--in view of the fact that governments usually don't tend to devote much financial attention to agriculture, and that this tendency is sometimes reinforced when it is known that foreign aid institutions will finance agricultural programs. Did the national financial support of the program represent a significant marginal increment in the public expenditure usually devoted to agriculture? Or was this support taken from other areas in agriculture where it was usually spent?

B. The Guatemala study points out that the BID-financed program with SCICAS had little significant global impact. But where SCICAS combined forces with INTA, the colonization entity, and the Ministry of Agriculture--such as in the corn-promotion program, significant increases in production were achieved (p. 24, #3).

Why the difference in the BID-SCICAS and the SCICAS-INIA-MAG programs? Was it anything to do with the crop involved? The amounts of money spent? The types of farmer worked with? The marketing structure? Did the results of the corn-promotion program "stick" after the massive efforts receded? Were any positive changes caused by the program in marketing facilities, the intermediary system, in marketing margins, in price fluctuations, in demand and supply of public services such as health and education. Who were the farmers who responded to the corn incentives? Were they already planting corn, and just planted more? Or did they switch from something else? Was the major part of their living derived from corn as a result of the program? Did one notice any corresponding changes in their standard of living, aspirations, or attitudes toward education, health and technology in general--as a result of their successful experience with corn? On the institutional level, how is it that three government agencies worked so well together, when the contrary is usually the case? What was the mechanism of that cooperation, and what were the incentives that kept it going? Why was a completely local effort more successful than the foreign-financed effort?

C. In the annex on cooperatives, the Guatemala study refers to some of the cooperatives financed by BID-SCICAS in the department of El Progreso. One cooperative succeeded in stabilizing the price of yuca flour, another in strengthening the prices of fruits and vegetables. Some borrowers were converting from corn to fruits and vegetables and tobacco (p. 1 of annex, pars. 1, 3, 6). The report also says that many of the borrowers "have not legalized their occupation of the land, mainly because they haven't been very interested in doing so," that there is considerable population pressure on the land, which is not of as good quality as that of the altiplano, that there is considerable illiteracy, and

that the land parcels are quite small (5-10 manzanas) for properties that are without irrigation (pp. 1-2 of annex, pars. 5, 7, 8).

One wants to know first the anatomy of the two cooperative successes cited, particularly in view of the fact that progress was made in the absence of secure land title, literacy, and adequate-size properties--all of which are usually considered basic requisites of agricultural development for the peasant farmer, and whose absence is often cited as the reason when an agricultural credit program has problems.

D. The Paraguay study gives a rather bleak description of the fortunes of the BNF program with IBR colonists. Parenthetical mention is made of an exception to this problem picture--the successful tobacco farmers of the Pastoreo colony--but no further mention or analysis is made (p. 20, par. 1). One wants to know the elements of this success, and how it happened midst a general pattern of failure. Did it have anything to do with the crop involved?

E. The Nicaragua study mentions briefly, as one of the positive aspects of the program, the fact that there was a 120% increase in the storage of the produce of the assisted farmers, and that this implies a certain strengthening of the peasants' bargaining power in the market, given the fact that their credit position made it possible for them to hold out longer than they normally could (p. 26, par. 2).^{**} One wants to know more about this--since marketing usually turns out to be such a problem, and since peasants are considered to be generally victimized by the marketing intermediary. Was the more than doubling of storage accomplished by using existing facilities with excess capacity? Or were new

^{**}Doesn't this conflict with the report, cited above, on the miserable failure of the marketing entity (p. 36, pars. 2, 3)?

facilities built? If the latter is so, were these facilities built in conjunction with the credit program, in anticipation of the need to store produce in order to make good on the returns of the credit program? Or were they built independently? If the former is true, how was the provision of the new storage facilities handled, both institutionally and financially? Was there any organization among the peasants--such as cooperatives--which aided the storage procedure? If not, might this experience teach something about how to overcome the marketing problem without resorting to cooperatives, when the conditions for successful cooperative organization do not exist?

In drawing up amortization schedules for the rural credit program, did the lending institution allow time for withholding the produce from the market immediately after the harvest, instead of requiring that amortization payments begin immediately? This question is important, in that the other studies almost uniformly express concern about the post-harvest amortization requirement that puts the farmer at the mercy of post-harvest prices, and allows him no time to hold out for better prices. (See further discussion of this in section on "Delinquency" below.)

F. The conclusions of the Nicaragua study refer to the fact that the rural credit program had quite an impact through significant increases in the production of basic grains during the period of the program--an increase that was even more impressive, given the less-than-proportional weight (in relation to share of grain production) of the peasant sector in the ownership of land and water (p. 46, #3). This type of accomplishment, the paper says, was a primary concern of the government, upon initiating the program.

I don't recall that this particular aim of the program was mentioned in the text, nor the successful result. The case is important for several reasons. It may show that when government credit institutions are concerned with obtaining increases in output on a national level--in contrast to concern with improvements

in the productivity and conditions of a group of small farmers--the final result may be a much greater increase in the welfare of the small farmer than would result from a program based specifically on welfare concerns. This might tend to happen because the government's own finances and performance are at stake when it is concerned about deficient levels of total production and resulting importations of foodstuffs, with corresponding drains on the balance of payments. Hence it may throw much more of its power and resources behind the attempt to make such a program succeed. The equity-oriented small farmer program, in contrast, may be undertaken or supported by a government for a variety of other reasons--paternalism, moral pressure, pockets of rural discontent, a desire to be modern, interest by foreign lending agencies--motivations which are likely to be accompanied by much less financial and political power than that associated with a government's concern for its country's food-producing deficiencies and the consequent balance-of-payments problems.

As a corollary to the above, it may be that small farmer programs spurred by a ~~p~~primary concern about output increases have significant external "social" economies when the peasant sector accounts for a major part of the production of the ~~comp~~ in question for the local market. This seems to have been the case in the Nicaragua report, where the peasant sector had a much greater-than-proportional share--in relation to its possession of land and water--in the production of grains. Specifically, the importance of the peasant sector's production--and credit-financed production increases--in the share of global production may increase, beyond a threshold point, the attractiveness and perceived feasibility and economic rationality, to the peasants, of organizing. This would be a function of the potential economic power resulting from the large amount of production involved, its ~~sig~~significant impact in the marketing system, on price levels, and on consumer welfare. The peasant groupings made feasible through this mechanism--whether formal or informal--might serve the purposes of

increasing bargaining power in buying and selling, or in demanding more of a share of the sponsoring government's public services and public investment capital. The government, in turn, is more likely to consider a peasant group that is producing a large portion of one of the country's basic foods as a force to be contended with. The peasant sector, to complete the circle, is aware of this, and hence its expectations of achieving its organized demands would be correspondingly greater. The peasant's perception of his potential bargaining power, in short, is an important variable in determining his willingness to form and participate in groups such as cooperatives. The success or failure of cooperative efforts, which is touched upon at various points in the country studies, may thus be related to a factor which has nothing to do with the members' administrative ability, the presence of a cooperating spirit, literacy, etc.

While all this may seem a quite obvious association of social welfare with economic power, this line of reasoning has quite specific implications for rural credit programs. That is, many programs, including those evaluated in the country reports, have attempted to get small farmers to diversify their production, to switch from traditional crops to commercial export crops, or to try new crops for which local conditions seem propitious but which, at the moment, are imported. Many of these hoped-for switches--no matter how valid from a pure efficiency point of view--may involve the entry of the peasant sector into a much larger "pond" of production. That is, they would involve a diminution of one of the peasant sector's few sources of potential power--the share of his production of a particular crop in the country total. Switching to tried-and-true commercial export crops may mean merging his share of production with that of the large, established commercial producers. This might not only reduce the potential political and economic value of his high share of total production of a traditional crop; but it would also merge him into a group of

farmers much more politically powerful than he, and with demands upon the public sector and political interests directly contrary to the interest of his, the peasants', sector. A similar result might occur from encouraging the peasant to switch from a high-proportion traditional crop to an import-substituting crop. This also could represent a diminution in the peasant sector's economic power, since his production can always be supplemented or replaced by imports. Finally, diversification out of crops in which peasant production accounts for a high proportion of total consumption can also mean a diminution in the peasant sector's potential group power, given the decrease in the share of total production of the traditional crop. To put the argument conversely, and in a more positive way: when the peasant sector produces a high percentage of a certain widely consumed crop, this could be considered as the foundation for a certain type of development, involving the building up of organizational and bargaining power based on the economic significance of his production. His situation would be improved via a socio-political route--rather than by an economic route (e.g., diversification) which might be much more difficult, since it would not have, and indeed would destroy, an already existing foundation for development.

Because of the considerations outlined above, it would be useful, if possible, to get some estimate of the share of peasant sector production in the total domestic consumption of various crops in countries with BID-financed rural credit programs. This should be a particularly important variable to watch, in trying to explain the successes and failures of cooperative efforts in these programs.

In general, one would like to know if such a significant increase in the output of the peasant sector brought about any changes in the conditions of that sector--with respect to marketing structure, organizational efforts, land tenancy, water rights, literacy, etc. If the increase was accomplished without any such accompanying socio-economic change, then this might constitute

evidence against the suggestions I have made regarding the efficacy of output-increasing programs vs. small-farmer-oriented programs.

G. The Brazil study describes the success story of an "exceptional" ACAR beneficiary in the município of Betim, who "can neither read nor write" (p. 31, par. 2). Similarly, the Guatemala paper described a cooperative success story in a region with a high degree of illiteracy (p. 2 of annex, par. 1). The Brazil paper refers to the same município of Betim, in which "only six ACAR borrowers keep books," and in which "the majority have no more than two years of primary education...despite (*italics mine*) the high degree of commercialization of the agricultural activity of the zone and the influence of the city (Belo Horizonte)" (p. 31, par. 1). Further reference is made to the fact that few borrowers of ACAR keep books, even though the agency distributed simple accounting pamphlets to its beneficiaries. There is no empirical data, the paragraph continues, which can assist cattlemen in choosing "the optimal combination of feed grains that would maximize their profits." A following paragraph reports that an indirect measure of the income level of the region can be taken from the fact that eighty to ninety percent of the beneficiaries submitted income tax returns in 1969, such submission being obligatory for annual incomes above US\$1,000 (p. 33, par. 4).

It seems that these cases of success without literacy or bookkeeping are treated as exceptions, rather than as unsurprising outcomes. That they crop up so frequently--note the number of times they appear in the country reports--leads one to believe that literacy, and the attendant bookkeeping, may not be as much a prerequisite for, or a feature of, small-farmer development as is assumed. Again, the interest in literacy, and the pursuit of it, may more often be a result, rather than the cause, of the kinds of development successes

described here. If a small farmer credit program brings about limited success to a beneficiary, and in the process a demand for literacy is generated--if not for the farmer himself, then for his children--then that is a major indirect benefit of the program. It provides knowledge, as well, about sequences of development that are different from what is normally expected. In order to learn more about these sequences and possible causal relationships, it would be useful to build into future loans a feedback on the educational aspirations and activities of the success^{ful} beneficiaries vs. the failure beneficiaries. Moreover, if illiteracy were to be accepted as a constant in an agricultural credit program, rather than as a target for change, then this recognition might eliminate unnecessary, and therefore costly, attempts to help beneficiaries put their business down on paper (e.g., the fruitless attempts of ACAR mentioned above). Such recognition might lead to the redesigning of rural credit programs so that they would be more accessible to, and operatable by, the illiterate beneficiary.

H. The Brazil study describes how as soon as the Caixa Econômica started to lend to fruit and vegetable growers through the ACAR program, this provoked the interest of other banks, who also started to lend to the ACAR beneficiaries. The result of this large supply of credit, the study says, was that Belo Horizonte and the area surrounding it no longer have to import fruits and vegetables from outside the state, whereas almost all such produce was previously imported from the state of São Paulo. The study also notes that many of the horticulturists moved upward in social class (p. 24, par. 1; p. 57, #7).

One wants to know more about this success. Were the horticulturists growing these products before the ACAR program? Why were they selected as ACAR beneficiaries? Because of an already demonstrated entrepreneurial potential? Or because the ACAR technicians felt that horticulture would be a good thing to introduce into the region, given the obvious comparative advantage of close location for this type of produce? DID ACAR try to promote the use of

improved inputs, or fixed investment? Or were they interested in financing more of the same--i.e., increasing the amount of existing production through the cultivation of new lands, rather than through the use of new techniques?

Was the horticulture output increase spurred by a "boom" atmosphere, which might explain why the private banks came in so quickly on the heels of the initial ACAR efforts? There seems to be some evidence of this, to the extent that the horticulturists, the paper says later on, are switching to other, mechanized crops, because of the "increased minimum wage," which has made less economic the labor-intensive horticulture crops (pp. 30-31, par. 4). It is a little difficult to accept the minimum-wage-increase as the reason for this switch to mechanization, since various studies of the real wage question in Brazil indicate that, at best, real wages have remained the same since 1964, and, more likely, have declined.** Indeed, the horticulture boom seems to have taken place precisely at the time when real wages were rising in Brazil, between 1959 and 1965.*** This paradox might be explained by the fact that minimum wages only started to be enforced in this region during the period in question. But the study itself states that this was a region where the minimum wage is already strictly observed, and where farm-labor unions function well (p. 30, last par). All this leads one to believe that the minimum-wage explanation of the switch out of horticulture to mechanized crops is not valid. It also supports the impression that the original increase in horticulture production may have been part of a boom,

**For example, Peter Gregory, "Evolution of Industrial Wages and Wage Policy in Brazil, 1959-1967," unpublished ms. for USAID, Sept. 1968. Gregory's data is limited to industrial wages in Rio and São Paulo, but it is virtually impossible to get adequate data on wages outside this sector and area.

***It is not clear to me from the paper just exactly when the boom took place.

latched on to, and reinforced by the commercial credit institutions of the region. The switch to mechanization and other crops, then, might be explained in terms of the fact that the original horticulture was not carried out in an economically (or socially) viable way, and as soon as the boom mentality petered out, growers switched to more economic pursuits.

This suggested explanation, of course, does not deny any value to the complete growth sequence. For it seems that the impulse of the boom, if that was the case, was strong enough--and the growers capable enough--so that when the bubble busted, they were financially and entrepreneurially capable of switching to another activity--an activity which involved, furthermore, a higher percentage of fixed and semi-fixed cost, and therefore credit. Hence I would tend to point out the commendable aspects of this switch--in terms of successful development sequences--in addition to the treatment in the text, where the switch is considered in terms of its negative aspects--i.e., an abandonment of the original horticulture, a slowing down of the horticulture growth rate before production supplies completely the Belo Horizonte market, and ensuing unemployment problems (p. 30,31, last par). Actually, the boom-like quality of this story, and the financial and entrepreneurial agility of the growers in switching from one production technique to another, leads one to believe that these growers may have initially been advanced enough to have access to the commercial credit system without the benefit of ACAR--a feature often characteristic of ACAR beneficiaries, as reported throughout the Brazil study (e.g., p. 56, #6). **

**One cannot help but be reminded of the contrasting case in the same study of the region subject to coffee eradication, which subsequently fell into decay (pp. 5-6, par. 3). It is necessary to know more about the antecedents of these two opposite results in order to understand why they could occur.

Another reason for analyzing the desirable "horning in" by commercial banks on an ACAR-sponsored program is for what it can tell us about the mobilization of private domestic resources for agricultural development, let alone for small-farmer-oriented agricultural development. (I assume that the private banks financed these horticulture operations out of their own resources, rather than from a foreign or state-supplied line of credit.) In general, in both the country studies and the outline of the final report, the subject of domestic resource availability for agricultural credit seems to be missing--treated as if it were a constant rather than a variable. Resources seem to be assumed very scarce, attention is therefore concentrated on the most efficient manner in which to spend them, preoccupation is expressed over the cases where it seems they have not been spent well.

The only attention paid to domestic credit resources as a variable appears in the Brazil study, and focuses on the legally lower interest rate for agricultural credit, which acts as a disincentive away from directing commercial credit toward agriculture (see "Interest Rate" Section below). But the interest rate question is a problem in itself. It frequently takes on the knowledge-impeding quality of a "prerequisite:" one can't even start to think about domestic resource mobilization for agriculture, according to this approach, until one starts to pay a decent interest rate. Yet the Brazil study itself cites two cases where commercial banks participated in programs with subsidized interest rates--the horticulture case at hand, and the general phenomenon of private banks entering into working agreements with ACAR (p. 20, par. 1).

It is important to understand these cases thoroughly, precisely because they seem to demonstrate--in their superficial form--that the subsidized, or negative real interest rate is not always a barrier to commercial credit mobilization for agriculture. Why wasn't it a barrier in these cases? Can the

experience gained here be applied in other cases, where it may be easier to recreate conditions similar to those surrounding the ACAR experience, than to make any headway in the interest rate problem?

In sum, the commercial banks' interest in the ACAR horticulture program and in other ACAR programs is important to understand because (1) it can tell us something about domestic resource mobilization for agriculture in the private sector and through the market mechanism, and (2) it may show that the interest rate problem is not as significant in determining the supply of credit to the agricultural sector as is usually thought.** Conversely, there may be mechanisms other than the interest rate--or better, in addition to it--through which commercial banks become interested in agricultural credit, which may neutralize the barrier-creating problems of unreasonably low interest rates in the mobilization of domestic credit for the agricultural sector.

III - Topics

A. Cattle

The conclusion of the Nicaragua study lists as a "disappointing result" a failure that seemed to have a significant success element. It is stated that the rural credit program did not achieve the desired goal of crop diversification, "although" there was a diversifying effect in the sense of allowing many small producers to acquire cattle for marketing purposes or domestic consumption. This disappointing result was thought to be caused by lack of irrigation water, inadequate technical assistance, and marketing problems (p. 46, #5).

** For example, Dale W. Adams, "Agricultural Credit in Latin America: External Funding Policy," Studies in Agricultural Capital and Technology, Occasional Paper No. 9, The Ohio State University, April 1970.

Perhaps the diversification into cattle should be considered a successful and unexpected result that counterbalanced the disappointed hope that diversification would be directed to other crops. Or, more accurately, perhaps the diversification into cattle rather than other crops represents a more efficient combination of resources, given the constraints involved--lack of irrigation water, technical assistance, and marketing structure. If these latter factors are not considered as prerequisites--and hence, as ready explanations for failure--then it is possible to imagine that these factors could also be the future results of the cattle diversification that did take place. That is, to the extent that diversification into cattle was much less intensive in the missing factors than was crops, then it may have been a much more feasible and efficient first step forward for these farmers than crops. Moreover, it was a step that could be accomplished within the limited scope and resources of a credit-assistance program. Indeed, the absence of the crucial factors is perhaps less an explanation of failure than it is a post hoc indication of the high cost of diversifying into crops--a cost that would make crop diversification inefficient, given the existence of a less costly alternative (cattle). Here, by the way, is a possible proxy for information on the economic efficiency of the production changes that were promoted--i.e., a way of obtaining information on the efficiency of certain input combinations without resort to difficult data-gathering and computing. In addition, it should be recognized that the case "inadvertently" generated new information on a possible approach to changing of production techniques which was not originally considered.

With respect to the sequence of development that was started with diversification into cattle and the general improvement of the farmer's condition, one might posit that this might lead, in turn, to the creation of the fore-mentioned prerequisites. For example, the farmer's improved situation might

make him a more attractive candidate for future credit programs, as well as giving him and other successful beneficiaries more power as a group in demanding public services. His experience with marketing of cattle might bring him together with other similar farmers, in a way that would help them cope better with marketing problems in general. His limited demonstration of capability with cattle might make him seem less of a credit risk--and thus more attractive, for example, as the beneficiary of a government-financed irrigation program. This sequence, finally, might be followed by successful diversification into other crops. Or, it might be that cattle plus his traditional crops would always make more economic sense than eventually shifting to a combination of traditional plus diversified crops.

This conjecturing about possible development sequences looks, in a sense, like pure fantasy--owing partly to the fact that I have little knowledge of the case. This type of attempted analysis, nevertheless, needs to be engaged in, based on the information yielded by the project. In general, the final report might undertake a more frontal approach to the question of cattle. The country studies contain interesting material about the financing of cattle for small farmers, yet seem to denigrate these results, or consider them a disappointing second-best. The Panama study, for example, reports that 64% of rural credit loans from 1966-1969, under the BID/13 and BID/109 programs, went for medium- and long-term credit. The paper comments that this percentage seems to be quite satisfactory, given the necessity of achieving a "permanent increase in the income levels (of the assisted farmers) and in their capacity to absorb and generate more financial resources." A high percentage of the medium-term loans, "however," went for the purchase of cattle. The "the high degree of capitalization noted above is not as significant as it seems, since in many cases cattle represent rotating capital rather than true investment." Only if

the large and medium-size farmers, who sell their cattle to the IFE-financed small farmers, reinvest the proceeds of their sales in their agricultural establishments, the study concludes, can the credit-assisted cattle sales be considered as constituting a net addition of capital to the agricultural sector (pp. 12-13, par. 2).

The paper further comments that the ratio of short-term to medium- and long-term loans under the program was three to one for agriculture, and one to six for cattle. This represents "a relatively low degree of capitalization" for the agricultural enterprises, "despite the fact that the specific aim of the 13/SF program was to finance investments that would increase the productivity of the farm enterprises assisted...The seemingly favorable ratio for the cattle loans," it is said, is really a function of the classification in the fixed capital category the loans for cattle purchase and fattening, which are more accurately categorized as rotating capital rather than investment" (pp. 13-14, par. 2). Finally, it is reported in the conclusion of the paper that there were certain changes in the loan project as originally envisioned. Loan 109/TF originally projected 70% of the credit for crops and 25% for cattle. "The results, nevertheless, show that only 30% of the resources were dedicated to crops and 60% for cattle." The investigator says that it was not possible to find out the justification for this change, even though it was approved by the BID (p. 18, cont'g par).

