COST OF AGRICULTURAL CREDIT IN THE PHILIPPINES: THE SHORT-RUN EFFECTS OF INTEREST RATE DEREGULATION[*]

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1. INTRODUCTION

This paper analyzes the agricultural credit scenario prevailing in the Philippines at the time of the major deregulation of interest rates undertaken in 1984. The study focuses on the institutional costs of lending to agriculture and on the immediate effects deregulation had on these costs. Costs of lending to non-agricultural sectors and similar studies in other selected countries are used as frames of reference in the analysis.

The agricultural credit scenario of the early 80's, and the lending costs situation for a sample of banks are described in sections 2 and 3.[1] Section 4 focuses on the short-run effects of deregulation on lending costs, and on banks' returns from lending activities. Cross-country comparisons of lending costs are presented and analyzed in Section 5. Some concluding remarks follow.

2. AGRICULTURAL CREDIT SCENARIO

2.1 Agricultural Credit, Institutional Structure and Performance

The rural financial market in the Philippines consists of formal credit institutions and informal credit channels. Formal credit for agriculture is offered through a multi-agency network consisting of: a) banking institutions such as Rural Banks (RBs), Philippine National Bank (PNB), Development Bank of the Philippines (DBP), Land Bank of the Philippines (LBP), Private Commercial Banks (PKBs), Private Development Banks (PDBs), Savings and Loan Association (SLAs), and Savings and Mortgage Banks (SMBs); and b) non-bank institutions such as Government and private insurance companies, credit unions, pawnshops, investment houses and Government agencies/corporations which engage in farm lending

[1] These sections draw partially from a recent study by the Technical Board of Agricultural Credit (TBAC, Agricultural Credit Study, August 1985), of which the co-author of this paper was the project leader.

activities. Informal credit, on the other hand, refers to loans from private moneylenders, friends, relatives, neighbors, traders, co-farmers, input dealers, millers, and other credit sources not under the banking system umbrella.

The financial system is basically urban-oriented. Only 58 percent of more than 5,600 banking outlets, credit unions, and pawnshops in 1982 were located in the rural areas (defined to exclude Metro Manila and regional capital centers). As a consequence, average bank population density in the rural areas (one bank outlet for every 12.7 thousand population) is less than one-third that of urban areas (one bank office for 3.8 thousand population). Metro Manila has the single largest share of institutional presence (30 percent), while 12 percent are in the regional centers. The geographic distribution picture has been influenced by several factors, including the presence of economic opportunities in the area, infrastructure and communication facilities, peace and order conditions, as well as policies affecting branching, establishment of small rural-based unit banks and those affecting other non-bank institution, namely, credit unions and pawnshops.

The agricultural sector contributes a significant share to Gross Domestic Product (GDP), employs a major proportion of the country's labor force, and accounts for a considerable part of total export earnings. However, institutional credit to the sector is generally lacking, and the sector's share of credit relative to the non-agriculture sector has not been commensurate to agriculture's contribution to the economy. In the period 1966-1984, the agriculture sector contributed an average of 30 percent to GDP, but its share to total bank credit has consistently been low, declining from about 18 percent in the period 1966-67 to only 5-7 percent by 1974-77, for an average of 8 percent in the 19-year period (**Table 1**). The ratio of agricultural loans to gross value added (GVA) in the sector remained low during

this period averaging 0.23 peso of credit per peso value of agricultural output. Growth wise, agricultural credit posted a modest average growth of 3.3 percent per year in real terms during the period under study. In contrast, the non-agriculture sector's loan to GVA ratio had been consistently higher averaging 0.88 in the period, and reaching over 1.00 in 1976-78 and 1983; Its share of total loans averaged 92 percent and the non-agricultural loan volume grew at an average annual rate of 8 percent in real terms.

2.2 Major Issues in Agricultural Credit

The problems in agricultural credit may be classified broadly into : a) limitations on the supply of formal credit to agriculture; and b) weaknesses in the institutional financial infrastructure for agricultural credit;

2.2.1 Credit Supply Problems

The shortage of supply of formal credit to the agriculture sector is manifested by the declining proportion of agricultural credit to total bank loans, the inadequacy of credit support to production output in the agricultural sector relative to the nonagricultural sector and the slowdown in the growth of agricultural credit over nearly three decades. In addition, the impact of the recent economic and financial difficulties in the early 1980, was reflected in the further shrinkage of agricultural loans. Moreover, allocative problems and biases exist in terms of the continued preference for financing export-oriented crops (particularly sugar) over domestic oriented food commodities; the limited access of the small farmer clientele; the geographical imbalance in the distribution of loans; and the lack of term credit to the agriculture sector.

Table 1

COMPARATIVE AGRICULTURAL AND NON-AGRIUCLTURAL CREDIT INDICATORS, 1966 – 1984

	Agricultural Loans			Non-Agricultural Loans		
	Volume of Loans Granted (₱M)	Share to Total Loans (%)	Loan to GVA Ratio (%)	Volume of Loans Granted (₱M)	Share to Total Loans (%)	Loan to GVA Ratio (%)
1966	1,504.3	18.0	13.9[a/]	7,324.0	82.0	45.2[a/]
1970	2,851.1	12.4	19.8	20,040.3	87.6	51.5
1975	7,942.5	6.6	18.0	112,525.5	93.4	97.5
1980	20,946.4	9.2	29.0	206,969.6	90.8	87.3
1981	25,376.6	9.1	30.2	253,814.3	90.9	87.7
1982	27,232.7	8.2	33.1	307,030.8	91.8	96.2
1983	28,281.1	8.0	32.2	323,939.7	92.0	102.3
1984	27,070.1	8.1	19.3	309,058.9	91.9	75.0
Average 1966-1984		8.1	23.3		90.9	88.7
Average Growth Rate of Agricultural Loans (%): Current Constant (1972=100)		16.43 3.3			21.77 8.44	

[a/] For 1967
Source: TBAC 1985.

Agriculture financing has developed a marked dependence on the rediscount window of the Central Bank (CB) to a much larger extent than the non-agricultural sector. Rediscounts had funded about 33 percent of total agricultural loans in previous years; rural banks sourced from rediscounts up to 65 percent of their loans granted to agriculture, PNB up to 16 percent and private commercial banks, 30 percent. Since rediscounting is subject to limitations imposed by domestic credit ceilings, the tightening of this window in 1984 in response to economic and financial difficulties had seriously disabled agricultural credit.

A minor proportion of loans had been supplied purely from budgetary (0.9 percent) and foreign sources (0.5 percent). The flow of credit from these special credit programs, numbering about 36 as of end of 1984, had fallen substantially for most as lending scope continuously retracted due to high levels of default, disqualification of many borrowers and rural banks from program participation, termination of major foreign-backed on-lending projects, and rediscounting restraints. Some form of consolidation, unification, or orchestration in the use of these funds would be desirable as an immediate measure to fully utilize available amounts. The agricultural credit quota policy (PD 717), which hoped to increase the supply of credit and the active involvement of banks in agriculture and small farm financing, through the mandatory 25 percent allocation of banks' loanable funds to the sector failed to produce the expected results. The share of agriculture credit in banks' portfolio hardly changed; compliance with agrarian credit was substantially met through investments in government securities as lack of rural outlets, expertise, and an environment of interest rates ceiling made such activity unattractive. On the other hand, compliance by banks has been constrained by lack of readily identifiable projects for financing and absence of mechanisms to facilitate serious implementation.

2.2.2 Institutional Weaknesses

Following essentially a multi-agency approach to credit, no single institution is designated to play a lead role in agriculture and catalyze financing support on a wider scale. The agriculture financing performance would seem to indicate the neglect of the sector among public and private institutions, where agriculture credit had formed only a minor stream in their lending portfolio. This “neglect” must, however, be viewed in the context of the social infrastructure and policy environment for agriculture development which did not favor investments in the sector.

Private banks supply about four-fifths of total agricultural credit, although this volume represents only a small segment of their total loan portfolio, and is mostly directed to short-term collaterized loans for large-scale growers. Many of these banks are inhibited from expanding lending to agriculture due to difficulty of access to rediscount funds, limited network of rural branches, and lack of expertise to handle agriculture beyond their traditional lines.

The small exposure to agriculture of government banks, a subsystem supposed to take some lead in agriculture financing, translates into a 15 percent share in total agricultural credit. Government involvement in agriculture credit is fragmented and scattered among PNB, LBP and DBP. Each devote a somewhat marginal portion of their total lending to the sector on a rather specialized nature and in support of national goals. Although public banks have played a role largely complementary to private banks, some duplication and competition has occurred in certain areas.

Despite the urban orientation of the financial system, the infrastructure for agriculture credit delivery and savings mobilization is in place, but almost totally immobilized. A large segment of this network consisting of rural banks is crippled or in a sad state of disrepair. Rural banks ranked second to private commercial banks in the share in total agricultural credit (15%) and first in the number of small farmers served. More than 80 percent of their portfolio is in agriculture. They had been a major channel of government-supported credit programs specially during the last decade which, unfortunately, created an extensive dependence on CB and special funds to carry on their lending operations. The make up and structure of their operations had been basically small, relatively weak and heavily influenced by government credit programs and policies. Their condition took a turn for the worst immediately after deregulation as they were affected by reforms, financial crisis, high interest rates, rising past due loans, and abrupt withdrawal of all their tax exemption privileges, all of which they were ill-prepared to cope with.

The issue of developing to the full the capabilities of rural-based institutions to mobilize savings as a long term approach to building up resources for investments in the rural areas is a pressing one in the light of three major factors: first, the current external debt problem which more than ever underscores the need for optimal domestic resource mobilization; second, the need to tap alternative sources of loanable funds in view of restrictions on Central Bank rediscounting; and third, the goal of enhancing rural financial market development.

