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AN ANALYSIS OF THE RURAL BANKING SYSTEM IN THE PHILIPPINES

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AN ANALYSIS OF THE RURAL BANKING SYSTEM IN THE PHILIPPINES

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ABSTRACT

AN ANALYSIS OF THE RURAL BANKING
SYSTEM IN THE PHILIPPINES

By

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Philippine rural banks are small private banks chartered by the Central Bank under authority of Republic Act 720, as amended.

This study describes:

1. the evolution of institutions delivering credit to Philippine agriculture, including the role played by the government, and the development of the rural banking system;

2. the mobilization of funds by rural banks to finance agriculture; and

3. the response by rural bank management to manipulation of credit policy instruments by monetary authorities.

Data were obtained from both primary and secondary sources. Financial data were obtained from the Central Bank. These data were supplemented by information on bank equity capital structure and management characteristics obtained through personal interviews and mailed questionnaires. Economic data about the community served by the bank were obtained from censuses.

The 1976 rate of return on investment in rural banks was estimated to be comparable to returns in other areas of investments. On private capitalization, the net rate of return was 25 percent compared to an eleven percent annualized rate of return on the 364-day Treasury Bill for December, 1976.

Three analytical methods were used in the study: portfolio analysis, mean differences, and regression analysis.

The portfolio of sample banks was analyzed through use of a

Hester-Zoellner type model. Equations which related net operating profit with asset and liability items in the banks' balance sheet were estimated for the years 1971 to 1976. The equations corresponding to the years 1973 to 1976 resulted in coefficients of determination and significance levels that were less satisfactory than for 1971 and 1972. This was attributed to unusual events which effectively upset model relationships. Such unusual events included the flood of 1972, the increase in petroleum prices in 1973, and the declaration of martial law inaugurating a new government regime.

Analysis of mean difference provided support to the expected relationship with changes in monetary policy. For example, between 1973 and 1974, there was a significant difference in the mean for the total rediscounting variable. This resulted after a lowering of the rediscounting rate to rural banks.

A regression equation was estimated from 1976 data relating supervised credit loans to: (1) the bank's prior year net profit; (2) personal data about the manager; (3) indicators of the bank's capital and ownership structure; and (4) indicators of economic activities in the community served by the bank.

The coefficient of determination obtained was 0.59, with a significance level of 99 percent. Important explanatory variables included bank's prior year net profit, plough-back of previous years profit as a proportion of total resources, and agricultural loans.

Results were not conclusive. Yet some implications for policy makers were noted. One was a need to improve management assistance to rural banks. Another was that rural banks do react to market incentives and monetary policy changes where obvious incentives exist.

However, to obtain more conclusive research results, additional data would be needed on flows of finances for shorter time intervals, probably for weeks, months or quarters. Also substantial additional thought needs to be given to the question of time lags from initiation of a policy change to response by the rural bank.

ACKNOWLEDGMENTS

The number of individuals and institutions I am indebted to is too numerous to list down. One man stands out, however. I would especially acknowledge him--a mentor, adviser, and friend--Dr. John R. Brake. When the going was rough, and giving up would have been the easier alternative, he kept me on course. Thank you very much John.

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CHAPTER I

INTRODUCTION

The need to rehabilitate an economy ravaged by war within the shortest time possible may be considered one of the factors that led to an era of economic development planning in the Philippines. The first exercise was primarily devoted to the programming of capital projects designed to put the economy back to its pre-war level of productive capacity.[1] Experience in this and later planning exercises, plus the experience of the other countries have greatly improved the economic development planning process.

Credit in Agricultural Development

The availability of credit at reasonable terms has been considered as a means not only to ease financial constraints to increased production but also is an important factor that can influence farmers to adopt new improved production technologies. Credit can be an integral part in the process of commercializing the rural economy. It has to be complemented, however, by farm input services and institutions.

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[1] For additional details on economic development planning in the Philippines, please see the papers in (1, 1960) and (2, 1965). Note: Numbers in brackets refer to the article/publication appearing in the list of references and the year of publication.

Expansion of production generally means that constraints, financial or otherwise, be relaxed. It is, of course, true that different innovations to achieve production increases will have different financial requirements, irrespective of the type of farmer. Some innovations need only minimal cash outlay, e.g., improved seeds, while others like farm improvements, such as irrigation facilities, would require relatively large amounts.

Relationship Between Credit and Development. The interrelationships between agricultural credit and development of the sector would be appreciated much more by having some perceptions of the different circumstances giving rise to farmers' need for credit. Tilakaratna (3, 1965) classified these needs by purpose as:

a. For purposes connected with agricultural production;
   i. fixed capital--the purchase of land, clearing of land, improvement of land.[2]
   ii. intermediate capital--the purchase of implements, livestock, machines, fertilizers.
   iii. working capital--current cost of production, credit for holding stocks or marketing credit.
b. Production purposes unconnected with agriculture--credit required for the fixed, intermediate, and working capital needs of supplementary occupations of farmers; and
c. Consumer purposes;
   i. essential needs--food, clothing, and housing.
   ii. semi-essential needs--education, medical attention, recreation, purchase of durable consumer goods.
   iii. non-essential needs--ceremonial, jewelry, conspicuous consumption.[3]

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[2]The refinancing of farms between generations may be added to this category. This is important when farm sizes are already small. Avoidance of further farm fragmentation due to a system of inheritance is now getting some policy notice.

[3]It must be pointed out that this classification is consistent with the classification of farmers' credit needs made by H. Belshaw in "The Provision of Credit with Special Reference to Agriculture." Cambridge, 1931; A. J. Boyazoglu in "Agricultural Credit." Solonica, 1931; and the FAO classification in its Development Series Paper No. 16, prepared by B.O. Binns. All references are as indicated in the footnote of Tilakaratna's paper.

Development requires increases in output. Improved technology which imposes additional financial demands on farmers for inputs that have to be procured from the outside may be necessary. Extension services to provide the technology and access to credit by farmers must go hand in hand in order for the new-improved production technologies to be adopted and increased output attained. Benefits from such increased output must accrue largely to farmers in terms of higher income so that the process can continue. New farm production technology and accessible credit may also mean the expansion of farm operations, either through opening new lands for cultivation, or more intensive utilization of existing farms. Thus, credit is surely an important factor in the development of agriculture. This is one reason for the inclusion of monetary and credit policies in the arsenal used to attain economic development goals.

Need for Evaluation of Policy. Policies are formulated to achieve given ends, and operate within a given framework. In the Philippines, a country which has a mixed economy, the framework is generally the market system. Under this set-up, a one-to-one relationship between the variable affected by a policy instrument and the end goal of a policy is generally not observable. Hence, one must interpret the outcomes of policy from various data on the market system.

Emphasis and Objectives

This study deals primarily with monetary and credit policy instruments and how these influence the Philippine Rural Banking System's delivery of credit to agriculture. This system is a

network of small private banks chartered by the Central Bank to operate within a political subdivision, the municipality, under specific enabling legislation.

The Hierarchy of the Agricultural Credit System. The agricultural credit system in the Philippines can be seen as one where decisions are made at three levels: (1) the Monetary Board which formulates the monetary and credit policies in accordance with what it believes to be required by given national goals; (2) the financial intermediaries that respond to these policies; and (3) the credit end-users--the farmers who utilize their borrowing capacity in response to opportunities they perceive. Each of these decision levels has its respective objective function for maximization. While some variables may be common to the three levels, they will likely have different degrees of importance in their effects on decisions.

Some policies have been formulated with the aim of increasing the volume of institutional loans going to agriculture and attaining some increases in output. They are likewise directed towards expanding the volume of loans going to small farmers in order for this group to be able to increase their production and productivity with the use of new improved technology (which generally requires increased cash expenditures). The policies are also expected to bring about improvements in the distribution of income.

The Objectives of the Study. The objectives of this study are:

1. to describe the evolution of institutions delivering credit to Philippine agriculture, including the role played by the government, and the development of the rural banking

system;

2. to describe how rural banks mobilize funds to finance agriculture; and
3. to describe the response by rural bank management to manipulation of credit policy instruments by monetary authorities.

This effort is a first attempt to examine the response by rural bank management to policy changes. The reader should keep in mind that the rural banking system is only a part of the formal credit delivery network for the agricultural sector of the Philippines. Primarily due to the paucity of relevant data, however, the relationship between the formal credit sources and the informal segment of the rural financial market is not discussed. The latter has been shown to be important in a number of studies, especially in developing economies, such as the Philippines.[4]

Organization of the Thesis

The rest of the study contains five chapters. Chapter Two deals with the evolution of credit institutions serving the agricultural sector, a background on monetary and credit policies in the Philippines, and some theoretical considerations, including a general discussion of agricultural credit. The next chapter traces the development of the rural banking system, the privileges it receives from the government, the special financing programs with which it is

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[4]A pioneering and largely descriptive work cataloging the practices and processes of the informal credit sources for a sample of Asian and Latin American developing countries was prepared by Wai (4, 1957).

involved, and its status at the end of the 1976 business year. Chapter Four includes a brief review of literature, the analytical framework, and a discussion of data sources and collection. Chapter Five reports the analytical results, including the analysis of the qualitative information obtained from the survey. The last chapter presents the summary and implications resulting from the study. Also included in the last chapter is a discussion of additional research suggestions.

CHAPTER II

MONETARY AND CREDIT POLICIES AND THE EVOLUTION OF CREDIT INSTITUTIONS SERVING PHILIPPINE AGRICULTURE

Man's continuous search for improvement has brought about a diversity of goods and services to satisfy wants. With the increasing complexity of exchanging goods and services, a means--the medium of exchange which has come to be known as money--developed. Later, banking and more complicated financial systems came into being, providing services that allow easier transfer of goods and services. Consequently, it is possible for somebody to take and/or transfer possession of a good or service without physically seeing either the commodity, the service, or the actual currency used to effect the transfer.

This chapter deals with the evolution of institutions designed to provide credit to the agricultural sector of the Philippines. A brief reflection of how government influences banking activities is also given.

A Theoretical Sketch of Monetary and Credit Policies

The banking system is, of course, a part of the over-all financial system. These financial institutions assemble funds in the form

of currency, or claims on assets, and transfer them to others who have need for them. The banks, including the central bank, are a special type of institution in this system. They are special in the sense that they are able to create money and credit. To quote Thomas (5, 1950), the purposes of the banking system are:

1. provision of sound, effective supply of deposit and note currency as the media of exchange;
2. provision of a currency with adequate elasticity to match the changing seasonal and irregular needs while at the same time avoiding the evils of cyclical perversity;
3. adequate response to monetary management directed at achieving economic stabilization and full employment;
4. provision of credit and loan facilities necessary to meet the social aims of society. This involves encouragement of private enterprise through assistance to small businessmen and to agriculture; and
5. provision of sufficient loan competition both locally and throughout the country to insure availability of credit on reasonable and non-monopolistic terms.

One bank in the system is given responsibility to take the leadership and maintain the excess liquidity at various points in time. Hence, this leading unit must be guided by more complex motives than the limited goal of profit maximization. This need brought the establishment of central banks which are vested with monopoly powers for note issue, the provision of unused reserves for the banking system, and smoothing out the seasonal supply and demand for liquidity. This central bank is likewise vested with powers to impose rules and regulations on banks in the system.

Instruments to achieve monetary and economic goals have been made available to central banks. These measures are applied by monetary authorities with the view of producing a deliberate impact on the nature and volume of money in circulation. Such monetary policies may either be designed to ensure that money performs its functions as

smoothly as possible or achieves certain desired economic objectives outside the monetary realm. Whatever the objectives may be, the instrument used, to be meaningful, should be able to bring forth the desired reactions and allow the attainment of the goal. In general, the instruments available to the central bank and their expected effects are the following.

Interest Rate Ceiling. This instrument in effect limits the rate of return to the bank. Thus, management will try to manipulate its level of risk exposure. It can be expected that only the larger, "collateral-rich" borrowers will be provided loans. Administrative requirements would be imposed by banks, effectively rationing available loan funds. These administrative requirements usually work against small borrowers.

Open Market Operations. If the central bank feels that the prevailing market rate of interest is on the high side and it would like to stimulate credit operation of the banks in the system, it can increase the overall liquidity of the banking system by releasing money into the economy. This is done by buying eligible securities in the market. An opposite action, i.e., sale of securities by the central bank will effect a reduction in the overall liquidity of the banking system and typically leads to an increase in the interest rate.

Discount Rate. Adjustments in the rediscounting rate allow the central bank to affect the liquidity of the banking system. If the central bank believes that additional liquidity for the banking system

is required by the economy, it reduces the rediscounting rate on eligible paper discounted by member banks. An increase in the rediscounting rate will promote the opposite effect, i.e., decrease the liquidity of the banking system. Changes in the rediscounting rate also act as a mechanism to signal the intentions of the central bank to all participants in the financial market. Thus, even when the member banks are not utilizing the central bank rediscounting window in full, there will still be observed changes in the cost of funds in the national financial market.

Margin Requirement. This is a selective measure in the armory of the central bank. The circumstance calling for the use of this instrument is one where the central bank does not feel the need for an over-all squeeze of the credit market, but would like to curtail the flow of credit into a specific sector or sub-sector of the economy. For instance, if the central bank would like to curb consumption credit, it can impose a margin fee on all consumer laons granted. This is done by requiring deposits of a specifid proportion on the amount of consumer loans granted.

Monetary and Credit Measures in the Philippines

Most of the measures employed in the Philippines thus far have been selective in nature. And owing to the underdevelopment of the securities market, these measures have also been the more direct types, including interventions (suasion) on the operation of the bank. In addition, government owned banks and finanaial institutions bulk very large in the country's financial system.

Prior to independence in 1946, the most important measure

influencing credit was the Anti Usury Law of 1916. This law imposed a ceiling on the rate of interest that may be charged on loans. A study by Van Atta (6, 1971) indicated that by 1967, this law had started to exert some perverse effects on the economy. The excess reserves of banks had disappeared during this year, suggesting a shortage of loanable funds. It was not until 1973, however, that this law was amended (by Presidential Decree 166, dated January 29, 1973) making it possible for the Monetary Board to determine the rates of interest which may be charged as often as every twelve months. To the present, the Monetary Board has adjusted these rates only slightly. The Board seems still to be pursuing an interest rate policy biased in favor of certain sectors, notably the agricultural sector.