It is difficult to accept the concept--whether implicit or explicit--that the only way to achieve growth in the agricultural sector is through fixed investment--or that fixed investment is the only genuine mark of improvement in that sector. Credit for cattle, according to this concept, doesn't really qualify as development-promoting because even though it is called fixed investment, it isn't. There are enough success stories about agricultural development based on the use of improved annual inputs to demonstrate that the distinction between

credit for fixed investment vs. operating costs is not a useful dichotomy. Because a discussion of the general question of short- vs. long-term credit follows this section, I will restrict my comments here to the question of cattle.

The country studies have thrown up evidence on three successful cases of credit to small farmers for cattle: the case discussed in the preceding comments on diversification, the Panama case outlined above, and another case presented in the Nicaragua paper. The latter reports that, "The impact of loans for cattle seems to have been considerably strong among the small producers, who are able to obtain this type of credit from other sources only with great difficulty... The BNN has found that there is great demand for this type of credit... (and) that the number of cows owned by the producer-beneficiaries surveyed increased more than ten times from 1966 to 1968, and that ~~t~~two thirds of the cows and 84% of the bulls owned were 'cruzados'" (pp. 9-10, par. 1).

It is not clear to me that the concentration on cattle in these cases was a good thing, but the fact that it happened in several cases, and that it seemed to have been relatively successful, leads me to suspect that something important is to be learned here. Moreover, even if the amount of credit destined to cattle violated the projections of the program, this in itself may represent evidence, along with the other cases, that the goals of the program were not the best. Hence their transgression by the administering institution was perhaps the result of a learning process on the part of that institution, and therefore a wise move. Because these cases are evaluated with reference to the assumed primacy of fixed investment, there is little information on which to base a judgment as to whether cattle was a better thing for the small farmer than was thought--or whether the prejudice against cattle (shared to a certain extent by me) would be borne out if one looked more closely into these cases. This is

why it is important to find out, for example, the reason why the change to a higher percentage for cattle was argued for and approved by the Bank in the Panama program.

The cattle question suffers not only from its unfitting classification into the fixed investment concept, but also from a general prejudice against cattle which is probably based on the image of cattle-ranching by large growers in developing countries. The latter is associated with an extensive use of the land which amounts to somewhat of an extravagance, given the population pressure in such regions, or in adjacent regions; it is considered the most labor-sparing of activities in countries which frequently have acute problems of excess supplies of labor, especially in the rural sector; it is considered a natural-resource-destroying activity, given the deforestation it involves, the land erosion that often ensues, and the absence of practices directed toward replenishing the soil; it is associated with absentee ownership by city industrialists, whose absence from the land, among other things, deprives the region of any possible incentives for regional development; moreover, when financed by large-farmer credit programs, cattle-ranching is sometimes considered subject to doubtful transactions because of the often-subsidized credit terms along with the easy disposability, through sale or slaughter, of the item in which investment is made.

Cattle purchase by small farmers, in contrast, may have a completely different significance. It may facilitate, rather than discourage, the intensive use of the cropping portion of the farmer's land by allowing him to spread his risks. That is, his assured income or family subsistence from cattle may give him the financial security necessary to experiment with improved inputs on his cropping land. Cattle may also assist in the mobilization of small farmer resources for self-financed investment in improved crop productivity, in that cattle is the perfect, and often the only, medium-term credit item available to a small farmer with uncertain productive capacity, unclear or no title to

the land, and extreme vulnerability to the chance forces of nature. In that cattle loans are guaranteed by a chattel mortgage on the very cattle themselves, the lending institution takes almost no risk in lending to the farmer of doubtful capacity, since it can always reclaim the cattle in case of default on the loan. Hence credit for cattle is often the only type of medium- or long-term credit to which a small farmer has access. He may still be denied medium- and long-term credit for investment in his crop productivity, because of the necessity of a land mortgage as guarantee. He may perhaps be even unable to obtain short-term credit for improved-input crop production costs, because of the risk to the bank involved in a lien on the crop. Hence cattle credit becomes, for the small farmer, an important lifeline to the credit system. It may allow him to increase his income to the point where he can generate enough resources to make that investment in increased crop productivity on his own. Here, again, is a case where factors which are considered prerequisites to development--land possession, clear title, availability of medium- or long-term credit for investment--can turn out to be results of development, because of the possibility of a different growth sequence.

Another interesting possibility to be explored in relation to cattle and the small-vs.-large farmer, is that the small farmer may be much more receptive than the large one to the adoption of improved pasture methods. He has only a limited amount of land, which he is also using for cropping. (I am thinking of the small crop farmer who is assisted by the BID loan program in the above cases to buy cattle.) Hence the opportunity cost of any specific use of his own land is much higher for him than for the large, cattle-specializing farmer--not only because the small one has much less land, but because he is using part of it in another production activity (crops) which is alternative to cattle. Thus the opportunity of decreasing the acreage use per head of cattle is more valuable

to the small farmer than to the large one. Once the farmer has acquired BID-financed cattle, then, he may be receptive to the idea of introducing improved pasture methods. In other words, the simple economics of opportunity cost make the small farmer a more likely candidate, under these circumstances, for improving agricultural productivity, than the larger farmer with extensive tracts of land. This line of reasoning runs somewhat counter to the idea that agricultural modernization is associated with large-scale agriculture, involving sophisticated landowners who, by virtue of their entrenchment in the market economy (in contrast to the isolation of the subsistence, or semi-subsistence farmer), can be turned somewhat easily into modern agricultural entrepreneurs. In sum, then, the undesirable aspects attributed to cattle-farming, and cattle credit programs for the large farmer, are not necessarily applicable to the small farmer. In fact, the opposite may be true: the small farmer's opportunity cost of land may force him to take a land-saving approach to cattle. In addition, cattle credit may be the bootstrap by which he can pull himself up in his cropping production.

In exploring the cattle question, the Bank might want to consider the possibility of following up its medium-term cattle loans to small farmers with short-term loans for introducing improved pasture methods. There may be some valid reasons for shying away from cattle in small farmer programs, but they are not spelled out in the country studies, except by way of reference to the fixed investment criterion of agricultural development.

B. Fixed vs. Operating Costs

The country studies have almost uniformly judged the composition of rural credit programs on the often unstated assumption that long-term lending (i.e., fixed investment) is a more genuine investment in agricultural development than is short-term credit (operating costs). Hence, a low long-term/short-term lending ratio was considered a problem feature in the evaluated programs. The

Panama paper extends this distinction to the point of characterizing operating-cost credit as "socially" oriented, in contrast to the "economic orientation" of fixed cost credit.** The Guatemala paper states that "only" 23% of the resources lent by SCICAS between 1964 and 1969 were invested in fences, land improvement, wells, machinery, etc., "factors which actually increase the productivity of the farmer." The rest, the paper says, went for annual operating costs, purchase of cattle, and housing construction (p. 24, #2). The Nicaragua paper comments on the factors that constrained the incentive and capacity of the small farmer to produce and invest in his agricultural undertakings, which, in turn, constrain the demand for credit. Among other things, "the small size of the plots many times does not justify investments that would tend to increase productivity" (p. 3, par. 2). The Nicaragua paper further comments that the absorptive capacity for credit of the average peasant borrower is quite limited, "which is reflected in the small proportion of credit used for tools and fixed investments, as well as in the low amount of the average loan, whether short-, medium- or long-term (p. 45, #2).***

There is one case in the country studies where, in contrast to the others, an unusually high amount of credit went for fixed costs. The Brazil paper cites

*** "...the first loan (13/SF) contributed to the financing of a program with a principally economic orientation (increase of production and productivity), while the second loan (118/TF) has an important component of social development, in that the funds can be used in part to cover annual operating expenses (labor) and in that the guarantees required are quite flexible" (p. 5, par. 1).

*** Doesn't this conflict with the information on p. 12 of the same paper, which says that "it seems interesting that in this program the general average for the size of the short-term loans was almost double that for the medium- and long-term loans" (p. 12, last par)? Or was this result unique to the program financed by Loan 36/TF? If so, why this marked disparity in the proportions of this particular program?

a study of fifteen ACAR-assisted horticulturists, who used 75% of their credit funds (an average of about US\$1,250 per producer) for capital investment, and 25% for operating costs (p. 24, par. 2). In light of the uniform concern of the other studies with low fixed/operating financing percentages, it might be useful to know more about this highly unusual case. The case is of interest not only because it is a "success story" by definition of the evaluators' judgments about investment/operating cost ratios in other projects, but because it is an extremely high fixed cost percentage for any agricultural credit program. In a study of a switch from extensive cattle grazing to mechanized wheat farming in southern Brazil, it was found that 84% of the loans on the mechanized farms were for working expenses, "and about 13% for the purchase of machinery and equipment."** This study was conducted during the time that mechanization was taking place, and when ample credit was available. In comparison to this 13% for fixed-cost credit, the percentages of the other studies do not look as indicative of problems as was suggested. Moreover, the percentage in the case of the ACAR horticulturists--75%--looks suspiciously large.

Was there something unique about the horticulturist case which accounts for the high investment percentage? Are all the possible productivity improvements in this particular crop, or under these particular soil and climate conditions, investment-intensive?--as compared to the operating-cost-intensive improvements associated with fertilizers, pesticides, fungicides, seeds, etc. What did the investment credit go for? What type of farmer was involved?--i.e.,

**Norman Rask and Bodepudi P. Rao, "Modernization of Developing Agriculture--A Brazilian Experience," Draft, Mimeo. Part of a future study, "Analysis of Capital Formation and Technological Innovation at the Farm Level in LDCs," sponsored by USAID/WHO. p. 10.

what accounts for his unusual "absorptive capacity" for investment credit, given the absence of it cited in the other papers? As suggested in other parts of the Brazil study, ACAR farmers were at least a notch above the poverty-stricken peasants who characterize the other programs evaluated. Hence the ACAR beneficiaries may have had access to short-term credit from other sources to supplement their ACAR credit--a supposition supported by the study's report that commercial banks on their own financed the ACAR horticulturists. (p. 24, par. 1). The high investment/operating-cost ratio, then, may well represent a division of labor between ACAR (long-term credit) and the commercial banks (short-term credit). This type of division of labor is not unusual in state-sponsored programs which finance agricultural investment. In sum, the 75% for fixed costs is probably a characteristic of the portfolio of the lending institution in this case, and not of the producer; yet it is in terms of the producing entity that the desirability of a high investment/operating cost ratio has been defined in the other papers. If one accounted non-ACAR as well as ACAR credit to these fifteen horticulturists, the investment ratio may have turned out to be as low as in the other programs.

I have suggested above that the fixed-investment vs. operating-cost distinction may not be very useful. One finds ~~positive~~ judgments scattered throughout the country studies about the results of operating-cost financing--judgments whose assumptions, obviously, conflict with the negative judgments on high operating-cost/investment ratios. The Nicaragua study states that one consequence of the greater availability of credit under the BID-financed program was "an increase in the number of hired laborers" (p. 31, last par). The amount of labor hired by the borrowers of the program increased by 75% (p. 30, par. 2).**

***One would like to know the absolute numbers involved here, both on a total and individual-farmer level, in order to assess the significance of this increase. Also, did the increase represent the expansion of existing practices of hiring outside labor on the part of small farmers? Or was most of the hiring accounted for by farmers who took on hired labor for the first time? One would expect the amount of change in production techniques under the two possibilities to be quite different. Here is another simple proxy for measuring change that might be built into the feedback from future Bank loans.

Such an employment increase, moreover, was one of the objectives of the rural credit program.

Here is a case, then, where the concentration of financing in the short-term operating-cost category was considered highly desirable, by both sponsoring institution and the evaluator,^{and} as fulfilling the development expectations of the program. Fifty eight percent of the operating costs of small farmers in the region were labor costs (p. 32, cont'g par). Moreover, the paper points out that this success was possible because "advanced labor-saving productive techniques had not been introduced" (p. 32, cont'g par). The point of this example is not so much that it needs to be reconciled with the exactly opposite judgments on this matter expressed in the same paper, as well as in the others. More important is what the story reveals about the fixed-vs.-operating-cost dichotomy--i.e., the story focuses on desired development results that were dependent on the increasing of operating-cost expenditures.

Certainly, the net long-term effect of fixed investment agricultural development might have turned out to be greater than that of the employment generation described in this case. Equally, one might find that the employment-creation goal was a political and paternalistic one which, in contrast to the development possibilities under a fixed-investment program, did nothing more than make the status quo more durable. Again, one needs to know more about that situation before being able to make a judgment; the matter is also important because it touches on the Bank's concern for rural unemployment problems, and the kind of rural-urban migration that leads to urban congestion and unemployment. This type of exploration may also provide ideas on how to design agricultural loan programs with favorable investment investment and employment features (see further discussion on this in "Efficiency vs. Equity" and "Capital and Labor" sections below).

Another implicit bias in favor of operating-cost credit appears in the same paragraph of the Nicaragua paper, where it is stated that the labor productivity of the region has not increased because of "the lack of a greater use of inputs" (ibid). In other words, what is needed for development here is more inputs (operating costs), and hence more short-term credit.

One last point: the fixed-vs.-operating dichotomy seems to play into the hands of the "prerequisites" approach: if one doesn't own one's land, or if the title is unclear, or if one hasn't shown a certain amount of farm managerial ability, or if one can't yet approach one's production and financial planning in terms of a five-to-ten-year time horizon, then one isn't going to be able to qualify for fixed investment credit, or use it productively. Fixed investment, in turn, is the only "genuine" form of agricultural development. Hence, given the land tenancy and ownership conditions among a good part of the peasant farm sector, and their limited farm experience and time horizon, it will be almost impossible to obtain agricultural development in these sectors.

But if one allows for the fact that changes involving operating-cost items can also lead to genuine agricultural development, then the causal sequences that start with the prerequisites can be seen as reversible, or the prerequisites as being amenable to circumvention. Productivity improvements based on the short-term financing of improved inputs might better the farmer's condition to the point where he is financially and attitudinally capable of planning on a longer-term horizon, where he will have the financial power to improve his land tenancy or ownership situation (if this is a problem), and where he will be less fearful of making financial commitments into a more distant future. The fixed/operating dichotomy, in sum, prevents one from seeing that some of the prerequisites of developments can be its results, or that the absence of prerequisites can be considered as the "constants" of development, rather than as barriers to it.

Even if one could argue that fixed investment was in fact the best path toward agricultural development in some situations, then the types of constants or parameters mentioned above would seem to indicate that assisted rural credit is far from being the best approach to the problem. That is, if the would-be beneficiaries are afflicted with problems of land ownership uncertainty, or rental arrangements that deprive the potential borrower of the use of the land as guarantee for long-term credit--or of the incentive to invest in the first place--~~an~~ short-term horizons and resistance to investments with long-term payout periods--and if it is considered that tremendous increases in efficiency and productivity and even social welfare could be gained only by a substantial program of fixed investment--then this is a case where it seems more logical that the investment would be ~~more~~ more suited to undertaking by the state, rather than by a large group of small farmers, each acting individually through a credit program. The government has a longer time horizon, it is used to undertaking projects with long payout periods and obligating itself to long-term repayment periods, and it expects to reap additional social benefits of development of the area. In short, the government has the financial, institutional and attitudinal "prerequisites" to undertake fixed investment in agriculture successfully. Whether or not the idea of government-as-investor is valid in this situation, it certainly ranks better as an alternative to encouraging and hoping for the undertaking of fixed investment by the small peasant farmer through assisted credit programs, as the path to his agricultural development. In either case, it seems important to make clear that (1) fixed investment does not necessarily have superior development-generating features over operating cost expenditures, and (2) there exists a more efficient and easier institutional alternative, ^{than assisted credit} in some cases, if one wants to promote fixed agricultural investment.

C. Separation vs. Unification of the Banking and Assistance Function in One Entity

The Brazil paper tells how the ACAR program started out working in conjunction with two public banks (the Caixa Econômica of the state of Minas Gerais and the Banco do Brasil), and how, twenty years after the start of the program, the agency had entered into working agreements with several private banks, as well as official banks (p. 20, par. 1). This is quite an interesting phenomenon institutionally--that is, that private banks would on their own find it to their interest to participate in a small farmer credit program which charged a negative real interest rate. This institutional accomplishment is not only a testimony to the success of ACAR in establishing a reputation as a serious, trustworthy institution; it also has some bearing on the institutional question of separating-vs.-combining the banking and assistance functions--the ACAR case being one of separation.

Because of the significance of ACAR's achievement--discussed in greater detail in the section on "Institutional Success" below--one would like to know more of the details of how and why this occurred. Did the private banks use their own resources, or were foreign aid funds or earmarked state appropriations channeled through them? Given the fact that the interest rate was lower than that obtainable on commercial loans--as emphasized in the Brazil paper--what was in it for the private banks? Or were they obliged, by state policy, to accept part of the burden of this program? If outside funds were not provided them for the program, did they use their own resources? One would assume that outside funds were channeled through them, for which they received a commission, and that this was what made it interesting for them to associate themselves with the program. If this was the case, did it result in a more efficient operation of the program?--i.e., the more participating banks and branches that were involved, the greater geographical dispersion and coverage the program could

achieve--thus taking advantage of the existing, far-flung network of bank branches in the state of Minas. Moreover, the association with private banks should also be looked at as a possible way of facilitating the "graduation" of subsidized credit beneficiaries to the commercial credit system--a subject over which great concern is expressed in almost all the country studies ("graduation" is further discussed in the section on it).

The ACAR case should be in general be looked at as an interesting and successful example of separating the banking and assistance function. In the Nicaragua case, where both banking and technical assistance are combined in the BNN, it was found that less than 20% of the extensionists' time was actually dedicated to technical assistance; the rest was taken up with supervision of investments, of guarantees, billing for interest and amortization charges, and branding of cattle taken as chattel (p. 34, par. 1). This is not an infrequent occurrence, and is a common complaint of extensionists or rural credit technicians working in credit programs where both functions are combined in a single institution (e.g., the Juntas Rurales program of the Banco Nacional de Costa Rica, where technicians complained that much of their time was spent in bookkeeping functions when there was a great need for more time to be spent in the field). In the ACAR case, in contrast, one learns that 72% of the contacts of the agency's technicians were in the field, and dealt with the elaboration and modification of credit and assistance plans (p. 22, pars. 1-2).

It is perhaps inevitable in societies where middle-level skills like clerical and accounting are scarce, that the rural credit institution will not be able to avoid drawing on any functionaries who are around to carry out these middle-level tasks--even though the agricultural extensionists and credit specialists are trained in more higher-level skills, and even though their help is urgently needed elsewhere. Hence the division of the two functions into two

independent institutions--and the consequent transference of demand for much of the middle-level tasks to an institution separate from the agriculturalists--has the one advantage of protecting the scarce technicians from being used for other purposes.

Another advantage of the separation of the banking and assistance function may be that the spirit and attitudes conducive to a good assistance entity are perhaps quite different than those necessary to make an institution work well as a bank. The Nicaragua study of the BNN--in which the banking and assistance functions are combined--suggests that the "absence of a 'desarrollista' orientation" in the rural credit program accounts for some of the problems of that program. For example, the study reports, many branch managers consider the number of beneficiaries attended per agronomist as a measure of their office's efficiency. This approach, the study says, results partly from the fact that the managers of the bank's regular lines of commercial credit also administer the rural credit program (p. 34, par. 2). The study comments later, in the same vein, that "the specific problem of the rural credit program has been the fact that...the program has had to justify itself on an equal footing with all the other (commercial banking) activities of the BNN, without taking into consideration that one is dealing with a program of socio-economic development in a sector of the population which is marginal, precisely because of its limited access to basic resources" (p. 44, par. 1).

In attempting to encourage a more "desarrollista" approach for the banking institution that administers a rural credit program, one may not only endanger the bank's aptitude for banking; in addition, one may be asking for a kind of spirit which the institution, by nature, does not have. If the banking function and the assistance function have certain aspects of mutual incompatibility--or "personality" differences--it may be that each institution will turn out best if left to develop its own "comparative advantage." The success

of the ACAR program could certainly be analyzed in this light--for along with the acclaim that the institution has received as an agricultural assistance entity, the mineiros, in turn, have always been known in Brazil as the country's "bankers."

The country studies reveal another disadvantage of the combination of the commercial and assistance-oriented credit functions in one institution. Banks are reluctant to engage in small-farmer assistance programs because, among other things, of the unreliability of the untried small farmer as a credit risk. At the same time, nevertheless, the bank's largest losses from delinquency or outright non-payment occur, of course, in its commercial credit, large-farmer portfolio. This is true not only in terms of the bank's loss or delinquency as a percent of its total portfolio, but also in terms of the individual large farmer. It has been found that loan delinquency goes up in percentage and absolute size with the amount of the loan, with the size of the property, and with the percentage of total expenditure financed.** The Nicaragua study, in a similar vein, comments on the problem faced by the credit-assisted small farmer in a year of crop-destroying natural disaster. The BNN has no insurance program to protect him against such risk, and although the bank allows postponement of payment until the next harvest under such circumstances, a single harvest frequently does not yield enough return to a small farm to pay back the debt of two successive years. The study compares the "social injustice" of this situation to the fact that there is a high delinquency rate among the large commercial producers of cattle, rice and cotton--delinquency which is not even caused by natural disasters but, rather, by the "financial machinations" of these producers

**E.g., "Programa de Evaluación del Credito Supervisado," North Carolina University Agricultural Mission to Peru, Lima, June 1968, pp, 56-60.

and their "overly speculative investments in semi-fixed capital " (p. 38, pars 1-3).