2.3 The Deregulation of Interest Rates

Until early 1984, a fixed and low interest rate policy was maintained for agriculture. Under the government-sponsored supervised credit programs, the lending rates to borrowers

were as low as 12 percent prior to March 1984. At the same time, lending institutions enjoyed preferential treatment at the CB rediscount window to encourage their involvement in agricultural credit programs and to support the prescribed rates on such loans. Through the rediscounting facility, the Central Bank provided funds to credit institutions for as low as 1 percent per annum prior to the 1980 banking reforms, at a time when savings and time deposit rates were at a maximum of 9.5 percent and 14.5 percent per annum, respectively.

In July 1981, as part of an overall package of economic liberalization reforms, a floating interest rate policy was adopted by the Philippines. While the removal of ceilings on all types of deposits and loans with maturities of over 2 years were immediately effected, ceilings on short-term loans remained in place until January 1983. The year 1983 saw a move towards market-related lending rates with the removal of ceilings of one year loans. In March 1984, the Central Bank realigned its lending rate to banks and end-users under its rediscount window to the Manila Reference Rate (MRR System). Thus, for the first time, floating rates were adopted for supervised and non-supervised agricultural credits, as well as for non-traditional exports, cottage industry loans, and other special programs.

Lending interest rates spiraled from about 17 percent in March 1984 to 40 percent in late 1985. The adoption of the MRR-based pricing in rediscounts also brough about unstable and soaring rates in the CB window. In a span of 9 months, MRR-based rediscount rates increased 6 times from 5 percent in March 1984 to 28 percent by the end of December 1984, and lending rates to end-users from 15 percent to 34 percent in the same period. The sharp rise in rates made the CB window a more expensive source relative to deposit funds.

3. INSTITUTIONAL COSTS OF AGRICULTURAL LENDING

3.1 Summary of Procedures and Practices

The costs of agricultural credit normally reflect (a) the considerable resources spent in screening voluminous documents required from borrowers and cumbersome steps involved in loan approval; (b) small loan amounts and numerous loan applications; and (c) additional cost in fulfilling documentation requirements and following up rediscounting loan papers at CB. Documents and processes presently required by CB and the banks are necessary for the proper allocation of funds and judicious selection of borrowers, although simplification of these requirements may be beneficial to both borrowers and banks in terms of reducing borrowing and lending costs.

In applying for rediscounting funds from CB at least ten documents are required from banks (Annex Table 1). All but three documents must be submitted every time banks apply for rediscount funds. Once completed, banks wait from six days to about two months before rediscount funds are released. Undue delays in the release of funds are usually caused by incomplete documentation, errors in computation, lack of coordination among CB units/departments concerned in checking qualification status of banks, pre-audit examinations, and delays in transmittal of rediscount proceeds by depository banks.

In the case of availments for Special Time Deposits (STD) “seed” funds, about 12 types of documents are required from applicant banks, eight of which are submitted every-time an application is made which is about 12 times a year in case a rural bank in good credit standing (Annex Table 1). Processing time involves from six days to three months. Delays in STD releases could be due to insufficient documentation submitted by banks, absence of

bank liaison officer to follow-up STD papers with CB, and delays in the release of STD proceeds by depository banks.[2]

For the selected banks studied here, loan administration is concentrated in the pre-loan evaluation up to the release stage. This is primarily due to substantial resources spent in screening the numerous documents required from borrowers and the lengthy steps involved in loan approval (Annex Tables 4 to 10). Some of the documents required for every loan may be waived if the borrower is a regular client of the bank. For the bank branches with limited loan authorities, an expansion of these loan limits may shorten processing time as the decision to approve loans can be made at the branch level. The institution of an effective credit information and exchange system at the community level may likewise facilitate credit investigation of banks and reduce processing time of loans.

The paperwork and procedures for obtaining a loan are cumbersome and complex. By catering to mostly large borrowers, however, formal channels, especially the private commercial banks and the development banks, are able to reduce costs of lending per peso lent. Moreover, some institutions also try various schemes such as group lending, credit-line financing, and area-based credit programs, all of which are aimed at simplifying lending procedures, thereby reducing costs to both lender and borrower.

3.2 Components of Institutional Lending Costs

Computations of costs of lending reported in this study were based on actual financial statements data of selected banks in 1983 and therefore considered their cost/resource structure as of that date. The existing loan portfolio distribution of banks was also considered and the analysis was conducted separately for each of the loan types (i.e., agricultural and

[2] Details of rediscount procedures are included in Annex Tables 2 and 3.

non-agricultural). Cost calculations after interest rate deregulation (1984) were made using the new prevailing market costs of funds, while the other cost components and portfolio levels of 1983 were maintained. In effect, the deregulation effects discussed in this paper focus only on "pure" change in interest rate levels. Change in non-interest costs were not considered due to unavailability of other 1984 cost data. Lending costs were expressed in terms of per peso value of loans granted, and computed following a financial accounting approach.

The components of the cost of lending include: a) cost of funds; b) administrative expenses; and c) risk expenses. The economic cost of carrying loan arrears was also computed, but presented separate from actual financial costs.

3.2.1 Cost of funds.

These comprise (i) the pure cost of funds, which are actual interest payments on deposits and borrowings weighted by their respective proportions to total loanable funds; and (ii) the transactions cost of mobilizing these funds, which are wages and other direct expenses associated with deposit-taking and borrowing activities. Allocation of cost of funds by type of loan is based on the shares of each loan type to total loans granted. Ideally, the cost of equity funds should form part of the pure cost of funds, but this is not considered due to unavailability of data on actual dividend payouts. In effect, the exclusion of this component amounts to assuming a zero cost for equity funds.

3.2.2 Cost of administration

These include the variable and fixed overhead expenses of banks associated with the processing delivery, and administration of loans. Computations consider total bank

administrative expenses net of those apportioned to transactions cost of mobilizing funds and to risk expenses. Allocation per type of loan is also based on the proportions of agricultural and non-agricultural loans to total loans granted. Ideally, this allocation should recognize differences in time and resources spent on different types of loans, but this information was not available for this study.

3.2.3 Risk expenses

These consist of (i) loan guarantee fees and insurance premium payments pertaining to specific loan types, largely for agricultural loans; (ii) bad debts expenses which include the annual provision for bad debts based on a proportion of loans past due and litigation expenses, normally identifiable by loan type. It should be noted that there are non-quantifiable costs associated with cost of defaults such as cost of loss of access to rediscounts and borrowings, and cost of loss of confidence by bank clientele.

3.2.4 Imputed cost of carrying loan arrears

The economic cost of carrying loan arrears is separately computed to reflect the opportunity cost of funds locked in loans past due and in litigation. This is computed considering the market cost of funds applied to the cumulative volume of loans in arrears carried in the banks' books. Total lending costs are calculated with and without this cost component to preserve the consistency of financial cost computations, but at the same time disclose the important effect of arrears in the lending cost structure.

3.3 Costs of Agricultural and Non-Agricultural Loans

The agricultural loan portfolio of the banks included in the TBAC (1985) study accounts for an average of 41 percent of total loan portfolio, with rural banks posting the

highest concentration in agricultural loans (85%) and the sample commercial bank (PKB) the lowest at 6 percent. As shown in Table 2, the cost of agricultural lending is higher than that of non-agricultural lending across various types of institutions. Prior to the full adoption of market-oriented interest rates, lending cost excluding imputed cost of carrying arrears was the lowest for PNB (11 percent per peso agricultural loans granted and 14 percent for non-agricultural loans), and higher for DBP (34 percent for agricultural loans and 25% for non-agricultural loans). Post deregulation, lending cost for agricultural and non-agricultural loans of almost all institutions were practically doubled. Most affected by increases in costs were the PNB and rural banks (**Table 2**).

Cost of funds constituted an average of 56 percent of total agricultural lending cost during the pre-deregulation period and 67 percent during the post-deregulation period. During the pre-deregulation, the PNB, DBP, and rural banks incurred relatively lower cost of funds ranging from 8-12 percent per peso loan granted since they availed of special credit lines from CB, and in the case of DBP, externally-sourced funds as well. With the adoption of the floating system for both rediscounted and unrediscounted loans, however, cost of funds increased across all types of institutions, accounting for most of the two-fold increase in total lending cost (**Table 3**).

Table 2

Total Estimated Cost of Lending
(In Percent Per Peso Loan Granted)

	Agricultural Loans				Non-Agricultural Loans			
	Pre-Deregulation[a/]		Post Deregulation[b/]		Pre-Deregulation[a/]		Post Deregulation[b/]	
	Without imputed cost	With imputed cost[c/]	Without imputed cost	With imputed cost	Without imputed cost	With imputed cost	Without imputed cost	With imputed cost
Specialized Government Banks								
PNB	11.83	12.14	34.20	35.38	13.78	15.42	32.26	36.48
DBP	34.20	43.56	61.64	115.00	25.42	31.71	47.53	66.28
LBP	24.04	26.40	42.75	49.81	16.34	18.47	32.21	37.10
Private Banks								
PKBs	14.19	14.19	22.84	27.84	17.74	17.96	29.98	30.40
RBs	16.02	20.25	37.09	51.93	17.37	20.17	34.93	41.85

[a/]Cost estimates were derived suing actual financial data as of December 1983.
[b/]Cost estimates were adjusted using MRR based rediscount rates and deposit rates as of December 1984.
[c/]Includes opportunity cost of funds locked in arrears

Source: See Annex Tables 11 to 14.