The next big event in Philippine monetary and credit history has to be the creation of the Central Bank of the Philippines under the provisions of the Central Bank Act (RA 265) of 1948. This institution supervises all banks and determines the rate of interest on securities issued by the government and its instrumentalities, except for Treasury Bills which are sold by auction in large blocks. This is because sale of these Bills was designed to develop the local securities market. The important measures that have been used by the Central Bank of the Philippines and their effects in controlling the quantity and allocation of credit are discussed below.

Assistance in the Establishment of Banks. Various laws have been passed by Congress calling for the organization of government or quasi-government banks (e.g., the Amanah Bank, and the Rural Banks). In most instances, the Central Bank is called upon to provide financing

assistance to these newly created banking institutions. The Central Bank also provides generous discount privileges to them. In the sense that these new banking institutions are organized to service special interest groups, they, in effect, change the allocation of credit in the national economy.

Discount Rate. The rediscounting window of the Central Bank has been and continues to be a powerful instrument to achieve both quantitative and selective control over credit. It is also used as a means to supervise banks in the system. The ability of a bank to discount paper with the Central Bank can be subject to discrimination, and the relatively high dependence of banks on the Central Bank's rediscounting window has made this instrument a very strong whip in the hands of the Central Bank. It provides the means of disciplining errant banks as well as effectively directing the flow of credit to favored areas.

Interest Rates. The interest rate policy formulated by the Monetary Board is pursued by the Central Bank through regulations providing ceilings on deposit rates, differential rates on loans to the different economic activities and rates on government securities. The need for additional liquidity by banks has tended to push the interest rate on deposits to the maximum allowed. Some undocumented reports have suggested that large deposits are paid higher rates than the maximum through some special arrangements. On the other hand, differentiated rates favoring some areas are generally achieved in combination with the discount rate.

Reserve Requirement. The liquidity of the banking system, and therefore its ability to create money and credit, may be influenced by the Central Bank by adjusting the proportion of reserves (bank's deposits with the central bank) required to be maintained against deposit liabilities. If the central bank would like to curtail the total amount of credit in the economy, it can increase the reserve requirements. The opposite would be the effect on total credit when the reserve requirement is lowered.

Exchange Rate. With an open-small economy, monetary and credit policies in the Philippines have been influenced greatly by the flow of foreign exchange. In fact, the first major task of the Central Bank was the administration of the foreign exchange control imposed in 1949, and all the various measures that have been adopted towards the "freeing" of the exchange rate. The present "floating exchange rate" is not really free-floating. The Central Bank intervenes in the market for foreign exchange and has managed in general to keep the fluctuation in the rate of exchange within limits of a given target.

The foreign exchange control has been a very potent instrument in the allocation of credit. It can be considered as "the instrument" that shaped the industrial structure of the economy of the fifties or even up to the early sixties. Used in connection with margin requirements on import letters of credit favoring certain areas, it enabled the government to direct the allocation of resources. The Central Bank was likewise able to effectively influence the liquidity of banks in the system.

With the above theoretical sketch on monetary and credit

policies in general and in the context of the Philippine experience, attention will now be given to the evolution of credit institutions servicing the Philippine agricultural sector. A brief description of the agricultural sector is presented first. This is followed by a general discussion on credit, and finally, a historical account of the agricultural credit system.

The Agricultural Sector in a Capsule

The following discussion aims to provide the background necessary for a better understanding of, or an improved perspective on, the different approaches taken by the government in developing the agricultural credit delivery system now in existence.

The most recent national income accounts show that the agricultural sector still bulks large in the economy. It is contributing roughly one-third of the gross national product and earns the greater percentage of the foreign exchange used to purchase goods and services from abroad. Employment of the burgeoning labor force, full-time or otherwise, is a heavy burden on the sector since industry and services are not yet able to absorb all of the working group willing to get out of agriculture. As a sector, Philippine agriculture cannot be considered as having efficiently performed the roles it has to play in the economic development of the country. These roles are discussed by Mellor (7, 1970).

The Philippine agriculture sector contains a wide range of organizational forms of production. These include a few large and capital-intensive operations, especially in logging and mining and some corporate farms operated largely by multi-national corporations. At the

other extreme of the scale, and much more important in terms of the number of persons involved, are the small farmers primarily engaged in the production of the staple cereals, rice and corn, destined primarily for the domestic market.

Increases in agricultural output in the Philippines have largely been a result of expansion in the area cultivated. However, with the relatively rapid rate of population growth, such output increases have barely kept pace with consumption demand. In addition, spatial expansion has become more difficult, and more marginal lands are being brought into cultivation for the production of crops and/or livestock.[5]

This was the situation when the so-called green revolution came into being--a revolution that has often been referred to as the "saving grace" for the agricultural sector--rice and corn production, especially. However, the process of transforming the small holder subsistence agriculture into market oriented producers utilizing new improved technology proved to be more difficult. It has been found that the new technology generally required increased cash expenditures by farmers for the purchase of inputs. In addition, land improvement and additional hired labor, etc., were also required for farmers to improve their productivity and to increase production. The additional cash expenditures could not be met out of savings, especially by small farmers. There was therefore created a greater need for small farmers to borrow and for the evolvement of an improved credit delivery system to service that need.

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[5]See Crisostomo and Barker (8, 1972) for additional detailed discussion on the growth of Philippine agriculture.

Credit in General

Credit is the acquisition of goods and/or services in exchange for a promise to pay on some specified future date and at an agreed upon cost. The use of credit facilitates the exchange of goods and services in the economy. It allows the purchase of goods and/or services needed in production or consumption even during a period when one does not have his own funds for the purpose.

Source of Credit. In primitive economies, credit comes from current and past savings. The advent of managed currency and a fractional reserve system, however, has made it possible for credit to be created by the banking system (used in the wider sense to include the central bank). However, discipline has to be maintained by the banking system in order for it to be able to keep some price stability at any given period of time and effectively keep trust in the monetary system of the economy served by that system.

Credit Flow. The direction of credit flow is generally conceded to be a function of the rate of interest. This means that loans become available to those who are able to pay higher rates relative to the risk. However, policies could be, and are, implemented to favor given areas. These include, for example, administrative requirements for certain financial institutions to hold a given percentage of their portfolio as loans to the favored sector.[6] Another means is in the form of tax privileges, e.g., exemption or tax-free income from

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[6]For a discussion of the effects of policies designed to influence the direction of credit flow to favored, specified sectors, or industry, see, Johnson (9, 1974).

specified investment or security that effectively increases the rate of return. A corporation or an individual in the higher income tax bracket may be influenced to buy tax-exempt rural development bonds with low rates of return. This will make available for rural development funds that otherwise would be invested elsewhere in the economy where returns are higher.

A risk-return framework incorporating the influence of taxes could be used to determine the direction of loanable funds flow. There seems to exist a wide belief that relatively high risks are associated with agricultural projects. For funds to be flowing into the financing of agricultural enterprises, therefore, returns thereon, must be higher.

Cost of Delivery. The cost of funds to intermediaries and the returns these intermediaries expect to receive are basic determinants of the costs to their borrowers and the direction of the flow of loanable funds. The other determining factor is the intermediary itself--the efficiency with which it performs the intermediation function.

The link connecting owners of surplus funds with those who need them can be quite complicated with institutions performing specialized functions. The linkage may include: (1) commercial banks; (2) savings banks; (3) savings and loan associations; (4) commercial paper houses; (5) discount companies; (6) finance companies; (7) trust companies; (8) investment houses; and (9) markets for stocks, bonds and other securities. The first group (commercial banks) is unique in the sense that these institutions are able to create credit, constrained by the reserves they are required to maintain.

The effectiveness of any, or of a group, of these institutions in servicing the needs of a given clientele is influenced by many factors. On the one hand, the investor is generally interested in the pay-off on funds, including certainty and regularity. On the other hand, borrowers look at how well the financial institution can provide the full package of services required and their cost.

The extent to which a financial institution is involved with another affects its ability to mobilize funds from other areas to the sector, industry, or geographic location it is heavily involved with. In like manner, its involvement with borrowers--the more one is associated with the type of borrower who can really use funds for productive projects, the more volume of business it will be able to generate.

Like any business enterprise, banking must also earn a rate of return commensurate to the risk borne. It must do this in competition to stock ownership in other lines of business. Earnings have to be higher than net cost of borrowing as an incentive to increase the volume of service it provides to its clientele. And in order for it to increase the spread (i.e., the difference between its costs of funds and the cost it charges its borrowers) on the assumption of a relatively competitive market for funds, its costs of dispensing loans have to be minimized.

One implication of the above is that banks, as institutions in the financial marekt, provide a bridge between investors and the actual project proponent. In the words of Baughman (10, 1970),

> In a marekt-oriented economy, there is a strong presumption that all users of credit (whether actual or potential and irrespective of size or location) should have reasonably comparable

> access to the total supply of credit. Furthermore, it is apparent that the supply of locally generated credit in the community is not often closely related to the investment opportunities there.

He further stated that

> . . . both suppliers and users of credit should be able to place or obtain funds in markets that reflect the net impact of credit demand and supplies overall. Under such optimum condition, all credit markets would be effectively linked and the effects of a change in supply or demand in any one credit market would be transmitted throughout the network of credit markets. The allocation of credit would be optimum when its productivity is equalized at the margin in all uses and all areas.

The Philippine Agricultural Credit System: A Historical Perspective

Attempts to institute a credit delivery system for agriculture in the Philippines dates back to 1907 when an act allowing the establishment of privately owned agricultural banks was passed. That act authorized the government to guarantee a four percent rate of return to any person or corporation who invested in an agricultural bank. In the following year, Act No. 1856[7] was passed establishing a government-owned Philippine Agricultural Bank with a capitalization of one million pesos. Subsequent legislation came in 1915 when the Philippine Commission passed Act. No. 2508 which aimed at establishing a system of agricultrual cooperative credit associations. A Rice and Corn Fund was set up under Act No. 2818 with an appropriation of

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[7]A note on terminology: Act indicates legislation passed by the Philippine Commission subject to approval by the U.S. Congress. Requblic Acts are those passed by a bicameral Congress and signed into law by the President of the Repbulic as an independent state. Decrees, on the other hand, are Presidential proclamations that have effects of law and have been issued since September 22, 1972.

one million pesos for loans to farmers through cooperatives organized under Act 2508. This fund was the primary source of capital for the agricultural credit cooperatives organized at the time. The charter for the Philippine National Bank (PNB) was also enacted the following year (Act 2612). The next piece of legislation came 19 years later when in 1935 a law providing for the establishment of credit associations and the organization of rural banks was passed. This was followed in 1940 by an act authorizing the organization of commodity corporations, e.g., the National Abaca Fiber Corporation, the National Tobacco Corporation, and the National Coconut Corporation, whose credit operations have primarily been the granting of marketing loans in their effort to stabilize prices of the commodity.

Post-war legislation that helped shape the present financial system in the country includes Repbulic Act 85 in 1946 which superseded the Agricultural and Industrial Bank, establishing in its stead the Rehabilitation Finance Corporation. The country entered into the managed currency system in 1948 when the Central Bank Act was passed (Republic Act 265) establishing the Central Bank of the Philippines, defining its powers and functions.

The Agricultural Credit and Cooperatives Financing Administration. Two pieces of legislation passed in 1952 are important landmarks to the present agricultural credit delivery system in the country. One provided the legal basis for the chartering by the Central Bank of rural banks (RA 720) and the other called for the organization of the Agricultural Credit and Cooperatives Financing Administration (ACCFA, RA 821) as a government non-bank financial

institution to extend liberal credit to small farmers and promote the organization of farmers' cooperative marketing associations. The passage of the Agricultural Land Reform Code in 1963 (RA 3844) reorganized the ACCFA and called it the Agricultural Credit Administration (ACA). This renamed agency was placed under the umbrella of the Agricultural Land Reform Council which was charged with the integrated implementation of the Land Reform Program.

The Agricultural Credit Administration has since its inception been faced by serious problems--socio-politico-economic all wound into one complex whole, partly as a carry-over from its predecessor agency. As ACCFA, it was the main source of funds for the system of farmers' marketing cooperatives whose organization it was called upon to promote. It was likewise used as the agency to administer the price support program for Virginia tobacco. Its role in the financing of small farmers' agriculture has been dwindling since its high point in the latter nineteen fifties. This was a result of its greatly reduced financial capabilities since the bulk of the funds previously appropriated to it and loaned to farmers have remained as unpaid loans. The dependence on general fund appropriations which have decreased in more recent years, has limited the agency's present activities. Also, as a non-bank financial institution, the agency could not obtain funds from the rediscounting window of the Central Bank.

The Rural Banks. Republic Act 720, as amended, authorized the system of small unit banks operated by private individuals, corporations or cooperatives, with government financial assistance. The

government assistance was in the form of preferred shares of stock subscribed on a one-to-one matching basis. This rural banking system, as it is now called, had as its objectives meeting the "normal credit needs of farmers owning or cultivating, in the aggregate, not more than 50 hectares of land dedicated to agricultural production" as well as the "normal credit needs of small business, industry, and cooperatives." Rural banks are organized as stock corporations at the municipal level.

The Land Bank. Also authorized as one of the agencies charged with the implementation of the Agricultural Land Reform Program under the 1963 Code was the Land Bank of the Philippines. However, this bank has largely remained dormant during its first decade of existence. The primary cause was the inability of the government to pay for its capital subscription to the bank. With the advent of the martial law regime and its renewed effort at land reform, funds have been channeled to this agency. Based on recent developments and the present thinking of people in position to influence policies in the country's economic development efforts, this bank may one day become a pillar in the agricultural credit delivery system of the country.

The Development Bank of the Philippines and Private Development Banks. Another important government-owned institution in the agricultural credit system is the Development Bank of the Philippines (DBP). This agency evolved from the Rehabilitation Finance Corporation in 1958 which was then designed to provide long-term financing for the rehabilitation of the private sector in various areas of economic activity that were adversely affected by the Second World War. An

increasing proportion of the loanable funds of this bank, including foreign borrowings, is programmed for loans to the agricultural sector.

Another Act, RA 4093, amended by RA 4887 authorized the chartering of privately owned development banks. This type of banking institution performs functions parallel to those of the DBP, but operates in a limited market area. At the moment, private development banks are chartered by the Central Bank on recommendation and financial assistance by the DBP to operate within the political boundaries of a province.