More relevant to the question of separating banking and assistance functions than the social injustice aspect of the situation is the fact that the bank's losses and delinquency problems caused by the large borrowers have an unfavorable repercussion on the availability of credit for the small farmer. This type of result is cited in the Nicaragua study, which points out that the small farmer program suffers the most when the total resources of the bank are reduced drastically, owing to the coalescence of two factors: the large loss and delinquency account, and the general reduction of credit to the private sector (p. 43, par. 2). That the small farmer program gets hit worst is in part a function of the unequal degrees of economic and political power of the large and small farmer, in influencing the bank's allocations of credit during scarcity. It is like the black unemployment problem in the United States, where, when unemployment starts to increase, the blacks are the first to be laid off; when employment begins to rise again, they are the last to be hired. In the black unemployment case, one doesn't have the opportunity, nor would it be desirable, to separate the two races institutionally, so as to protect the black workers from the institutional clout of the whites. In the rural credit case, in contrast, there does exist the possibility of insulating the small farmers somewhat from the overwhelming power of the large farmers by, instead of having one bank which requires the dividing of one financing pie, having two institutions, and hence two pies whose size is not interdependent.

This particular point may be more relevant in small countries with a high degree of concentration in the ownership of the means of production, and where the source of this wealth is located in the agricultural sector.

In such a case, the large farmer will inevitably have much greater influence in the banking system than in a larger, more diversified country--like Brazil, for example--where the very size of the country and the diversity of its productive activities mean that the size of credit allocations to various sectors will be less personalistically determined.

The points I have made about the case for separating the credit and assistance function are exploratory. They are an attempt to illustrate the value of pursuing this particular institutional line of analysis. One can think of cogent arguments in favor of combining the two functions. All the country studies, for example, express concern over the problem of "graduating" the successful credit-assisted small farmer into the un-subsidized commercial credit system. It may be that the existence of the small farmer program in the same institution that handles commercial credit may facilitate this transition. Indeed, if subsidized and commercial credit operate out of the same institution, this would make plausible the inclusion by the BID of "required graduation" provisions for successful beneficiaries in its loan agreements with the borrower institution. It would be much more reasonable to ask a bank to graduate its success cases into its own commercial credit program, than to ask a rural extension or assistance agency, or small farmer bank, to find a willing commercial bank that would be interested in and willing to take its potential graduates.

Another possible benefit of combining the small farmer credit and assistance functions in a commercial banking institution is the external economies perhaps available to the small farmer program that result from its institutional and geographical closeness to the large-scale investing, innovating, and experimenting that are being undertaken by the large-farmer beneficiaries of the

banking institution. The Nicaragua paper, for example, suggests that the fact that the small farmer-cattleman is aware of the importance of having purebred cattle is due to the "demonstration effect of the program of credit and technical assistance on the part of the same institution, the BNN, for the large- and medium-size cattle producers" (p. 10, cont'g par). In short, when small and large are combined in one institution, the small may benefit from the financial and entrepreneurial capability of the large to try new techniques, whose profitability in the particular region is yet to be proven. This seeping down of successful results from large to small is not only a function of the two being beneficiaries of the same banking institution, and hence being in geographical proximity to each other. Probably more important is the fact that the bank ⁷functionaries who deal with the two types of program are within the same institutional walls. Hence there is a lot more circulation of information, than there would be between two separate institutions, among the functionaries of the two programs about things that are working well.

One more advantage of combining small and large farmer banks is the following: the large farmers, as a group, are often considered to be in an exploitative economic relationship to the small farmers near them--or at least, are considered unlikely to support small farmer programs. At the same time, however, the small farmer often looks to the larger farmer as an informal leader on all kinds of question--ranging from agronomy through politics to sports--regardless, frequently, of whether or not the relationship between the two is exploitative in economic terms. It has often been noted that small farmers, in making up their minds about the wisdom of adopting new techniques, are much more convinced by the success of a larger farmer-neighbor, or any private farmer, than they are by the demonstrations of the state extension agent, or bank

agronomist.** Hence the existence of innovating large farmers within the same banking institution and geographical area as the small farmer-beneficiaries of subsidized credit programs may be an important factor contributing to the receptivity of the small farmer to suggestions about adopting new practices.

The BID, of course, does not have the choice of molding the institutional form of the projects it finances. The above type of analysis of past experience, however, can help the Bank to get an idea of the forces working for and against the projects that are presented in either of the two institutional forms. It can also reveal areas in which it is perhaps unlikely that change can be expected to occur--for example, expecting a "banker's bank" to acquire a "desarrollista" attitude toward its small farmers; also, areas in which the Bank can seek to enhance the advantages of a certain institutional form--for example, enlisting the support of innovating larger farmers, who are informal rural leaders, in programs attempting to convince and show small farmers how to use different techniques.

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D. Selection of the Borrower, and Equity vs. Efficiency

The Nicaragua study describes briefly the BNN special program to increase the production of corn, in which the Bank required as a condition of receiving the credit, that the farmer sow a certain portion of his land with hybrid corn and fertilizer supplied by the rural credit agencies. The required porportion rose from one quarter of a manzana in the first year of the program to 100% of the area cultivated in the fourth year. The yield increases, from one year to the next, were 80% (pp. 19-20, par. 1).

**For example, it was found in a study of innovation in agriculture in Minas Gerais that the best way to predict the degree of adoption of an innovation in a community was to look at the degree to which they were adopted by the informal opinion leader-farmers of that community. Gordon Whiting, et al, "A Summary of Innovation in Brazil: Success and Failure of Agricultural Programs in 76 Minas Gerais Communities," Michigan State University, April 1968.

More analysis of this success, and of the strategy behind it, would be helpful. What type of farmer was the beneficiary of this incentive program? Did he have the prerequisites of access to marketing, transport infrastructure, clear land title or good tenancy agreements, an already demonstrated entrepreneurial capacity, etc.? The last question is important, since all of the country studies are concerned with the question of whether to finance only the most promising of farmers (the economic efficiency approach), or whether to provide credit to all of them (the equity approach). If it is true that the corn incentive program selected farmers of a certain region without discrimination as to their entrepreneurial potential, then this suggests--given the success of the program--that the above efficiency-equity dichotomy is not relevant in this case. What counted was not the type of farmer assisted, apparently, but the special design of the credit-assistance program, and its intensity in technical assistance.

A clue to part of the explanation of the success of this program--in relation to the question of the promising-vs.-the-unpromising farmer--is that the way it was set up may have resulted in a kind of "natural selection" of the more promising farmers. That is, the unconditional requirement to plant a certain amount of land with new methods may have scared off the least capable farmers, who were impervious to suggestions about new technique and highly uncertain of their ability to do well with such new methods. If this type of requirement did bring about a certain type of natural selection of the most promising--or better, elimination of the least promising--then this is also quite relevant with respect to the efficiency-vs.-equity question of borrower selection. That is, the country studies and the draft outline of the final report recommend that the BID-financed lending institutions try to be more discriminating in their selection of beneficiaries, so as to maximize the output of the

assisted credit programs and avoid pouring money down the drain of farmers who would never make it anyway. Yet if the efficiency-vs.-equity dichotomy does exist in these cases, and if there is a need for some selection, then the placing of the selection discretion with the credit or assistance entities represents a particularly difficult burden in the political and institutional sense. The credit institution is under great political pressure to distribute its funds in one or both of two ways--indiscriminately, and/or selectively--depending on the political environment in which it exists. On the one hand, the entity will be under considerable pressure to distribute its credit "equitably," with little regard to farmer capacity, since it will be known to the populace of the region as an institution administering a "government-subsidy" program. Any efficiency justification that may underlie the rejection of some farmer-applicants will be interpreted otherwise by the rejects and their friends. The entity will be accused of favoritism, of distributing the spoils among the more powerful of the small farmers, and of rationing its scarce funds according to the bribes of more favored farmers. This type of pressure and local resentment might not affect the workings of a centralized federal institution in a fairly large country. But rural credit by nature works out of local offices, and involves considerable exposure to the local population (e.g., about 85% of the contacts of ACAR-MG in Brazil were in the field rather than at the agency office--p.22, par. 2). A public sector institution cannot afford, in terms of its own survival, to alienate its surrounding populace, and will not be able to ignore completely such pressure.

On the other hand, the rural credit agency is also subject to pressure by the stronger farmers to concentrate its resources on them--something that may have happened in the ACAR program in Brazil, as suggested by the study's concern about the apparently self-sustaining capability of many ACAR beneficiaries

previous to their association with ACAR. In such a case, pressure on the entity results from the the better-off farmer's position of power in the locality served by the credit entity, and by his financial ability to offer something in exchange to the agency official for granting credit to him. Generally, his power position in a small, poor community may make it difficult for the institution not to accede to his requests for himself and his friends--given that the entity functions in an area coincident with the reach of his local power, andhence is obliged to forge a tolerable coexistence with him.

In sum, the selection of candidates according to equity or efficiency criteria is a difficult burden to place on an institution in this position. It is perfectly imaginable that the pressures from both sides might make it almost impossible for the agency to carry out adequately, or to its own standards, the selection function. It may be that the differing results described in the country evaluations with respect to borrower selection were a function of the winning out of one of the two opposite types of pressures--rather than that the institution was too equity-oreinted and not mindful enough of selectivity criterion (e.g., Pan p. 17, #2, Guat pp. 16-17, par. 1), or that it spread the money too thin because of low farmer absorptive capacity (e.g., Nic p. 12, par. 1), or that the institution deliberately set out to follow rigorous standards of selectivity and ended up assisting many who didn't need it (e.g., Braz p. 56, #6).

One might explain the two opposite pressures in terms of the politics of scarce goods: in the non-discriminating (equity) case, the scarcity of credit resources increases their value to the point that administering officials become highly sensitive to the public impact of thair selection criteria, and feel highly vulnerable to possible accusations of favoritism in its distribution. Hence they protect themselves by distributing the credit "equitably." In the overly

discriminating case (efficiency-oriented), the high scarcity value of the limited resources that are being distributed at a price way below their value generates the classic conditions for a "black market price." The "price" can take the limited form of an extra payment to the administering institution by the more financially able farmer, or the requirement by the lending institution of "compensating balances"--sight deposits by the borrower, earning virtually no interest, in an amount representing a certain percentage of the loan granted. Or, the "price" can take the more informal form of an improved political and social climate for the institution and its technicians, which results from the fact that the entity is helping--or more accurately, not turning down--the people who have influence on public policy, appropriations decisions, federal or state government decisions to constrain the entity in one way or the other--the people with whom the technicians and officials of the entity may be apt to socialize.

Whether or not the discriminating or non-discriminating effect on borrower selection wins out may be a function of the political, institutional and social costs to the entity of each approach, under the specific circumstances of each case. For example, the countries where the inequality of income distribution in the rural sector is more marked--where there is a small group of large, wealthy farmers and a large group of poverty-stricken rural peasants--the equity approach, ironically enough, may prevail. This would occur because the large farmers are so well off and so few that they have ample access to other sources of credit, and are not even interested in getting a share of the small subsidized-credit pie. The absence of a successful medium-size farmer class eliminates a probable source of pressure to get a greater-than-proportionate share of an equity-divided pie. In contrast, in a country with a more diversified productive structure and a more equal income distribution in the rural sector, the discriminating, non-equity approach may prevail. This would result from the fact that there were many successful medium-size entrepreneurs with real or potential

access to commercial credit, but who, because of their size, would qualify for small farmer credit. They operate at a small enough scale that they can benefit from the amounts of such credit available. This group might well exert political and social pressure on the subsidized credit entity for a more-than-proportionate share of the pie, and hence the discriminating, "efficiency" approach would prevail.

It does turn out in the country studies that the programs with "too much" equity in their selection results are located in the more polarized countries in terms of rural income distribution and productive structure, whereas the one program in which the discriminating, efficiency criteria have prevailed--in Minas Gerais--corresponds to the case of a more diversified economic structure where there is a substantial middle sector of promising, medium-size farmers. "Very large farms," the Brazil study says, "do not have the same importance in Minas Gerais as they do in certain other parts of Brazil and in other countries of Latin America, in that properties of more than 10,000 hectares or more account for 34% of the area, and, within this category, those properties of 10,000 hectares or more own only 8% of the area"(p. 4, cont'g par).

The above type of consideration relates directly to the evaluation work of the Bank in that it suggests that criteria of borrower selection may not be a sole function of the quality of the credit institution, the calibre of its technicians, or their own intentions or ideas on the matter. The country studies imply that the Bank may want to set up some new selection criteria for future projects, or, in evaluating future applications, will probably take into consideration the quality of the institution's past record of selection. The point of the above comments is that favorable or unfavorable results in selectivity may be difficult to control within the institution itself; built-in conditions

regarding selection criteria may not be carried out by the institution because of the outside influences discussed, and not because of the lack of will to enforce such criteria.

To return to the BNN corn-incentive program: the point of the above comments is that the "natural selection features" of the BNN program represent considerable relief for the institution, and provide a greater probability of success in achieving a particular selectivity goal--given such an institution's particular vulnerability to outside pressure and resentment in the case of a subsidized rural program. In general, I had been trying to think up a market-mechanism-type selection process--such as a higher interest rate--that could relieve the institution of part of this discretionary burden. The corn example may just happen to be a more apt mechanism, in that the selection procedure--i.e., the requirement to innovate--goes to the very heart of the selection problem. Whether or not there is validity in my hypothesis about the natural selection features of this BNN program, the point remains that it would be desirable to be on the lookout for selectivity mechanisms that do not involve so much discretion on the part of the lending institution.

Because of the questions raised above, it is particularly important to know more details about this program. Was a particular region selected? If so, what were its characteristics in terms of the "prerequisites" for success? How were the farmers selected? Could anyone try who wanted? What was the farmer population in general like? Had they already demonstrated some modernizing or entrepreneurial capability? Were there "dropouts" from the credit program along the way? What was the reason? Did the beneficiary farmers "graduate" to commercial credit institutions? If so, did they continue to use the modern inputs, or did they slip back into the old patterns? If they did not graduate, and if the BNN eventually decreased the financial or assistance intensity of the program, what happened to the successful beneficiaries? In short, what does

this success tell us about the equity-vs.-efficiency question, and, more specifically, about the value of the "impact" approach to agricultural credit? What are the characteristics of this approach, and how might it be improved upon? Did it have a self-sustaining result? Was it almost the only crucial factor in achieving the success? Or were there ~~another~~ other significant factors which we need to discover if we want to encourage a repetition of this type of success, when the possibility of financing such a program comes up in the future? With reference to these questions, the Bank may be interested in watching the progress of the AID agricultural sector loan to Costa Rica, which includes an incentive program similar to the BNN corn program but with significant enough variation to make a comparison quite valuable. Like the corn program, AID will finance only those small farmers willing to use modern inputs with the guidance of an assistance program. In contrast to the corn program, the AID loan will not limit itself to one crop, and will also set up a guaranty fund that will insure the borrower against all risk. That is, the selection of the modern inputs to be financed will be made on the basis of the ability of this particular input combination to increase the farmer's income to the point where he can pay for the inputs out of the increase in income along. Hence the farmer will be responsible for repaying the loan only to the extent that his increase in income covers the new costs. A comparison of the two approaches would be useful regarding the one-crop vs. the across-the-board approach, and whether the inducement to innovation needs to be a s risk-free as it is in the AID program.

A certain class of questions within the framework outlined above should be given special attention. For example, did the assisted farmers switch from other crops because of the special incentives to corn? If so, did they switch back to the old crop when they no longer had access to the incentive program? Or, if they had always been planting corn, did they switch back to the old methods? The questions are important in that the answers to them provide a post hoc test of the economic rationality to the individual farmer of the crop and input

mix promoted and subsidized under the program. If the farmer sticks to the new methods after subsidization, then this can be interpreted as partial evidence of the efficiency--with respect to the price and resource conditions of the region--of this particular crop, produced with this particular input mix. If this happens, in turn, one has learned that a "big push" was needed to get the farmer to undertake the new rational methods, not only in the attitudinal sense, but in the financial and technical assistance sense. The subsidized push was needed to get him over a certain production threshold, beyond which he could do well on his own at non-subsidized input prices. If, in contrast, the assisted farmer lapsed back into the old methods or the old crop, then this also constitutes post hoc evidence concerning economic efficiency--i.e., that the crop and input combination could not stand on its own feet economically, and that the momentary success of the impact program was due to the extreme degree of subsidization, rather than to any leading of farmers through a difficult channel toward an ultimately more economic method of production. This kind of "revealed efficiency" test is particularly valuable, since it is so easy to verify: one watches what the farmer does after the subsidy is withdrawn. The more traditional economic test of the efficiency of what farmers are doing is much more quantitative and complex, and almost impossible to carry out satisfactorily because of the necessity of collecting data on costs, returns, input combinations, and yields at the individual farmer level--not to mention the necessity of fitting this data to regression models which are often too sophisticated for the quality of the data fed into them. The attempt to verify the economic efficiency of certain agricultural promotion programs, then, is almost impossible because of the quality of the data, and is exceedingly costly for both the lending and receiving institution, in terms of data-gathering and reporting requirements. Aneuhfair reporting burden is imposed on the receiving institution and its sub-borrowers, who are usually not in the habit of keeping books, and perhaps should not be expected to take on such a strange and complex way of going

about their work, if it is mainly for the data of value that this bookkeeping generates for the lending institution, or ^{for} the interested economist or agronomist. The interest of lending institutions, agronomists and economists in encouraging subsidized farmers to keep books may sometimes have more to do with an interest in data collection than with any real evidence that efficient farming cannot be carried out at the small-farmer level without bookkeeping. The country studies themselves cite specific cases where the farmer was successful, illiterate, and didn't keep books (Section G, p. 13 above). In sum, because of the unreasonable cost for the lending and borrowing institutions of obtaining good economic feedback data on the efficiency of what its subsidized farmers are doing, there is a corresponding need to seek out and place a high value on proxies for such information. In this case, what the farmer does after the ^{is withdrawn} subsidy provides an immediate feedback about the efficiency of what was being done under the program. Indeed, future projects might stipulate a maximum period during which a farmer could receive credit under the program--not only to "force" his "graduation" into the commercial credit system, but also so as to observe his production decisions after leaving the program.

One more question about this BNN corn-incentive program. Most of the other country studies, as well as most evaluations of agricultural credit programs and development in general, emphasize the shortage of agricultural technicians, the consequent difficulty of providing any kind of adequate technical assistance to farmers who are using new methods, the wasteful use of much of the agricultural credit technician's time in strictly banking and clerical functions, and the chronic deficiency of the budgetary funds needed to keep the technician out in the field where he belongs--i.e., funds for per diem, gasoline and oil, spare parts for vehicles, and purchase and/or replacement of vehicles. The problems of many agricultural credit programs are attributed to this bottleneck. In reading about the BNN corn program, therefore, the question

of technical assistance immediately comes to mind. How was it possible for the institution to manage the technical assistance requirements of such a massive, and closely directed credit assistance program?

To return to the more general question of borrower selection, and equity vs. efficiency. The question receives considerable attention in all the country studies and the draft outline of the final report. When it surfaces with reference to specific programs, the assumptions that underlie the various touchings on the topic seem to be conflicting. Hence there is a need to approach the question frontally, and to give some unity to the assumptions underlying the various value judgments of the country studies.

The Panama paper describes how IFE has been attempting to increase the size of its average loan, implying a greater selectivity of those who receive loans. The paper advises, however, that in its capacity as a development agency, IFE should not assist those who have sufficiently solid guarantees that they can gain access to the commercial credit system (p. 17, #2). At the same time, however, this admonition is preceded by the statement that the institution was making a laudable effort to overcome the problem of loans that were much smaller than the maximum amount allowed--i.e., the institution had been spreading its money too thin, had been too equity-oriented (ibid). Hence both the pure pursuit of equity and the pure pursuit of efficiency are portrayed as perilous paths, yet they are also presented as dichotomous.

The Guatemala paper also relates the below-limit loan size problem to the question of equity vs. efficiency. The paper observes that "SCICAS has assisted a considerable number of farmers with little potential for converting themselves into true entrepreneurs..." (pp. 16-17, par. 1). One of the reasons for this problem, the paper goes on, is the low loan ceiling that is fixed in the

BID loan (US\$750). If one assumes that the beneficiary has access to no other sources of credit, the paper says, these amounts constitute a typical subsistence loan to a small farmer. If this limit is applied to medium-size farmers (20-30 hectares), then the loan covers only part of farm costs, and hence would result in the sub-utilization of family labor and land (ibid). The paper further comments on this question in the conclusion, saying that "SCICAS has not been able to supply one of the fundamental requisites (of a supervised credit program)-- i.e., the adequate selection of beneficiaries. Among the SCICAS clients one finds a larger number of individuals with little capability of improving their economic condition, even if they had access to a greater amount of credit" (p. 25, #4).

The Nicaragua paper also notes that the average individual loan size is US\$320 for medium- and long-term credit, substantially below the US\$1,500 ceiling. This means, the paper says, "that the average absorptive capacity of the typical beneficiary is limited by the amount of basic resources in his possession" (p. 12, par. 1).^{**} This explanation of the below-ceiling average loan size conflicts with that in the Panama and Guatemala evaluations cited. That is, in the Nicaragua case, the explanation of a low average loan size is low absorptive capacity. In the Panama case, the explanation points to a lack of proper selectivity by the administering institution. And in the Guatemala case, the loan ceiling itself is blamed--because of its lowness--for the selection of too-poor farmers, or the under-financing of medium-size farmers.

^{**}I wasn't able to understand the sentence that followed, since it seems to contradict the quoted sentence. That is, my understanding of the sentence following is that the average loan amounts, when compared to the average farm income of the region, should have represented a substantial contribution to the increase in incomes. What increase in incomes? Doesn't the preceding sentence imply that the amount of the loans was so low, indicating a low absorptive capacity, that no economic progress was made?