Table 3

Cost Component in Agricultural Lending
(In Percent per Peso Loan Granted

	Pre-Deregulation (c. 1983)					Post-Deregulation (c. 1984)				
				Total Cost					Total Cost	
	Cost of Fund	Admin-istrative cost	Risk Expenses	Without Imputed Cost	With Imputed Cost [a/]	Cost of Fund	Admin-istrative cost	Risk Expenses	Without Imputed Cost	With Imputed Cost [a/]
PNB	8.62	3.19	0.02	11.83	12.14	30.99	3.19	0.02	34.20	33.08
DBP	10.67	19.86	3.67	34.80	43.56	38.11	19.86	3.67	61.64	113.00
LBP	12.38	9.80	1.86	24.04	26.40	31.09	9.80	1.86	42.75	49.81
PKB	12.64	1.07	0.48	14.19	14.19	26.29	1.07	0.48	27.84	27.84
RBs	10.62	5.04	0.36	16.02	20.25	31.69	5.04	0.36	32.09	81.93

[a/]Includes opportunity cost of funds locked in arrears

Sources: Annex Tables 11 and 12.

Administrative costs of agricultural loans ranged from 1 percent per peso loan granted (private commercial bank) to 20 percent (DBP), with the rural banking system incurring 5 percent in loan administration for every peso granted. Considering guarantee/insurance expenses and actual loan losses, risk expenses range from a low 0.02 percent (PNB) to 4 percent (DBP).

Costs of loan administration were in general lower for non-agricultural loans (see Annex Table 13), ranging from 1.63 percent (PNB) to 9.97 percent (DBP). Risk expenses in non-agricultural loans (0.01 to 1.85 percent) were also lower than in agricultural loans. The same is in general true for inputed costs of carrying arrears, which ranged between 0.22 to 6.29 percent for non-agricultural loans, and from 0 percent (PKB) to 9.4 percent for agricultural loans (see Annex Tables 11 and 13). The following section extends this cost

comparison between loan types, and looks more closely into the differential effects of deregulation on lending costs and banks' returns.

4. SHORT-RUN EFFECTS OF INTEREST RATE DEREGULATION

4.1.1 Effects on Lending Costs

This section is concerned with the short-run effects that interest-rate deregulation had on the lending costs of Philippine banks, after the March 1984 lifting of lending rate ceilings and realignment of rediscount rates by the Central Bank. As will be indicated below, lagged adjustments of key (non-interest) components of lending costs that are likely to follow an interest rate reform cannot be analyzed with the information currently available. Indeed, these medium-to-long term effects of deregulation remain an important research subject in the Philippines. This section then, concentrates on the direct and indirect effects of the increases in interest rates on the banks' lending costs.

The method used in the TBAC study to compute lending costs can be summarized as follows (see section 3 above:

$$C = F + A + R + D \qquad (1)$$

where,

C is the total lending costs,

F is the cost of funds for the bank,

A is the cost of loan administration,

R is the risk expense (guarantee/insurance fees and bad debt/litigation expenses), and

D is the imputed cost of carrying arrears,

In turn, D has been calculated as

$$D = B * M \qquad (2)$$

where,

B is the ratio of past due balances to total loans granted, and

M is the market cost of funds

Disregarding interactions for simplicity of the presentation and denoting as X the percentage change in variable X, the percentage change in lending costs can be written as:

$$C = (F/C)\,F + (A/C) + (R/C)\,R + (D/C)\,D \qquad (3)$$

Recognizing the definition given for D in (2), then:

$$D = B + M, \qquad (4)$$

And (3) becomes:

$$C = (F/C)\,F + (A/C)A + (R/C)\,R + (D/C)\,(B + M) \qquad (5)$$

In words, the change in lending costs is equal to a weighted sum of the changes in the components of lending costs. The weights are given by the shares of each component in total lending costs.

Now, the deregulation of interest rates affects the specific cost of funds for the bank ($F > 0$) and the market cost of funds used in the computation of the imputed cost of arrears ($M > 0$). In the short-run it can be assumed that administration costs, explicit risk expenses, and default rates are not altered by the interest rate reform, therefore $A = R = B = 0$. With this assumption, equation (5) can be reduced to:

$$C = (F/C)\,F + (D/C)M \qquad (6)$$

Furthermore, if the bank was operating (before deregulation) using funds with cost equal to the market cost of funds, equation (6) could be further simplified as

$$C = [(F/C) + (D/C)] M \qquad (7)$$

This was not the case however for most Philippine banks, therefore equation (6) is the most appropriate to show the major factors involved in the immediate effect of interest rate deregulation. In addition to the actual magnitude of the change in interest rates (F and M), the other important elements are the share of cost of funds in total lending costs (F/C), and the share of the imputed cost of carrying arrears in total lending costs (D/C). Finally, since the increase in the market rate of interest M is the same for all banks (opportunity cost concept), the factors that explain the differential impact of deregulation for different banks reduce to three: the specific change in cost of funds for the bank in question, F, and the shares of cost of funds and imputed cost of arrears in total costs.

The effects of interest-rate deregulation on the lending of the banks included in the study are summarized in **Table 4**. **Table 5** reports the specific increases in cost of funds due to the 1984 deregulation for each bank and each loan type, and **Table 6** indicates the shares of the different components of lending costs in total lending costs pre-deregulation.

Lending costs of agricultural loans were the most affected by deregulation in all banks with the exception of LBP (**Table 4**). The main factor explaining this differential effect is the increase in cost of funds. As shown in **Table 5**, costs of funds increased substantially more for agricultural loans than for non-agricultural loans. Even though the share of costs of funds in total lending costs pre-deregulation was smaller for agricultural loans than for non-agricultural loans in all banks (**Table 6**), this factor was able to offset the differential increase in cost of funds only in the case of the LBP.

Table 4

Effect of Interest-Rate Deregulation on the Costs of Lending Agricultural Loans and Non-Agricultural Loans

	Total Costs of Lending Agricultural Loans			Total Costs of Lending Non-Agricultural Loans		
	Pre-Deregulation % per Peso	Post-Deregulation % per Peso	Increase %	Pre-Deregulation % per Peso	Post-Deregulation % per Peso	Increase %
Specialized Government Banks						
PNB	12.14	35.38	191.4	15.42	36.48	136.6
DBP	43.56	115.00	164.0	31.71	66.28	109.0
LBP	26.40	49.81	88.7	18.47	37.10	101.9
Private Banks						
RBs	20.25	51.93	156.4	20.17	41.85	107.5
PKB	14.19	27.84	96.2	17.96	30.40	69.3

Source: Table 2.

Table 5

Increase in Cost of Funds for Agricultural Loans And Non-Agricultural Loans due to the 1984 Deregulation

Institution	Agricultural Loans % Increase	Non-Agricultural Loans % Increase
Specialized Government Banks		
PNB	263.7	152.2
DBP	257.2	162.6
LBP	151.1	121.6
Private Banks		
RBs	198.4	130.1
PKB	108.0	81.2

Source: Computed based on figures reported in Annex Tables 11 to 14.

Table 6

Shares of Components of Lending Costs in Total Lending Costs in the Sample of Banks Agricultural and Non-Agricultural Loans, 1983 (Pre-Deregulation)

Type of Loan/ Cost Component	Specialized Government Banks			Private Banks	
	PNB %	DBP %	LBP %	RBs %	PKB %
<u>Agricultural Loans</u>					
Cost of funds	71.0	24.5	46.9	52.4	89.1
Cost of administration	26.3	45.6	37.1	24.9	7.5
Risk expenses	0.2	8.4	7.1	1.8	1.4
Imputed Cost of Arrears	2.6	21.5	8.9	20.9	0.0[b/]
Total[a/]	100.0	100.0	100.0	100.0	100.0
<u>Non-Agricultural Loans</u>					
Cost of funds	78.7	42.9	70.7	66.9	83.5
Cost of administration	10.6	31.4	14.9	17.9	10.6
Risk expenses	0.1	5.8	2.9	1.3	4.7
Imputed Cost of Arrears	10.6	19.8	11.5	13.9	1.2
Total[a/]	100.0	100.0	100.0	100.0	100.0

Source: Calculations based on figures reported in Annex Table 11 and 13.
[a/] Some totals do not add exactly to 100 due to rounding.
[b/] Negligible.

These results, and the discussion of preceding sections, suggest that the realignment of rediscount rates affected relatively more agricultural lending than non-agricultural loans. Banks tended to rely more upon cheap rediscount funds in their lending to agriculture than they did for operations with other sectors. This caused that costs of funds had less incidence in the costs of agricultural loans than non-agricultural loans in the period pre-deregulation. But on the other hand, the 6 to 7-fold increase in rediscount rates implemented in 1984 generated specific increases in costs of funds much larger for agricultural loans than for loans to other sectors due to their heavier reliance upon rediscount funds. As a result, overall lending costs to agriculture increased more than the cost of lending to other sectors.

The figures reported in **Table 4** indicate that the bank most affected by deregulations was the PNB. Heavy reliance on rediscount funds pre-deregulation determined that the specific increase in cost of funds for this bank were the highest of all banks in the sample (**Table 5**). At the same time, a large portfolio concentrated on large loans made administration costs very low in the PNB and consequently the share of costs of funds in the bank was relatively high for all kinds of loans (**Table 6**). Both factors contributed to very large increases in overall lending costs for the PNB.

4.2 Effects on Comparative Net Returns in Lending

Net returns for both agricultural and non-agricultural loans appear to have improved with the adoption of the floating rate system for all types of loans. Prior to the deregulation of interest rates, all banks were incurring losses in their lending operations, ranging from 2 to 33 percent per peso agricultural loan granted and from 1 to 15 percent per peso non-agricultural loan granted (see **Table 7**). During the post-deregulation period, however, positive returns were experienced by all types of institutions except DBP, in at least one type of loan activity.

Overall, considering the entire loan portfolio of banks, all of them except DBP and RBs were in a position to realize positive gains with the lifting of ceilings on interest rates for all types of loans.

The foregoing analysis of agricultural lending spreads proceeds on the assumption that banks are able to source funds from (a) special time deposits (STDs); (b) blended STD and rediscounting funds; (c) lended rediscounting and marginal bank funds; or (d) purely marginal bank funds. Considering the varying cost of funds from these sources prevailing immediately after deregulation, estimates show higher gross spreads (3-15 percent) to banks when STD and/or rediscounting funds are used in spite of the low prescribed lending rates to end-borrowers. For banks which use marginal funds for lending in agricultural programs, gross spreads are lower at 4-10 percent when market rates are charged to borrowers (**Table 8**).