The Amanah Bank. The newest institution resulted from a decree issued in late 1973. That decree called for the government to organize the Philippine Amanah Bank to service the needs of the muslim area for commercial, industrial, and agricultural loans. The decree can be considered as a combination of the provisions found in both the PNB and the DBP charters (i.e., commercial and development banking). It has the added feature of providing project development and management assistance to its clients. Another striking feature is the fact that interest charges are not to be made on loans granted. However, it is to receive participating income from projects financed. This provision was designed to compromise the need for the bank to earn its keep and the stigma attached to interest payments under the muslim religion.

This bank has barely started operation so that it appears too early to get an indication of its possible impact on the agricultural credit delivery system.

Concluding Statements

At the apex of the formal agricultural credit system is the Central Bank which implements policies formulated by the Monetary Board. It supervises the banking system and some other financial institutions, and performs the function of "banker of last resort." With respect to the rural banking system, it has the additional function of providing training to rural bank personnel and technical assistance in proper management and operation.

Notwithstanding the presence of these formal institutions as sources of credit to the agricultural sector, informal sources of credit are still important. A study of rural indebtedness by the Bureau of Agricultural Economics, Department of Agriculture, provides indications of the relative importance of these informal sources. Other studies also indicate a wide range of informal credit sources, from professional money lenders to the relatives and friends of the agriculturalist. Enormous disparities in the rates of interest paid by farmers exist, from zero for loans obtained from relatives, to the legal maximum from institutional sources and to as much as 300 percent from professional money lenders, as has been reported elsewhere.[8] Thus, it can be claimed that financial dualism still exists in the rural financial market of the country.

Government has been shown, in this chapter, to have tried

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[8]A number of Philippine studies have been made to document rates of interest charged by informal money lenders. See for example Sacay (11, 1973). It will be noted that some of these studies compute the annualized rate of interest when borrowings are in kind and paid in kind. When this occurs and conversion to money equivalents are made, the effects of prices cannot be discounted, especially since borrowing is made during the lean months and repayments are made during the harvest season.

several approaches to improve the delivery of credit to agriculture, especially to small farmers. A system of privately owned small unit banks has been created for this purpose. The government has continued to this date, to nurture the development of this system. The goal is to make the system effective in the delivery of credit to agriculture. Because of its importance, the next chapter will be devoted primarily to tracing the development of this system of small unit banks--the rural banking system.

CHAPTER III

DEVELOPMENT OF THE RURAL BANKING SYSTEM

Some knowledge of the background leading to the establishment of the rural banking system, its past performance, and status at the end of 1976 is believed important to an improved appreciation of a study of management response to monetary and credit policy instrument changes. Analysis of trends, comparing the rural banking system to the over-all agricultural credit delivery network is also included. This highlights the increasing importance of the rural bank in the rural financial market.

Historical Background

The country's political leadership decided in 1952 to move in several directions to counter the gains attained by elements fomenting open and general rebellion. The general belief at that time was that the root cause of the problem was the deteriorating economic conditions faced by the common man. Congress, therefore, passed a number of acts designed to alleviate the situation in the rural areas. The primary aim was to deny further inroads, and hopefully, to remove whatever grassroots support the revolutionary elements had already gained.

The Rural Banks Act. One of these acts became known as the Rural Banks Act (Republic Act 720, since amended on several occasions). This was in mid 1952. An explanatory note to the bill summarized what Congress had in mind when it was introduced:

> This bill, as its title indicates, seeks the establishment of rural credit banks in the different parts of the Philippines in order that our small farmers and tenants may have in their localities institutions which will provide them credit facilities on terms suitable to their needs and easy for them to bear. Our farmers and tenants who constitute the great bulk of our population and produce the country's agricultural products and, therefore, the main portion of the wealth of the nation must occupy, and rightly, preferential attention in the national economic life. Yet, the said farmers and tenants have since the Spanish times continued to live in poverty. This widespread poverty in the Philippines is the cause of the economic stagnation of our country even today.

It went on to say:

> The reason for this state of impoverishment in the country is that we have neglected and forgotten these sons of the soil who in times of peace as well as in war are the real mainstay of our democracy. Although they continue to work the fields, haciendas, and plantations, burdened with debts, borrowing money at highly usurious interest that the conscienceless loan sharks do not hesitate to charge, the Government has not provided the necessary remedy for the solution of this great credit problem of the small farmers and tenants. Millions of small farmers and tenants and small Filipino businessmen are within the grip of such loan sharks because there are no credit institutions established in our towns and rural communities that can readily extend to them loans to provide for their daily sustenance and other essential needs.
>
> The challenge to the precept in our constitution of having in our country an economically strong middle class and/or eradicating poverty in order that our nation may become strong and long endure, is accepted in the enactment of the present bill into law. For there is no doubt that the rural credit banks that will be established and organized as proposed in this bill, will bring about the progress, strength and stability of the nation.[9]

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[9] Explanatory Note to House Bill No. 2381, introduced by Congressmen Jose J. Roy, Carlos Hilado, Ferdinand E. Marcos, Marcos C. Calo, Eulogio Rodriguez, Jr., Manuel A. Zosa, and Artemio C. Macalino. Congressional Records, House of Representatives, Manila, Philippines, 1952.

Thus, the birth of the rural banking system can be effectively dated as June 6, 1952 when the bill was signed into law. The first bank in the system, the Rodriguez Rural Bank, Inc. of Pasig, Rizal, opened its doors for business on December 11, 1952.

Organizational Structure

Rural banks are small institutions operating in political subdivisions called municipalities. They are stock-corporations owned by local residents. An incentive to the organization of a unit by the local people is the government's capital match-up to the private capitalization of the bank (paid-in) on a peso-for-peso basis. The government subscription is made in the form of non-voting preferred shares of stock. This approach was designed to keep active management of the bank in the hands of the private subscribers. The rationale was to prevent the system being created from resembling a government arm, and to discourage the clientele from thinking that funds borrowed from the bank need not be repaid. It is generally believed that rural borrowers consider funds made available by the government as not requiring repayment. It was also assumed that private owners would be motivated to work harder for the success of the system if they were placed at the helm of management. Thus the argument concludes that a more rapid growth and development of the system would be encouraged. The government capital subscription, however, was protected by the priority claim on all assets of the bank and by personnel training and close supervision. A department was organized within the Central Bank for this purpose.

The banking system organized under this Act appears to be unique.

The Act providing the legal basis for the organization of this type of unit banking stipulated its organizational objectives as "the promotion and expansion of the rural economy." These banks are called upon to service the credit needs of small farmers, small merchants, and operators of small industrial enterprises, all of whom are located in the rural communities.

Scope of Operation

On the basis of the credit accommodations by rural banks, they can be categorized along with commercial banks. Their loan portfolios are mostly short-term securities. However, the basic charter and the rules and regulations formulated for rural banks by the Monetary Board set them apart from all other types of financial institutions. Their clientele are also specified in the rules and regulations governing operations. There are also some commercial banking functions that rural banks may not perform if they wish to keep their unique character and privileges.

Loans granted by the rural banks are not to exceed one year if granted to small farmers and 130 days to small merchants and operators of small industrial enterprises. Loan renewals are possible under "meritorious" cases for one half of the original period but only when at least thirty percent of the original amount has been paid. Medium and long-term loans may also be granted. However, such service requires a written authority from the Director of the Department of Rural Banks, Savings and Loan Association of the Central Bank. Approval of a rural bank's request to extend medium and long-term loans is based on the level of the applicant bank's unimpaired

capital and surplus, plus its savings and time deposit liabilities. This level is determined by the Department of Rural Banks taking into consideration the primary aim of a rural bank which is the provision of the bulk of the operating capital needs of its clients.

Tax Exemption

Many other concessions are given to banks organized under RA 720, as amended. Banks whose total assets are not more than one million pesos are exempted from paying all taxes. Those banks whose assets are greater than one million but not more than three million pesos pay all applicable taxes and fees proportional to the amount of assets in excess of one million. Banks that have total assets in excess of three million have to pay all taxes and fees in full.

The comprehensiveness of this tax exemption privilege for rural banks may be appreciated by noting that even real estate taxes on foreclosed properties are not collected. In addition, all legal fees in the registration of mortgages are free. Indicative of the impact of tax exemption on a rural bank's earnings are that: (1) all other banks pay business and occupation taxes of 500 pesos per year, plus a minimum of two thousand pesos per year privilege tax; (2) income taxes for corporations, which a rural bank is, starts at 25 percent of net income; and (3) there is also a levy of five percent on gross receipts from interest, discounts, dividends, commission and other like income. And until the first of January, 1974, all rural banks were exempt from contributing to the examination and supervision fund of the Central Bank. They now pay one twentieth of one percent of total assets less cash on hand and due from banks during the

immediately preceding year. Proceeds from this contribution are used by the Central Bank to finance the operation of its supervision department.

Other Assistance

Special and subsidized credit is also made available to rural banks. Such credits include special rediscounting which, for notes qualifying under the supervised credit scheme, is at the rate of one hundred percent of face value for a cost of only one percent per year. Low interest, 15-year installment loans from the Development Bank of the Philippines are also available. However, this source has been relatively insignificant owing to the limited amount appropriated and released to the Development Bank of the Philippines for this special fund. The primary source of subsidized funds for the rural banking system has therefore been the Central Bank rediscounting window and the relending schemes under the different special financing programs administered by the Central Bank.

Finally, even the administrative details, accounting system and forms, rules and regulations and articles of incorporation of a rural bank have all been worked out by the Central Bank. Thus, any group applying for authority to organize a rural bank only needs to fill in the blanks in the different required forms. Salary scales for all the types of bank employees, including allowances and per diems have been determined by the Central Bank under the guise of standardizing these rates across all banks in the same asset group of six asset groups.

Loan write-offs that a rural bank may want to make also need

Central Bank written approval thirty days prior to the proposed write-off. And for proposed write-offs in excess of one hundred thousand pesos, the approval has to come from the Monetary Board. A rural bank is allowed to write off debts no more than two times a year.

Achievements

After a quarter of a century of existence, the rural banking system appears to be the first successful and viable rural credit institution established in the country. Its viability is reflected in the annual compounded rate of growth of profit for the system as a whole of 20 percent since its inception (1953). The figure is 21 percent for a more recent period, 1966 to 1976.

Judgment of past performance of the system may be found on the number and amount of credit accommodations it has made to its clientele. The aggregate as of December 31, 1976 was 8.9 million loans worth some 11.9 billion pesos. About 89 percent of this amount went to the agricultural sector and the remaining 11 percent went to small merchants and operators of small industrial enterprises, all located in the rural area.

As has been stated earlier, the system was used as a conduit for funds, either mobilized locally or from abroad by the government, and formed into special funds under the administration of the Central Bank to support special government programs. All these are part of a scheme to achieve increased production.

Special Rural Financing Programs

Special funds from various sources are released by the Central Bank to participating rural banks for relending under supervised

credit schemes for specified productive purposes. The first of these special funds was established in 1965 as the Agricultural Guarantee and Loan Fund. The total amount of 36 million pesos was contributed by different government owned and operated financial institutions and some budgetary allotment. Later during the same year, the first loan, then called "Farm Mechanization Loan" was successfully negotiated with the World Bank in the amount of five million U.S. dollars. A number of other special funds have since then been established, some being available to qualified banks only in specified areas.

During the business year 1976, eleven special funds were being administered by the Central Bank. These included:

"Masagana 99".[10] This fund is used to support the government's accelerated rice production program. It was started when the "palagad"[11] rice planting project was launched in late 1972 in an effort to counteract the expected ill effects of the worst flood to hit the "rice bowl" of the country. Financing through participating rural banks as of the end of 1976 already aggregated to 1,440.7 million pesos.

"Masaganang Maisan" and Feed Grains. This fund is designed to encourage the production of white corn, soybeans, or sorghum or any combination of, or all of, the above mentioned crops.

Livestock Financing. Funds made available to participating

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[10] "Masagana 99" is an accronym given to the increased rice production program initially launched in 1973. Its main goal was to produce at least 99 cavans of palay (rough rice) on each hectare of land planted. It involves different components and a package of technology being promoted A cavan of palay is 44 kilograms of rough rice.

[11] "Palagad" is the local (Tagalog) name for the dry season rice planting.

rural banks are to be re-lent to farmers intending to undertake a backyard livestock enterprise or semi-commercial livestock enterprise. Borrowers under this scheme are required to provide at least the housing, labor, equipment and other like facilities while proceeds of the loan are supposed to help finance the purchase of livestock, feeds and medicines.

"Native" Tobacco (Cigar-Filler) Financing. This has been called the native tobacco 1500 program. Rural banks in the region where cigar-filler tobacco is an important cash crop are the ones participating in this scheme. These banks are located in the Cagayan Valley and Ilocos regions and the province of Nueva Ecija.

Cotton Financing. In the implementation of a program to produce cotton locally for the domestic textile industry, the Philippine Cotton Corporation went into an agreement with the Central Bank to set up a fund for the financing of cotton farmers in the project areas in the provinces of Pangasian, Ilocos Norte, Ilocos Sur, Isabela, Tarlac and Nueva Ecija.

Vegetable Financing. Funds for rural bank re-lending under this scheme are aimed at increasing the local production of vegetables designed to improve the income of farmers with only small farm lots located in areas near population centers such as the Manila metropolitan area. This program is also expected to help improve the diet of the inhabitants in these population centers by making vegetables available at relatively low prices.

Angat-Magat Compact Farms Financing. This is aimed at supporting farmers who are beneficiaries of one of the bigger irrigation projects of the government. Compact farming is defined for this

purpose as the grouping of contiguous farms into one producing unit. A tripartite arrangement is worked out under this scheme. It involves farmers for the production activities, their cooperatives for marketing (input purchase-output sale), and the rural bank to provide for their credit needs.

Integrated Agricultural Financing: Coconut - Virginia Tobacco. This involves the financing of small coconut farmers by loans from this source, the production of such other crops as pineapple, sorghum, sweet potato or cassava, and interplanting any or all of the above named crops in coconut farms. Twenty million pesos have been deposited for Central Bank administration by the Coconut Producers Federation. Another fund in this integrated financing scheme is designed to finance Virginia tobacco farmers in the Ilocos region.