I have suggested above that the "spreading thin" of loan resources may have to do with forces related to the institution's involvement with its political and social environment, rather than to any internal failure to accept and follow adequate selectivity criteria, or to low absorptive capacity. Moreover, the Nicaragua paper mentions that "it seems interesting that the average loan size for short-term loans was almost double that of the average for medium- and long-term loans" (p. 12, par. 3). This suggests, as I have pointed out in the section on Fixed vs. Operating Costs, that absorptive capacity may not be the explanation of the low average loan size for short- and medium-term credit; rather, short-term credit, and the type of costs it finances, may be more economically rational and desirable under the circumstances of the farmer-beneficiaries involved. Whatever the case may be, the two explanations of low average loan size (absorptive capacity and selectivity criteria) have completely different implications for policy, and some attempt should be made, therefore, to reconcile them. It might be decided that the question does not fit into the equity-vs.-efficiency category at all--a finding that might direct the Bank to approach the problem in a totally different manner. (It is important to query the institutions involved about what they think is the reason for these "low" average loan sizes.)

In all the countries studied, one of the recurrent criticisms is that the administering entity is not selective enough (or is too equity-oriented)--as in Panama, Nicaragua, and Guatemala--or that it is too selective (too efficiency-oriented)--as in Brazil. This leads one to believe that there is something spurious about the efficiency-vs.-equity dichotomy (or selectivity-vs.-non-selectivity). That is, if an agency tries to be selective, it finances too many people who could "do well on their own." If it is non-selective, then it spreads

the resources too thin, resulting in inadequate individual amounts for the takeoff of promising farmers, or it spawns a "welfare program" that has no impact on the economy and serves only to facilitate the continuation of subsistence styles of life. The most direct statement of the existence of an equity-vs.-efficiency dichotomy appears in the Paraguay paper, which suggests that a country like Paraguay "ought to decide first whether rural credit is a social program or an economic program, and perhaps should consider separating the two aspects, to be administered by different institutions..." (p. 29, #7).

One gets the impression, then, that there is no middle ground for a rural credit institution--i.e., where it could, on the one hand, finance promising farmers, who, on the other hand, would normally not have access to commercial credit and would not be able to develop on their own. The pure act of defining the middle ground puts into doubt the dichotomous approach to this problem--since part of the definition of a promising farmer is somebody who could pull himself up by his own bootstraps. In sum, the equity-vs.-efficiency criterion of judging rural credit institutions seems to represent a somewhat artificial characterization of the problem.

The concept of an equity-vs.-efficiency continuum for rural credit with an ideal location at the middle may cloud our understanding of the types of results that are possible and that are being achieved in agricultural credit projects. That is, by encouraging or requiring institutions to move toward and attain that middle ground between the two "extremes," one may be making it more difficult for them to achieve either of the two goals. The attempt to pursue two goals which are in an important sense conflicting, when conducted by the same public sector institution, may result in a kind of stagnant program which has no impact at all--either in terms of increasing output and farmer income, or in terms of generating improvement in social conditions and changes in the social structure. This type of result, however, may not be undesirable in the eyes of a particular type of sponsoring government--i.e. a government that tends to be

regressive. Such a stagnant-type program, that is, demonstrates governmental interest in the plight of the peasant, and at the same time, has no real impact. It fits the bill, then, for a type of paternalism that allows the status quo to be even more enduring. This result, though undesirable to the Bank, may cause the program to be continued indefinitely, because of its desirability to a particular type of government, with the minimum level of domestic support required to maintain the effort. In sum, then, the credit institution doesn't grow because it can't move off the dead center of the equity-efficiency continuum. The Bank, in turn, feels uncomfortable about the lack of "impact," and tries to decide whether such impact-less programs are worth supporting. The institutional conflict of equity-vs.-efficiency goals, the resulting paternalistic and stagnant nature of the institution that may result from this problem, and the lack of interest by a non-progressive government in impact programs, may all be reasons for considering a division of equity and efficiency goals between two institutions or programs, rather than combining them into one.

Perhaps the most misleading feature of the equity-vs.-efficiency judgments is that they are considered applicable to as small a universe as the rural credit institution, or to rural credit in general. That is, this particular dichotomy seems to be a more relevant criterion and concern of decisionmaking at the national level, than at the institutional or rural credit level. Restricting the dichotomous criterion to the latter areas eliminates the consideration of alternatives other than rural credit--alternatives which may be more efficient ways of pursuing welfare and efficiency. Broadening the scope of the dichotomy helps determine what the best role of a rural credit institution is, by seeing how it fits into a general range of alternative and/or complementary approaches to agricultural development. I am not saying that the Bank has the choice of financing projects that are part of a cohesive package of agricultural policy programs, or that the Bank should try to influence applicant governments to undertake such broader-scope thinking and planning. Rather, by looking at rural credit in a broader context, the Bank is in a better position to decide

just what it can hope to gain from a rural credit program, what kinds of rural credit programs it wants to support, and what kinds of non-credit agricultural development programs it would be interested in--if applications for such programs come its way.

With regard to the equity question, one might want to attempt to resolve the following questions: (1) Does one start with the premise that public expenditure policy should be directed toward making the poverty-stricken rural masses productive?--based on the assumption that a certain type of productivity-oriented assistance for these masses, combined with the growth of the economy, will bring the unproductive into the producing sector, thereby raising their standard of living (equity) and at the same time making a contribution to economic growth (efficiency). Or (2), does one start with the premise that the rural poor should be dealt with by welfare-type programs which provide them with a minimum standard of living, with no expectation of their being able to enter the labor force and work productively?--based on the assumption that the typical rate and structure of growth of the country are such that the rural poor could never be absorbed into the economy, even with the help of, for example, training programs. Or that the supply of such programs, in order to have a global impact, would have to be so great as to eliminate them as a practical possibility.

If one starts with the former premise, then it should next be decided whether rural credit is the best way to train the impoverished to be productive. Is their very impoverishment a sign of the immense difficulty of turning them into successful farmers?--difficult, not only in the sense of endowing them with entrepreneurial ability, but in the financial sense of supplying the resources necessary to make them productive as farmers--e.g., infrastructure, and the supply of other services. For example, the amount of expenditure involved in massive training programs in scarce skills may be much less than the total investments required--in addition to rural credit--to make such a population productive in farming. In short, an efficiency-oriented program should mean not only rural credit to the promising farmers, but "capacitating" assistance in other sectors

for those who do not demonstrate promise as farmers (e.g., subsidies to keep children in school, skill training of parents, etc.). The interesting implication of this global view of efficiency is that it turns out to be desirable to concentrate on literacy training for the unpromising farmers, while neglecting literacy for the promising and illiterate farmers (as I have implied above in Part G of Section II). This illustration of possible alternatives demonstrates the uselessness of the equity-efficiency dichotomy in some situations. For in this case, one is suggesting massive subsidies to the most poverty-stricken (equity) in a way that is expected to make them productive members of the economy (efficiency).

The equity-efficiency dichotomy, then, makes it difficult for one to see that equity "approaches" can lead to efficiency results, if planned that way. Conversely, and perhaps more important, efficiency results may in some cases be obtainable only with equity-like approaches--e.g., the mass subsidization involved in the corn-increasing programs of Nicaragua and Panama. Or, as in the ACAR example of horticulture, the mass subsidization of farmers already "on their own," in order to achieve significant production breakthroughs. In short, because subsidy--or even public expenditure in general--is associated with welfare or equity-motivated support of the helpless, it is considered an inappropriate incentive for farmers who have already entered the market system and are strong enough to be buffeted about by the laws of that system. What is essential to explore in the ACAR case, for example, is not whether the individuals financed would have had access to the commercial credit system and were doing all right anyway, but rather, whether their undertaking of more efficient productive techniques was a result of the program's sponsorship, and whether the results amounted to significant changes in productivity and output. In other words, it is not whether they could have fared on their own without the program, but, rather, it is the changes that were wrought in the agricultural economy that would not have occurred without the program, and how significant these changes were in the agricultural development of the region.

The above attempt at a certain line of reasoning suggests that rural credit institutions and their results may not involve--as much as one would think--social,vs.-economic considerations in the selection of beneficiaries. Rather, it may mean that such institutions are at their best when they are promoting desired changes in productivity and output; and that for the individual farmer, the rigors of adopting such changes will help to serve as a natural selection process in itself. At the same time, this approach may mean that the unpromising farmer should be the concern of an entirely different institution--depending on the decision that has been made as to the best way to try to make him productive. The Bank may want to be on the look~~out~~out, therefore, ~~for~~ project proposals involving massive or pilot "capacitation" programs for the "losers" of rural credit or colonization programs, which would be carried out by a different institution. Indeed, the Bank might want to combine the two approaches and the two institutions--rural credit to the promising farmers and capacitation subsidies to those without promise as farmers--in one project.

If one proceeds on the second premise stated above--that only a welfare approach is feasible for the helpless and impoverished rural masses--then a decision should be made as to what is the best way to subsidize their daily existence. Is it more expensive, or difficult, to subsidize them as farmers?--because, for example, of the aptitudes required for a breadwinner just to subsist in a farming life. That is, would it be better to subsidize the rural masses,as, for example, workers rather than farmers? Or would the required change in their way of life be too difficult a transition to accomplish, in order to put them into a more subsidizable condition? If it is thought that they would be better subsidized where they are, then what form should the subsidy take? Should it be rural credit? If so, isn't the repayment principle out of keeping with the concept of a welfare program? For example, under current welfare programs in the United States, and under the proposed negative income tax program,

recipients have never been expected or required to repay the subsidy payments they receive. The current program, of course, has been criticized because it penalizes the recipient for making some progress, reducing his welfare payments by the amount he may earn in a new job, or terminating them completely--thus providing an incentive for him not to find work. As an equity program, rural credit (as well as financed land sales of agrarian reform and colonization projects) can be subject to the same type of criticism as that directed at the current U.S. welfare programs: the program condemns the beneficiary to a continuous state of poverty--by requiring repayment--and doesn't allow him to achieve a decent standard of living. Instead of incentivizing him to work, while giving him the means to subsist until he can improve, the program requires him to behave from the start like a well-functioning economic man, paying back his loans, and on time. In short, rural credit may be one of the less advisable methods of administering a rural equity program, since it goes against the very assumptions of the program--that the beneficiary can not make it as a well-functioning economic unit in his present condition.

Rural welfare in the form of rural credit, moreover, places an unfair burden on the administering institution. For as long as the farmer is required to pay back his loan, the institution will have to be highly preoccupied with its delinquency and loss rate. Either it will be classed as a failure on this count--because its "welfare" recipients, by definition, can't repay. Or it will seek to improve its performance by guaranteeing, in the selection of beneficiaries, that repayment be prompt; that is, it will select the already successful farmer, and hence transgress its own equity-oriented mandates.

The assumptions underlying a rural credit or land financing program then, seem completely out of joint with the premises behind an equity approach to the rural poverty problem. I do not mean to exclude the possibility that rural

welfare recipients might some day be able to work themselves into the category of promising farmers. But one cannot expect that by requiring of the marginal farmer the behavior that is natural to the successful farmer (repayment of loans, and promptness at it), one will help convert the marginal one into a success. A welfare program, in sum, should perhaps not be placed within the jurisdiction of an institution which must follow certain banking standards--an institution for which productivity changes are a crucial element of success, and hence, survival, in the institutional world in which it exists.

Another important consideration that does not fit the equity-vs.-efficiency characterization of rural credit problems concerns the impact of the successful farmers on the unsuccessful beneficiaries of the program, and on the unattended, poverty stricken peasant sector of the region. Does the growth experienced by the successful farms change the social and economic structure of the region in any way that would create opportunities (e.g., for work) for the unsuccessful or the unassisted? This is one of the principal questions that comes to mind in the case of the horticulture development in Minas Gerais--since horticulture is labor-intensive, since it is located near the consuming area and therefore near the services needed to distribute the produce, and since this particular development seemed to bring substantial change to the region. If such employment opportunities are created from the indirect effects of such development, could Bank loans include some kind of "transition assistance" for the unsuccessful or unattended, so that they could take advantage of the new opportunities or demands for services created by the growth of the successful beneficiaries? In short, an integrated project of this nature might include credit for the promising farmers, capacitation or transition subsidies for the unpromising--hence combining what looks like both equity and efficiency conditions. This would relieve the credit program of equity concerns, would alleviate local pressures on the credit entity to spread credit equitably and thin, and in the long run might prove more feasible institutionally than the isolated attempt of a credit institution to follow

strict efficiency criteria in the administration of a rural credit program. In sum, it might be helpful to not burden the credit institution with non-credit subsidy functions, by granting these functions to another institution more suited functionally, and in spirit, to the task.

I am not at all satisfied with the attempt made in this section to indicate possible ways of cutting across the equity-efficiency dichotomy, and to set the question in a more useful context. I hope that I have shown, however, that it is a problematical concept, and may cause the use of counterproductive criteria in the judging of loan programs. Finally, it is highly important that the individual project evaluations cull from the experience at hand any information that would add to our knowledge of how to deal with the problem.

E Impact

The efficiency-equity question fits within the Bank's more general concern about the "global impact" of the credit programs it finances, on which there is a section in each country study. There seems to be some difficulty with the assumptions in each study about what is a desirable impact. Since the judgments based on these assumptions are so crucial, and since they take on particular significance because they can be expressed quantitatively, it seems important to discuss explicitly the question of impact in the final report, and to let this discussion serve as a base for ^{the} judgments of the country studies.

The country studies use a yardstick for impact based on ratios such as the percentage of total farmer population served by the credit program, percentage of total crop production affected by the program, percentage of total agricultural income that is generated by the beneficiaries of the program, and percentage of total agricultural credit accounted for by the program. The Guatemala study states that "in view of the relatively small importance of the SEICAS program

(2% of the total number of farmers served), one cannot expect a significant impact on global quantities of agricultural output" (p. 13, par. 1)--a judgment that is repeated in the conclusion of the paper (p. 24, #3). The Panama paper cites an impressive increase in agricultural production which coincided with the year in which the first BID loan commenced, "but given the relatively small incidence of IFE with respect to total area in production (5-10% of the principal crops), and of the number of farmers benefited (3% of the total), only a small proportion of the total increases can be attributed to the programs being evaluated" (p. 15, par. 2). The Nicaragua paper comments that even if the rural credit program has been able to serve in one form or another approximately one third of the agricultural undertakings in the country, it would be unrealistic to attempt to find a tangible global impact at the macroeconomic level within such a short period of time...The small farmers covered by the program control such an insignificant proportion of the land and water resources that any amount of credit channeled to them could not bring about more than a marginal impact on agricultural output in national terms..." (p. 17, pars. 2-3). The Brazil paper states that the disbursements of ACAR of the BID 31 loan amount to "only 4% of the total agricultural credit portfolio of the state (of Minas Gerais), and to 0.6% of the agricultural income of the state. These data show that one cannot expect a significant impact at the global level of agricultural output. Moreover, the number of producing farm families served by the ACAR credit-cum-extension program through 1968 represents only 5% of the total number of farm enterprises in the 1960 census...The number of new families served by all bank sources since the beginning of the BID 31 loan...is insignificant in relation to the number of potential producers " (pp. 19-20, pars. 4-5).

As a first benchmark kind of question, one would like to know what kind of percentage figure would be regarded as representing a significant impact.

But, more important, the use of a percentage yardstick for impact seems to be a case where the average relationship is being described in a situation where the marginal concept is the most relevant. For example, one wants to know how much of the increase in crop production is accounted for by the assisted farmers? How much of the increase in agricultural credit is accounted for by the project funds? What is the increase in the percentage of the farm population previously served? How much of the increase in total agricultural income is accounted for by the program at hand? And so forth.

There is no question that the "global impact" average-concept statistics are much easier to obtain than the marginal figures which, in many cases, are not at all obtainable. Hence it is argued that average statistics like those cited above are better than nothing, and that even if marginal or other relevant data were obtainable, the frequently excessive cost of collecting and interpreting them leaves the much cheaper average-based datum as the only feasible alternative. Nevertheless, this second-best datum belongs in a description of the program, and not in a section on its significance. Even though average data may be infinitely easier to obtain, this is no justification for using them in lieu of marginal data, for they (average data) are likely to result in spurious evaluative judgments. Indeed, given the type of program being evaluated here, one would expect that the marginal data would frequently look much different than the average; the marginal would probably often show significance where the average would be insignificant.

Another problem resulting from the use of average statistics as proxies for better data on significance is that one acquires a false sense of having accomplished the measurement or evaluation of impact, and hence one is not impelled to look for and describe the marginal impact in qualitative, or micro-

economic quantitative terms. This is the type of impact that "goes without saying" in the justification of a power and road project (see below), but is still to be defined in agriculture. It is interesting to note that in two of the cases cited above, where the global impact was considered insignificant, the text immediately follows with a "however" as a preface to a short qualitative description of success. The Guatemala paper goes on to say that despite the insignificant global impact of the program, SICAS has succeeded in bringing about substantial increases in agricultural output when the entity has made special efforts and joined forces with other entities (p. 24, #3). The Panama paper goes on to cite increases in per hectare rice yields, most of which took place in the same provinces in which a considerable proportion of IFE credit for rice was concentrated (p. 16, par. 1). **

Other significant impact effects--in addition to those suggested throughout the paper--fit the categories of bottleneck-breaking, regional-growth-pole creation, structural transformation, or external economies--exactly the type of impact that is normally attributed to capital projects. For example, the Nicaragua paper points out that one of the positive results of the credit program was the virtual elimination of the prestamista as a source of financing among the credit-program beneficiaries (p. 30, par. 1). This represents an important

**The paper does say that information is still in too preliminary a form to determine more exactly the relationship between BID-IFE credit and the yield increases. One would like to know more of the nature of this achievement, in order to assess the nature of the changes that occurred. Were these provinces already the biggest rice-producing regions? Did the program incentivate switches to rice from other crops? If the region was already rice-producing, did the IFE program represent simply a small increment in business-as-usual--by the usual growers on the same land? Or were smaller growers brought into rice production, and was additional land brought under cultivation?

change in the credit market structure, as well as breaking any oligopsonistic or oligopolistic hold with respect to other goods, which the prestamista may have had as a result of his monopolistic position as a supplier of credit in the locality. One wants to know, moreover, about the effect of the decrease in prestamista customers on the non-assisted farmers of the region. Did the decreased demand for prestamista credit by BNN beneficiaries create external economies for the non-assisted farmers of the region? That is, did the prestamista lower his interest rates to his remaining customers, in order to make up for the shift of his demand curve to the left? Or did the BNN program generate an external diseconomy for the unattended population, in that the prestamista increased his rates to non-assisted farmers in order to compensate for his loss of BNN customers.** It is important to trace out the path of such external effects, for it is in this area that the impact of a project can be quite important--just as in the case of capital projects. Likewise, precisely because credit projects can by nature cover only a small percentage of total population or output, they should be specifically designed so as to optimize potential, favorable external effects.

In trying to devise adequate measures or proxies for impact of rural credit projects, it is helpful to look at the way in which capital projects are justified. This also helps to reveal the problems involved in resorting to the percentage (average) concept as a measure of impact. That is, if one were to use the average concept to assess impact, then some major power and road projects financed by international lending institutions would be considered of

**The latter result would seem to be the more logical, given that the demand curve for prestamista funds is usually quite interest-inelastic, and that the prestamista of any given region usually holds a monopoly position, and hence can exploit this inelasticity of demand. He can increase his total revenue by increasing his price. Thus the greater the share of the ex-consumers in his total "sales" of credit, the greater the price increase for the remaining consumers is likely to be--assuming demand inelasticity to the rate of interest, and all other things equal.

little significance--because they only amounted ~~to~~ a small percent of existing installed kilowatts or paved mileage; or, more relevant, their output in kilowatt hours or passenger and freight ton-miles represented an even smaller percentage of existing output, because of the considerable length of time that usually elapses before such indivisible investment projects are utilized to capacity. The great significance of such infrastructure projects, of course, relates to their marginal impact: (1) their bottleneck-breaking properties, when existing demand is not being adequately served; (2) their development-promoting properties, in the case where their installation makes possible the undertaking of productive activities which, without the facility, would have been uneconomic in that particular region; and (3) the significance of the ~~transformations~~ transformations that such projects forge in market structure, price relationships, income distribution, regional comparative advantage, etc.

Capital projects, moreover, are justified ex ante--and sometimes ex post--in terms of the percentage significance of their benefits not to the total economy, but to the mere cost of the project--a much smaller denominator. Or else, the justification of such projects is quantified in terms of their superiority to alternative ways of seeking the same ends.

It seems, then, that the assessment of agricultural credit projects in terms of their relation to global figures results in a much more difficult standard of achievement than is applied to capital projects, which, by the way, consume manyfold more resources than credit programs. This inadvertently greater rigor in judging the significance of agricultural projects is ironic, given that development assistance institutions have recently come to think that the capital project has received too much attention in relation to the agricultural (and health or education) project. The easier quantifiability of the significance of capital projects, it has been said, has contributed to this result;

thus quantifying methods and norms for agricultural projects, it was said, could not be attributed the same yardstick value that they could for capital projects. Capital projects, in ~~fact~~^{fact}, were thought to have had it too easy, in comparison to other types of development investment.

The analogy of agricultural project evaluations to the "global impact" analyses of capital projects, then, shows us two things: (1) that we are being harder on agricultural than on capital projects, by using average rather than marginal concepts of achievement; and (2) that it might be helpful to keep in mind the bottleneck-breaking and threshold-crossing character of the impacts of capital projects--effects which, by the way, are often just as difficult to quantify as those in agriculture--in trying to devise impact measures for agricultural projects.