These gross spreads, however, are reduced and, in some cases, wiped out when administrative and risk expenses are added to fund costs. Considering these added costs (except for imputed cost of carrying arrears), rural banks stood to incur net spreads of 1-10 percent when funds were sourced from STDs and/or rediscounting window. Other banks using rediscount and/or marginal bank funds may have gained net spreads of 4-6 percent. If carrying cost of loan arrears is considered as part of lending cost, net spreads of all banks became negative, except for commercial banks (and the PNB) whose spreads were still positive at 3-6 percent assuming that they were able to maintain administrative and risk expenses at low levels.

Table 7

Lending Cost and Returns, Agricultural Vs. Non-Agricultural Loans (In Percent Per Peso Loan Granted)

	Pre-Deregulation (c. 1983)			Post-Deregulation (c. 1984)		
	Cost [a/]	Returns	Net Return (Loss)	Cost [a/]	Returns	Net Return (Loss)
Agricultural Loans						
PNB	12.04	8.31	(3.83)	35.38	45.49	10.11
DBP	43.56	10.57	(82.99)	115.00	45.49	(69.51)
LBP	26.40	17.23	(9.17)	49.81	45.49	(4.32)
PKB	14.19	12.29	(1.80)	27.84	45.49	12.65
RBs	20.25	14.25	(6.00)	51.93	45.49	(6.44)
Non-Agricultural Loans						
PNB	15.42	8.30	(7.12)	36.48	45.49	9.01
DBP	31.71	10.57	(21.14)	66.36	45.49	(20.29)
LBP	18.47	17.26	(1.21)	37.10	45.49	8.39
PKB	17.96	12.16	(5.80)	30.40	45.49	15.09
RBs	20.17	14.25	(5.92)	41.85	45.49	3.64
Total Loans						
PNB	15.19	8.30	(6.89)	36.37	45.49	9.17
DBP	32.81	10.57	(22.84)	69.42	45.49	(23.93)
LBP	24.01	17.26	(6.75)	43.36	45.49	2.75
PKB	17.59	12.16	(5.43)	30.08	45.49	15.41
RBs	22.45	14.25	(8.20)	49.47	45.49	(3.98)

[a/] Includes opportunity cost of funds locked in arrears

Sources: Annex Tables 11 to 14.

Table 8

Net Spreads to Banks Participating in Agricultural Credit Programs Under the Interest Structure As of December 1984 (In Percent)

	Cost of Funds	Interest to Borrowers	Gross Spread	Administrative and Risk Expense		Net Spread	
				Without Imputed Cost	With Imputed Cost	Without Imputed Cost	With Imputed Cost
A. STD-Funded (100%)	3	12	9	5.27	20.11	3.73	(11.11)
	3	15	12	5.27	20.11	6.73	(8.11)
	4	9	5	5.27	20.11	(0.27)	(15.11)
	5	8	3	5.27	20.11	(2.27)	(12.11)
	6	12	6	5.27	20.11	0.73	(14.11)
	6	15	9	5.27	20.11	3.73	(11.11)
B. Blended Funds (50% STD: 50% rediscounting)	18.94	34.26	15.32	5.27	20.11	10.05	(4.79)
C. Rediscounted Notes (90% of loan value: 10% marginal bank funds)							
RBs	25.31	34.26	8.95	5.27	20.11	3.68	(11.16)
PNB	25.31	34.26	8.95	3.20	4.38	5.75	4.57
LBP	25.31	34.26	8.95	11.13	18.19	(2.18)	(9.24)
PKB	25.31	34.26	8.95	3.96	3.96	4.99	4.99
D. Marginal Bank Funds							
RBs	34.74	40.53	5.79	5.27	20.11	0.52	(14.32)
PNB	34.74	42.00	7.26	3.20	4.38	4.06	2.88
LBP	34.74	39.00	4.26	11.13	18.19	(6.87)	(13.93)
PKB	34.74	45.00	10.26	3.96	3.96	6.30	6.30

Source: Annex Table 15.

The computations tend to show that use of STDs/rediscount funds even with prescribed levels of lending rates was still the most profitable option for agricultural lending. While the use of marginal bank funds in agricultural lending afforded the most efficient banks (commercial banks, in particular) positive spreads, it can hardly be expected that such funds will be channeled to agriculture. Moreover, it means lending rates to farmers as high as 45 percent. It is believed that, in the presence of resource constraints, banks will use their own funds only to finance more profitable sectors where the risks are less and the turnover is faster, as in trade and commerce. They will tend to favor big, collaterized loans where delinquency is lower and servicing cost is less expensive. Under this set-up, agriculture will receive least priority from banks considering the higher risk and costs and slower turnover of loans in this sector.

It must be kept in mind that the foregoing discussion of lending spreads relates to the interest-rate structure prevailing immediately after deregulation. A similar analysis with updated information would put in a proper perspective banks'decisions regarding agricultural lending in the present period.

5. CROSS-COUNTRY COMPARISONS OF COST ESTIMATES

It is interesting to compare the results presented in this study with selected case studies of other countries. Since interest rates vary substantially across countries due to different monetary scenarios, the comparison focuses on the non-financial costs of loan administration. Table 9 summarizes the results discussed above for the Philippines and those obtained in other countries. The costs components considered for the Philippine banks are loan administration costs inclusive of risk expenses (guarantee/insurance fees and bad

debt/litigation expenses), since these are included in the definition of non-financial costs in the other country studies.

Costs associated with default (risk premia) are not included in **Table 9** for two reasons. First, there are differences across banks in the measurement and reporting of delinquency and default. Secondly, the opportunity cost of funds involved in the calculations of default costs depends on the absolute levels of interest rates prevailing in the country, thus contaminating the contrasts across banks with the effects of the countries' monetary policies. In spite of these limitations, the importance of the default factor when comparing bank performances will be discussed later in this section.

With the exception of the PNB, specialized government banks in the Philippines show the high loan-administration costs typical of government development banks in other countries. As discussed in a previous section, the low administration costs of PNB can partially explained by its large scale operations based on relatively large loans to agribusiness and agricultural trading enterprises. Agricultural loans appear far more costly to administer than non-agricultural loans among these specialized banks, whereas the differences among private banks depend on the type of private bank in question. Agricultural loans are more costly to administer than non-agricultural loan in rural banks, while the opposite is true for commercial banks.

A weighted average of loan administrations costs in specialized government banks is still higher than that calculated for private banks in the Philippines, but appears close to that observed in the private commercial bank of Honduras. However, if banks' weights are adjusted to exclude sugar loans in the Philippines, the weighted averages for costs of

Table 9

Costs of Loan Administration Estimated in a Sample of Banks in the Philippines and in Selected Case Studies in Other Countries Costs in Percent Per Currency Unit Lent, by Type of Loan

Case Studies	Agricultural Loans (%)	Non-Agricultural Loans (%)	All Loans (%)
Philippines[a/]			
Specialized Govt. Banks			
PNB	3.2	1.6	-
DBP	23.5	11.8	-
LBP	11.7	3.3	-
Weighted Ave.	4.2	2.7	-
Private Banks			
RBs	5.4	3.9	-
PKB	1.6	2.7	-
Weighted Ave.	2.3	2.7	-
Hounduras[b/]			
Govt. Dev. Banks	-	-	10.0
Priv.Coml Bank	3.7-8.4[c/]	1.0-7.5[c/]	3.4
Dominican Republic			
Govt.Dev. Bank[d/]	9.3	n.a.	9.3
Govt.Dev. Bank[e/]	8.8	n.a.	8.8
Niger[f/]			
Govt.Dev.Bank	9.5	n.a.	9.5

a/ TBAC, "Agricultural Credit Study, Manila, August 1985.
Data base: banks' financial statements 1983
Weighted averages calculated using the shares in total loans granted 1983.

b/ Cuevas, Carlos E., "Intermediation Costs and Scale Economies of Banking under Financial Regulations in Honduras". Unpublished Ph.D. Dissertation, The Ohio State University, 1984. Data base: branch-level records 1970-1982.

c/ Cuevas, Carlos E., and Douglas H. Graham, "Agricultural Lending Costs in Honduras", in Undermining Rural Development with Cheap Credit, Westview Press, 1984.
Data base: branch-level records 1982, and field survey, 1983. Highest cost of agricultural loans correspond to foreign-funded supervised loans.

d/ Cuevas, Carlos E. and Jeffrey Poyo, Costos de Operacion y Economias de Escala en el Banco Agricola de la Republica Dominica. Centro de Estudios Monetarios y Bancarios, Republica Dominicana, 1986. Data base: branch-level records 1979-1983.

e/ Cuevas, Carlos E. and Jeffrey Poyo. "Costos de Intermediacion Financiera en el Banco Agricola dela Republica Dominicana. Los Efectos dela Movilizacion de Depositos". ESO 1316, Ohio State University, November 1986. Data base: branch-level records 1984-1985. Deposit mobilization activity started in 1984.

f/ Cuevas, Carlos E., "Transaction Costs of Rural Credit in Niger", forthcoming.
Database: field surveys, household level (1985) and branch-level (1986).

agricultural loans raises to 6.7 percent in the specialized government banks and 2.5 percent in private Philippine banks.

A comparison of (non-interest) lending costs across banks of different countries should take into account at least two important factors: first, the overall "degree of sophistication" of the banks in question, and second, the different performance in loan recovery associated with the institutions under analysis. As to the first consideration, the case of the government development bank of Niger (The "*Caisse Nationale de Credit Agricole*") stands out as a very simple credit delivery system. In spite of performing a mere input delivery function, without carrying out essential banking procedures of loan evaluation, monitoring and loan recovery, this bank shows the high administration costs reported in **Table 9**. The case studies in the other countries considered here are assumed to be comparable in the sense that basic conventional lending practices are generally followed in all cases.