CB:IBRD Rural Credit Project. This project started as a loan from the World Bank to help finance the acquisition by farmers of farm machinery (primarily hand tractors) in 1965. The project has continued up to this time and the fourth loan has already been negotiated. It is now called the CB:IBRD Rural Credit Project , and it is the only special fund under the administration of the Central Bank that a rural bank can tap for medium and long-term re-lending activities. The loan agreement entered into between the Central Bank and the World Bank stipulates that loans are to be granted to end-users through the rural bank under the supervision of the Department of Rural Banks, Savings and Loan Association of the Central Bank. Another requirement imposed by the World Bank is counterpart financing. This is being met by the Central Bank, the participating rural bank, and the end-users.

CB-DEC/EDPITAF Supervised Farming Project. The Department of Education and Culture (DEC) through the Educational Projects Development Task Force (EDPITAF) has set up a fund with the Central Bank for purposes of re-lending through rural banks to experimental high schools, barrio development schools and other schools designated for the purpose of participating in its supervised training program.

The Rural Banking System and the National Financial Market

The rural banking system is one of the formal institutions operating in the national financial market. A comparison of trends for some selected indicators were made to relate the operations of the system with all the formal institutions in the national market, especially as regards the provision of credit to agriculture. These indicators were analyzed for this purpose. One must keep in mind in looking at these indicators, that all the other institutions are located in population centers (cities and big towns), the majority being concentrated in the greater Manila area. Trends exhibited by the indicators selected to show the relationships are presented in tables 1 and 2. These indicators are discussed below. The period analyzed is 1966 to 1976.

Total Assets. The growth in assets of the rural banking system has been comparable to the asset growth of all institutions in the national market. In nominal terms, the annual compounded rate of growth for the period 1966 to 1976 was about 23 percent, which is a little higher in comparison to the growth in assets of all institutions, which exhibited about 21 percent annual compounded rate. In terms of 1965 constant prices, the respective compounded growth rates

are six and 9 percent for all institutions and the rural banking system, respectively, compared with instituion groups operating in the national financial market, the growth in assets of the rural banking system is inferior only to that of stock savings and loan associations. The latter had assets growing at an annual compounded rate of about 43 percent in nominal terms or 28 percent in constant 1965 prices (Table 1).

Deposit Liabilities. Although since January, 1974, no more rural banks were granted authority to accept demand deposits, the growth of deposit liabilities during the 1966 to 1976 period has been impressive. It was much higher, in fact, than the overall growth rate of deposit liabilities for all institutions in the national financial market. In nominal terms, the annual compounded rate of growth for all institutions authorized to accept deposits was only 19 percent while the increase in the rural banking system's deposit liabilities was at a much higher rate of 26 percent. Using constant 1965 prices, these rates are four percent and 11 percent for all institutions and the rural banking system, respectively. Hence, the deposit liabilities of the rural banking system has grown relative to other institutions.

Loans from the Central Bank. In terms of the loans granted by the Central Bank to financial institutions, the share of the rural banking system has grown at the rate of 11 percent during the period. Loans granted by the Central Bank during this period grew, in nominal terms, at an annual compounded rate of 18 percent. However, in terms of 1965 prices, the volume of funds flowing out of the Central Bank

Table 1. Selected Information on the Rural Banking System in Relation to the National Financial Market, 1966 to 1976

Indicators/Year	Total	Commercial	Savings	Development	Stock S & L	Rural Banks Amount	Rural Banks % of Total
	- In Million Pesos -						Percent
Total Assets							
1966	9856.0	7631.3	297.3	1599.7	4.4	323.3	3.28
1967	12441.1	9634.6	410.8	1977.2	9.7	408.8	3.29
1968	12248.4	10910.6	496.8	2346.2	26.1	468.7	3.83
1969	16061.5	12049.7	579.2	2832.8	36.9	562.9	3.50
1970	18723.6	14066.1	724.4	3219.0	59.1	655.0	3.50
1971	21559.3	16052.0	856.5	3828.7	83.5	738.6	3.43
1972	26698.0	19997.8	862.9	4752.1	102.9	982.3	3.68
1973	37738.1	29940.3	1003.8	5267.2	144.2	1382.6	3.66
1974	53154.9	42663.2	1159.9	7010.4	210.7	2110.7	3.97
1975	57633.8	53172.8	1421.9	9967.1	322.7	2749.3	4.77
1976	78103.0	59367.2	2043.1	13175.7	499.3	3017.7	3.86
Compound Growth							
Current Peso	.20862	.21230	.16747	.19934	.42929	.23190	.0232
Constant 1965 = 100	.06293	.06661	.02179	.06008	.28371	.08623	
Deposit Liabilities							
1966	5102.1	4662.0	257.2	82.3	-.-	100.6	1.97
1967	6291.8	5628.8	350.4	172.4	-.-	140.2	2.23
1968	6704.1	5933.8	343.2	259.3	-.-	167.9	2.50
1969	7701.9	6758.8	425.0	316.5	-.-	201.6	2.62
1970	8828.4	7685.7	557.8	324.6	-.-	260.3	2.95
1971	10636.6	9214.9	670.8	418.2	-.-	332.7	3.13
1972	12581.6	10964.0	652.8	538.2	-.-	426.6	3.39
1973	17411.1	15185.8	811.7	772.7	-.-	640.9	3.68
1974	21487.7	18375.3	959.5	1239.9	-.-	913.0	4.25
1975	26547.6	20746.7	1183.9	3531.7	-.-	1085.3	4.09
1976	32948.2	26243.1	1760.6	3787.2	-.-	1157.3	3.45
Compound Growth							
Current Peso	.18695	.17475	.17294	.34736	-.-	.25715	.0694
Constant 1965 = 100	.04126	.02906	.01254	.20168	-.-	.11140	

Source of Basic Data: Department of Economic Research, Central Bank. Statistical Bulletin, Vol. 28, December, 1976, Manila.

to financial institutions was actually decreasing at the rate of 14 percent (Table 2). The growth in the amount of loans obtained by the rural banking system from the Central Bank, which is 28 percent in nominal terms or 14 percent in 1965 constant prices, therefore, becomes much more impressive. It is noted that the only other financial institution that had a higher growth in loans from the Central Bank, both in nominal and constant terms, are the development banks, which as a group include the Development Bank of the Philippines, a government owned financial institution. Loans granted by the Central Bank to this group of financial institutions grew at the compounded rate of 46 percent and 24 percent in nominal and constant 1965 prices, respectively.

Agricultural Loans Granted. Loans granted for agricultural purposes (i.e., irrespective of whether they are operating expense loans, capital improvement, farm machinery or activities related to the marketing of agricultural commodities) during the period 1966 to 1976 (i.e., from all institutional sources) grew at a compounded annual rate of twelve percent in nominal terms. When reckoned in terms of 1965 constant prices, this represents an annual growth rate of only a little over one percent (Table 3). Loans for agricultural activities have therefore not kept pace with the growth in agricultural output.

The inference from the above is that even as the value added from agriculture to the gross national product has remained at about one-third of the total during the period, the proportion of loan financing has actually been reduced. This is not withstanding the

Table 2. Loans Granted by the Central Bank to Financial Institutions, by Institution, 1966 to 1976

Year	Total	Commercial Banks	Development Banks	Non-Bank Fin. Inst.	Rural Banks	
					Amt.	% of Tot.
	- - - - - - - Million Pesos - - - - - - - - - -					Percent
1966	1529.0	1415.2	-.-	-.-	113.8	7.44
1967	3398.1	3264.3	-.-	-.-	133.8	3.94
1968	4939.6	4704.2	9.5	-.-	140.0	2.83
1969	3582.5	3404.2	6.1	-.-	172.2	4.81
1970	4944.0	4678.4	61.2	-.-	204.4	4.13
1971	1818.3	1294.1	292.9	-.-	231.3	12.72
1972	2729.9	2266.3	153.5	-.-	210.1	11.36
1973	1900.2	1364.3	-.-	-.-	535.9	28.20
1974	5048.0	3992.6	16.1	-.-	1039.3	20.59
1975	16903.1	14151.5	275.2	724.2	1752.2	10.37
1976	29686.7	25412.8	1365.9	1580.7	1327.3	4.47
Compounded Rate of Growth:						
Current	.17682	.15692	.45948	-.-	.28420	
Constant						.1075
1965 = 100	.14211	.02388	.24080	-.-	.13853	

Source: Department of Economic Research, Central Bank of the Philippines - Statistical Bulletin, Vol. 28, December, 1976, Manila.

fact that total loans granted by financial institutions during the period grew at a compounded annual rate of 23 percent in nominal terms, or twelve percent in 1965 constant prices. The share of cash crops producers in the total loans classified as agricultural has traditionally been high (e.g., sugar). This is because institutional lenders have a much better chance of collecting loans granted for sugarcane production in as much as the canes have to be processed at some central points before they are sold.

Total loans granted by the rural banking system during the period grew at a compounded annual rate of 21 percent in nominal terms or six percent in 1965 constant prices. However, this rate was not sufficient to maintain its proportionate share of total loans granted in the economy.

In terms of the value of loans granted by the rural banking system in relation to the total loans granted by all institutions, a decline at a compounded annual rate of six percent (nominal terms) was observed. However, for loans granted to agriculture, the rate of growth exhibited by rural banks was an impressive 21 percent, in nominal terms, or seven percent in constant 1965 prices. This means that the proportionate share of agriculture in the loans granted by all institutions has declined. On the other hand, a larger proportion of the increase in the loans granted by rural banks went to this sector. Thus, the rural banking system exhibited a compounded annual growth rate of six percent (nominal terms) in terms of share in loans granted to agriculture.

On the basis of the information contained in Table 3, the importance of the rural banking system in the delivery of agricultural

Table 3. Agricultural Loans Granted by Financial Insititutions in Relation to Total Loans Granted, by Institution, 1966 to 1976

Table 3. Agricultural Loans Granted by Financial Institutions in Relation to Total Loans Granted, by Insititution, 1966 to 1976

Items/Institutions	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	Rates of Growth Current	Rates of Growth Constant 1965=100
	In million pesos and percent											Compounded, Annual	
Total Loans Granted	9586.1	11672.5	17283.4	18732.3	24139.9	31545.8	35147.0	51522.3	n.a.	n.a.	n.a.	0.238	0.123
Loans to Agriculture	1448.2	1857.9	1972.8	2058.5	2536.8	2880.0	2956.2	3544.8	n.a.	n.a.	n.a.	0.118	0.013
Percent of Total	15.1	15.9	11.4	11.0	10.5	9.1	8.4	6.9	n.a.	n.a.	n.a.	-0.112	-
Commercial Banks	8165.6	9753.6	15335.8	16389.5	21951.7	28820.4	32689.4	46684.6	n.a.	n.a.	n.a.	0.243	0.036
To Agriculture	1097.0	1358.3	1414.3	1508.4	1928.0	2141.4	2093.9	2347.5	n.a.	n.a.	n.a.	0.107	a
Savings Banks	107.5	129.4	144.1	105.7	115.0	263.8	215.6	152.0	n.a.	n.a.	n.a.	0.082	-0.025
To Agriculture*	4.6	1.8	2.3	1.8	1.4	0.4	1.8	0.5	n.a.	n.a.	n.a.	-0.250	-0.379
Development Banks	302.0	384.6	435.6	598.7	162.0	116.6	181.1	326.3	854.3	2822.5	2608.3	0.179	0.016
To Agriculture	81.0	130.7	146.0	101.0	60.4	54.5	88.9	141.9	211.5	618.1	676.5	0.173	0.027
Non-Bank Financial Inst'n.	715.6	1015.7	934.1	1166.2	1352.4	1666.3	1275.7	3285.8	4765.3	5251.1	4608.5	0.207	0.061
To Agriculture	18.2	32.2	32.1	30.5	50.4	74.0	63.0	78.0	110.4	120.2	47.5	0.144	-0.001
Rural Banks	295.4	389.2	433.8	472.2	558.8	678.7	785.7	1073.6	1824.5	2310.2	1881.4	0.206	0.060
Percent of Total Loans	3.1	3.3	2.5	2.5	2.3	2.2	2.2	2.1	-.-	-.-	-.-	-0.063	-
To Agriculture	247.4	334.9	378.1	416.8	496.6	609.7	708.6	976.9	1669.5	2117.5	1658.8	0.213	0.067
Percent to Total Agric.	17.1	18.0	19.2	20.2	19.6	21.2	24.0	27.6	-.-	-.-	-.-	0.060	-

n.a. = Data not available
a = Less than 0.001
*This includes forestry and fishing as no breadkown is available.

Source of Basic Data: Department of Economic Research, Central Bank of the Philippines. Statistical Bulletin, Vol. 28, December 1976, Manila

credit in the country is increasing. It may increase further in importance as the system ages. This will be so, especially when present efforts to induce the system into mobilizing more rural savings gain momentum and success. Also, it is possible that other banking institutions, especially those based in population centers, faced by the requirement to earmark 25 percent of their loanable funds to agricultural loans, will enter into some arrangements with rural banks, either through correspondence or special deposit schemes. Note that this requirement is currently met by commercial banks through the purchase of Central Bank Certificates of Indebtedness.

It must be pointed out that inter-institutional comparison using the information on loans granted by different institutions as presented in Table 3 is quite limited. Data for commercial and rural banks will be relatively comparable in the sense that both types of institutions grant short-term loans. On the other hand, loans granted by non-bank financial institutions and by the development banks would generally be of the medium and long-term categories. Therefore, the information contained in Table 3 would have a downward bias for development banks and non-bank financial institutions. Examination of stocks (loans outstanding) may provide additional insights in this regard. However, for purposes of this present exposition, it is felt that looking at loans granted alone will suffice.

The Rural Banking System in 1976

In the business year ending December 31, 1976, the rural banking system was composed of some 805 units in operation scattered all over the country. Two of these units are owned by cooperatives, a

situation that was made possible in 1974. In terms of the distribution of these units in the three broad regions of the country, 63 percent are located in Luzon, 22 percent in the Visayas, and only 15 percent are located in Mindanao.

Capitalization. Total capitalization of the system reached the 598.7 million peso mark in 1976. About 90 percent of this amount was financed by the private sector in the form of common shares of stocks (65%), surplus (13%), undivided profits (17%), and reserves (5%). The remaining ten percent of the system's capitalization was financed through preferred share subscription by the government. These preferred shares of the government would be primarily with the newer banks. A policy has already been implemented whereby older, relatively stable banks (financially) are required to divest themselves of government preferred shares. Fixed and other assets represent 26 percent of the rural banking system's total capitalization.