Lastly, one should try to devise a rural credit assistance version of the "easier" test that is used to justify capital projects--the benefit-cost analysis. I suggest this not out of any great faith in this technique of analysis; nor would I be interested in the ex ante results of such a test--because the uncertainty surround^{ing} the realization of the costs and benefits, let alone their value, makes the technique almost useless at this stage. But an ex post analysis of this type would not only seem to be completely within the range of feasibility--given the existence of data on costs and income increases generated ~~by~~^{by} the BID-financed projects; more important, it could provide badly needed knowledge about the economic justifiability of such programs.

One often hears that assistance-intensive rural credit programs are expensive--not in relation to the benefits they generate, but in relation to the costs of non-assistance rural credit, or in relation to the total resources that would be required to expand that particular project to cover a larger, more significant percentage of the population. Yet one does not compare the unit

cost of supplying a kilowatt hour from a small thermal plant in an interior city, for example, to the unit cost of supplying a kilowatt hour to a large metropolitan center from a system comprised of several plants. Nor does one justify the per-kilometer construction cost of a new road by comparing it to the total cost of supplying the country with a major portion of the mileage it needs, costed at the per-kilometer price of the road in question.

The tendency to compare assisted-credit costs to non-assisted credit costs on a per-unit basis--or similarly, to compare costs per-assisted beneficiary to costs per-non-assisted beneficiary--also does injustice to the assisted program. This type of calculation excludes the fact that the assisted program represents a relatively minor weight in the total costs of the banking institution that administers both types of credit. Assisted-credit costs, for example, are said to range up to 15% of the assisted-credit portfolio. If one puts this 15% in the perspective of the bank's total portfolio, or total costs, it becomes much less significant--given that the small farmer program usually accounts for a minority percentage of the bank's total agricultural credit portfolio.

An important factor that is left out of cost comparisons of assisted to non-assisted credit--and hence would seem to underestimate the weight of the latter cost in the banking institution--is the delinquency and loss account. In that larger borrowers have higher delinquency and loss records than small borrowers (in both relative and absolute terms), the costs of delinquency and loss on the non-assisted credit portfolio of ^a banking institution could easily represent at least as much of a percentage of the total portfolio of the institution as the technical assistance costs of that institution's rural credit program. The assisted agricultural credit program, in sum, has too often been judged by excessively rigorous, imprecisely defined, or logically weak arguments about cost. It would be useful if future Bank loans in this sector could arrange

for a feedback adequate enough to construct the type of cost and significance analyses suggested above.

F. Cooperatives

The treatment of cooperatives in the country studies might be improved by an attempt to distinguish the circumstances under which they work, and those under which they fail. There is enough evidence of the difficulty in creating successful cooperatives among small farmers to engender substantial hesitation about recommending them without specific justifications that relate to the case at hand. ^{Yet} There seems to be a tendency toward across-the-board recommending of cooperatives in cases where there are marketing problems, where there have been cooperative success stories in the same crop in a neighboring region, or in different crops in the same region. The Brazil paper, for example, says that "ACAR has worked very little with cooperatives, especially when one compares the great emphasis and apparent success that the ACAR of neighboring Espirito Santo state has had. There is already a sound cooperative base in milk, but in the south, where production is sold to the Rio-São Paulo area, there is need for an organization that can cope with the markets and the southern cooperatives. Even more serious is the absence of cooperative marketing institutions in horticulture, an absence which tends not only to depress farmer incomes and discourage further expansion in these crops, but which also tends to be most damaging to the least affluent ~~the~~ farmers--i.e., those who do not have their own means of carrying produce to market. Finally, a more extensive cooperative organization would lessen considerably the cost of planning and supervising, per unit of money lent..." (p. 58, #10).

Along with the tendency to recommend cooperatives across the board goes a certain tendency to point to the intermediary as the culprit in the plight of

the small farmer. BID Loan 36/TF to the BNN of Nicaragua specifies as an objective the providing of capital resources to small farmers "with the aim of eliminating usurers and intermediaries" (p. 5, par. 3). Again, this seems to set up a false dichotomy--cooperative vs. intermediary--which makes it impossible to discover and predict those situations in which a cooperative would not work, or in which the intermediary system is working well and the lack of development is related to other factors.** One obvious problem with the cooperative-intermediary polarity is that there is good reason to suppose that the farmers who are ground down by the intermediary may not be the types likely to form and run effective cooperatives. In short, the dichotomy assumes that the farmer has the ability to, when organized, perform the function of the intermediary. According to this assumption, in turn, the intermediary function becomes superfluous, and hence, parasitic. Although the cooperative theoretically should be able to supply credit more cheaply--for example, because of economies of scale or communities of interest--the "should" is based on ceteris paribus assumptions that are almost untenable: i.e., that there already exists an "infrastructure" of institutional capability, group interest, and cooperative behavior. If one thinks of these latter factors as the infrastructure necessary to the formation of working cooperatives, then this infrastructure can be seen as analogous--or alternative--to other types of infrastructure with which one might try to approach marketing problems--e.g., roadbuilding, storage programs, etc. Indeed, when one invests in a road, one at least knows that it will--upon expenditure of the funds and

**In Brazil, for example, it has been common to blame the unimpressive growth record of the agricultural sector on the intermediary, whose alleged oligopsonistic-oligopolistic position has allowed him monopoly profits to the detriment of the farmer, and has prevented positive price incentives from being transmitted back from the retail market to the individual farmer. A major study was devised to test this hypothesis, in which the finding was just the opposite: intermediary margins had not increased during times of retail price increases and, moreover, had decreased along with increases in the supply of roads and marketing facilities. (Gordon W. Smith, Agricultural Marketing and Economic Development: A Brazilian Case Study, Ph.D. thesis, Harvard University, 1965; the study is limited to marketing of rice and beans in the South-Central region, which are the most important domestically produced food expenditure items of the urban wage earner, after meat and meat products.) Yet the intermediary-as-culprit explanation still prevails as an explanation of the problems of Brazilian agricultural production.

completion of construction--exist. One has no guarantee, in contrast, that an investment of time and assistance on the creation of a cooperative will result in the existence of an income-increasing piece of infrastructure--as the cases of cooperative failure, including those cited in the country studies, attest to amply.

All this is to say that the formation of a cooperative should not be looked upon as an efficient taking over of the intermediary function which will replace that function and increase the incomes of the cooperativists. Rather, it should be seen as one alternative for confronting marketing, not intermediary, problems--along with other alternatives such as road building, price stabilization programs, storage construction, technical assistance, etc. These latter alternatives are also expected, like cooperatives, to have price-reducing effects on market ~~structure~~^{structure}--in these cases, through the existing intermediary system. As soon as the cooperative is seen as one of several alternative ways to improve the marketing system--rather than as a matter of throwing over the intermediary--then the justification of a cooperative recommendation must be couched in terms of its superiority over the other approaches.

Of course one needs to know more about why cooperatives succeed or don't in certain situations before being able to decide whether they are the most recommendable alternative in a particular case. The country studies contain references to cooperative failure and success, with little attempt to analyze these varying outcomes. Yet it is this type of analysis which is quite crucial as a basis for making future judgments, and the Bank's agricultural credit loans contain many valuable and ~~analyzable~~^{analyzable} cases.

With respect to cooperative failures or problems, the following references are made. The Nicaragua paper reports that the BNN has made no effort to channel certain types of credit--especially small loans for small farmers--through groups

of borrowers, despite the existence of a cooperative section in the bank since 1968. Moreover, an initial system of discussing all loan applications with a committee of local farmers selected by the BNN was gradually abandoned because the BNN officials "were not able to generate (in the farmer-committee members) the spirit of local participation that was necessary" (p. 49, #10). ACAR of Minas Gerais does not want to lend to cooperatives because, among other things, "their costs of operation are very high, and there is too much political influence..." Moreover, ACAR and the paper report, the "cooperatives' marketing costs are greater than those of the intermediaries" (p. 28, par. 1).** Elsewhere in the Brazil paper it is reported that the state government formed a cooperative in horticulture, to cope with marketing problems, but the organization "became politicized and ended up benefiting more the producers of São Paulo than those of Betim" (p. 30, par. 4).

The above findings are not out of keeping with other experience. In the northeast of Brazil, for example, small borrowers who obtain Bank of the Northeast credit through cooperatives often must pay higher rates than those who are large enough to borrow directly from the Bank--because of the additional cooperative cost of distributing the credit, and perhaps because of a political-influence or paternalistic factor which results in extra costs that go to increase the incomes of some cooperative sponsors. Indeed, the founding of a cooperative by a local politician is a frequent occurrence in the Northeast. In many such cases, the cooperative tends to reinforce the grip of the more influential persons in a small area over the poor, and hence has a stabilizing or even regressive impact

**The paper says the main reason for the greater cooperative marketing cost is that cooperatives have to pay all taxes, whereas intermediaries "can allow themselves the luxury of evading the tax man." This reasoning is a little difficult to accept, given the fact that the same paper cites many cases of other cooperatives that were successful. How were the latter organizations able to operate at reasonable costs if they also had to pay taxes that would put them at an unfair disadvantage to the tax-evading intermediary?

on the socio-economic structure of the zone, rather than serving to facilitate change in power and income relationships.

The above examples are cited to illustrate the point that the "economic efficiency" and "power-through-numbers" assets of cooperatives are a function of factors whose variability in the real world should cause them to be more accurately classified as variables, rather than constants.

Other references to problems with cooperatives might be expanded upon. The Nicaragua paper states that the BNN is against the financing of cooperative marketing (p. 42, par. 3). This is interesting, given the fact that cooperatives are most often recommended--and usually have a higher rate of success--when they revolve around marketing. An explanation of this attitude of the BNN would be helpful.

The Nicaragua paper also cites an interesting example of difficulties associated with the channeling of rural credit through an intermediate association. Though the association in this case was the National Agrarian Institute (IAN), rather than a cooperative, the case is still relevant for any sub-lending institution that is supposed to be closely associated with the interests of the ultimate borrowers, and is considered to be more efficient than the primary lending institution at managing small subloans. The paper describes how the BNN used to lend directly to colonists of IAN, backed by the IAN guarantee. When IAN was no longer able to give its guarantee (because of a decline in cotton prices), the BNN was forced to supervise these loans directly with the individual borrower, without IAN intervention. This institutional change, the paper says, probably had positive results for the colonization program, because it resulted in the termination of the "frequent cases of friction between colonists and IAN functionaries, who considered themselves obligated to act almost like a police force in order to assure that the harvest produce taken as guarantee for

the credit was delivered to the IAN warehouses" (p. 41, par. 2). One wants to know how the BNN handled the guarantee problem. Were they as concerned as IAN, to the point of acting in a police-like way? If not, did they nevertheless have a successful record of loan recovery? If so, might this reveal an interesting and unfavorable institutional aspect of channeling small-farmer loans through an organization identified exclusively with them? That is, the larger institution--the BNN in this case--can afford to be more relaxed about guarantees and repayment, because losses in the small farmer program represent a very small part of its total portfolio, or of its total losses. The small-farmer organization, in contrast--whether it be a cooperative, a colonization entity, or even a small-farmer bank--is totally dependent for its financial survival and institutional success on the repayment of the funds it handles. Hence, to protect itself, it may be more likely to be unbending in the application of strict "banking criteria" than the "impersonal, profit-seeking" banking institution itself.**

One wonders about the explanation of the cooperative success stories that appear in the country studies, as much as about the failures. The Guatemala study, for example, refers to another successful cooperative financed by SCICAS, and formed for the purpose of marketing corn. The cooperative accepts the corn of non-members as well as members. SCICAS has financed silo construction which nevertheless does not amount to much capacity--less than 20% of the last harvest. But the cooperative has so vigorously sought out buyers, and has been so adept at maneuvering in the market, that the small storage capacity it owns has been sufficient (p. 7 of annex, par. 3).

This is a remarkable success story--given the history of cooperative failures, and given the many references in the country studies to failures

** Another unexplained occurrence in the Panama paper might reveal some information on cooperative experience. The paper reports that despite the fact that the BID loan permits the financing of cooperatives, no loans have been made to such organizations (p. 18, #4).

due to inexperience at managing in the market.** More analytic space should be spent on this success, and on where the managerial savoir faire came from.

This story contains an interesting external economy: the cooperative accepted the corn of non-members, despite its insignificant storage capacity. In short, those who were not fortunate or able enough to join the cooperative could still reap its price benefits. Vice versa, and just as important, the cooperative was able to overcome somewhat the insignificance of its membership (300) in the total corn-growing population of the area and acquire significant market power, by taking the corn of non-members. This policy, in brief, seemed to generate an important external and internal economy. One would like to know whether cooperatives generally follow such policies with respect to accepting non-member produce, and whether, if they do, the benefits are as significant as one would think they were in this case. If so, the Bank might want to encourage this policy among its cooperative sub-borrowers.*** At first sight, the policy seems to go against the basic principles of union organization and the logic of collective action in general, by allowing those who don't belong to reap some of the benefits of membership. Members, however, are still better off than the non-members since they (the members) are reaping additional non-price

**E.g., the Guatemala study refers to an impact campaign of SCICAS to increase potato production, which was not successful because of "the lack of an adequate marketing infrastructure and lack of experience at handling large quantities of the product" (p. 13, last par).

***A similar case of external-internal economies occurred with Costa Rican coffee marketing cooperatives. The cooperative processing plant accepted non-member produce, and as a result, had a significant competitive impact on the private processors who had oligopsony power in the buying market. They had been understating the yield of the raw coffee cherries processed. (They couldn't pay a low price, because the price was fixed by law.) Cooperative League of the USA (CLUSA), "First Draft Report and Recommendations for the Cooperative Sector of Costa Rica," October 1969, mimeo.

benefits such as SCICAS credit, bulk purchasing, etc. The organizations benefits from the "free riders," moreover, in that the latter provide it with greater market power.

Also with respect to cooperative success, the Guatemala paper says that the most solid and best organized cooperatives are those in coffee (p. 3 of annex, par. 3). (Growing and marketing? Or just one of the two activities?) In Brazil, as well, the only cooperatives in the state of Minas Gerais that are said (by ACAR) to function well are those in coffee and milk (p. 28, par. 1). Coffee and milk are also the most successful coops in Costa Rica (see the CLUSA study cited on previous page). Is there anything about the technology of this production process, its spatial layout, the nature of the producers, its susceptibility to nationally imposed price controls--that would provide a clue as to why these two products generate particularly successful cooperatives? If so, is there any way that such features can be built into the design of cooperative programs in other crops? Or can one find similar features in other crops that would lead to similar favorable results? Is the success related to the type of processing that each product must go through before being marketed? (In Costa Rica, many coffee cooperatives started by purchasing the plant and equipment of formerly successful coffee enterprises--see CLUSA study.) In sum, the nature of the productive activity itself should be considered as a possible important variable among those that influence the possibilities for successful cooperative organization.**

**In general, the evaluation might benefit from an analytical look at the technological and market-structure features of the crops in question, in the attempt to understand success and failure. Conversely, one would like to know the probable market-structure and income-distribution repercussions of concentrating agricultural credit on certain crops. IFE of Panama, for example, has the highest concentration of its loans and of area financed in rice. What does this mean, in terms of the type of repercussion mentioned? Is this desirable, from the point of view of the general aims of a small farmer credit program? The same type of questioning should be applied to the fact that in the Nicaragua program, the most important crop financed under the rural credit program is cotton (p. 18, par. 1). As part of this inquiry, one would like to know how the percentage share of various crops in the distribution of BID-financed credit programs compares with the general percentage distribution by crop of all agricultural credit outstanding in the country, and what explains the discrepancies.

One last word about possible conditions for cooperative success. The Nicaragua paper reports that the IAN says the existence of consumer sections in cooperatives is essential to their success in the zones in question because "during the major part of the year, the only activity that the cooperative can undertake involves the consumer section" (p. 42, par. 1). This is a very important institutional consideration, given the annual or semi-annual peaks of agricultural activity. It is difficult to build up organizational capacity, interest and commitment when there are such long periods without activity. Hence the success of cooperatives may be, among other things, a positive function of the ratio of average level of activity to peak level.** Whether a higher ratio is achieved because of consumer sections, or technology of the crop--which spaces the cooperative's activities more evenly throughout the year--or because of any other activity--would not be of primary importance. That is, the Nicaragua paper's comment may not be as pertinent to the question of financing consumer durables as it is to the organizational question of the desirability of keeping an organization active. The tendency of an organization to find activities and projects to fill up time during its slack periods has usually been viewed in a negative light, associated as it has been with the make-work traits of modern, public bureaucracy. But in this case of cooperative organization, the question is looked at from the other side. The problem is that of overcoming the difficulties in the forming of viable organizations, rather than dealing with the excesses of existing, overly-entrenched organizations. Hence what is deplored as make-work activity in developed bureaucracies turns out to be an essential feature of the implantation and growth of new bureaucracies.

**I borrow this ratio from the field of electric power, where the "load factor" is the ratio of average annual consumption to peak consumption. The higher the load factor the better, up to a certain limit, because the installations are being used more continuously, and there is less necessity to install capacity that is used only during a limited number of peak hours, and hence pays itself off only during those hours.

G Housing and Other Consumption Goods

The Nicaragua study notes that the increase in the value of the houses of beneficiaries of the BNN-BID program was 115%, and that this was significant because credits for housing represent only a small proportion (2.3% and 1.5%) of the BID-financed programs. This implies, the paper says, that the major part of these housing improvements were self-financed, and hence indicate an improvement in the well-being of the beneficiary (pp. 26-27, par. 2).

I find these results interesting, and would like to know more about them, because of the somewhat contrary impression I have received of attitudes toward housing improvements by beneficiaries of small-farmer credit programs. That is, housing is frequently the last thing a small farmer would spend money on when his level of income is improving as a result of an assistance program, or for any other reason. Even if the credit were available to him for such purposes, and even if his improved income were to allow better living conditions, he still is often resistant to the idea of spending money on his living conditions.** Some rural credit institutions have actually made a practice of talking such resistant farmers into undertaking housing improvement--and accepting credit for it--out of the belief that the farmer's productivity will increase even further if he and his family can live more comfortably (e.g., the Juntas Rurales program of the Banco Nacional de Costa Rica). Other programs have even insisted that small farmers include housing improvements as part of a package credit-assistance program, out of the same belief about productivity (e.g., the Banco Anglo, a private bank in the nationalized banking system of Costa Rica).

**Matthew Edel observed this type of phenomenon while working with a CIDA research project in Mexico. "The farmers (of a spontaneous colonization settlement) express their wish to improve their parcels of land, and are visibly willing to delay improvement of their homes to this end." "Determinants of Successful Land Settlement in Lowland Mexico: An Inter-Communal Comparison," unpublished manuscript, p. 15.

The phenomenon of substandard rural housing, of course, is not limited to the small farmer. It is often observed among already well-to-do farmers, or those who have risen from poverty levels to substantial incomes, yet continue to live quite humbly. Because of this general attitude toward housing, it is puzzling to read in this particular case that a more-than-doubling of home value among assisted farmers was self-financed. One suspects first that there may be some problem with the data. Perhaps, for example, the housing improvement financed by the two percent of BNN credit in that category accounts for the total increase in housing value. This is not an unlikely possibility, assuming that the base housing value of the program's beneficiaries was initially so low that any absolute increase in value would represent a tremendous percentage increase. Hence it would be useful to have the absolute figures, in order to determine whether this is actually what happened.

An alternative explanation that comes to mind is that the farmers were already well-off enough to finance their own housing improvements; this, of course, would place in doubt the need of these farmers for a subsidized credit program. A third possible explanation is that these farmers just didn't follow the traditional pattern of resisting housing improvement, and financed the improvement out of their increase in income. Obviously, any of these explanations has some significance in evaluating the program in general, and in deciding whether the Bank would want to allow housing to be financed in future loans. Here is another example, in sum, of a valuable and fairly easy proxy for information about productivity, attitude change, etc. Is the 115% increase really a statistical quirk? If not, how were the housing improvements financed? Who were the farmers that made the improvements? Were they the most successful in terms of production increases? Did they make the improvements of their own volition?

Whether the assumption of causality between housing and productivity, or between housing and modern attitudes toward production is valid is a separate

and interesting question. On the surface, it seems to make sense, but it may nevertheless reflect the values of the rural credit technician who, because he lives in better circumstances than the assisted farmer, assumes a "basic minimum standard" for decent housing that is much higher than that required by the farmer, who is accustomed to much less.

Another interesting aspect of the housing-productivity question relates to the fact that the television set frequently follows upon the heels of better housing. This no doubt affects the aspirations of the farmer's children--if not of the farmer himself--in the direction of leaving the farm. Whether or not this is desirable, of course, depends on the form that the departure takes. The child may convince his parents to help pay for training for a city job out of their improved income. Or, he may simply be lured through television to seek his fortunes in the city, and hence increase the problem of unemployment and intense pressure on urban public services. Assuming that the latter is the more common case in reality, then the BID-financed rural improvement programs can have, if successful, a negative global impact in terms of rural-urban migration and unemployment problems--given the large size of most small-farmer families. The Bank might want to watch this phenomenon more closely in its rural credit programs, with the idea of including ^{funds} in such programs for financing training in scarce skills of those children of the assisted, successful farmers who want to leave the farm. Information on a possible relation between success and emigration of farm children might easily be built into the feedback on the Bank's rural credit loans, by comparing the rate of child emigration of the successful beneficiaries to that of the unsuccessful.

The question of financing consumption goods with assisted agricultural credit is closely related, in one sense, to that of housing. Assisted credit

institutions are usually against financing the purchase of consumption goods by the assisted farmer--because that is not their purpose and because they fear the farmer will be diverted from the main task of investing his time and resources in increasing his productivity. The BNN of Nicaragua, for example, has been against the granting of production credit to cooperatives with consumption departments, for fear that part of the credit will be diverted to consumption purposes (p. 42, par. 1). The BNB of Brazil, as another example, has been unwilling to allow cooperatives to use part of the small-farmer financing channels to them for the purchase of consumer appliances like refrigerators and stoves.