Performance in loan recovery appears strikingly different across the banks under comparison. Table 10, shows the past-due ratios reported in the different sources (column 1) and calculates the risk premia associated with them assuming a homogeneous opportunity cost of funds of 10% (column 3). Column 4 in **Table 10** indicates the total lending costs resulting from this exercise, excluding the interest paid on deposits and borrowings and the transaction costs of mobilizing those funds.

The use of past-due ratios needs to be taken with caution. The usual way of computing these ratios, i.e., overdue balances over total loans outstanding, may bias the comparison across banks if the term structure of their loan portfolio is substantially different.

Furthermore, the larger the share of long-term loans not yet due in the portfolio, the larger the downward bias in the measured past-due ratio.

With the foregoing caveats in mind, the last column of **Table 10** provides a rough comparison across banks and countries that encompasses both transaction costs of lending and loan recovery performance. Private commercial banks (in the Philippines and in Honduras), and government banks in the Philippines including the PNB could be classified in a low-cost category. If the PNB is excluded from the calculations, specialized government banks of the Philippines fall to an intermediate cost category, along with Philippine Rural Banks and the government agricultural bank of Niger. Government development banks in Honduras and the Dominican Republic appear in a high-cost category.

An important implication of the foregoing discussion is the need to pay close attention to the measurement and reporting of loan recovery performance. The admittedly imperfect comparison exercise presented in Table 10 highlights the incidence of default rates in building a comprehensive performance indicator for banks' lending activities.

6. CONCLUDING REMARKS

This paper has analyzed the short-run effects of the major deregulation of interest rates undertaken in the Philippines in 1984. Deregulation caused a 2 to 3-fold increase in lending costs, with different effects across loan types and bank types. Costs of agricultural lending were the most affected by this deregulation, due to the striking increase of rediscount rates, and the relatively heavy reliance on rediscount funds for agricultural loans.

Table 10

Cross-country Comparison of Non-Interest Agricultural Lending Cost Using a 10% Opportunity Cost of Funds to Calculate Risk Premiaa/

	(1) Past-due ratio %	(2) Loan Admin. Costs %	(3) Risk Premia %	(4) Total Non-Interest Costs %)
Philippines				
Government Banks incl. PNB	7c/	4.2	8.6	12.8
Government Banks excl. PNB	7	17.6	9.6	27.2
Private Banks				
Rural Banks	23	5.4	34.5	39.9
Commercial Banks	10	1.6	12.4	14.0
Honduras				
Government Development Bank	35	10.0	64.6	74.6
Private Commercial Bank	5	3.4	6.0	9.4
Dominican Republic				
Government Dev. Bank[d/]	28	8.8	46.2	55.0
Niger				
Government Development Bank	18	9.5	26.2	35.7

[a/] See sources in Table 9.

[b/] Computed using the formula $r = (d/(1-d)(1+a+f)$
where, r is the risk premium
d is the default rate (assumed equal to the past-due ratio here)
a is the loan administration cost
f is the opportunity cost of funds, assumed 10% for all cases

[c/] Past-due ratio corresponds to PNB and DBP. The ratio for LBP and separate ratios for PNB and DBP are not reported in the TBAC study.

[d/] Only most recent study considered for this table.

Even though lending costs increased across the board, the liberalization of lending rates allowed most banks to attain positive net returns in their lending activities. This was an improvement with respect to their situation pre-deregulation. It must be kept in mind that the

analysis presented here corresponds to the period immediately after deregulation (early 1985). In the last two years, interest rates and the overall economic environment in which banks operate has certainly changed. The studies currently under way on rural finance in the Philippines should document the nature and magnitude of these changes, and their effects on banks' performance.

Lagged effects of deregulation, affecting the non-interest components of lending costs, remain to be investigated. More flexible interest rates should have allowed reductions in costs of loan administration and risk expense, essentially through substitution effects. However, the period post-deregulation has been one of economic recession, a factor that increases risk and possibly default rates. This would tend to increase explicit risk expenses (e.g., via litigation fees), and costs of administration due to the need for more careful screening of loan applications. Therefore, the net effect of deregulation on these non-interest components of lending rates should be investigated controlling for the effects of overall economic performance.

The comparison of lending costs in the Philippines against those obtained in selected case studies in other countries highlighted the importance of considering loan recovery as part of an overall indicator of lending performance. Costs of agricultural lending in the Philippines (aside from costs of funds) appeared in general lower than those observed in other developing countries. These results however, are tentative since they are based upon imperfect estimates of default rates. Further research and homogenous methods of measuring and reporting loan delinquency are needed in this area.

Annex Table 1: DOCUMENTATION REQUIREMENTS FOR RB STD/ REDISCOUNTING APPLICATIONS

STD	Rediscounting
1. Special Certificate of Time Deposit. This should be in the name of the Central Bank of the Philippines, signed in blank and undated. 2. Terms and conditions of special time deposit. This document is signed by the President/ Manager or his authorized representative 3. List of applicant farmers prepared by the authorized production technician and reviewed/approved by the President/ Manager of the bank. The listing must be grouped by barrios/barangays and by projects. All applicant-borrowers appearing in the list should have complete postal addresses indicating house number, street, barrio/barangay, and municipality/city in order to facilitate follow-up and supervision. 4. Information sheet duly accomplished. This is prepared jointly the RB technician and bookkeeper and certified by the President/ Manager. 5. Bank plan loan budget for IAF banks only. This is signed by authorized bank officers. A check should be made if the loan budget was computed on the basis of targets set by NFAC or BAI. 6. Rural bank statement of financial condition. Latest copy as of the date of application. 7. Rural bank statement of income and expenses. Latest copy as of the date of application. 8. Statement of agricultural and industrial loans outstanding by term and program and by crops and industry. Check if the figures agree with those reflected in the bank's latest statement of condition. 9. Weekly reports on required and available reserve against deposit liabilities for four consecutive weeks. A copy of those already submitted to the Central Bank should show	1. Board Resolution - A copy of the resolution of the Board of Directors of the rural bank authenticated in accordance with existing regulations, authorizing the rural bank to negotiate for a loan with the Central Bank and designating the officer(s) of the rural bank authorized to endorse promissory notes and sign all papers pertaining to the loan, in behalf of the rural bank. 2. Loan Application Form with Trust Receipt Agreement - Original and one copy, duly accomplished and signed by the authorized officer(s) of the rural bank. The Rural Bank may prepare one extra copy for its file. 3. Financial Statements - A copy of the Statement of Condition of the rural bank as of the date of the application supported by the corresponding Statements of Income and Expenses and required schedules. 4. Report on Required and Available Reserves - A copy of the Report on Required and Available Reserves of the rural bank against deposit liabilities for the week ending the date of the application as well as a certification to the effect that the Rural Bank has not incurred net reserves deficiencies for four (4) consecutive weeks as of the date of its application. 5. Promissory Note in Favor the Central Bank with Trust Receipt Agreement - Original and two (2) copies of the corresponding promissory notes of each type of loan applied for, duly signed by the authorized officer(s) of the rural bank for its file. One extra copy may be prepared by the rural bank for its file. 6. Rediscount Schedule - For rural bank depositing collaterals with the Central Bank, original and two (2) copies. For rural banks depositing collaterals with designated depository commercial banks original and one (1) copy. This rediscount schedule should contain the acknowledgment and certification of the designated depository

Annex Table 1: DOCUMENTATION REQUIREMENTS FOR RB STD/ REDISCOUNTING APPLICATIONS

STD	Rediscounting
no deficiencies. 10. Certification by the Provincial Veterinarian or his authorized representative that there had been no outbreak of infectious/communicable disease of animals in the province in case of livestock; and certification from the Barangay Captain/BFAR Extension Worker that the borrower is a bona fide fisherman and a resident of the locality in case of "Biyayang Dagat" applications. 11. For RBs without assigned target areas during the on-going phase of the program or RBs who want to finance additional areas in excess of their assigned targets, a certification of target areas by the Provincial Program Officer for crops should likewise be attached to the application.	commercial bank duly signed by its representative. 7. Certifications – by the rural bank technicians that the loans listed in the rediscount schedules were granted under the supervised credit scheme, and by the rural bank president/manager that the unsecured loans pertaining to Masagana 99 and "Masaganang Maisan" are covered by the Agricultural Guarantee Fund. 8. Report on Average Monthly Savings and Time Deposits – for the past four (4) months immediately preceding the date of loan application. 9. Report of Loans Granted Classified as to the Size of Loan Amount (CBP-DLC Form No. for the past 4-month period ending at the month immediately preceding the date of loan application. 10. Other Papers/Documents – As maybe required from time to time.

Source: CB, In TBAC (1985).