Loaning Operation. Loans granted by the rural banking system during the 1976 business year amounted to 1,881.4 million pesos. Roughly 81 percent of this amount was generated by the rural banks through borrowings, and 82 percent of rural bank borrowing during the year was in the form of rediscounting with the Central Bank. This was not surprising since about 60 percent of the loans granted during the same year were classified under the supervised credit program. And as stated earlier, loans granted under this scheme are rediscounted at 100 percent of face value at a cost to the rediscounting bank of only one percent per annum.

The present Central Bank rediscounting policy allows a rural bank to rediscount eligible paper as soon as it has utilized 50 percent of its paid-in common capital stock in its loaning operations, or when its operating capital has been depleted to a level equivalent to 30 percent of its total deposit liabilities, exclusive of special deposits. The maximum amount that a rural bank can rediscount is 500 percent of its net worth plus 100 percent of its four preceding months average time and savings deposits, if all the paper rediscounted is supervised credit loans.

Operating Income. During the business year ending December 31, 1976, net income of the rural banking system was 90.4 million pesos. The most important single source of income for rural banks is interest from loans granted for agricultural purposes. This category represented 70 percent of the total income for the year. Rural bank's other income sources are interest on securities held, interest on loans to small merchants, interest on loans to operators of small industrial enterprises, interest on other loans, and all others not classifiable elsewhere.

As regards expenses, interest payments on deposits and on borrowed funds together accounted for 29 percent. The other large expense items are salaries and wages (15%). The rest is distributed over the other operating items, such as travel allowances and expenditures, supplies and materials, power, water and communications.

Sources of Loanable Funds. The estimated funds available for lending from the rural banking system for the business year 1976 are shown in Table 4. Note that four-fifths of these funds were in the

Table 4. Sources of Loanable Funds, Rural Banking System, 1976

Source		Net Amount Available
		- Million Pesos -
Capital Account:		368.4
Common & Preferred	407.5	
Surplus, Undivided Profits and Reserves	191.2	
Less:		
Fixed and Other Assets	(154.6)	
Investment in Securities	(75.7)	
Cash on Hand and in Bank		18.1
Net of:		
Operating Expenses	(205.4)	
Over the Counter Reserves for Deposit Liabilities	(9.1)	
Deposit Liabilities Net of Required Reserves		828.5
Borrowings, of which Rediscounting is 1,259.1 million pesos		1,532.3
Total Available for Loaning Operations		2,747.3

form of borrowings and deposits. The rest came from ownership capital.

A bank also performs the middleman of funds function. This mediation function for the rural banks seems to be primarily borrowing from the Central Bank (82 percent of the system's borrowings during the 1976 business year was in the form of rediscounting) and relending borrowed funds to credit end-users. In effect, the scheme may be considered as funds mobilization by the government in support of the increased food production program, utilizing the rural banking system as a conduit for that purpose.

Recapitulation

The preceding discussion indicates the possibility of making complementary statements or critical remarks about the rural banking system. It also seems possible to find an indicator to support whatever may be said. However, on the basis of the indicators used herein, the general impression would be that the rural banking system has made some appreciable contributions to improve the delivery of credit to the agricultural sector. It must be pointed out, however, that during the period 1966 to 1976, an average of about 51 percent of the loans granted for agricultural pruposes could be directly attributed to borrowings from the Central Bank.

It is against this backdrop that an examination of the response by rural bank management to policy instrument changes is undertaken. Before that is done, however, a framework of analysis will first be specified. This framework was devised after a review of relevant literature.

CHAPTER IV

LITERATURE REVIEW AND FRAMEWORK OF ANALYSIS

Introduction

One of the objectives for this study is to determine the influence of government policies on the actions of rural bank management, especially as regards the provision of credit to small farmers (defined as those cultivating not more than two hectares). This is important since Philippine agriculture is primarily composed of small farm enterprises. The rate at which these small farmers reoriente production decisions based on market developments rather than on the subsistence needs of the immediate farm family has officially been considered critical to the development of the agricultural sector. Consequently, policies have been formulated to influence farmer's actions toward the desired goal. Some of these policies are directly concerned with the delivery of formal credit to small farmers.

In this study, policies are government actions, rules and regulations affecting the conduct of business by financial intermediaries. These rules, actions or regulations affect the supply and/or demand for credit by financial institutions. The polcies of interest are those exerting some influence on the volume of loans going to agriculture and to small farmers. Therefore, policy response is defined in this study as the action taken by the bank management after a policy

instrument has been manipulated by central monetary authorities. Changes in magnitudes of the variables identified a priori as indicators of rural bank management actions in response to monetary authority's manipulation of policy instruments are analyzed. An instrument is manipulated when the Central Bank either takes action in the market, e.g., sale or purchase of securities (i.e., open market operations) or makes some adjustments in the requirements or rules of the game such as the required reserves on deposits.

As is often the case, however, the objectives sought to be attained when policy instruments are manipulated are not clearly specified. One has to lean on constructs based on logical analysis (and often supported by experience) to understand the direction of change indicated by the instrument manipulated. There arises, therefore, some differences in the perception of the goal.

Another difficulty is associated with the cetiris paribus assumption that is common to economic investigations. All other things do not remain the same. Change occurs over time. The interaction of variables may differ at different times, and a person's reaction to a given change also differs as he tries to estimate the expected results of his actions in relation to all others. This is true even as the assumption of a utility maximizing person holds. Corollary to the preceding is the timing of the activation of the policy change itself, including the time lag that exists between activation and manifestation of results. Consider for instance, the activation of a policy instrument designed to influence the flow of credit to agriculture. One that is activated in time for the start of a crop season would affect the volume of agricultural loans during that season, while

one activated in, say, the middle of a crop season will have its effects felt only in the next season. The time lag between announcement of a policy change and the date when the change takes effect would also have some influence on the action of bank management. For example, if the Central Bank announces a change in the reserve requirement which becomes effective thirty days later, it is possible that bank management action would be in terms of non-renewal of loans that fall due during the intervening period.

Even when acceptable compromises for all of the above stated shortcomings associated with policy analysis are found, determination and collection of information needed may become a constraint. A framework for analyzing the effects of a policy may look attractive, only to find that the data needed are not available. Estimating effects of policies being important as a means of evaluating such policies, one has to make do with available data.

Prior to discussing the method of analysis employed, it is appropriate to stop and see what has been done by other researchers in this general area of study. A sampling of the studies that have been undertaken--primarily on U.S. financial institutions is discussed below.

Review of Literature

Although there have been a number of studies made of bank behavior, they do not, in general, examine such behavior with respect to the provision of lonas to a specified clientele and the influence of monetary policy on the action taken by banks in serving that clientele. With respect to studies dealing with action taken by

financial institutions in response to a given policy in the delivery of credit to small farmer agriculture, a search of literature proved futile. Most studies in this regard have been program-related, e.g., evaluation of cooperative credit schemes, or as the most recent and relatively popular topic in the Philippines, the evaluation of the credit component of the "Masagana 99" program.

Most studies with a similar purpose as the present effort deal with the portfolio adjustment of banks resulting from given changes in the variables that are considered (at least in the study, e.g., policy instrument change) important in the decision framework that bank management utilizes. One recent study is "Portfolio Adjustments: An Application to Rural Banking" by Robison and Barry (12, 1977). They looked into how an expected utility maximizing choice is changed in response to factors shifting the mean variance efficient set and changes in the decision-maker's level of risk aversion, within the framework of portfilio theory.

Data used in the Robison-Barry study were from "representative model banks for southeastern Texas." On the other hand, the framework of analysis made use of the "mean variance criterion which assumes that the decision-maker's expectations are formulated in terms of normal distrubutions that are fully specified by means and variances or that his utility function is quadratic." It further assumes a normal distrubution for the wealth expectation of bankers. The experiments with the model and data used indicated that changes in the portfolio held by banks resulted from changes in what were considered (in the study) as bank decision variables, e.g., deposit costs which translate into a decrease (for increased costs) or increase (for

decreased costs)in the risk-free wealth, causing a shift in the efficient frontier.

Another study parallel to the present effort was one by Bryan (13, 1967) who looked into alternative estimates of the time lag required by banks to complete their portfolio adjustments as a result of changes in monetary policies. This study made use of micro-level data--the weekly reports of 19 individual commercial banks. He concluded that the time needed by commercial banks to adjust reserves was only a matter of weeks. An implicit suggestion in this result was that conclusions reached in other studies of adjustment time lags may have been a result of the aggregated decision units and time period used.

Hester and Pierce (14, 1975), on the other hand, demonstrated the possibility and practicability of obtaining direct estimates of commercial banks' and mutual savings banks' portfilio adjustments using cross-section data. They developed two models for bank portfolio selection--an input-output model which assumes that banks do not forecast future deposit flows and another model making use of an adaptive expectation approach where banks utilize their deposit flow history to forecast future flows. Data used for the study were confidential reports of some 400 New England banks for the period 1960 to 1964.

Results indicated that the time path of adjustment of an asset in response to deposit shock differs according to the asset being considered. In the case of the input-output model, the bank's cost of portfolio adjustment led to a relationship between the history of its deposit flow and current portfolio composition. On the other hand, this cost under the adaptive expectation model led to a

relationship between current portfilio composition and a history of forecast of current value of deposit. What can be an important general conclusion in relation to the present effort is that "the banking system does respond to variations in monetary policy with a long lag. This lag is not so much the consequence of long lags in adjustment for individual banks as it is the consequence of the banking system requiring a long time to establish equilibrium following a shock."

The portfolio adjustment process of banks (Russell, 15, 1969) was studied with a model which determined the asset composition of the aggregate portfolio of commercial banks, employing the Markowitz-Tobin optimal portfolio selection approach. The Markov process was also incorporated to describe the adjustement toward equilibrium, on the premise that the observed portfolio is not necessarily the optimal. The major conclusion reached by the author is that composition of asset holdings by commercial banks is responsive to changes in interest rates. The study also found that the proportion of securities to cash assets (as defined in the study) was found to be a positive function of interest rates. And since increased demand deposits finance increased security holdings, the positive relationship between money stock and interest rates appears to have been verified.

On the behavioral aspects of banks, Aigner and Sprinkle (16, 1968) developed a model of optimal short-run lending behavior with information as a variable input for lending firms. They explored one of the implications for theories of credit rationing, lenders' specialization and problems met in defining the nature and extent of financial markets. The model was used in a case where the interest rate on loans was set at a given level with expected profit being maximized with

respect to loan size and amount of loan information to be obtained. The other case presented is one where the interest rate charge is a variable to be optimized jointly with loan size and amount of information to be obtained.

The concept of an "information function" was advanced. This concept related estimated risk (measured by default risk) to the stock of information on hand, the cost of obtaining additional information and the cost of funds. A corollary function was also formulated. This related the probability of acceptance by borrowers to the rate of interest offered. Use of the model provided indications of the rationale for non-price credit rationing and price discrimination by commercial banks. It also provided a plausible explanation of lender specialization as well as providing some means for understanding the dimensions of competition in the lending markets.

Another behavioral approach to the study of asset management by banks was done by Monti (17, 1971). His "micro-theoretic" model of bank behavior assumed that each bank makes a scale and portfolio decision in the loan and deposit markets. He evaluated two alternative formulations of the objective function to be maximized. In one, profits were maximized, and in another, deposits were maximized subject to profit constraint. Using either objective function, the equilibrium for stocks of assets and deposits and/or deposits and loan interest rates were determined.

Two studies undertaken years apart used a different framework and paralleled the direction taken herein. Both made use of a paradigm borrowed from studies on industrial organization--the structure-conduct-performance schema.

Alhadeff (18, 1954) used this paradigm in studying the monopoly and competition of the branch banking system that is allowed under the laws of the State of California. On the other hand, Hayenga (19, 1973) studied the effects of commercial bank mergers in the State of Michigan using the same paradigm to examine the type and volume of services provided to the community by merged banks in comparison to independently operated banks.

Data for the Hayenga study were collected by interview from representatives of 28 banks; 14 formerly rural banks (as of end of 1965) that had since been merged into larger banking operations and 14 still independent rural banks that were about the same size by the end of 1965 as the merged banks. Other factors held approximately the same included the distance of the banks from major metropolitan areas, the size of the town being served, and the similarity of the agriculture served.

A finding in the Hayenga study is that bank mergers had little effect on competition between neighboring financial institutions, i.e., between banks and the cooperative farm credit agency. As regards the bank's role in financing agriculture, it was found that independent banks tended to charge lower rates of interest for farm operating loans than the local branches of larger banks. However, the reverse was true with respect to business loans. This result was attributed to the fact that independent banks were more prone to discriminate in favor of loans to agriculture than to business or industry. Larger banks, on the other hand, tended to treat both types of loans similarly, i.e., they charged the same rate of interest to all borrowers. Indirectly, therefore, the study can be considered an

eye opener for policy makers in dealing with questions concerning bank structure.

Peltzman (20, 1969) investigated the effect of the bank structure allowed under existing U.S. policy as it relates to the speed with which the banking system translates monetary policy changes into deposit adjustements. He argued that the number and size of banks serving a given market and the degree of restrictions on branching affect the transaction and information costs to banks as they adjust to monetary policy changes. He developed a model to measure the speed with which bank markets respond to changes in reserves and reserve requirements. Using data from differently structured bank markets, he found that markets populated by small banks respond faster to reserve changes than markets of larger banks. He also found that all bank markets responded quickly to a change in reserve requirements. The implication for policy is that reactions from the banking system are relatively fast when reserve requirements are manipulated.

A somewhat different study from those above, but with important relevance to the present undertaking, is one done by Nisbet (21, 1969). He analyzed the relationship between institutional and informal credit markets in Chile. His framework for analysis first laid down the conditions for a two-sector agricultural credit market. The theoretical underpinnings for two possible types of relationships between the two markets were then discussed. He examined the following propositions: (1) the informal and institutional credit markets are differentiated on the supply side by terms of lending and nature of operations; and (2) the greater the level of education the more

likely for farm operators to borrow from institutional sources. Both propositions were supported by the field survey data. The third proposition, that the number of farm operators seeking credit in the informal credit market exceeds the number of those seeking accommodations from institutional sources, appeared to have been verified. The distribution of the operators interviewed for the study indicated that 38 percent were clients of informal credit markets and only 33 percent used the institutional market. In terms of volume, however, more of the credit flowed from institutional sources.