Although the reasons for not wanting to finance consumer durables as part of assisted rural credit programs are quite convincing, it is nevertheless useful to explore the positive aspects of the question. It has been found at times that the financed acquisition by small farmers of consumer durables has had a favorable impact on their attitudes toward the use of producer "durables"--agricultural machinery, etc. Or, it has influenced their attitude toward change and modernization in general, by giving them a successful experience with change at a trivial level, in a way that does not affect their whole production process, or put their whole livelihood into jeopardy. In this sense, the consumer durable is like a pilot project undertaken by the small farmer himself, which shows him that such "modern living" might be worthwhile on a larger scale. This argument is somewhat of a variation on the theme of the "demonstration effect." But the latter usually refers to the changing of tastes and aspirations as a result of observing others who have acquired the new tastes and the new merchandise, leading to the acquisition of the same new merchandise by the observers. In this case of consumption goods and the small farmer, I am talking about a kind of demonstration effect that operates within the individual himself. He "observes" his newly acquired merchandise in the consumption sector of his life and acquires

a taste for newness or different-ness in the production sector of his life. The pilot project nature of initiating the attitude change at the trivial consumer level may be quite crucial for creating receptivity to change at the more serious production level. The Bank might want to consider including a limited list of consumer durables--e.g. stove, refrigerator--that would be eligible for financing under assisted credit programs.

Actually, the difficulty of separating out consumption and production activity for the purposes of assisted rural credit is generic with the small farmer. He and his family consume a considerable portion of their production. More relevant to the question at hand, it has been seen that when subsistence farmers improve their condition by producing more, the improvement may not be reflected in increased agricultural production for some time, since most of the initial increase will be consumed by the family. The Nicaragua paper points out that "one third of basic grains are used in own-consumption" (p. 31, cont'g par).** Hence agricultural credit programs directed toward the small farmer cannot escape from assisting him to increase his consumption in the process of enabling him to be a more productive, market-oriented farmer. In this case, the increase in consumption is considered the first and unavoidable step toward the increase in production--and is not considered undesirable by agricultural credit institutions. Likewise, the financing of consumer durables cannot be so easily dismissed as undesirable only on the grounds that ^{it} increases consumption and not production.

**"One third" of the individual subsistence farmer's production of basic grains? Or of the total small farmer production of grains? Or of global production of grains?

H Capital and Labor

The last paragraph of page 30 of the Brazil paper contains a kind of "sleeper" success story, told in the context of the problems surrounding it. If one looked a little more into the success part, one might reclassify the "problems" as signs of healthy growth. That is, the paragraph notes that the ACAR-promoted expansion in horticulture seems to have slowed down, even though the imports of such produce from outside the region have not yet been completely substituted by local production. It is said, the paper continues, that this slowdown in horticulture growth results from the recent increases in labor costs, the existence of farm-labor unions, and the strict observance of the minimum wage in the region (see p. 15 above for comments on the problems of this last explanation). Since horticulture is labor-intensive, it is said, many farmers are mechanizing instead of becoming horticulturists, or changing their productive activities in the direction of those that require less labor input. As a result, the paragraph concludes, "it seems that farm labor is being driven from the countryside without being able to find employment in the city."

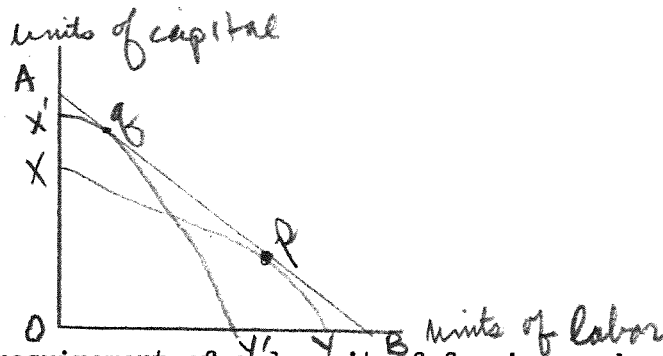
I would suggest that labor cost is perhaps not the principal reason for the changes cited above--even if it is true that real wages have gone up in the region. It is just as possible that, even assuming constant real labor costs, farmers have become more aware of the possible benefits of mechanization and more receptive to the idea of such adaptation.** This explanation is rather

**In economic terms, mechanization was a possibility that was previously not a part of the production transformation curve known to the farmer. Through ignorance or resistance, he was operating on a transformation curve much different than he would have been if he had perfect knowledge of alternative combinations of labor and capital, and "perfect willingness" to try them if the price ratios were right. Curve XY in the diagram is the "ignorant" transformation curve, and the slope of line AB represents the cost of labor in terms of capital. Distance OA (or OB) represents the income which the farmer has to spend on production inputs, denominated in units of capital (or labor). According to the "ignorant" transformation curve XY, the farmer is producing at point p, using a high amount of labor relative to capital. Now let the farmer learn more about possible capital-labor combinations (namely, mechanization), so that now his transformation curve becomes X'Y'. Hence at the same labor/capital price ratio (slope of AB),

fitting for this particular case, given "the high degree of commercialization of agricultural activity in this zone, the influence of the (nearby) city" (p. 31, par. 1), and perhaps even because of the presence of ACAR in the region.

Another possible explanation of the move toward capital intensity may relate to a decrease in the cost of mechanization (a flattening of line AB in the diagram below), which would increase the labor/capital price ratio without any increase in the absolute costs of labor. This possibility is also quite plausible in this case, given the fact that there was considerable excess capacity in the Brazilian domestic equipment industry during this period. The industry exerted considerable pressure on the government to provide lines of credit through the Bank of Brazil for financing of machinery purchase, a large component of which was agricultural equipment. The industry was successful in its pursuits, and the Bank of Brazil opened up substantial lines of credit for this purpose, at negative real interest rates. During the same period, AID, through its ~~P~~rogram Loans, was providing dollars to Brazil for the import of agricultural equipment from the United States in a manner that represented a discount of approximately 10% on the equipment.** More significant, AID earmarked part of the Program Loan during three consecutive years for a fund to finance at medium terms the importation of such capital goods, including agricultural equipment (US\$30 million in 1966, US\$40 million in 1967, and US\$25

and the same income (OA or OB), he switches to the more capital intensive combination at point q.



**By waiving the normal requirement of a deposit of foreign exchange equal to the value of the import ninety days prior to the scheduled delivery date.

million in 1968). Most of this credit was channeled through FINAME--again, at negative real interest rates. In addition, the Brazilian government agreed with AID to channel some of the counterpart from AID Program Loans, mainly through FINAME, for the purpose of the subsidized financing of equipment purchase . Since Minas Gerais is the banking state par excellence of Brazil, and is the fourth largest agricultural producing state in the country, there is no question that a good part of this subsidized agricultural equipment was sold and financed in Minas.** This decrease in the real price of agricultural equipment may well explain the switch to more capital-intensive methods. Indeed, the BID's concern about raising the long-vs.-short-term ratio of its rural credit programs may in itself contribute to labor-saving mechanization, by being more receptive to credit for fixed costs (namely, equipment) than operating costs.

I don't think one can fault a program, or a development, for its negative employment effects, if the development represents a more efficient utilization of resources, and stimulates further growth in its wake.*** One certainly can fault the lack of a national policy on employment creation, or protection, in general. Indeed, it is the lack of a compensatory national policy to cope with

** Between 1965 and 1967, for example, Minas accounted for about 10% of the agricultural production of Brazil (excluding "pecuária") and received about 12% of the credit of CREA, which is the major agricultural credit division of the Bank of Brazil.

** The coffee eradication program was widely praised from all sides, for example, despite the fact that coffee is more labor-intensive than any of the feasible alternatives to it in south-central Brazil. Moreover, it is much more labor-intensive than the next most labor-intensive alternative. Yet the global benefits of the coffee eradication program were apparently considered much more important than the costs in displacement of labor.

displacement through modernization that has been one of the factors that led me to suggest that rural credit projects might be combined with funds for "transitional" or "capacitation" purposes, instead of being saddled with the burden of having to proceed conservatively because of possible adverse employment effects, or with the opprobrium of having destroyed jobs in the course of succeeding at promoting the adoption of modern techniques. Perhaps most important, Bank experimentation with this type of double-edged program might provide national policymakers with evidence, on a pilot program level, that this type of approach could work, and of how it might be designed.

There is a general tendency, which surfaces from time to time in the country studies, to condemn mechanization out-of-hand as being employment-destroying. Though the Brazil paper claims that this is one of the effects of the cited mechanization, one needs some kind of data to support the claim. For an equal argument could be made on the other side: that the net result of the mechanization away from horticulture (abstracting from transfer problems and costs) was employment creation. This could have happened because the region was near a large city, so that the services required to process and market the increased production, as well as to sell and service the new agricultural activity, would be likely to be located in or near the same region in which the mechanization was taking place. Hence the required expansion in these services, which are usually labor-intensive, might have created a natural inlet for those laborers released from the mechanizing farms. Moreover, whether mechanization will be ultimately employment-creating or -destroying will also depend on the type of crop and the purpose of the mechanization. Mechanization that allows multiple-cropping, and that increases requirements for fertilizers and other improved inputs, may well result in a net increase in employment. In sum, one needs more information about a particular type of decrease in the labor/capital ratio of an important productive activity of a region before one can presume that the net effect is employment-displacement or employment-creation.

There is enough information available now about experiences with labor-using types of mechanization and modernization that the Bank might want to consider experimenting with a credit project that would finance only these types of changes in agricultural production techniques, in a region where surplus labor is a problem. Indeed, the evaluators' concern about the high percentage of short-term vs. long-term credit financed under the BID programs seems to conflict with their concern about adverse employment effects of modern techniques. According to the criterion used to criticize the mechanization in Minas Gerais, one ought to praise the high ratio of short- to long-term credit of the financed credit programs, since short-term loans finance costs that are usually labor-intensive in comparison to costs financed by medium- and long-term credit.

To sum up about this "sleeper" success story, the story depicts a highly price-responsive and adaptive farmer, who is always being searched for so urgently in the attempts to promote agricultural development. Not only is he price-responsive, but he has the capital, or the access to credit, and the desire to make a change in production techniques that requires considerable investment. The fact that he is interested in making the change, and is not deterred by the high financial commitment required, seems to be a sign of the self-sustaining kind of agricultural development, and agricultural entrepreneur which we are trying to support and learn more about.

The mechanization in itself may well have been economically wasteful, if it involved a pricing of equipment at a level lower than its real cost to the economy. At the same time, however, the previous horticulture expansion may also have been the result of an artificial lowering of costs--since horticulture was financed by the subsidized ACAR program. Again, one wants to learn from such

experiences whether the subsidization resulted in economically inefficient input combinations that did not bring about any growth, or whether this type of price-distorting subsidization was a crucial factor in pushing an area, or a group of farmers, into self-sustaining growth.

I have treated this case in great detail with the idea of showing why the Bank's credit projects are valuable sources of information about agricultural development, and how the Bank needs to receive a certain kind of feedback about its projects in order to ~~make~~ decisions about the most effective way of lending in agriculture.

I Graduation

Another reason for interest in the case of private bank interest in the ACAR-promoted horticulturists (Section H of Part II, p. 14 above) relates to the Bank's concern about "graduating" subsidized credit beneficiaries to traditional commercial credit channels. It is difficult to tell whether the horticulture story is a genuine case of graduation, since one does not know what the condition of the beneficiaries was before receiving ACAR credit-- that is, whether they already had access to the commercial credit system. Assuming that they did not, and because graduation does seem to be a difficult transition, one would like to know more about how and why the private banks became involved with the ACAR horticulture beneficiaries, as well as what happened subsequently.

Was it the credibility of ACAR that diminished the commercial banks' usual reservations about subsidized credit beneficiaries? Was it the boom nature of the crop? If so, one might not want to dismiss this feature as anomalous, but rather look upon it as a tactic that might be repeated in other programs, in order to draw the commercial credit system in support of the subsidized program and, at the same time, draw the subsidized beneficiaries into the commercial credit

system. Of course, if this was a boom, it was a particularly healthy one, since it was apparently followed by self-sustaining activity on the part of the farmers, rather than by a bust. Hence one would like to know what happened to the ACAR horticulturists after they started to switch to other crops. Did they continue to be ACAR beneficiaries? Did they continue to be accepted by the commercial banking system? What happened to those who stayed with horticulture? Did they continue receiving the attention of ACAR and the private banks? Did they seem to suffer as a result of the "minimum wage problem?"**

Concern about the graduation question is expressed in most of the country studies and the final report draft outline. There is a need for concrete suggestions as to how to deal with this problem in future projects. Should one place a time limit for graduation of successful beneficiaries, requiring that the lending institution (if it combines both subsidized and commercial credit programs) promote the successful candidate to its commercial window after a certain period of time? If the subsidized and commercial credit institutions are separate, should the Bank attempt to get the subsidizing institution to work out an arrangement similar to that described above, through the government, with the commercial banking system?

Can an argument be made for allowing less of a disparity between the commercial interest rate and the subsidized rate on the following grounds: what hurts the small farmer is not the level of the interest rate, but a change in it--given that the demand curve he faces is usually infinitely elastic, and therefore any increase in the interest rate will probably have to be paid for entirely

**Also: did the success of the horticulturists, and their later move to other mechanized crops, involve the acquisition of new land? How was this accomplished, given the tight land conditions one would assume to exist around Belo Horizonte? If more land was acquired, was it done through rental? purchase? invasion? Was clear title to the land obtained? Or was increased production obtained by more intensive methods of cultivation on the same amount of land?

out of profits (see "Interest Rate" section below for further elaboration).

Hence by starting out farmer-beneficiaries with a low interest rate, and then imposing the increase of the commercial credit system on them just at the time when they are becoming successful, one may be making graduation particularly difficult and costly.

One of the difficult problems of the attempt to facilitate the successful farmer's transition to commercial credit channels is illustrated in the Nicaragua paper (pp. 29-30, par. 1). The paper points out the inaccessibility of commercial bank credit (or even of the commercial credit of the same institution, the BNN) to the successful subsidized farmer, because of the distance of commercial banks from the rural regions assisted, or because of the longer processing time for a commercial credit loan application. Hence those farmers who are ready to graduate try to remain in the subsidized program, even at the cost of obtaining a lesser amount of credit than they could use, and than they might obtain from the commercial credit system. This suggests, the paper concludes, that the potential but unwilling graduate of the subsidized program is underutilizing the productive capacity that he has.

This problem is not infrequent, and is the ironic result of the subsidized program's original intent of making credit accessible to those previously not served, by lowering its real cost--i.e., by locating assistance and bank activity in the field, thus lowering the high cost to the small farmer of traveling to a bank's head office or faraway branch--and by speeding the processing of applications, thus lowering the high cost of waiting, which is a function of the farmer's low level of operating cash. Hence, what at the beginning of a program is a facilitating mechanism, turns out at the end of the farmer's tutelage to be an obstructive mechanism: the low cost of the subsidized credit expressed

in terms of travel time saved (costs of travel plus foregone labor on the farm) and processing time saved (high cost of waiting for credit funds) makes the increase in the cost of the transition to commercial credit very high. This would be true even if the interest rates on the two types of credit were equal.

There are several elements at work here. The successful farmer is "spoiled" by the lower cost of the subsidized program, and as long as he is not pushed out of it, it may be economically irrational for him to switch to a higher cost program. Furthermore, the resources not utilized because of the small quantity of subsidized credit available to the successful farmer, mentioned in the Nicaragua case, may be expected to yield an extra return when financed by a larger commercial bank loan that would not cover the additional cost of (1) using commercial credit to finance the bringing into production of the additional resources, and (2) substituting commercial for subsidized credit in all production. Moreover, because the potential graduate is successful, he may be supplementing his subsidized credit with his own resources, and thus is achieving a fuller utilization of resources than one would assume from the amount of subsidized credit that he has taken (a possibility not considered in the Nicaragua paper). Finally, the increase in the costs of transition from the subsidized to the commercial program may make it truly difficult for the successful small farmer to make that transition, even if he were to be kicked "up and out" of the subsidized program.

In sum, there are two distinct features of the graduation problem. One is the existence of a cheaper alternative to commercial credit, which makes it natural for any farmer to prefer the subsidized program. The other is the cost of the transition to the commercial program, which may be too great. The first type of problem must be met with regulations about time periods beyond which the

successful farmer cannot participate. The second type of problem is more difficult to deal with. It could be approached in various ways, all of which would attempt to lower the cost of the transition. (1) As mentioned above, the interest rates of both programs might be equalized from the start, so as to lessen the difference in cost between the two programs. (2) The program might include subsidy funds for the period of transition, which would cover the costs of the trip to the nearby branch or head office, the extra waiting period, and perhaps even some guidance help by a rural credit agent on the first few trips, to conduct the graduate through the confusing new world. (3) The program might have to initiate its own commercial credit window--as an intermediate phase between the subsidized program and the full-fledged commercial system--in order to break up the otherwise indivisible and large cost increase of the transition into more and smaller stages.

The second approach outlined above is commendable in that an important part of the cost of the transition to commercial credit involves attitudinal barriers--fear of the big city, of doing business with unfamiliar bank officials, and of the sincerity of "big city people." This attitudinal component of the transition cost calls perhaps for such a programmed "push" approach to the problem, just as the attitudinal problem of adopting new techniques at the farm level calls for large pushes of credit and technical assistance. At any rate, the costs of the transition to commercial credit are not to be underestimated; likewise, the unwillingness of the "graduate" who has access to cheaper funds, and probably a certain power to obtain them regardless of any rules.

The final report might pose some suggestions as to how this problem could be dealt with in the design of future projects. In sum, it is difficult enough

for a rural credit program to generate cases of success. It constitutes a tremendous waste, then, if these successes die out because of their inability to propel themselves into the commercial credit system. In short, ^{once} the small farmer has achieved assistance in becoming self-sustaining in his productive activity, he still needs assistance to become self-sustaining ~~in~~ his banking activity.

One final matter that should be dealt with as part of the graduation question is that relating to the acquisition of new land. This is particularly relevant in colonization projects, where one is likely to have small land parcels to start out with and, on the other hand, ^{where} there will be the probability of a considerable number of dropouts. The difficulty in allowing colonists to acquire additional land is that this seems to go against the equity considerations that infused the original promulgation of the project, and the equality of treatment that the sponsoring organization tries to assure in running the colony. Nevertheless, the natural selection process between those who want out and those who do well and want to buy more should perhaps be allowed to work itself out. Those not adept at farming should be allowed to discover this, and seek their fortunes elsewhere; the successful farmers, on the other hand, should be helped to acquire additional land in order to fulfil their potential for self-sustaining production. If they do well under the subsidized program, but can't, for one reason or another, acquire additional land, their productive scale may not be large enough to place them into a self-sustaining success category, qualify them for graduation to the commercial credit system, and, in general, allow them to make a contribution to the growth of the ~~region~~. In this vein, the Nicaragua paper comments that one of the reasons for the small increment in the value of buildings, installations and land under the BNN program was, among other things, "the limited opportunity to acquire additional land" (p. 27, par. 1). In the case of colonization projects, then, the land acquisition problem might be approached by allowing

the natural selection process to work itself out within limits--even if it seems to violate the egalitarian spirit of the project.

Perhaps a more efficient way of going about the pursuit of equity would be to assist and subsidize the transition of the "losers" to other sectors of society, with the idea of making them into successful rural-urban migrants--as suggested above. For the successful farmers, the credit project might include financial, legal and other technical assistance for the acquisition of new lands. Note that the global effect of such an approach would be to reverse the typical character of the rural-urban migration process, which usually involves the emigration of the more enterprising of the rural populace, while leaving the less capable behind--and hence diminishing the average income and possibilities for development in the countryside. The proposed approach would, hopefully, take less of the burden of development away from the urban-industrial sector.

J. Institutional Success - ACAR

One would like to see a more analytical approach to the success story of ACAR in Minas Gerais, because the entity seems to have done well in precisely those areas which were problem areas of other rural credit institutions. For example, the majority of ACAR's contacts are in the field, so that the scarce agricultural credit technicians are not using their time in accounting and clerical work (P. 22, pars. 2-3). One wants to know if this result is strictly a function of the separation of the banking and assistance tasks (ACAR vs. the Caixa Econômica, and later, the other participating banks), or if additional explanatory factors are involved. If the latter is the case, one might be able to try to arrange for these factors in other rural credit programs where the banking and assistance functions are combined within one institution.

Another unusual mark of success in ACAR is the low rate of personnel turnover (p. 23, par. 1). One would like to see comparative rates of turnover

in the other credit institutions studied, in order to assess the significance of this achievement. Moreover, one would like to know the reason for this impressively low rate of turnover in the type of institution where leakage to the private sector for higher paying salaries is so common. Is it the esprit de corps of the organization? Is it the freedom from working on routine banking activities? Is it salaries? If ~~so~~, how is the agency able to pay good salaries? Moreover, one wonders if the rate at which new people were contracted is rather high---474 persons in 1969 and 94 persons in the first four months of 1970 (an annual rate of 282--p. 23, par. 1). It is hard to assess the significance of these figures, since the text does not provide total personnel figures for the agency, or say whether the figures applied to professional agronomic personnel, or to all. The particularly low attrition rate in comparison to the particularly high (or seemingly so) hiring rate leads one to suspect that perhaps the sixteen-month period used as evidence of low turnover may be somewhat abnormal; hence it might be useful to have a longer series if the point is to be more convincing. Given the political situation in Brazil before and after 1964, one could easily hypothesize that the years preceding 1969 saw several severances of personnel; the 1969-70 figures on turnover, therefore, would be abnormally low, and the figures on hiring would represent a replacement of the many personnel severed in the previous years. Just as puzzling, there is no evidence elsewhere in the paper to suggest that the agency is expanding its activity. ^{**} Hence it is difficult to explain such a net increase in personnel, and some clarification would be useful.