Annex Table 2. REDISCOUNT LENDING PROCESS FROM CENTRAL BANK TO A RURAL BANK

Process/Activity	Minimum Number of Personnel Involved	Time Involved (Hour)	Cost (₱) Per Rediscount Application
A. Application Activities Receipt of Loan Application a) Check completeness of application and supporting papers b) List application in loan register c) Submit loan applications to Division concerned	1	.17 (10 minutes)	₱ 2.20
B. Processing Activities Office Level a) Process applications Examine credit instruments and supporting documents analyze financial statements determine bank's solvency, Credit worthiness and adherence to statutory and rediscounting requirements. Compute collateral deficiency/ past due loans Prepare processing sheets and loan memo. Prepare draft to rural bank	1	9 (540 minutes)	165.87
b) Review/evaluation of loan memo and processing sheet	2	.75 (45 minutes)	20.57
c) Recommendation for approval/ disapproval	1	.27 (10 minutes)	9.82
d) Approval/disapproval	1	.08 (5 minutes)	6.54
C. Fund Releasing Activities			
a) Receipt of approved loan application	1	.50 (30 mins.)	7.11
b) Prepare credit advices/ transmittal letter			
c) Preparation of promissory notes as to date granted and due date with CB	1	.25 (15 mins.)	6.81
d) Check advices/promissory notes/transmittal letter			
e) Initial advices and transmittal letter/records details of releases in the logbook	1	.08 (5 mins.)	4.91
f) Sign advices/ initial letters	1	.08 (5 mins.)	6.54
g) Sign advices/letters	1	.08 (5 mins.)	1.18
h) Release advices and letters	1	.08 (5 mins.)	1.11
i) Record releases in proofsheet	1	.08 (5 mins.)	1.11
j) Record releases in ledgers	1	.08 (5 mins.)	1.18
k) Encode releases for COPC			

Annex Table 2. REDISCOUNT LENDING PROCESS FROM CENTRAL BANK TO A RURAL BANK

Process/Activity	Minimum Number of Personnel Involved	Time Involved (Hour)	Cost (₱) Per Rediscount Application
D. Fund Payment Activities			
a) Receive and record receipt of demand drafts/checks/cash payments b) Prepare list of demand drafts/ checks for deposit with the Cash Department	1	.25 (15 mins.)	2.31
c) Review of prepared list of demand drafts/checks for deposits	1	.08 (5 mins.)	2.22
d) Transmit list of payments with demand drafts/checks to Cash Department and copies of lists to the Securities Control Division.	1	.08 (5 mins.)	.27
E. Pre/Post Credit Examination Activities Field Level			
a) At the Depository Bank: examine collateral papers securing the loans of rural bank granted under "automatic" rediscounting or pre-audit requirement;	2	7 (420 mins.)	52.65
b) At the rural bank: Examine the books-of-accounts of the bank to determine its adherence to the accepted principle of accounting and sound banking practice. Compute collateral deficiency/ past due loans/unremitted collections; Confer with management on findings/CB policies/following SES III findings.	2	14 (840 mins.)	75.30
Source: CB-DLC. In TBAC (1985).			

Annex Table 3. STD LENDING PROCESS (P300,000 amount of STD and 25 borrowers)

Process/Activity	Minimum Number of Personnel Involved	Approximate Time Involved (Hour)	Estimated Cost (₱)
A. Application Phase			
1. Analysis of applicant bank's statement of condition and fund utilization by Agricultural Credit Supervisor (ACS)	1	3	102.36
2. Review of documents accompanying STD application by ACS.	1	3	178.94
B. Processing Phase			
1. Receipt/recording of STD application by administrative staff/preliminary check on compliance with requirements and completeness of supporting papers by Disbursing and Collection Division (DCD)	1	1.4	22.25
2. Review/comments by Supervised Credit Group (SCG)	2	1	29.45
3. Review/Comments by Supervision and Examination Group (SCG)	2	1	29.45
4. Clearing by Department of Loans and Credit	2	0.75	10.50
5. Evaluation of application by DCD and recommendation for approval	2	1	33.45
6. Review/Comments and approval by SCG Associate Director of SAG Director, SES Department III	2	0.5	35.10
C. STD Releasing Phase			
1. Preparation of checks/credit advice and transmittal letters to bank by DCD	4	1	18.20
2. Final approval: counter signature and signature of SAG/ Associate Director, respectively	2	0.5	35.10
3. Recording/posting of approved STD/release of Credit advise and letter.	2	0.35	3.45
D. Supervision and Follow-up Phase			
1. Review of records regarding STD utilization/follow up of repayments;	1	5.0	286.30
2. Confirmation of loans and project verification[1/]	1	40.0	1,431.50
3. Coordination/meeting with other agencies[2/]	1	5.0	-

Annex Table 3. STD LENDING PROCESS (P300,000 amount of STD and 25 borrowers)

Process/Activity	Minimum Number of Personnel Involved	Approximate Time Involved (Hour)	Estimated Cost (₱)
E. Collection/Repayment Phase			
1. Preparation of collection letters/ receipt and recording of checks/demand drafts from banks		0.5	115.75
2. Preparation of pertinent papers of repayment;		1.0	29.10
3. Recording of payments in pertinent books/ledger.		.25	4.05
TOTAL			₱2,277.95 ========

[1/] Required but not always immediately accomplished due to hectic schedule of ACS.
[2/] Not included in costing as the activity is not done for every application.

Source: CB-SES III in TBAC (1985).

Annex Table 4. LOANING PROCESS FROM BANK TO BORROWER
DBP Agricultural Loans Supervised

Activity	Time Involved
A. Pre-Loan Evaluation Activities (Application Stage)	
1. Loan Counselling	7 ½ hours/day
2. Acceptance Application papers	
B. Loan Evaluation Activities	
1. Review of loan documents	4 hours/day
2. Technical Evaluation	16 hours/case
3. Financial Evaluation	16 hours/case
4. Final Review, Endorsements and Recommendation	4 hours/case
C. Loan Processing Activities	
D. Post-Loan Follow-up Activities	
1. Project Verification Prior to Releases Other than the first;	8 hours/day
2. Release of Loan Proceeds	
E. Loan Collection Activities	
1. Review of Accounts;	7 ½ hours/day
2. Preparation of Collection; Letters and Telegram	
3. Follow-up Calls;	
4. Follow-up Visits	
F. Litigation Activities	
1. Review of documents;	8 hours/day
2. Preparation of Foreclosure Petitions	
3. Preparation of Bank Bids;	
4. Preparation of Inter-Office Memoranda Re: Recommended actions to be taken	
5. Preparation of Monthly Reports to the Chairman and Vice-Chairman	

Source: DBP, In TBAC (1985).

Annex Table 5: LOANING PROCESS FROM BANK TO BORROWER
PNB AGRICULTURAL LAONS SUPERVISED

Activity	Time Involved	Total Cost Involved (Per Loan Application)
A. Pre-Loan Evaluation Activities (Application State)		
1. Verification of records (master list of farmers and subsidiary ledger) by the bookkeeper	0.16 hour	1.92
2. Interview of applicant by Farm Credit Supervisor (FCS)	0.25 hour	3.94
B. Loan Evaluation Activities		
1. Credit investigation on applicant and farm inspection by FCS;	1.00 hour	19.15
C. Loan Processing Activities		
1. Examination of loan papers by FCS	0.33 hour	5.61
2. Evaluation/Recommendation by Chief, L&D	0.25 hour	7.81
3. Evaluation/Approval by Manager	0.16 hour	8.38
4. Preparation of tickets/ledger by Bookkeeper	0.33 hour	3.99
5. Preparation of Abstract for CB Rediscounting by Bookkeeper	0.25 hour	2.92
6. Preparation of Certificate of Insurance Coverage and Payment of Crop Insurance by Bookkeeper;	0.16 hour	25.92
D. Post-Loan Follow-Up Activities		
1. Validation of chits for fertilizers and chemicals by Bookkeepers	0.15 hour	1.92
2. Payment chits (preparation of tickets/advice) by Bookkeeper	0.18 hour	0.96
3. Approval of payment of chits by Manager	0.03 hour	1.27
4. Crediting dealer's account by Bookkeeper	0.03 hour	0.33
5. Farm/crop Inspection by FCS.	0.50 hour	11.26
E. Loan Collection Activities		
1. Collection letters/reminders by Bookkeeper	0.16 hour	2.76
2. Office loan collection (computation and posting) by Bookkeeper	0.25 hour	9.05
3. When final reports (CIR $ IAR) are submitted, the L&D Chief will evaluate the loan application and documents submitted. He will prepare a recommendation report to the Manager	2 hours	54.92
4. Upon submission of the recommendation by the L&D Chief , the Manager will also evaluate and then recommend to Metro or approve the loan if within his DP.	1 hour	35.92

Annex Table 5: LOANING PROCESS FROM BANK TO BORROWER PNB AGRICULTURAL LAONS SUPERVISED

Activity	Time Involved	Total Cost Involved (Per Loan Application)
5. Upon approval of loan:		
a. The loan clerk will prepare the necessary loan documents, such as Credit Agreement, Deed of Assignment, Special Power of attorney if needed, REM, etc.	2 hours	35.83
b. After the annotation with the RD, Liability Bookkeeper prepares the PN, Disclosure Statement and pertinent tickets for the loan granting.	30 minutes	10.57
c. The L & D Chief will carefully examine the documents as to completeness and sufficiency and that the conditions in the approval are strictly complied.	30 minutes	13.48
d. The Manager approves the tickets for loan release.	30 minutes	11.97
F. Post-Loan Follow-up Activities		
1. Posting of entries in the subsidiary ledger	15 minutes	4.28
2. Writing to Philex on insurance coverage	15 minutes	4.28
3. Crediting proceeds to Savings/Current Account	5 minutes	1.26
4. Weekly Reporting	10 minutes	3.02
5. Rediscounting with Central Bank	15 minutes	7.28
G. Loan Collection Activities		
1. Sending reminders one (1) month before due date;	15 minutes	3.64
2. Collection letter if not paid on maturity	30 minutes	7.18
3. Personal Contacts	1 hour	46.54
4. Computation of Payments by Bookkeeper payment to Teller and issuing of Official Receipts	15 minutes	4.78
5. Report on loan renewal/extension if not fully paid.	15 minutes	3.84
H. Litigation Activities		
1. Demand Letter of Manager	15 minutes	72.35
2. Personal Contacts by the Collection Task Force	2 hours	53.85
3. Demand Letter by the Branch Attorney	1 hour	25.42
4. Preparation of Foreclosure, Supporting papers	2 hours 1 day	30.24
5. Re-inspection of property for foreclosure papers	30 minutes	153.70
6. Endorsement to the Branch attorney of loan documents for foreclosure proper		7.98
TOTAL COST		₱1,832.10

Source: PNB, In TBAC (1985).