Framework of Analysis

From the preceding review, several of the studies examined bank management action to changes in policy instruments with the aid of a portfolio model. In general, these studies indicated the internal relationships of asset holdings as they affect profits. Little was learned about the direct effects of policy changes on the volume of loans granted. Since the present study addresses the effects of policy changes on lending volume, different approaches were required.

Difficulties of data and measurement should be noted first. The information available from the bank's balance sheets was for stocks of financial assets. Flow information was obtained only for supervised credit loans granted during the years 1973 to 1976. On the other hand, the fact that there is incomplete knowledge about the way in which policy instruments, financial variables, and physical variables are interrelated also poses some problems.

One approach utilized a pragmatic method of indicator--operational target relationship to estimate the effects of policy instrument

changes. In this approach, theory was used to suggest the direction of change expected in the indicator variables. Changes in the means of these indicator variables were subjected to a t-test for statistical significance.

A second approach specified a linear regression model with volume of supervised credit loans granted (to approximate the volume of small farmer loans)as the dependent variable (and assumed objective of Philippine agricultural credit policy). Four groups of explanatory or independent variables were identified. These were (1) indicators of the capital and ownership structure of the banks and their operating results, (2) personal information about the manager, (3) variables describing economic activities in the community where services of the bank are provided, and (4) credit policy instruments that have been manipulated during the period 1971-1976.

Estimation of the specified regression function using the data gathered was not feasible. This is because policy variables are time related, and a combined cross-section-time series regression was not possible with available data. However, since it was believed that a regression model would allow the quantification of relationships between the dependent and independent variables, several variations of the model were estimated excluding the policy variable group. This allowed some utilization of the data gathered for the study.

A third analytical approach used a bank portfolio model to relate changes in the different asset and liability variables to profits. Note that the basic postulate underlying financial theory (under the profit maximization model) is that assets with the same level of risk are expected to have the same rate of return. Management trades-off

additional risk for a perceived increase in return. This is also the underlying rationale in portfolio theory.

The expected return on a given portfolio is the weighted average of all possible returns, and the weights are the relative chance for each level of return actually being received. Portfolio theory also assumes a quadratic utility function. Utility is measured by a surrogate--profit. The argument is that the higher the profit the higher is the utility to the firm (bank). The risk of receiving a lower utility is measured by a surrogate--variability of return. The function of management, therefore, is to maximize profit, subject to the variability of profit actually received.[12]

It is believed that actions by rural bank management are indicated by the adjustments made in their portfolio. The portfolio (and thus the expected rate of return and level of risk exposure) that a rural bank holds in any given period is partly conditioned by the opportunities that are available to it. These opportunities are created by the policies of government affecting the bank operations and the operations of its clientele--the economic activities that bank clients undertake.

Changes in government policies are expected either to change the management perception of: (1) the level of risk and/or expected return associated with a given security or group of securities; (2) the structure or rules of the game in which they have to operate; (3) the opportunities that will be available from their "environment";

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[12]Note that the actual result will not be necessarily so, i.e., ex ante management believes that results will be such, but ex post, the results may altogether be different.

or (4) a combination of the preceding.

The portfolio model used regression analysis as applied by Hester and Zoellner (22, 1960). Regression coefficients were examined for evidence of bank management response to policy changes. This was done by comparing the coefficients estimated for the indicator variables for the year before the policy instrument was manipulated and the succeeding years. Since portfolio theory assumes management to be utility maximizers, any change in policy instruments will generate portfolio adjustments.

The regression model is of the form:

$$NOP_t = a + \Sigma b_i X_{it} + e_t$$

where:

NOP_t = the bank's net operating profit in period t;

X_{it} = the value of the asset or the liability in the bank's portfolio during the period t; and

e_t = a stochastic term.

The above functional specification also include the basic assumptions of a regression model, i.e., the disturbance term (e_t) is normally distributed with an expected mean value of zero. Constant variance is likewise assumed.

These three approaches to the analysis of availaboe data were expected to provide results that would be supportive. All the computations were carried out on a CDC 6500 computer using the SPSS package available at the Michigan State University Computer Center.

CHAPTER V

POLICY RESPONSE OF RURAL BANKS

Discussion in this chapter starts with a description of the rural banks in the study, how they were chosen and the information gathered. The sample banks are then compared to the rural banking system as a whole. This is followed by a description of the managers of sample banks, their education and training, and the bank capitalization and ownership. The bank's lending procedure is described as is the community where rural banks operate. The response of sample rural bank managers to situational questions are then reported.

Analytical results are discussed utilizing descriptive statistics to provide indicators of changes in the bank's operating results after a change in government policy has been made. Another approach makes use of a bank portfolio model. The use of this model is premised by the assumption that management portfolio decisions are influenced by government policies.

Rural Banks in the Study

As stated earlier, the rural banking system was designed as a means to improve the agricultural credit delivery system in the Philippines with the private sector carrying the bulk of the load. The population for this study was defined to include licensed rural banks that were in operation as of January 1, 1965. This decision was made

to include in the sample only those banks that have been in operation for at least ten years.

With the population so defined, the identification of banks in the population was based on records of the Department of Rural Banks, Savings and Loan Association, Central Bank. The number of licensed banks stood at 283, but as of December 31, 1975, only 273 of these were in actual operation. The other ten were either in the process of reorganization or liquidation. Thus, the sample used for the study was obtained from the 273 banks in actual operation as of the end of 1975.[13]

Some 60 rural banks were selected to provide information for the study. The banks were first statified on the basis of their total reported resources as of December 31, 1975. This gave a range of banks with total reported assets (in current pesos) of ₱198 thousand to ₱23,483 thousand, with a mean of ₱5,442.4 thousand. Three asset groupings were delineated; the first with asset ranges of ₱198 to ₱7,959 thousand; the second from ₱7,960 to ₱15,721 thousand; and the third from ₱15,722 to ₱23,483 thousand. This grouping turned out to be relatively skewed, the distribution being 213, 53, and 6 banks in the low, medium and high asset groups, respectively.

Proportional distribution of the sample to represent each group was made and a simple random sample was drawn with the use of a table of random numbers applied to an alphabetical listing of banks. This procedure resulted in a sample of banks from the population with

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[13]The number of banks granted license is not necessarily equal to the number of banks in operation at any given point in time. This is because some banks may be in the process of reorganization, liquidation, or suspension for one reason or another.

mean assets as of the end of 1975 of 5,578.5 thousand pesos which compares very favorably with the mean assets of the banks in the population of 5,422.4 thousand pesos.

Information Gathered. The framework of analysis identified at the time this study was conceptualized provided the guide to the identification of the type of information to gather. Said analysis framework specified a linear regression function with the volume of small farmers loan granted as the dependent variable. This was to be explained by indicators for four groups of explanatory variables, viz: (1) financial data on the bank's capital, ownership structure, and operating results for the period studied; (2) personal information about the bank manager; (3) on the type of economic activities in the bank's sphere of operation; and (4) policy instruments manipulated during the period studied.

Consequently, both secondary and primary sources of data were tapped. Financial data were obtained from the records available at the Department of Rural Banks, Savings and Loan Association of the Central Bank, for the period 1971 to 1976. These financial data reflected the sample banks' operating results. On the other hand, data about the managers and the sample banks capital and ownership structure were gathered through personal interview for those banks located within the radius of 200 kilometers from Manila. Mailed questionnaires were used for banks located outside the 200 kilometer radius. The rationale for collecting this type of information was the argument that the action by management to any change in operating conditions, e.g., changes in policy instruments, is influenced by the personal

circumstances of the manager, constrained by the capital and ownership structure of the bank he manages.

Difficulties in securing an interview and the relatively low return on the mailed questionnaire reduced the sample, as far as this information was concerned, to only 35 banks. Information about the communities in which the sample banks were located was obtained from the 1970 census of population and the 1972 census of agriculture. The last two sources of information contained data on the economic activities in the community where the bank is doing business.

The policy instruments that were manipulated were identified by going through the files of memoranda and circulars issued by the Monetary Board during the period 1971 to 1976. Directions and magnitudes of change were recorded, including the date when the memorandum and/or the circular took effect.

Comparison of Sample Banks to the System. Since only a sample of sixty banks was used to provide data for analysis, it may be useful to compare the banks in the sample with the banks in the system as a whole. This comparison is based on the operating results for the 1976 business year. The items of comparison are presented in Table 5. This table shows that during that business year the proportionate share of the most important source of borrowed funds, the Central Bank rediscounting window, was the same for the system as for sample banks.

Rural banks included in the study show a lower proportion of common shares to the total private capitalization in comparison to the system as a whole. Common shares account for about 65 percent for all banks in the system, while they represent only about 56 percent for

Table 5. The Sample in Comparison to All Banks in the Rural Banking System as of the End of 1976

Item of Comparison	The System		The Sample	
	Amount	Percent	Amount	Percent
	₱	%	₱	%
Total Resources	3017.7	-.-	368.0	-.-
Capitalization	589.7	100.0	51.6	100.0
Common Share	351.5	58.7	26.5	51.4
Preferred Shares	56.0	9.4	3.9	7.6
Surplus & Reserves	99.0	16.5	12.8	24.8
Undivided Profits	92.2	15.4	8.4	16.2
Total Private Cap.	542.7	90.6	47.7	92.4
Common as % of Pri.	-.-	64.8	-.-	55.6
Total Fixed Assets	53.8	-.-	6.0	-.-
Borrowings	1532.3	100.0	178.6	100.0
Rediscounting	1259.2	82.0	145.0	81.2
Other Borrowings	273.1	8.0	33.6	8.8
Deposit Liabilities	902.4	-.-	194.0	-.-
Loans Outstanding	2590.3	100.0	300.3	100.0
Agricultural	2405.3	92.9	219.3	73.0
All Others	184.7	7.1	8.1	27.0
Gross Income	295.8	-.-	35.1	-.-
Operating Expenses	205.4	-.-	27.4	-.-
Net Income	90.4	-.-	7.7	-.-
As % of Total Res.	-	3.0	-	2.1
As % of Total Cap.	-	15.1	-	14.9
As % of Pri. Cap.	-	16.7	-	16.1
As % of Com. Shrs.	-	25.7	-	29.1
As % of Com. Shrs. with Pay't. on Pref.		25.4	-	28.8

Source: Department of Rural Banks, Savings and Loan Association, Central Bank--Annual Report of the Rural Banking System, 1976 and Sample Banks Balance Sheet for 1976.

the sample banks. On the other hand, while 41 percent of the capital of sample banks was in the form of undivided profits, surplus, and reserves, these items account for about 32 percent of the capital structure for the system. There is an apparent high propensity among banks in the system to plough-back earnings. Older banks, therefore, tend to have a greater proportion of undivided profits, surplus, and reserves in their capital structure.

The two other items that tend to differ between the sample and the system as a whole are deposit liabilities and types of loans outstanding. The sample's share of the total deposit liabilities of the rural banking system is about twice as much as its share of the system's total resources. On the other hand, the system's outstanding agricultural loans were about 93 percent of total loans outstanding for the year while this item was only 73 percent for the banks in the sample.

The last item for comparison is the income and expense account. The sample's share of the total income earned by the system during the year is proportionate to its share of total resources. However, its share of total operating expenses was larger, resulting in a lower proportionate share of net income. This may be explained by the larger (vis-à-vis the system) portion of the deposit liabilities held by the sample banks.

In summary, plough-back represents a higher proportion in the capital account of sample banks. Also, they have a lower proportion of loans committed to agricultural clients. The reasons for these differences are not known.

Rate of Return from Operations. Estimated rates of return have been calculated. These are rates of return in terms of: (1) total resources; (2) total capital; (3) total private capital; and (4) total value of common shares of stock that have been paid in by subscribers.

Small differences in the rates of return to total capital and to total private capital are observed between the sample banks and the system as a whole. However, there is an observed difference of about one percent in the rate of return to total resources. This difference may be a result of the larger deposit liabilities held by sample banks.

A more important difference between the two groups is in the estimated rate of return to the value of common shares actually paid-in. For the system, the return is estimated at about 26 percent while it is 29 percent for the sample banks. A possible reason for this difference may be the relatively low return newly organized banks realize. (The "youngest" bank in the sample will have been in operation during at least the last ten years which may not be true for all banks in the system.)

Under the Central Bank rules and regulations governing dividend payments, a rural bank declaring dividends (either cash or shares of stock) of 14 percent or more on paid-in common shares must make cash payments on the government-owned preferred shares at the rate of two percent of face value.[14] (This is one reason for the high rate of plough-back observed system-wide.) On the other hand, if dividend

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[14]See Sec. 313.1 of the Manual of Regulations on the Supervision of Financial Intermediaries, Book III - Rural Banks. Central Bank of the Philippines, Manila, June 30, 1976.

payment is less than 14 percent, the rate at which the preferred share is paid may be proportionately reduced.

Allowing for depletion of income by the estimated amount of what has to be paid on preferred, the return to paid-in common shares (or what may be considered returns per share, on the assumption that each common share has a par value of one peso) would be a rate of 25 percent for the system (or 25 centavos per peso share) and 29 percent (or 29 centavos per peso share) for the sample banks. This rate seems very competitive with other investment possibilities within the country. For comparison, the estimated annualized average yield on a 364-day Treasury Bill in December, 1976 was only 11.2 percent.[15]

The Manager, His Education and Training. The manager of rural banks in the sample averaged 44 years of age and eight years of management experience, all with the same bank. Among sample banks, three managers were but high school graduates, two finished law school and two finished medical school (one in human medicine and the other in dental medicine). One manager had a masters degree in economics. The rest (27) had baccalaureate degrees in commerce, majoring in either fiannce, accounting or economics.

Every manager of a rural bank would have completed two training courses from the Institute of Rural Banking of the Central Bank. These are the three-week special course for rural bank officers and employees and the six-week basic banking course. The latter deals with basic banking principles, commercial and banking laws, accounting, and

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[15]Table 100, p. 281, Statistical Bulletin, Vol. 28, December, 1976. Department of Economic Research, Central Bank.

agricultural economics. Some of the managers interviewed had already attended the one-week Executive Development Seminar offered by the Development Academy of the Philippines.

Interviews with bank managers conveyed an impression that the group working with banks with the larger resource base are more actively involved in activities such as extension programs. This group had more contact with decision-makers/producers and seemed to be well informed of activities in their particular community. It was also this group who seemed to feel that some of the regulations on rural banking were constraining their activities. Impressions about the managers of banks with relatively smaller resources was that they seemed to be dependent on guidelines issued by the Department of Rural Banks, Savings and Loan Association. These impressions point to a need for a study to identify the minimum amount of resources required for a rural bank to justify and attract capable management.