ACAR's success is also indicated by its rate of growth, private banks'

^{**} E.g., ...the number of new beneficiary-families taken on ^{every year} since the beginning of Loan 31--including BID and non-BID sources of financing--is insignificant (between 1,000 and 4,000) in relation to the potential number of producers. p. 20, cont'g par.

interest in working with it, the fact that it has attracted and trained some of Brazil's most outstanding students of agricultural development, and the success stories of its beneficiaries,** and the repute that the program has acquired in Brazil and in Latin America. Hence the study recommends that the ACAR-Minas program be supported further by the Bank, as well as the programs of other ACARs already in operation in other states of Brazil. Also recommended is that the ACAR-Minas system be adopted in other Brazilian states where it does not exist, as well as in other countries of Latin America (p. 54, par. 1).

One of the most revealing aspects of ACAR-Minas' success that is not discussed in the Brazil paper is that the ACARs of other states have not been successful. They are considered weak and pathetic organizations, which have never grown from their infant institutional and financial status, and are commonly looked down upon and laughed at by the technicians of state and federal agricultural institutions in Brazil. In short, it is important to understand why ACAR worked in Minas and failed elsewhere before this type of approach is recommended in other states and other countries. Were there special circumstances in Minas that made the system work?--unrelated to the institutional structure of the system itself? For example, circumstances such as political support; strong interest group pressure by direct or indirect beneficiaries ("indirect" in the sense of the suppliers of inputs); was there a unique professional demand for and interest in such a program on the part of the strong agricultural education institutions in the region, such as the one at Viçosa and Lavras, in which there is both a local and a regional office, the latter being located in the university, which has "a very cordial working relationship" with ACAR (pp. 34, 37, pars. 4, 1); or was one of the influential factors the combination in Minas of a fierce competitive

**It is difficult to get an idea of the extent to which these successes are prevalent among ACAR beneficiaries, since they are spelled out in great length in terms of a few individual cases.

feeling toward the states of Rio Grande do-Sul, São Paulo and Rio de Janeiro, and a corresponding stinging sense of inferiority to these states.** The political rivalry between Rio, São Paulo, Minas and Rio Grande do Sul is well known. The economic rivalry is not so immediately apparent, and takes various forms.*** Minas politics and economic policy have always been infused with a strong desire to outdo or undo the hegemony of its rival states in one sector or another. This might explain a strong degree of political and financial support that would be given by the state government to an ACAR program--in the hope that Minas could show São Paulo and Rio Grande do Sul that it could perform well in agriculture.**** Indeed, the emphasis placed by ACAR on increasing fruit and vegetable production may have been very much a function of this competitive spirit. For the result of the horticulture program was that Minas completely displaced, and hence "undid," São Paulo--the fruit and vegetable kingdom of the country--in supplying this produce to its own state capital.

**An inferiority which it attributes, in part, to its lack of access to the sea, and to the fact that Rio and São Paulo developed the external economies of an industrial economy before Minas did, and hence Minas can never attract industry to settle there--despite cheaper power, land, and lack of congestion--because of the vicious circle of its lack of external economies.

***In the case of electric power, for example, Minas has developed power sites on rivers near the state of São Paulo, or which mark the border shared by the two states, before it (Minas) really needed the power--in order to pre-empt the development of those sites by São Paulo. As a result, Minas has often had excess power capacity--or at least an unusually comfortable supply of power for a developing region. Its resulting lower price of power has been cited by the state as an incentive for industry to move to Minas. The state, in turn, has complained that the cheap power hasn't made any difference in attracting industry away from the ever-growing Rio-São Paulo region. One hears less about the fact that its comparative advantage in mineral resources and cheap hydro sites have caused the location in Minas of much electric-power-intensive mineral-refining activities. It has been generally known that industrial location decisions are not very sensitive to the price of electric power--except in the case of power-intensive industries.

****^{in agricultural production} Minas is fourth after Rio Grande do Sul, Paraná and São Paulo, in that ascending order of importance. Paraná was never part of the competition because its economic importance is based almost exclusively on coffee, and because it is a latecomer to the agricultural Big Four.

In that the other states of Brazil are not important enough in size, political significance, natural resources, or output, to even consider competing with the most successful agricultural states, the political impetus of Minas to support an agricultural development program would not exist in these other states.**

I have dwelled on the competitive factor in Minas Gerais because I think it may supply a partial explanation for another feature of the ACAR program, commented upon at various points in the Brazil paper. The paper chronicles the history of ACAR since its founding in 1949, describing how it started out with the intent of helping the poverty-stricken rural peasant sector with "supervised credit," and gradually changed its orientation to more discriminating selection and a less assistance-intensive approach, concentrating on the more promising farmers who had already demonstrated some entrepreneurial potential (pp. 21-22, last par., pp. 56-57, #5-#6). The paper concludes that the result of this change in orientation is that ACAR has chosen beneficiaries who were "highly promising, and hence naturally proved very successful as a result of their ACAR participation." This selection process, of course, provided the entity with "an enviable record of loan recovery" (p. 56, #5). Many of these carefully selected beneficiaries, the paper continues, would "probably have prospered even without having participated in the program" (ibid).***

***There is no question that Minas' competitive spirit of wanting to equal or outdo its more developed neighbors has had favorable, as well as unfavorable, effects on the state's development. Not only may the ACAR results represent a favorable result, but electric power is also a perfect example of such favorable results: Minas has one of the most respected state-sponsored autonomous power companies (CEMIG) in Latin America. Of course other factors were influential in CEMIG's success, but there is no question that the desire to attract industry from the Rio-São Paulo complex, and the mistaken belief that industrial location decisions were price-elastic with respect to power, accounted for the ability of the state to mobilize considerable domestic resources for its electric power sector. It also accounts for the resulting innovating and developmental activity of the company in face of the fact that it had to market more power than it had expected.

***The paper refers also to inflation, and the resulting less-than-positive real interest rate as a facilitating factor in these successes (ibid).

Meanwhile, it is concluded, the problem of rural poverty is still not being dealt with, either by ACAR or by IBRA.**

ACAR's change in orientation is attributed by the Brazil study to a "process of elimination" between 1953 and 1958 of those farm families who demonstrated ~~no~~ capacity whatsoever for growth (p. 22, cont'g par). Also, the study suggests, the selectivity that started in 1959 is a function of "the limitation of resources for this type of credit" (p. 56, #5)--and that such selectivity would be the logical response to this type of resource limitation.

It is perhaps difficult to justify the resource-limitation explanation of the increasingly discriminating taste of ACAR. Such resource limitation afflicts most rural credit programs, yet the result is often just the opposite: the limited resources are doled out to everyone on the grounds of equity. Indeed, it is this opposite, equity-oriented selection resulting from limited resources that is noted in the other country studies. In short, resource limitation can cause non-discrimination as well as too much discrimination, in the selection of beneficiaries. And in the case of ACAR, as suggested in Section D of Part ~~III~~ above ("Selection of the Borrower"), the discriminating approach may have had less to do with limited resources than with factors involving the institution's relation to its environment. Granted that limited resources, or an interest in selectivity on the part of the institution's technicians may have been a contributing factor to a discriminating orientation; but because

**IBRA is the Brazilian Agrarian Reform Institute, organized at the federal level. Up to now, it has had little institutional and financial power, and has often been characterized as a "paper agency," set up to appease the concern of some sectors about agrarian reform.

of what we know about Minas and ACAR, the other factors are likely to have been the crucial ones. Indeed, the Brazil paper reports that the decision to be more selective after 1953 was not ^{the} subject of any written investigation or analysis, even though it was "such an important policy decision" (p. 22, cont'g par).

On the basis of the discussion of the last four pages, I would like to present a hypothetical explanation of the reasons for ACAR's success, including the "problem" of its overly discriminating selection criteria. Because my explanation is based on the scant evidence of the country study, it may be of little value in itself as an explanation of ACAR's fortunes. I present it, nevertheless, to suggest that one needs this type of understanding of an institution's success if one wants to encourage and support the use of the same strategy in other settings--especially in light of the fact that this strategy has not been successful in other states of Brazil. I also want to emphasize the fact that the credit entity's behavior and program results--like those of any other public sector institution--are influenced by its necessity to please and win over the government which funds it, and to convince and cajole that government to allow it the freedom and the funds to do what it wants. This "institutional battlefield" perspective seems somewhat lacking in the country evaluations, and perhaps this explains why some of the analyses were not carried further. It is not that one should give up hope on trying to understand or direct credit programs from within the institution because of the unpredictable forces emanating from the entity's encounters with the outside institutional world. To the contrary, these factors should be brought into the realm of analysis and predictability, with the idea of being able to replicate, or find proxies for, them elsewhere.**

**The praise that has been given the empresa mista form is a perfect example of the approach I am emphasizing. This form of government activity in developing countries has been praised and promulgated as a way of insulating government investment activity against the pressures of nepotism, bribery, porkbarrel decision-making. Just as important, it has been considered a means of escaping

A classic example of this institutional approach, which has particular relevance to ACAR as well as the other BID-financed entities, is the Selznick study of the Tennessee Valley Authority.** The study shows first how the infant entity's privileged status in terms of autonomy from the federal government and decentralized authority had to be defended constantly against threatened, or feared, attempts at congressional encroachment. In order to strengthen itself, the Authority attempted to win over to its cause the larger influential landowners of the regions it served--even though its purpose was to provide electric power and agricultural assistance to the less privileged of the region. By "co-opting" the landowners--taking them into the organization to some extent, and providing them a share of the benefits--the Authority hoped to accomplish two important goals: to acquire the support of an influential private pressure group, which would defend the Authority from attempted congressional incursions into its precious autonomy; and, at the same time, to neutralize a group which normally might tend to turn into powerful opponents of the Authority, because of the latter's spirit of "grass roots democracy," its feared "socialism," and the expectation that ^{it} would change the economic and social order in the region where it was working. The study concludes that the cooptation was successful in terms of the Authority's desire to protect and strengthen itself within the federal government. At the same time, however, it shows how the cooptation of the large landowners backfired, in the sense that the TVA program did not benefit the underprivileged according to its original intent, and that much of

the growth-stifling procedures of government bureaucracy with regard to salary ceilings, per diem allowances, and procurement. In short, the empresa mista form has been found, on the one hand, to protect the entity from adverse political pressures and, on the other hand, to allow it to develop into a powerful enough institution to be able to fed for itself with regard to threatened adverse constraints, or desired government revenues.

** Philip Selznick, TVA and the Grass Roots: A Study in the Sociology of Formal Organization, University of California Press, 1949.

the benefits ended up with the large, coopted farmers.

My guess about ACAR's development, then, is the following: the program started out as a foreign-sponsored attempt to provide some assistance to the most poverty stricken layer of the rural sector. It didn't have much success with its beneficiaries and, in turn, wasn't viewed as a success by its institutional peers in the state public sector. It realized that a less equity-oriented, spread-thin program for the more promising farmers could bring it much more success stories per resource expended. The resulting cases of success brought it attention and approval from the state public sector. It could show that it had accomplished something; and, just as important, the successful farmer-beneficiaries, who were a few or several notches above the poverty stricken of the original program, could serve as an important pressure group in generating public sector (as well as private banking) sympathy and finances for the institution. ACAR's "exploitation" of its successful cases to help generate outside support may have backfired in that the successful cases, and their already successful friends, felt they now had a right to the entity's credit. At this juncture, the entity may not have been able to reject these applicants on equity grounds--even if it wanted to--because as a group, the applicants represented an important source of support to the institution. Note that this sequence of events could never be postulated for a more polarized small country, because there would have been no large group of medium-size farms in such a country, who presented "borderline" selection problems for a subsidizing credit institution, who were tempting applicants because they already were successful and hence provided the institution with a guaranteed number of "success stories," who were still small enough farmers to qualify for the benefits of such a program and, finally, who carried a certain amount of political weight in local or state politics because of the relative lack of large land-owners (Section D in Part III on "Selection of the Borrower").

As a last element in this hypothetical explanation of ACAR fortunes, one can imagine that the successes of ACAR were noted by state governors and other elected officials, and that it became apparent to them that if ACAR were to have more funds, and be more "successful-farmer oriented," it might be able to help Minas make considerable progress in agricultural development--thus rivaling the hegemony of São Paulo and Rio Grande do Sul in this sector, and ending the dependency of Minas on these states for the importation of food.** In other words, the state government perhaps came to see ACAR as an instrument of agricultural development--and of replacing São Paulo and Rio Grande do Sul in supplying foodstuffs to the state. Hence the state would have encouraged any tendencies ACAR might have had toward financing the more successful farmers. The organization, in turn--whether it was equity or efficiency-oriented--could not afford to turn down this source of new strength. It either allowed its goals to be diverted somewhat--as a reasonable price for this political and financial support--or became imbued itself with this new sense of mission. The hypothesis may be fanciful, but it shows that one needs to know more about ACAR's success before deciding to support it in other places. It also suggests the importance that government support can have in determining the fortunes of a rural credit program.

Another important question that my hypothesis raises and leaves unanswered is whether the institution's "abandonment" of the small poverty-stricken farmer

**This may also help explain why the coffee eradication region was allowed to fall into decay at the same time that fruit and vegetable growing was flourishing under ACAR support (pp. 5-6, par. 3). That is, the aim of the eradication program in coffee was not only diversification, but to promote improvements in the productivity of coffee growing, so that the same amount of production could be achieved with less trees. Since Minas by now is not a major coffee-producing state, and since it could never hope to distinguish itself now in coffee because of the superior natural conditions of São Paulo and Paraná, it was no loss to Minas if it were to be a failure in coffee.

should be considered an undesirable or desirable occurrence. If an agency trans-
gresses its own aims, or switches to other ones--whether deliberately or
inadvertently--and becomes highly successful on its new tack, then one
immediately wonders about the feasibility of the original institutional
approach. A success story that includes radical aim-switching is a valuable
source of information on the original approach being used to deal with a parti-
cular problem--in this case, the agricultural credit-assistance approach to
the problem of rural poverty. One wants to know if ACAR's switch--regardless of
whether it was triggered by its own learning, by cooptation, or by political
pressure--has provided us with new knowledge about how to approach agricultural credit
and development. For example, can one really dismiss the success stories as
"those who would have received commercial credit anyway?" Or, would the fruit
and vegetable breakthrough, for example, not have occurred without ACAR? It
may be that although a particular farmer-beneficiary may not need this type of
subsidy, the type of program is the best or only way to achieve the macro-
economic output increases and regional development that took place. If this is
true, then one might want to redesign such programs accordingly--preserving the
impact approach and assistance features, but reducing the subsidy elements,
or generating the revenues used for the subsidy in a less income-regressive
way. In conclusion, one needs to know a lot more--before being able to suggest
answers to these questions--about the statistics and institutional anatomy of
the ACAR success.

K. The Interest Rate

Most of the discussion of interest rate questions takes place in the
Brazil paper, which reflects the fact that low real interest rates seem to

appear more frequently and acquire problem proportions in inflation-ridden countries. I think the discussion of interest rates in the final report should separate out the inflation and the non-inflation case, since in the former case there are factors involved which lie completely outside the control of the credit institution that sets the rates. It would be useful if a table could be prepared, comparing real and nominal interest rates, to the rate of inflation in as many Latin American countries as possible (including assisted and non-assisted credit, agricultural, industrial and commercial credit, and subsidized and free-market interest rates). One would expect the real rates of interest to be higher in the non-inflation countries. If they are significantly higher, then this means that the low or negative real interest rate in the credit programs of inflation-ridden countries like Brazil is probably more a function of the inflation than of the desire of the authorities to charge--or not to charge--a subsidized rate. Though this may seem obvious, its less obvious implications are that it may not be very useful or relevant to argue the economic logic of an adequate real interest rate--nor, conversely, to decry the economic illogic of a negative real rate.

Although Brazilians have defended the low interest rate as just compensation for the long-neglected agricultural sector (e.g., Braz p. 47, last par.), it seems to me that a more fitting explanation of the phenomenon is to be found when one looks at it as part of the more general problem of government-administered prices in an inflationary economy. The subsidy-for-agricultural-development justification, I would suggest, is a post hoc and handy "public" justification for a situation that arises from another category of problems. The subsidy justification, for example, is more politically acceptable to the non-agricultural sectors, particularly the banking one. That is, it is easier to justify an exceedingly low price ceiling as a subsidy, than to explain or admit how reluctant one is,

when trying to control an inflation, to let loose one of the few last prices under control--or how reluctant one is to incur the political costs of imposing an across-the-board abrupt and substantial price increase on one of the major producing sectors of the economy. Likewise, the subsidy argument at least presumes to answer with economic logic the criticism of foreign lending institutions that low interest rates are economically nonsensical.

It is important to place the negative-real-interest-rate problem in agriculture in this ~~broader~~ broader context, in order to see that it is not the result of faulty economic logic, fuzzy ideas about how to go about a subsidy, or corneriness on the part of the arbiters of interest rate levels in agriculture. That is, despite the long experience of Brazil with inflation, only recently has the concept of monetary correction become accepted in prices involving state-sponsored credit outside the agricultural sector--e.g., the loans of the National Housing Bank, of the National Development Bank (BNDE), etc. It should be remembered that even when such government entities started charging monetary correction, the correction still did not boost the nominal rate past the zero real level--e.g., the BNDE's loans to private industry. In this broader context, one sees that the interest-rate question is perhaps not a proper or feasible negotiating or evaluative point in an agricultural credit program of an inflation-ridden country. In other words, the low real interest rate might perhaps be better considered as a constraint within which one has to work, rather than as a variable. Or, in the language of prerequisites, the adequate interest rate should perhaps be considered as one of those prerequisites that just doesn't exist--like, for example, literacy.

If one views the history of the agricultural interest rate in Brazil in the broader context of the political problem of increasing administered prices,

and of getting people to accept the idea of monetary correction--and if one compares the progress in agricultural interest rates with other rates--one might come to a much less pessimistic and critical conclusion about the agricultural interest rate than those of the ACAR-MG paper and of my own Brazilian Agricultural Credit paper.** That is, in 1964, there was almost a doubling in the interest rate--from approximately 8% nominal--charged by the Banco do Brasil for agriculture, the major supplier of credit to that sector. Given the lower inflation rates of the post-1964 period, this represented a significant increase in the real rate of interest--regardless of the fact that it did not pass the point from real negative to real positive. Moreover, the Brazilian government recently decreed an end to the interest differential between agricultural and non-agricultural credit. Although the decree has not yet been implemented--i.e., banks are still lending for agriculture at 75% of the commercial rate--this indicates a definite desire to move away from a subsidy rate. Indeed, this non-implemented decree could be construed in terms of my argument that the subsidy justification of low interest rates for agriculture is a post hoc, "time-buying" explanation to the public of a result that was not intended, and that policymakers are trying quietly to change, and with great difficulty. The tables on ACAR interest rates also show impressive increases in the real interest rate since 1964 (p. 5, chart 9)--impressive in the sense of the political difficulty

**The above argument, of course, is somewhat contrary to the arguments of my own paper, cited in the Brazil study (pp. 15-16, par. 1). This is not so much a turnabout in my own thoughts, as it is an exploration of the other side of the question, and some further thinking about it. Finally, I found myself in somewhat of a devil's advocate position when writing the Brazil paper, since I was working with literature claiming that tremendous strides had been made in channeling new resources to the agricultural sector.

of such increases in an economy not yet used to monetary correction clauses. In sum, by setting this question in its inflationary context, one sees that what is significant in measuring progress is not the level of the interest rate, but the nominal increases in it--regardless of whether or not these increases boost the rate above the zero real level.

The significance of the change in the rate, rather than of its absolute value, is even more important for agricultural credit--and, generally, for the prices of all agricultural inputs--than for input prices of non-agricultural producers. Agricultural producers are one of the few producer groups in a developing country who face an elastic demand curve. The ability of industrial and commercial enterprises to pass on inflationary cost increases to their consumers because market imperfections provide them with inelastic demand curves is well known, and is a traditional feature of the analysis of the self-perpetuating nature of inflation in developing countries. The farmer, in contrast, faces an elastic demand curve, and hence any increase in the cost of his inputs must come out of profits. This is why the argument that an increase in the rate of interest would represent an insignificant increase in the farmer's costs may be a substantial misrepresentation of the problem. That is, the Brazil study cites the CIDA study in which it is estimated that, at an interest rate of 12%, interest costs would represent 7% of the farmer's total cost of production; and at an interest rate of 18%, would account for 10.5% of the cost of production. Hence, CIDA concludes, a difference of 6% in the rate of interest--which is the present differential between the commercial and agricultural rate in Brazil--would cause "an increase of 3.5% in the cost of production."** If

**Cited from CIDA on pp. 16-17, par. 2 of the Brazil paper. There is some confusion in the footnote citations on p. 17. Footnote #1 on p. 17 should be CIDA and footnote #2 should be Tendler.

one calculated these interest rate increases as a percent of profits rather than of total costs, it might be concluded that many farmers would be wiped out--or, at least, those with not much market power, precisely the type of farmer who is the beneficiary of the assisted credit program. In sum, it is much more difficult to make a strong argument for this type of increase in the interest rate when one takes into account the high elasticity of the demand curve faced by the individual farmer.