Annex Table 6:LOANING PROCESS FROM BANK TO BORROWER
LBP Agricultureal Loans - Non-Supervised (per P200,000 Loan)

Activity	Time Involved	Total Cost Involved
A. Pre-Loan Evaluation		
1 . Account Solicitation	-	-
2 . Pre-evaluation	-	-
3 . Counselling	1 man-hour	43.00
4 . Acceptance of application	1 man-hour	42.00
B. Loan Evaluation *		
1 . Plant visit	1 man-day	204.00
2 . Credit investigation	3 man-days	495.00
3 . Appraisal of collaterals	3 man-days	525.00
4 . Evaluation/memo-proposal	10 man-days	1100.00
C. Loan processing		
1 . Approval	8 man-days	410.00
2 . Documentation		
- Preparation	16 man-days	750.00
- Reistration	1/2 man-day	75.00
3 . Releases	3 man-hours	42.50
4 . Plant visit/monitor	1/2 man-day	54.00
D. Post-Loan follow-up **		
1 . Plant visit/project supervision	1/2 man-day	84.00
2 . Maintenance of records	2 man-hours	17.00
3 . Updating/renewal of insurance permits, taxes	4 man-hours	32.00
E. Loan Collection		
1 . Collection letters	1/2 man-day	9.00
2 . Plant visit/personal collection	2 man-hours	54.00
3 . Acceptance of payments	1/2 man-hour	8.00

* Part of loan processing activities.
** Part of loan collection activities.

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	Activity	Time Involved	Total Cost Involved
F. Litigation			
1	Referral to Legal	1/2 man-hour	7.00
2	Final demand letter	1/2 man-hour	9.00
3	Updating		
	- Appraisal report	3 man-days	304.00
	- Statement of account	1 man-hour	11.00
4	Memo-proposal for foreclosure	5 man-days	1,050.00
5	Approval of foreclosure	8 man-days	410.00
6	Petition for extra-judicial foreclosure	2 man-days	430.00
7	Filing of documents	1 man-day	225.00
8	Publication	1 man-day	2,300.00
9	Sheriff's sale	2 man-days	570.00
10	Registration of Certificate of sale	2 man-days	920.00
11	Consolidation (after one year redemption period)	4 man-days	1,850.00
	Total Cost		P 12,030.50
	Cost per peso of loan grant		0.06

Source: LDP, In TBAC (1985).

ANNEX TABLE 7: LOANING PROCESS FROM BANK TO BORROWER
PNB-AGRICULTURAL LOANS NON-SUPERVISED AND NON-AGRICULTURAL LOANS

Activity	Time Involved	Total Cost Involved (Per Loan Application)
A. Pre-Loan Evaluation Activities		
1 . Interview of applicant as to purpose, collateral offered and paying capacity and briefings on other requirements by the Chief, L & D [1/]	30 minutes	713.58
2 . Final interview by the Manager	15 minutes	71.85
B. Loan Evaluation Activities		
If allowable under PNB Financing Scheme		
1 . Require borrower to submit loan documents such as xerox copies of TCT, TD, Realty Tax Receipts, Location Plan, ITR, Financial Statements, Pictures of Applicants and Improvements, etc.		
2 . Prepare the Application Form by the Loan Clerk	15 minutes	27.09
3 . Prepare Travel Orders for Inspector/ Credit-Investigator	5 minutes	18.17
C. Loan Processing Activities		
1 . The Inspector conducts an ocular inspection which includes among others, inspection of property, checking with government agencies like Register of Deeds, LRC, checking of adjacent owners, marker values in the vicinity, etc.	3 days	472.45
2 . The Credit Investigator checks the viability of the applicant's business, trade checkings, bank checkings, a random checking on financial statement and preparation of credit ratings	4 days	529.68

1/ Loans and discounts.

Source: PNB, In TBAC (1985).

ANNEX TABLE 8: LOANING PROCESS FROM BANK TO BORROWER, SAMPLE COMMERCIAL BANK (AGRICULTURAL LENDING AT THE BRANCH LEVEL)

Activity	Time Involved	Documents
A. Pre-Loan Evaluation Activities	1-2 months	
1 . Counselling, preliminary discussion about the project (for walk-in clients)		If the borrower is an existing client, indicate the nature of the relationship. - If depositor client, the account number and the name of the servicing sample bank branch
2 . Submission of formal letter of application (For all clients)		
3 . Submission of loan documents		If loan client, the detail of the loan (amount, term collateral, and the name of the servicing sample bank branch). Collaterals offered (for Real Estate Mortgage) - copy of the title, parcellary plan, tax receipt, tax declaration - copy of lease contract in case of leased properties (Note: properties leased from government entities not considered)
B. Loan Evaluation and Processing Activities	1 week	
1 . Clerk Checks for the completeness of the documents		
2 . Asst. manager reviews and evaluates the documents and recommends action to the Manager		

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Activity	Time Involved	Documents
3 . Manager takes appropriate action; If approved, depending on the condition or status of the feasibility Study, sends the papers to the Agribusiness division at the head office	1 week	
4 . The Agribusiness group checks, re-evaluates and repackages the loan based on the Feasibility Study or Technical Study on the merits of viability, market and technical parmeters used. Also, the collateral offered and the funding requirement is also reevaluated.	2 weeks	
5 . Simultaneously, the credit investigation unit of the bank and bank appraisers check up on the borrower to determine his credit worthiness.	1 week	
6 . The Agribusiness group forwards the Loan papers to the appropriate approving body for approval	3 man-days	
7 . Upon approval, the Head Office sends the formal Letter Advice to the branch together with the supporting papers	5 man-days	
8 . Loan is released by Bank upon final completion of documents (I.e., mortgaging of collaterals, issuances of PNS, etc.).	2 months (allowance for creditors)	
9 . Bank clerk credits the funding requirement to clients' account from which the client draws his funds depending on the loan releases schedule he is to follow.	1 day	

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Activity	Time Involved	Documents
C. Loan Collection Activities		
1. The bank sends a notice to client 20 days before the due date of the loan If client fails to pay on time	1 month	Notice, Statement of Account
2. The second up to the third notices are sent.		Notice, Statement of Account
3. If the client does not notify bank of his intention to pay, the account officer for past due loans meet with the client to work out a solution. The collection unit is given 45 days to collect after which legal measures are taken.	45 days	
D. Litigation Activities		
1. Accounts referred to the legal department are evaluated and the appropriate action(s) are taken	2 weeks	
2. The loan adjustment and special accounts department survey the foreclosured area and look for buyers and publish bids.		Foreclosure order

Source: TBAC (1985).

ANNEX TABLE 9: LOANING PROCESS FROM BANK TO BORROWER, SAMPLE RURAL BANK, ALL LOANS

Activity	Time Involved
A. Pre-Loan Evaluation	1 day
- interview borrower by bank technician - interview by bank manager - inspection of project site	
B Loan Processing	5 days - 3 weeks
- deliberation of loan application by credit committee/board - checking of loan papers by loan appraiser/loan auditor - computation of loan proceeds by loan clerk - releasing of loan by cashier	
C. Post Loan Follow-up	
- verify progress of project - loan collection	at least once a month during the duration of the loan

Source: TBAC (1985).

ANNEX TABLE 10: LOANING PROCESS FROM BANK TO BORROWER, SAMPLE COOPERATIVE RURAL BANKS

Activity	Documents
A. Pre-Loan Evaluation	
1 . Interview with the Manaer for eligibility, loan purpose, repaying capacity, borrower's responsibility, etc.	
2 . Formal filing of application	Loan application
3 . Inspection of project, collateral and investigation on the borrower	Appraisal Report, Credit Investigation Report, recommendation
B Loan Processing	
1 . Action on loan application in light of RA If approved:	
2 . Preparation of Mortgage Contracts, signing of documents, notarization, registration of mortgage documents, annotation of mortgage on both the original and owner's copy of tax declaration for untitled real estate security	Notarized mortgage contracts, registered mortgae documents, tax declaration
3 . Final interview with manager	
4 . Accomplishment of Promissory note and check based on Discount Statement	
5 . Release of loan to borrower	
C. Loan Collection Activities	
1 . Bank Technicians visit and collects from borrowers	

Source: TBAC (1985).

ANNEX TABLE 11: ESTIMATED LENDING COST ON AGRICULTURAL LOANS, 1983 a/
(in percent of peso LG)

3117.5	PNB	DBP	LBP	RBs	PKB1
A. Cost of Funds	8.52	10.57	12.38	10.62	12.64
1 . Deposits	4.99	2.07	8.64	6.42	11.28
Pure Cost b/	4.73	1.52	7.05	5.55	10.26
Transactions Cost c/	0.26	0.55	1.59	0.87	0.94
2 . Borrowings	3.53	8.60	3.74	4.20	1.44
Pure Cost b/	3.15	4.32	2.31	2.36	1.15
Transactions Cost c/	0.48	4.29	1.43	1.34	0.29
B. Cost of Administration d/	3.19	19.86	9.80	5.04	1.07
C. Risk Expenses e/	0.02	3.67	1.86	0.36	0.48
D. Imputed Cost of Carrying Arrears f/	0.31	9.36	2.36	4.23	*
1 . Total Lending Cost without Imputed Cost	11.83	34.20	24.04	16.02	14.19
2 . Total Lending Cost with Imputed Cost	12.14	43.56	26.40	20.25	14.19
E. Gross Returns g/	8.31	10.57	17.23	14.25	12.29
1 . Lending Spread without Imputed Cost	(3.52)	23.63	(6.81)	(1.77)	(1.90)
2 . Lending Spread with Imputed Cost	(3.83)	32.99	(9.17)	(6.00)	(1.90)

* Negligible

a/ Based on actual financial data as of December 1983.

b/ Includes interest payments on deposits and borrowings weighted by their respective proportions to total loanable funds.

c/ Includes wages and direct expenses associated with deposit taking and borrowing activities and allocated to agricultural loans.

d/ Total expenses net of (i) interest payments (ii) transactions cost on deposits and borrowings, and (iii) risk expenses, allocated to agricultural loans.

e/ Includes guarantees/insurance fees and bad debts/Litigation expenses.

f/ Includes opportunity cost of funds locked in arrears (I.e. loans past due and items in litigation).

g/ Interest income/service charges allocated to agricultural loans.