It was likewise apparent during these interviews that most of the rural banks have not gone beyond keeping a file of the loan and supporting papers, including repayment records for previous periods. None of the managers personally interviewed gave any indication that summary sheets with credit ratings on past and current clients were kept. Any question by either a bank insider or an outsider about the credit worthiness of a former or current client not personally known to a member of the bank's senior staff can only be answered after pulling out his records from the files. Should the client be one who has not been to the bank for some time, chances are that it will take someone in the bank time and effort to retreive whatever information the bank has about him. Exchange of information among financial

institutions, therefore, has been very limited. This is an area that can be greatly improved for the benefit of all in the system.

Capitalization and Ownership. The average paid-in capitalization (common shares) of rural banks in the sample as of December, 1976 was only 490,340 pesos. About 77 percent of the banks had a paid-in capital of less than 600,000 pesos, and only six percent had a paid-in capital of more than 850,000 pesos.

In terms of common share ownership, the average bank president held 18 percent of the total (although he may have effectively controlled more than this proportion because of share ownership under the names of immediate members of his family). Other members of the bank's board of directors controlled an average of only 26 percent of the common shares. This was indicative of share ownership by bank presidents' children who were likely either professionals or engaged in other lines of business. In addition, the average number of bank shareholders for the sample was only 27 with a major part of the banks (47 percent of the sample) being owned by 15 or less shareholders. This tends to support the contention that rural banks until 1976, at least, were basically closed family corporations. The distribution of the sample banks with respect to various ownership characteristics is babulated below.

Bank Operating Process

The procedures followed in the processing of a new agricultural loan application seem to be standard among rural banks. It is possible that these procedures were designed by the Central Bank along with the accounting and administrative procedures.

Table 6. Distribution of Various Bank Ownership Characteristics by Percentage Ownership, Sample Rural Banks, 1976

Characteristic	Average	Percentage Owned			
		15 or Less	16 to 30	31 to 45	46 & Up
Percent Owned by President	18%	51	32	11	6
Percent Owned by Other Members of the Board	26%	34	26	23	17
Percent Owned by the First 60 % of Shareholders	25%	37	32	17	14
Number of Shareholders	27	47	22	16	15

Ordinary Agricultural Loans. The process starts with the borrower going to the bank to file his loan application with a loan clerk. He goes through the preliminary interview with either the manager or assistant manager soon after all the loan application forms are in order. This preliminary interview is designed to allow the manager to get a better perspective on the borrowers' situation so that he can make an informed judgment on whether the proposed loan will actually be used for the project stated in the application. If the manager is satisfied, he assigns the application to a loan officer and inspector (these two functions may be performed by one person). The former checks all the loan papers for conformity with requirements, and the latter undertakes the inspection of the project to be financed and the collateral presented. He also makes the credit check on the

applicant.

Checking the credit worthiness of the borrower is done through interviews with other creditors, the applicants' neighbors, and others who may be able to shed some light on the attitude of the borrower towards credit and his past credit performance. One manager reported that anybody in his communicy can easily obtain a loan from rural banks in neighboring municipalities. He claimed that people in his area are reputed for their credit consciousness which he said is a function of their religiousness. This seems to be supported by the more than 90 percent average repayment rate that his bank has experienced for most of its existence. The loan inspector also checks with the Register of Deeds concerning collateral offered.

Findings and recommendations of the inspector are submitted to the manager through the loan officer. If the amount of loan requested is within the limit for approval by the manager, the processing of the application stops there. In general, the manager is authorized to approve all loan applications not exceeding 10,000 pesos. Those loans in excess of this amount either go to the Credit Committee (a body usually composed of two members of the board and the manager as an ex-oficio member) or to the board. The former meets at least once a week, while the latter may convene once a month.

After the loan application is approved (either by the manager, the Credit Committee, or the Board), the loan papers are sent to the loan clerk for documentation. This process includes registration of mortgage with the Registry of Deeds. From there, it goes to the bookkeeper and cashier for release of funds. If all the loan papers are in order and the collateral offered is not encumbered, the whole

process is typically completed within seven working days, inclusive of the day the loan application is filed. For those who have used the credit services of the bank at least once before, the processing time will be at most two days. However, it will take up to a month (sometimes more) if problems exist, especially with respect to the collateral.

Supervised Credit Loans. If the loan application is under the supervised credit scheme, some changes in the procedure are observed. This was spelled out in a memorandum issued by the Director of the DRB/SLA,CB. The need for the borrowers to have a farm plan and budget prepared and approved by a Farm Management Technician and the absence of collateral are the two items that differentiate supervised credit from ordinary loans. The Farm Management Technician is usually the government extension agent in the area. Some rural banks have hired their own technicians.

Disbursement of loan proceeds under this scheme is made in accordance with the farm plan and budget. During the crop season, the technician is expected to follow up with the farmer-borrower and see to it that the activities in the farm plan are followed on schedule. Repayment of loans in this regard is supposed to be assured by the close contact maintained by the technician with the farmer-borrower, on the one hand, and the rural bank, on the other. Rural banks dependent upon government-paid technicians are allowed to provide them with incentive allowances. These are granted on the basis of the repayment rate of farmer-borrowers in the area of supervision by the given technician. The banks also avail of repayment guarantee with the Land Bank of the Philippines for a cost of one

percent of the amount.

The "Environment"[16]

As was stated elsewhere, the rural bank serves the local municipality. The general practice is to name the bank after the municipality plus the phrase "rural bank, inc."

General Setting. A municipality is composed of a number of "barrios." A barrio is the smallest administrative unit headed by a barrio captain and its own barrio council. In general, a municipality will have its trade, governmental and church center located in the poblacion.[17] This is the place that is best equipped with goods and services. Means of transport may range from jeepneys (converted jeeps to accommodate 8 to 12 passengers), motorized tricycles, and horse-drawn two-whelled carriages (called "calesa" in Luzon and "tartanilla" in the Visayas and Mindanao). Roads in the poblacion are combinations of two-lane paved and macadams. Connecting barrios with the poblacion are macadamized, gravel, and dirt roads. Some trails may complete the distance, depending upon how far the barrio is from the poblacion or the main highway.

In each of the trade centers, one day of the week is a market day. This is the time when those with anything to sell bring their

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[16]The discussion in this section suffers from abstraction and will not describe any particular community in the country or any one municipality, included in the sample. For those interested in an in-depth discussion of a particular area, a book written by a Filipino and an American sociologist using information gathered at three points in time under a long-term research design should be worth reading. See Pal, A. P. and R. A. Polson (23, 1973).

[17]This is the usual name given to the town proper. Administratively, it is one of the barrios of the municipality.

wares to the public market, and those interested in purchases go and examine what is available. General-store type establishments and those selling clothes and textiles will have permanent places of business within or around the public market. They will generally be open for business seven days a week, but will have their brisk business during the market day. Residents from the barrios will generally buy their week's requirements during this market day. Rural banks too, will be open during this day to service the banking needs of the small merchants. This also makes it possible for farmers to do business with the bank in addition to whatever they may have to do at the market.

Important Institutions. Every community in the country will have the family followed by the church as the two most important and strongest institutions. It is not rare to find rural households with two or more generations living together. The father usually bows out as the economic head of the household at the later stage of his life. However, even if he has already relinquished the economic household head position, his counsel is always sought, especially on major issues, before any decision is made. A more recent trend, however, is for children to seek to live by themselves after marriage. Although mobility among rural population is relatively low, movement to and from nearby barrios is relatively high. Thus, one can find families in a municipality having been residents thereof for generations.

Industry and Other Economic Indicators. The main industry in the areas where rural banks are operating will be agriculture. Cottage industries, such as weaving (mats, hats, etc.), generally

utilizing locally available materials may also be important. These cottage industries serve as other sources of income for the farm families. They may even be the only source of cash income.

As for agriculture in the municipalities where the sample banks are located, at least one crop is harvested each year. Only 30 percent of the land available for cultivation is second cropped. This means that if the place is a paddy rice growing area, only 30 percent of the land is planted during the dry season. This is indicative of the relative absence of irrigation facilities. However, this intensity of land use may have increased in more recent years considering the bold and vigorously implemented program of irrigation development during the more recent past.

From the population census of 1970, an average of 20 percent of the people in the municipality where the sample banks are located live on a farm. Some 81 percent of this farm population is actually dependent on farming for their primary source of income.

Responses of Managers to Some Issues Raised

At this point, it seems appropriate to discuss what rural bank managers, at least those contacted for this study, think as regards some of the issues on small farmers' credit. The replies given by 35 rural bank managers interviewed are tabulated into three categories of issues. These are presented in Table 7. Note at the outset that there tended to be general agreement that small farmers are potentially good clients of rural bank.

On Increasing the Volume of Loans Granted to Small Farmers. Managers interviewed saw the problem of small farmers' credit as a result

Table 7. Responses of Rural Bank Managers on Some Issues Concerning Small Farmers' Credit, 1976

Issue/Response	Number of Respondents	Percent of Total
How Volume of Loans Granted to Small Farmers Could Be Increased.		
Improve borrower supervision, bank-client relation, borrower credit education, especially as regards their responsibilities.	15	43
Improve earning power of borrower through improvement in productivity and diversify production (farm and non-farm) coupled with nationwide implementation of integrated financing scheme.	14	40
Allow chattel mortgage, increase rural bank resources through additional capital, savings mobilization, and increased Central Bank financial assistance.	6	17
TOTAL	35	100
What Is Thought As Necessary Government Action to Improve Credit Delivery to Small Farmers.		
Improve coordination of agencies involved with program execution, involve local government officials as coordinators at the municipal level, prior dialogue between banks and all others involved.	14	40
Restudy all existing policies, rules, and regulations on rural banking with the aim of repealing those already outmoded and formulate new ones in consultation with rural bankers. Also delineation of areas among institutions involved with the provision of loans under given programs.	8	23

Table 7. (Continued)

Issue/Response	Number of Respondents	Percent of Total
Improve infra-structure facilities for agriculture, including marketing facilities.	5	14
Strengthen joint liability group concept to give it some juridical personality and relative permanence of existence--cooperative along present scheme of organization to primarily service marketing needs of its members and "samahang nayon" as a joint liability group for loans.	5	14
Professionalize rural bank management	1	3
TOTAL	35	100
On Freeing the Rate of Interest for Determination by Rural Bank Management.		
Cut-throat competition will be promoted to the detriment of small rural banks, especially those that are competing with bigger commercial banks for clients.	18	51
Present system is good and fair, especially since rural bankers are allowed to pay/charge one-half percent more than commercial banks. Besides, rural banks do not have the competence to determine the most appropriate rates of interest.	11	31
It will be good for the system and going rates would be good indicators of situation in the community thus allowing government to identify areas needing its immediate attention. This will also allow banks to have better control over their interest rate spread.	4	12

Table 7. (Continued)

Issue/Response	Number of Respondents	Percent of Total
In cases where the nearest competitor is relatively inaccessible to borrower, the situation prior to the inception of the rural banking system will ensue.	2	6
TOTAL	35	100

Note: The above categories of answers are generalizations based on responses by the managers interviewed. The questions were relatively open-ended.

of the lack of proper credit education, especially as regards borrower responsibility. This was coupled with the difficulties small farmers have in generating sufficient income.

The managers were of the opinion that the volume of credit going to small farmers could be increased when their earning power improves. They considered this to be attainable through improvements in productivity and diversification of production, both in farm and non-farm enterprises. Rural banks, they said, should be full partners by providing the needed financing along the lines of the integrated agricultural financing project now implemented in some areas. However, financing should not be limited only to agricultural enterprises.

A corollary to the proposed integrated financing scheme is the implementation of an educational program to make farmers better aware of their responsibilities as borrowers. The mutuality of benefits from credit, i.e., banks sharing part of the increased income derived from the additional enterprises where financing has been secured, was the other area of concern for this educational program. The managers

likewise felt that supervision by bank credit officers had to be improved. Managers felt the role of credit officers to be not only one of following-up clients so that they pay their obligations on time but also as effective sources of technical and management advice.

On Government Action to Improve Credit Delivery to Small Farmers. Policies and programs designed to improve the delivery of credit to small farmers were seen by the group of rural bank managers interviewed to be a function of government. They seemed to be willing to participate in programs where they would provide the financing arm. However, they would like to see some imporvements in the coordination and prior consultation/dialogue among different agencies involved in program implementation. Furthermore, they would like to see local government officials involved as local program coordinators.

Involvement of local elective officials appears to be along the lines of increased decentralization. Since this would require central office personnel to surrender some of their powers, it is doubtful if this could be achieved without resistance. What favors the proposal is the pressure of local accountability on the local elective official which can help insure the proper implementation of programs and projects in the local area.

Another proposal for government action was the re-study of existing policies, rules and regulations affecting the rural banking system. This was aimed at repealing those that are already outmoded and formulating new ones. Delineation of the physical area wherein an institution would be made responsible was proposed for inclusion in the revised rules and regulations. This was argued to provide ease in

client follow-up. Another point was the identification of the responsible agency, effectively avoiding buck-passing.

Government was also expected to strengthen the joint liability group (selda, damayan, etc.) approach to the provision of farmers' credit. The managers interviewed wanted these groups to have juridical personality and relative permanence of existence. Some of the managers believed that the present direction of the cooperatives development program is supportive of the rural banking system. This could come about when the "samahang nayon" is made the joint liability group. Their organization into marketing cooperatives was noted as another supportive development. However, the managers were apprehensive of the prospects whereby the cooperatives of "samahang nayons" organize a bank chartered under the Rural Banks Act.

Improvement of agricultural infrastructures, including marketing facilities, was mentioned by five managers as an important program that the government should implement. They saw in this the means whereby small farmers could effectively increase their income and become "bankable" clients of rural banks.

One rural bank manager suggested that the management of rural banks should be professionalized. Proper implementation of pertinent rules and regulations on qualification and appointment of rural bank managers was seen by him as one of the means by which to attain a high degree of professionalism. The other was a one year period of closely supervised on-the-job training. He felt that a highly professionalized rural bank management would make possible a larger coverage of small farmers by the rural banking system.