Our knowledge about the importance of change in the interest rate, in contrast to its absolute level, can be useful in determining what is the best interest rate with which to start out an assisted credit program in a non-inflationary country (or in inflationary countries, as well). If one is dealing with a farmer who had no previous access to the credit system, then one might conceivably start him out with the prevailing commercial rate of interest. This would be possible because of the insignificance of interest costs in his total costs, as shown by CIDA. The increased-burden-on-profits argument does not apply here since one is adding a whole new input (credit), let alone new techniques, and hence one is not dealing with change in the cost of an already utilized input. Most important, by starting out the new borrower at a commercial rate, one protects him from being subjected to the crushing blow of the increased cost of graduating to the commercial system. The Nicaragua paper points out that this type of equality of interest rates of assisted and commercial lending exists in that country.**

**P. 39, par. 1. The paragraph following, however, suggests that the commercial rate may be unjustifiably low, rather than that the assisted rate is up to a normal commercial level.

In suggesting this course, I want to make clear that I am not recommending the termination of the subsidy feature of assisted agricultural credit. From the point of view of the lending institution, of course, the low interest rate may be the most important subsidy element, because it is the factor which leads to a de-capitalization of the entity, creating the necessity of raising more and more resources in order to maintain the same level of lending. To the individual farmer, however, the subsidy element in the interest rate is surely of secondary importance to the fact that credit is available to which he previously had no access, and that the credit is accompanied by technical assistance, and that the conditions of repayment are less rigorous than for commercial credit. In short, the charging of a commercial interest rate would end a subsidization cost which is highly costly to the lending institution and/or supporting government, and, more important, of secondary value to the beneficiary. By ending this particular form of the subsidy, and perhaps using the saved amount to increase technical assistance or coverage, one would bring about significant increases in the benefits of the program.

Or, one could charge a commercial interest rate that was the same to both types of borrower and at the same time was high enough to cover the costs of technical assistance. In this case, the subsidizing group would be the large borrowers rather than the government or the foreign lending institution, in that part of the interest rate paid by them would cover the cost of technical assistance for the small farmer program. Though all borrowers, both large and small, would pay this extra percentage point or two, the weight of the burden in absolute and percentage terms, would fall on the large borrowers--since their loans are larger, and comprise a majority of the bank's outstanding credit. This approach might be desirable because of its "progressive" features as a "tax" measure. The burden would be almost unnoticeable to those burdened, since it would involve a percentage point or two of interest; it would be invisible to those who were "taxed" because they would not be aware of the internal accounting mechanisms of the

bank that determined the interest rate. Finally, when a rural credit program is subsidized with government revenues (either directly, or through the repayment of foreign loans), the financing mechanism is likely to have regressive income implications, since the fiscal system of developing countries is usually regressive with respect to income. Such a measure, by the way, indicates an advantage of combining small farmer and large farmer credit programs in one ⁿbanking institution.

With respect to the "intersectoral transfer" that results from a subsidized agricultural interest rate, I would tend to disagree with the Brazil paper's interpretation that the subsidized interest rate involves "a strong subsidy--in other words, an intersectoral transfer of resources--to the agricultural sector of Mins Gerais" (p. 44, par. 1). If the latter were true, I would consider it a ~~more~~ more desirable result than what is probably the actual case--for at least some sort of resource transfer to the neglected agricultural sector would have been accomplished, no matter how faulty the transfer mechanism. And one might want to recommend or tolerate this type of transfer in some cases where the possibilities for using other mechanisms were particularly bleak. But my impression is that the subsidized agricultural rates result in a transfer of resources from the government sector to the banking sector. For example, the Central Bank compensates the Caixa Econômica of Minas Gerais for losses resulting from differences between disbursements and recoveries on ACAR loans, and for differences in the dollar value of BID-loan amortization payments at the time repayment is due from the time the loan was made (p. 44, par. 1). At a national level, the government replenishes Central Bank funds (partially with AID counterpart) which

are available to the private banking system for agricultural rediscounting. More generally, I would imagine that the intersectoral transfer of resources never gets as far as the agricultural sector because the subsidized credit takes the form of a rationed good sold at a subsidized price with no adequate rationing or policing system. In short, the good is rationed at a "black market price." For example, private banks require "compensating balances" or deposits from their borrowers, averaging around one third of the amount of the loan. Although the practice has recently been decreed illegal in Brazil, it is a fairly widely used device. In such a case, the subsidized credit is being "sold" at the price of compensating deposits, which increase the resources of the banking sector at no cost (interest is not paid on sight deposits). If the price of the subsidized credit is not charged in terms of compensating deposits, then there are other less monetary quid pro quo's--such as political support of the bank, etc. Or, if the subsidized credit is rationed according to simple bribery, then the intersectoral transfer is to private individuals in the banking sector.

One important thing to emphasize in the discussion of negative real interest rates is that the banking sector does not suffer from such rates. The major part of its input value is comprised of its lending resources, which, in an inflationary economy, are sight deposits on which virtually no interest is paid. Hence the bank is one of the rare enterprises whose profitability in an inflation relates in great part ~~to~~ nominal costs rather than to real costs. If the bank suffers because of a subsidized interest rate imposed from without--it is not because that rate is low in real terms, but because it is lower than what it could earn on alternative investments. It is no wonder, in sum, that the banking sector has flourished and become so overgrown in Brazil during the last decade. I would suggest, then, that the problem of a subsidized interest

interest rate is not that it represents an inefficient mechanism for transferring resources to the agricultural sector, but that the resources go to an entirely different sector, which is hardly in need of such help.

One last point about what may have been learned from the interest-rate and inflation experience in Brazil. The Brazil study points out that, given the real negative interest rate, the agricultural borrower is much better off with long-term credit than short-term credit (p. 52, cont'g par). The paper cites as evidence of this the fact that the majority of ACAR subloans under BID Loan 31 were in the medium-term category (86%), whereas the majority of loans in non-inflationary countries were short-term. "In fact, one can assume with a certain validity that the mineiro farmer during these years has tended to maximize his assets rather than his current income...Hence the long-term effect on production, productivity, and income of the farmer-borrowers must have been much greater than what can be observed in reality" (p. 52, par. 1).

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If these results are a function of inflationary conditions, then this might provide us with some knowledge about how to increase the "absorptive capacity" for long-term (and fixed-investment) credit--a matter of concern in all the country studies. That is, could it be that the farmer's certainty in an inflationary economy that his amortization payments will decrease in real value as time goes on is a crucial factor in overcoming his fear of long-term commitments, his reluctance to make bets on future income, his difficulty at

**I would like to see a comparison of how "medium-term" is defined in Brazil vs. its definition in other countries, and what the medium-term credit went for--before being able to accept this disparity as proof of the advantage of long-vs. short-term credit in inflationary countries. If one accepts this logic, then one would expect to find that long-term credit would represent an even greater share of loans made than medium-term credit--or at least a significant proportion of the total. Yet it is only 4%. My impression is that medium-term credit in Brazil is defined as anything over ninety days, which may be a shorter-term definition than that of the other countries. Also, because the study gives the impression that ACAR farmers were much better off to start with than those of the other countries, one suspects that the longer-term investment may be a function of this already-achieved longer-term mentality.

thinking in long-range terms? In short, the only certain thing about a fixed-investment loan in the agricultural economy of an inflationary country is that the repayment burden will become lighter, the longer the loan. Perhaps it is the certainty of this expected "inflation return" which provides a crucial counter-balance to the normal hesitations about long-term commitments.

The above explanations might even constitute one of the factors contributing to ACAR's success. If there is some validity to it, one might want to deliberately scale amortization payments on long-term loans in a non-inflationary country so that they go down with time--corresponding to the increase in uncertainty, and hence reluctance, as one goes further into the future. If it is not feasible to do this without requiring excessively high amortization payments during the first years, then the government might want to subsidize the loss on the scaled-down future payments. Though my suggestion of transferring this inflation mechanism--if it really worked that way--to non-inflation countries is somewhat fanciful, it is important nevertheless to try to ascertain whether the "inflation return" in terms of fixed investment credit in Brazil made any significant contribution to the development of agriculture, and to the overcoming of short-term horizons.

L. Delinquency

One would like to have an idea of the exact way in which delinquency is calculated. Is the percentage calculated as a percent of a certain month-end or year-end balance, or is it averaged over a certain period so as to reduce the influence of seasonal variations and anomalous disturbances? As far as the numerator is concerned, does it include payments that are, say, only a week, a month or a few months late? Or does it exclude due payments that fall within a normal period of lateness? Does it include due payments that are so late that they can already be considered as losses? With respect to the denominator, is

delinquency defined with respect to payments due on or before the date at hand, or does it include all credit outstanding? What is considered an acceptable degree of delinquency, which can be used as a yardstick to judge the seriousness of delinquency when it is a problem? ** Do banks have a way of juggling things so that the delinquency figure might make things look worse than they are?

In general, when the delinquency question is discussed--as on pp. 20-21 of the Guatemala paper and p. 32 ff. of the Nicaragua paper--one wants to know if the delinquency is simply delay, or complete inability to repay the loan. In the former case, one would be concerned with making amortization procedures more adequate to the problem at hand. If the latter is true, then the problem is more difficult, for it puts into question the wisdom and efficiency of the whole program itself. ***

The questions of the first paragraph of this section should be used to help define the delinquency problem of assisted credit programs, and to give an indication of ways to approach it. Is small farmer delinquency a drain on the lending institution, compared to the burden of large borrower delinquency? If the delinquent payments are eventually made, is this an adequate enough solution?--given the fact that the bank is accustomed to treating its large-borrower delinquency in this way. Or is the delinquency question a matter of concern regarding the training of the small farmer to be a qualified candidate for commercial credit institutions? Or is it a question of special treatment--i.e., longer amorti-

**The Nicaragua paper refers to a delinquency rate for medium- and long-term loans of "only 5-10%." P. 33, par. 1.

***For example, the Guatemala paper shows that delinquency is higher with certain crops (corn, wheat and horticulture), with loans between \$200 and \$500, with farms of 2 to 5 manzanas, with borrowers who are beneficiaries of the INTA, and with loans that are not supervised sufficiently (p. 20, last par). One would like to know more about the cause of these relationships, especially that of delinquency with particular crops.

zation periods--that needs to be accorded by the credit institution to the small farmer, given his slim financial base and lack of market power, which forces him to sell his produce immediately at whatever price may prevail--e.g., as described in the Nicaragua paper (p. 37, par. 1) and the Guatemala paper (p. 21, par. 3).

In sum, is one concerned about the bank's financial problems, or is one concerned about the ability of the peasant farmer to meet the bank's requirements? If the former is true, then the role of large-farmer delinquency cannot be separated from small-farmer delinquency in any corrective measures that may be attempted, since the former represents such a considerably larger burden on the lending institution. If the latter is the focus of concern, then one has a different set of alternatives to consider. Should the lending institution be more flexible in its collection procedures--e.g., should the farmer be accommodated in a way that will not force him to sell his harvest immediately? Or should the farmer be guaranteed against the risk of total crop failure?

There are two possible approaches to this latter concern. Grace periods can be lengthened, or the marketing problems cited can be attacked directly--e.g., through parallel loans for storage facilities with warranty programs. The former approach, of course, seems much more straightforward, and more easily accomplished than the latter. But although extension of the grace period may relieve the financial tightness of the peasant borrower, it may have no effect at all on his necessity to sell his harvest immediately at poor prices. That is, he may still be likely to need his income immediately for the expenses of maintaining his family and starting his next planting; moreover, he may not have the storage facilities that would enable him to wait, or the means of transport to get his produce to existing facilities. Hence the extension of grace periods may make life a little easier for him, but will amount to treating the symptom

rather than the cause of the problem. The farmer's inability to wait will continue, he will be selling his produce immediately at low prices, and hence he will probably find it quite difficult to pay off his loan--even with an extended grace period.

The extended grace period may also increase the probability of delinquency, by allowing the farmer to pay off first his other less flexible creditors. This type of amortization sequence became somewhat of a problem in the assisted credit program of the Banco do Estado de São Paulo (BESP), which had adopted a more liberal grace period on short-term loans to small farmers, precisely for the purpose of allowing them to sell their harvests at ^a more leisurely pace. Not only did such farmers pay off their other creditors first--and hence were not always able to meet their easy BESP payment dates--but other creditors actively sought out customers among the BESP borrowers, knowing that the latter were well-financed and hence likely to be able to pay off their debts; they (the other creditors) knew they would have first claim, in chronological terms, on the income of these BESP borrowers. An extended grace period, then, may on its own not produce very much of the desired results. It may not decrease the farmer's necessity to sell immediately at low prices, and might even worsen the delinquency problem, by attracting other creditors who will insist on their payments first.

The combination of an assisted credit loan project and the building of storage facilities, accompanied by a warranty system, is much more institutionally complicated than the extension of grace periods. More important, it would represent a greater benefit to the farmer than the grace period extension--since it would represent a significant step on the way to self-sufficiency in the market. Just as important, this approach would have important external economies which the

the extended grace period would not. That is, the storage-warranty approach would benefit non-borrowers as well as borrowers. The non-borrowers would presumably have access to the facilities, for their additional numbers would increase the price-stabilizing effect of the storage facilities on the market. Even if they didn't have access to the facilities, for some reason--or couldn't afford to use them--they would still benefit from the increase in post-harvest prices that would occur as a result of removing the borrower produce from the market at harvest time. In sum, the delinquency problem needs to be defined more precisely, in order to help decide what kind of approach one wants to use and whether that approach will be effective.

Delinquency that is due to total crop failures is another type of problem. The small farmer can probably never recoup that loss, and may never be able to make it up from future harvests--no matter how lenient the financial institution is about postponing repayment in such cases--because of the slim financial margin on which he operates. Hence the leniency of the banking institution in face of natural disasters may result only in grinding the farmer down to the point where he can never see his way to self-sufficiency. The Bank, then, might want to consider including in its rural credit loans an insurance-type fund which would take responsibility for full repayment of the loans of those farmers whose crops were totally lost due to disasters such as droughts, insect plagues, etc.

IV - Miscellaneous

A. Descriptive Introductions

The introductions of the country studies might be improved by making them more comparative, and by constructing them with the specific purpose of serving as a backdrop for the loan evaluation material that follows. Perhaps it might be

better to combine the general descriptions in one, so as to bring out comparative aspects. Some of the individual introductory material sounds like any developing country, and hence doesn't provide any real appreciation for the case at hand. The figures on land concentration, percentage of population in the rural sector, percentage of foreign exchange accounted for by agriculture, percentage of national income generated in the agricultural sector, etc., might be better presented in comparative form. A general descriptive section might be more useful in that it would specify what problems were similar in all the evaluated countries, and what problems were specific to particular countries. Much of the material in the descriptive introductions seems unnecessary for understanding the project evaluation; instead of including it, sources might be cited for the interested reader.

One example of useful information for background to the project evaluations is data relating to importation of foodstuffs. Many of the rural credit programs had as their objective the saving of foreign exchange. Yet it is hard to judge the importance of this objective, and the results achieved, without seeing time series data on imported-vs.-domestic production of the good in question. In the Panama paper, for example, it is shown that one of the major objectives of Loans 13/SF and 109/TF was to "substitute the growing importation of foodstuffs" (p. 5, par. 1). It is later mentioned (p. 9, par. 1) that the principal crop financed under the program was rice. Though there is some textual reference to a decrease in rice imports during the nineteen sixties, one would like to have a more complete statistical picture in order to assess the change.** One would also like to see the same kind of statistical information about the export of foodstuffs before and during the rural credit program--in cases where one of the

** P. 16, last par. There seems to be a page missing after p. 16, since the last line ends in the middle of a sentence on p. 16, and p. 17 starts a new section.

goals of the program is to increase food exports, as in the case of Loan 109/TF to Panama (p. 7, #3).

I would be cautious about the use of inter-country comparisons of agricultural credit--e.g., credit as a percent of agricultural product, as a percent of total credit, etc. Although I made such a comparison myself in the Brazil Agricultural Credit paper, I felt that it was of almost no value, because of the different ways of calculating credit in the different countries. The main problem was that some countries classify marketing credit as agricultural, and some as commercial--a significant disparity, since marketing credit can account for a considerable share of total agricultural credit (e.g., about one third in Brazil). Moreover, countries differ as to whether or not they include state-sponsored banks in their calculations of total credit supplied; since these banks are important suppliers of agricultural credit in some countries, these calculating disparities can also make inter-country comparisons meaningless. There is a positive judgment based on such a comparison in the Nicaragua paper, where it is considered "exceptional" that the outstanding balances for rural credit in recent years accounted for almost one third of institutional agricultural credit in the country. This is related, the paper says, to the fact that Nicaragua has the highest ratio of agricultural credit to agricultural product of all Latin American countries, and that agricultural credit has grown at an average rate of 21% between 1960 and 1968 (although, the paper admits, two thirds of this increase is accounted for by external funds--p. 46, #4). The paper itself says that the ratio is exceptional in view of the highly unequal distribution of land in agriculture, and the absence of a national policy favoring the agricultural sector (ibid). Yet it is precisely these latter conditions that lead one to suspect

the validity of the seemingly impressive statistics cited. That is, one could easily imagine that the large landowners are getting their credit under commercial or industrial categories, or outside the country, or from sources not counted as institutional credit--and hence the denominator in the assisted credit/agricultural credit ratio is spuriously low, making the ratio artificially high. Of course the high credit-product ratio would seem to contradict the latter explanation--but, on the other hand, Nicaragua may include categories in its agricultural credit figures that other countries do not. Or else, the agricultural product figure may be comparatively low because of the large peasant subsistence sector whose production is a significant share of total agricultural product, but which does not enter the market nor the production statistics. In short, it is difficult to rely on any such comparative statistics, and better to rely for evidence on growth series within a single country, since these statistics are at least internally consistent. (Indeed, the one growth statistic cited in this example--that of the growth of agricultural credit--shows that the results are not very impressive, since two-thirds of the growth is accounted for by foreign aid funds.)

B. Specific Comments

1. Pan p. 6, notes that Loan 13/SF was modified in 1963 to the extent that IFE discontinued "la prestación de servicios" to the farmers. The BID loan of US\$2.9 million included US\$0.72 million for IFE investments in these services. This seems to be a rather significant change in the character of the program, since it seems to imply (though I cannot quite understand from the text) that the program continued without technical assistance. One would like to know what this discontinuation actually involved, why it occurred, and whether it altered the program.

2. Pan pp. 5-7, describes the objectives and measures of Loans 13/SF of 1961 and 109/TF of 1966. (Par. 1 of p. 5 also refers to a loan 118/TF; is this actually a third loan, or is it a typographical error for 109?) One would like to know if there were any lessons learned from the 13/SF experience that were built in to, or explain some of the provisions of, the second loan.
3. Guat, p. 16, par. 1, mentions the positive aspects of SCICAS' work in attempting to regionalize the production of certain foodstuffs, and increase their yields with the coordinated application of credit and modern inputs. One would like to know more about how these successes were achieved, and what were the mechanics of the programs.
4. Nic p. 19, cont'g par. I didn't quite understand the logic of this paragraph. Does it mean that without the rural credit program, the production of cotton and sesame would have increased on the medium and large farms instead of on the small farms? Why would it have increased on the medium and large farms in the absence of rural credit? Because it was increasing anyway?
5. Nic p. 13, comments that the average size of the borrower's farm was 37 hectares, yet half of the farmers cultivated an average of only six hectares. Does this conflict with the "minifundista" characterization of the Nicaraguan land problem given earlier in the paper? Or was this a group that was one notch above the rest?
6. Nic p. 16, text and chart, show that the amount of uncultivated land increases with the amount of land owned. One would like to know if the uncultivated land is more or less a constant percentage of the total owned--which has been the finding of some other studies. It is hard to ascertain this from the chart, since the land sizes are presented in ranges that are fairly large if one is

trying to determine whether the relationship is constant. Also, one would like to know more about why this is so--i.e., that the uncultivated area increases with the increase in land size. Does it have to do with the fact that these are family farms, and there is not enough family labor to cultivate the larger size farms? In this case, wouldn't the Bank-financed projects want to encourage the employment of hired labor? Or is the uncultivated land of very low marginal productivity?

On the same page, it is mentioned that the departments in which there is the greatest density of farms is where there also exists the greatest utilization of the land. One would like to know more about this, since it seems to conflict with the concern about population density expressed elsewhere in the paper. First, does "better utilization of the land" mean a higher percentage of total area cultivated?--or the use of more efficient production techniques? If the former is true, could the greater utilization result from the higher opportunity cost of the unused land, in that land values in more densely populated areas are greater than those in more sparsely populated areas? If this is so, does this mean that there are some external economies involved in a certain degree of farm density--in the sense that the farmer is more motivated to be efficient?

7. Braz p. 13, par 1. After the first sentence, it should be added that the provision described was abolished by decree in August 1969, though the new decree has, to my knowledge, not yet been implemented. (My Brazil II paper, p. 7, footnote.) Also, in par. 1, the 10% is to be taken from deposits rather than reserves.

8. Braz pp. 20-21, last par., mentions that "the state of Minas Gerais, despite a highly developed banking system...has branches in only 41.5% of the county

seats." I would be hesitant to modify the statement with "only" and "in spite of." If one compared these figures with those for the other country programs evaluated, one might find that this coverage was impressive--i.e., number of branches per rural inhabitant, number of branches per square rural kilometer, etc. This amount of dispersion, for example, looks quite impressive in comparison to Nicaragua, where, outside the rural credit program, there exists, according to the Nicaragua study, only one bank dealing in agricultural credit (the head office). Moreover, Brazilian tax law has tended to encourage the proliferation of municípios beyond normal needs, thus tending to make the denominator of this bank/município ratio abnormally high.

9. Braz p. 31, par. 2. "Xuxu" is chayote and okra is "quiabo."

10. Braz, p. 47, last par. The argument that subsidized credit compensates for government price control over agricultural products no longer has meaning in Brazil because agricultural price controls have been successively removed, starting in 1964.

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