Source: TBAC (1985).

ANNEX TABLE 12: ESTIMATED LENDING COST ON AGRICULTURAL LOANS, 1984 a/
(in percent of peso LG)

	PNB	DBP	LBP	RBs	PKB1
A. Cost of Funds	30.99	38.11	31.09	31.69	26.29
1 . Deposits	8.06	3.05	13.21	10.02	17.85
Pure Cost b/	7.80	2.50	11.52	9.15	16.91
Transactions Cost c/	0.26	0.55	1.59	0.87	0.94
2 . Borrowings	22.93	35.06	17.88	21.67	8.44
Pure Cost d/	22.45	30.78	15.45	20.33	8.15
Transactions Cost c/	0.48	4.29	1.43	1.34	0.29
B. Cost of Administration c/	3.19	19.86	9.80	5.04	1.07
C. Risk Expenses c/	0.02	3.67	1.86	0.36	0.48
D. Imputed Cost of Carrying Arrears	1.18	53.36	7.06	14.34	*
1 . Total Lending Cost without Imputed Cost	34.20	61.64	42.75	37.09	37.84
2 . Total Lending Cost wit Imputed Cost	35.38	115.00	49.81	51.93	27.84
E. Lending Rate e/	45.49	45.49	45.49	45.49	45.49
1 . Lending Spread without Imputed Cost	11.29	(16.15)	2.74	8.40	17.65
2 . Lending Spread with Imputed Cost	10.11	(69.51)	(4.32)	(6.44)	17.65

* Negligible

a/ 1983 financial data adjusted using updated average deposit and rediscount as of end 1984.

b/ Average interest rate on savings and time deposits weighted by proportion of deposit tot total loanable funds.

c/ See Table 88.

d/ Average rediscount rate for all maturities as of December 30, 1984, weighted by proportion of borrowings to total loanable funds.

e/ Average interest rate of 39.7 percent on secured loans (all maturities) of sample commercial banks (source: CB-DER) plus intermediation index of 5.79 percent

f/ May 1984 (source: Silvosa, F.Y. "The Role of the MRR as Basis for Floating Rate Loans,", CS Review, June 1984).

Source: TBAC (1985).

ANNEX TABLE 13: ESTIMATED LENDING COST OF NON-AGRICULTURAL LOANS, 1983 *

	PNB	DBP	LBP	RBs	PKB1
A. Cost of Funds	12.14	13.60	13.05	13.50	15.00
1 . Deposits	4.36	1.80	7.50	6.17	11.93
Pure Cost	4.73	1.52	7.05	5.55	10.26
Transactions Cost	0.13	0.26	0.45	0.62	1.67
2 . Borrowings	7.28	11.80	5.55	7.33	3.07
Pure Cost	7.04	9.55	5.15	6.37	2.56
Transactions Cost	0.24	2.15	0.40	0.96	0.51
B. Cost of Administration	1.63	9.97	2.76	3.61	1.89
C. Risk Expenses	0.01	1.85	0.53	0.26	0.85
D. Imputed Cost of Carrying Arrears	1.54	6.29	2.13	2.80	0.22
1 . Total Lending Cost without Imputed Cost	13.78	25.42	16.34	17.37	17.74
2 . Total Lending Cost wit Imputed Cost	15.42	31.71	18.47	20.17	17.96
E. Lending Rate	8.30	10.57	17.26	14.25	12.16
1 . Lending Spread without Imputed Cost	(5.48)	(14.85)	(0.92)	(3.12)	(5.58)
2 . Lending Spread with Imputed Cost	(7.12)	(21.14)	(1.21)	(5.92)	(5.80)

* Based on actual financial data as of December 1983, see Table 8.8 for assumptions deed. Parallel estimates are made on non-agricultural loans.

Source: TBAC (1985).

ANNEX TABLE 14: ESTIMATED LENDING COST OF NON-AGRICULTURAL LOANS, 1984 a/

	PNB	DBP	LBP	RBs	PKB1
A. Cost of Funds	30.62	35.71	28.92	31.06	27.24
1 . Deposits	7.93	2.78	12.07	9.77	16.58
Pure Cost	7.30	2.50	11.52	9.15	16.91
Transactions Cost	0.13	0.28	0.45	0.62	1.67
2 . Borrowings	22.69	32.93	16.85	21.29	8.66
Pure Cost	22.45	30.78	16.45	20.33	8.15
Transactions Cost	0.24	2.15	0.40	0.96	0.51
B. Cost of Administration	1.63	9.97	2.76	3.61	1.89
C. Risk Expenses	0.01	1.85	0.53	0.26	0.85
D. Imputed Cost of Carrying Arrears	4.22	18.75	4.89	6.92	0.42
1 . Total Lending Cost without Imputed Cost	32.26	47.53	32.21	34.93	29.98
2 . Total Lending Cost wit Imputed Cost	36.48	66.28	37.10	41.85	30.40
E. Lending Rate	45.49	45.49	45.49	45.49	45.49
1 . Lending Spread with Imputed Cost	13.23	(2.04)	13.28	10.56	15.51
2 . Lending Spread without Imputed Cost	9.01	(20.79)	8.39	3.64	15.09

a/ 1983 financial data adjusted using applicable MRR rates as of December 1984 for costing and lending rate determination; see Table 89 for assumptions used. Parallel estimates are made in non-agricultural loans.

Source: TBAC (1985).

ANNEX TABLE 15: COMPUTATION OF NET SPREADS TO BANKS PARTICIPATING IN AGRICULTURAL CREDIT PROGRAMS UNDER THE INTEREST RATE STRUCTURE, AS OF DEC., 1984
(In Percent of Loan Amount)

	Cost of Funds	Interest to Borrowers	Gross Spread (2) - (1)	Other Costs [a/]					Net Spreads	
					Risk Expense		Total			
				Administrative Expense b/	Actual c/	Actual plus Iimputed d/	Cost 1 (4)+(5) =	Cost 2 (4)+(6)=	(3) - (2)	(3) - (8)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. STD-Funded (100%)										
	3	12	9	5.09	0.18	15.02	5.27 e/	20.11 e/	3.73	(11.11)
	3	15	12	5.09	0.18	15.02	5.27	20.11	6.73	(8.11)
	4	9	5	5.09	0.18	15.02	5.27	20.11	(0.27)	(15.11)
	5	8	3	5.09	0.18	15.02	5.27	20.11	(2.27)	(17.11)
	6	12	6	5.09	0.18	15.02	5.27	20.11	0.73	(14.11)
	6	15	9	5.09	0.18	15.02	5.27	20.11	3.73	(11.11)
B. Blended Funds (50% STD 50% rediscounting) f/	18.94	34.26	15.32	5.09	0.18	15.02	5.27	20.11	10.05	(4.79)
C. Rediscounted Notes (90% of loan value, 10% Marginal bank funds) g/										
RBs	25.31	34.26	8.95	5.09	0.18	15.02	5.27	20.11	3.68	(11.15)
PNB	25.31	34.26	8.95	3.19	0.01	1.19	3.20	4.38	5.75	4.57
LBP	25.31	34.26	8.95	9.67	1.46	8.52	11.13	18.19	(2.18)	(9.24)
PKB1 [j/]	25.31	34.25	8.95	3.80	0.16	0.16	3.96	3.96	4.99	4.99
D. Marginal Bank Funds										
RBs	34.74 h/	40.59 [i/]	5.79	5.09	0.18	15.02	5.27	20.11	0.52	(14.32)
PNB	34.74	42.00 [k/]	7.26	3.19	0.01	1.19	3.20	4.38	4.06	2.88
LBP	34.74	39.00 [k/]	4.26	9.67	1.46	8.52	11.13	18.19	(6.87)	(13.93)
PKB1 [j/]	34.74	45.00 [k/]	10.26	3.80	0.16	0.16	3.96	3.96	6.30	6.30

* Assumes only small loans for production

a/ Based on actual 1983 financial data.

b/ Refers to costs incurred in lending operations including processing, monitoring and supervision of loans.

c/ Includes guarantee/insurance expense and loss in principal.

d/ Includes guarantee/insurance expense, cost of carrying arrears and loss in principal.

e/ For rural banks only.

f/ Assume STD funds are used for 3 months in a year and loans generated therefrom are rediscounted for the rest of the year. Thus, blended cost of fund = (STD rate x 3/12) + (rediscount rate x 9/12). MRR (90) applicable for Dec., 1984 = 36.26 percent. Therefore, rediscount rate (MRR 90 less 12) = 24.26 percent and lending rate = (MRR 90 less 2) = 34.26 percent.

g/ Assumes 90 percent of loanable funs are sourced from rediscounting, while 10 percent from marginal bank funds. Thus, cost of funds = (rediscount rate x 90 percent) + (Interest cost of marginal bank funds x 10 percent). Interest rate used on marginal bank funds is 34.74 percent (MRR rates -- all maturities).

h/ Considers MRR rate (all maturities) applicable for December 1984 = 34.74 percent.

i/ For RBs: interest to borrowers = 34.74 percent + 5.79 percent. (Intermediation Index as of May 1984: Source: F.Y. Silvoza's article on MRR, CB Review June 1984).

j/ Cost estimation for one sample commercial bank.

k/ For PNB and PKB1, lending rate used is the prime rate charged by bank on loans. For LBP, lending rate at maximum considering various loans.

SOURCE: TBAC (1985)