On Freeing the Rates of Interest. On the question of whether it would be better for individual rural banks to set interest rates on deposits and on loans within a given range, a majority of the managers expressed a negative reaction. More than half of those interviewed believed that cut-throat competition would result. They argued that rural banks which compete for clients with larger commercial banks would be placed at a disadvantage and might have to close shop. Almost a third believed the present system to be good in that they are allowed to pay their depositors one-half of one percent higher than what is allowed commercial banks. They also believed that most rural banks do not have the competence to determine the interest rates that would be reasonable for all concerned.

A minority (four managers), however, felt that allowing rural bank management to determine the rates of interest would be a good policy. They believed that such a policy could provide the government with a good indicator of conditions in the different communities. Then, those areas where high interest rates prevail could get immediate attention of government. Its agencies could then undertake the needed studies and identify programs/projects for implementation. Two other managers advanced the argument that borrowers, especially small farmers in areas where a competing financial institution is relatively inaccessible, would suffer. The situation which held before the advent of rural banks, they argued, would resurface with the rural bank performing the loan shark function.

On Other Policies. Policies that work through the market mechanism did not invoke much reaction from the managers. Concerning the

change in the rediscounting rate, most managers responded that they tried to rediscount more paper qualified under the lower rate but did not generally increase their rediscounting volume. The problem of "fungibility," i.e., the use of borrowed funds for purposes other than what was stated in the loan application was noted. This happens since the borrower uses funds available to him from any source for purposes that to him would generate the most utility (profit or otherwise, c.f., Adams, 24, 1977, and Gonzalez-Vega, 25, 1977). It is probable that a reclassification of some ordinary agricultural loans to supervised credit loans was done.

The change in reserve requirements raised much less concern. Most managers reported keeping up to 20 percent excess reserves, the average excess being about ten percent. Policies that invoked some strong comments were direct intervention, such as the memorandum enjoining rural banks to participate in the provision of loans to "Masagana 99" participating farmers. Although it seems that rural bankers would have provided less of this type of loan, they have actually provided a relatively large volume as they have been implored by the government to do so.

Analytical Results

During the period 1971 to 1976, a number of policy instruments were utilized by the central monetary authorities. Instruments used to achieve agricultural credit policy objectives were among those manipulated. The objective was to influence the direction and volume of credit to the agricultural sector. Policy instruments used included both direct intervention affecting the credit institution and indirect

actions which operated through the market. Several analytical approaches were used to examine the effects of changes in policy instruments.

Analysis of Difference in Means. The policy instruments that were used by authorities during the period, their expected effects, and the estimated difference in the means between adjoining years are discussed in following paragraphs. The calculated differences in means were subjected to a t-test for statistical significance. Tests were carried out at the 90 percent significance level.

As part of the "Reconstruction and Development Program" for Central Luzon implemented immediately after the flood of 1972, government calamity funds were mobilized to support cooperating rural banks. These funds were placed on special deposits with the rural bank for purposes of lending to farmers whose operations were dislocated by the flood. These special deposits cost the recipient rural bank only a fraction of the regular rate of interest. This action was expected to improve the liquidity of the recipient bank. And since a condition to receiving the deposit was an agreement by the rural bank to extend the amount, and any subsequent rediscounting of the loan paper, to agricultural borrowers, this action was expected to increase agricultural loans directly.

Examination of Table 8 indicates that, although total deposits for the sample banks were decreasing during the period 1971 to 1976, the category "special deposits" shows significant positive increases in means for each year starting in 1972 through 1974. However, there is no evidence that the special deposits resulted in an increase in

Table 8. Annual Change in the Mean and Computed t-Value for Some Selected Variables Affected by Policy Instruments, 1971 to 1976

Variables/ Estimated t-Value	Differences in Means				
	1971-72	1972-73	1973-74	1974-75	1975-76
	- - - - - - - - - - - Pesos - - - - - - - - - - -				
Agric'l Loans	33,288	-28,900	-198	29,218	900
t-Value	7,84*	5.34*	0.04	5.42*	0.16
Sup. Credit Loans	-.-	380	3,447	5,107	5,914
t-Value	-.-	-.-	2.01*	1.57*	1.17
Total Redis'tng.	40,000	245,000	290,000	439,000	94,000
t-Value	0.70	3.13*	1.98*	1.68*	0.40
Sup. Redis'tng.	-.-	29,000	106,000	475,000	112,000
t-Value	-.-	-.-	2.10*	7.88*	0.74
Total Deposits	-218,000	-492,000	-414,000	-342,000	-483,000
t-Value	1.84*	8.71*	4.49*	2.57*	4.17*
Special Deposits	86,000	174,000	171,000	83,000	42,000
t-Value	1.85*	2.84*	1.74*	0.67	0.34

*Significant at 90 percent level.

agricultural loans--the end goal of policy.

One crop after the flood, during the wet season rice planting in 1973, the government launched the "Masagana 99" program. Financial institutions, especially the rural banks, were enjoined to participate in the provision of credit under the supervised credit program component. Supervised credit loans were granted to farmer-borrowers with only a production technician-approved farm plan and budget as the important supporting document. The loan amount was specified by major item of expense on a per hectare basis. The portion earmarked for the purchase of inputs was provided to the borrower in coupons redeemable in kind from the local input supplier. This program, therefore, was expected to increase the flow of agricultural loans, specifically the supervised credit loans from the rural banking system.

Results from analyzing the difference in means between years for the supervised credit loans variable tends to support the a priori expected results. There were statistically significant changes between 1973 and 1974, and between 1974 and 1975. While such loans continued to increase between 1975 and 1976, the change was not significant. This was due, in part, to the large standard error brought about by large variations between sample banks.

To further support the "Masagana 99" program and as a means to mobilize government funds to the rural banking system, the Central Bank in January, 1974 adjusted its rediscounting policy. The rate at which supervised credit paper was rediscounted was raised to 100 percent of face value and the cost to the rediscounting bank was reduced from three to one percent per annum (in effect, the rediscount rate was lowered). This adjustment was expected to increase the volume of

loans going into the agricultural sector, especially loans of the supervised credit variety. Note, too, that one hundred percent rediscounting effectively means using the rural banks as a relending agency of the Central Bank.

Both total rediscounting and supervised credit rediscounting showed differences in means between 1973 and 1974, and 1974 and 1975 that were statistically significant. Again, as with supervised credit loans, the result between 1975 and 1976, although still relatively large, was not statistically significant. Indicated repayment problems of some banks and variation among banks were likely responsible for the non-significant t-tests.

Other policy changes during the period included the imposition of a credit quota in May, 1975, under the provisions of Presidential Decree 717, and the adjustment in the interest rates banks were allowed to pay on savings and time deposits, in 1976.

As regards the credit quota, all banking institutions were required to earmark 25 percent of their loanable funds for agricultural loans, of which ten percent was to be granted to land reform beneficiaries, i.e., all farmers certified as beneficiaries of any program administered by the Department of Agrarian Reform. The expected effect of this policy on rural banks whose loans to agriculture already exceeded the quota would, at best, be through some indirect means. One such possibility would be a correspondent arrangement with city-based commercial banks as a means for them to satisfy the 25 percent requirement. Another potential indirect effect was made possible when the Central Bank allowed the purchase of Central Bank Certificate of Indebtedness as a means to comply with the requirement.

Proceeds from the sale were used by the Central Bank in the rediscounting of supervised credit loans.

Imposition of this quota in 1975 would be expected to increase agricultural loans. Given that the difference in the mean for agricultural loans was significant and larger in 1975 than in 1974, this policy was apparently successful. The mean did not increase further from 1975 to 1976, but neither did it return to its 1974 level.

The upward adjustments in the rates of interest were from six to seven and one half percent on savings deposits, from six to eight and one half percent on 90-day deposits, and up to 12.5 percent on 730-day time deposits. (The 0.5 percentage point in each category is an advantage granted to rural bank depositors.) The expected result from this adjustment was an increase in the volume of deposit liabilities of banks, to increase their liquidity, and to some extent, increase their agricultural loan portfolio.

This increase in the interest rates rural banks are allowed to pay their depositors appears not to have had the expected effect, however. The policy was implemented in early 1976 and must have been desinged to improve the ability of rural banks to attract deposits. However, from 1975 to 1976, deposit liabilities decreased at sample banks. It is possible that with the expected increase in the cost of deposits, rural bank management became less aggressive in pursuing increased deposits. Deposit funds are not particularly profitable considering that the rural bank could obtain loans from the Central Bank by rediscounting at very attractive rates of interest. One must also consider the possibility that rural bank management see a relatively limited market for funds in their area of operation, and did not

necessarily desire increased funds given their perception of clientele demand.

Regression Analysis. The association noted above between the supervised credit loans and changes in policy instruments suggested the possibility of regression analysis utilizing the four sets of variables described earlier, i.e., manager, bank operating results, capital structure and community data. While this approach does not relate supervised credit loans to policy changes, it does relate this type of loan to other characteristics of the bank, its manager and the community.

The dependent variable in the model was the volume of supervised credit loans granted by rural banks in 1976. This is a subcategory of total agricultural loans, and it closely approximates the definition of small farmer loans used in this study. The supervised credit scheme was launched in the Philippines to get institutional sources to serve the credit needs of small farmers. In this regard, the relatively well publicized government program--"Masagana 99" included a supervised credit component. A report on the inplementation of "Masagana 99" showed that the average size of farm by those who obtained supervised credit was 1.6 hectares; i.e., it did serve small farmers.

The independent variables included in the equations were: (1) age of the manager; (2) years manager of the bank; (3) paid-in capitalization of the bank as a proportion of current resources; (4) paid-in capitlaization as a proportion of authorized capital; (5) undivided profits, surplus, and reserves as a proportion of

current resources; (6) percentage of common shares owned by the president; (7) number of shareholders; (9) current agricultural loans as a proportion of current resources; (10) current rediscounting as a proportion of current resources; (11) percentage of the population living on farms in the municipality where the bank is located; and (12) percentage of the farm population dependent on farming for income.

The following points provided a rationale for the choice of independent variables: (1) Although profit maximization and quadratic utility functions were assumed, the actual performance by management could well be equated to depend in part on personal circumstances including age and experience of the manager. This is the reason for the inclusion of the first two named variables. (2) The third through tenth variables, were included to reflect the bank's internal structure. These indicators of bank operations provide limits within which management can make decisions. (3) The last two variables were included on the premise that the composition of a bank's portfolio is to a large extent dictated by its opportunity set. It will be noted that the bank's opportunity set is made up of the types and levels of economic activities in its sphere of operation.

Since information available for some of the variables, i.e., the first two and the last two variables in the list, were only for one year (1976), the regression was used for this year only. Several different model specifications were estimated to compare results with different combinations of variables. One equation was estimated without explanatory variables relating to the manager, and another was estimated where several variables describing the manager, bank ownership and its capital structure were excluded. The estimated

equations are reported in Table 9.

Given the policy mix in 1976, the general conclusion is that the volume of supervised credit loans granted by rural banks was to a large extent explained by such variables as indicators of bank ownership and capital structure, some personal information about its manager, the bank's prior years operating results, and economic aspects of the community.

Note in Table 9 that equation 2 has an R^2 value which is nearly as high as equation 1 although it contained three less explanatory variables. This could be taken to mean that the variables (1) years experience as manager of the bank, (2) paid-in capital as a proportion of resources, and (3) paid-in capital as a proportion of authorized, have relatively low influence on decisions to extend supervised credit loans. These variables, however, do have positive correlation with other variables in the equation, e.g., management experience with the age of the manager.

It was not surprising to see in all four equations the relative importance of the prior year's net operating profit to the decision to extend supervised credit loans. The variable "prior year net operating profit" was an important explanatory variable in three of the four equations.

Estimation of an equation incorporating policy variables was not feasible with the data set available. This is because policy variables are time related and the present data are from a cross-section of banks for only one point in time. What has been done in the preceding paragraphs was to explain the volume of supervised credit loans granted by sample banks in 1976 without explicitly including policy

Table 9. Summary of Equations Relating the Volume of Supervised Credit Loans Granted by Sample Rural Banks to Different Sets of Explanatory Variables, 1976

Variable Name	Equation 1	Equation 2	Equation 3	Equation 4
Age of Manager	-.0061 (.0060)	-.0037 (.0041)		
Years Manager of the Bank	.0090 (.0125)			
Paid-In Capital as a Proportion of Resources	-292.6307 (1106.1807)			
Paid-In as a Proportion of Authorized Capital	.0018 (.2471)			
Undivided Profits, Surplus & Reserves as a Proportion to Current Resources	2.5624 (1.6671)	2.7473* (1.4908)	2.4258 (1.4404)	
Percentage of Common Shares Owned by President	.0077* (.0041)	.0072* (.0038)	.0062 (.0036)	
Number of Shareholders	-.0023 (.0028)	-.0022 (.0026)	-.0015 (.0024)	
Percentage of Local Population Living on Farm	.0062* (.0032)	.0053* (.0028)	.0051* (.0028)	.0039 (.0029)
Percentage of Farm Population Dependent on Farming	-.0059 (.0042)	-.0050 (.0037)	-.0046 (.0037)	-.0044 (.0039)
Bank's Prior Year's Net Operating Profits	6.8403* (3.3782)	6.6765* (3.0764)	6.2332* (3.0227)	1.4534 (1.7487)
Agricultural Loans as a Proportion of Current Resources	.3699 (.2309)	.3897* (.2136)	.3606 (.2101)	.3468 (.2116)
Total Rediscounting as a Proportion of Current Resources	.2657 (.3582)	.2760 (.3344)	.3307 (.3272)	.6106 (.3319)
Constant	.2529 (.4046	.1424 (.3425)	-.0278 (.2834)	.1498 (.2848)
R^2	.60025	.58854	.57361	.43072
Significance Level	.956	.992	.995	.991

Equation 1 = all identified variables included; Equation 2 = only one variable about the manager is included; Equation 3 = only one variable on capital structure and ownership included; Equation 4 = all variables about the manager, bank ownership, and capital structure are omitted.

An asterisk with the coefficient indicates a level of significance for the coefficient of at least 90 percent; all numbers in parentheses underneath the coefficient is that coefficient's standard error of estimate.

variables.

Estimation of the effects of policies might be possible using time series data. Probably a time period of less than one year, such as a month or a quarter, would be preferable. Also, financial flow information by shorter periods would be needed. Information on individual banks to represent a group (asset or region) could be generated from reports submitted to the Central Bank. "Environmental" data, such as acreage planted by crop in the municipality where the "representative bank" is located and other conditions such as weather problems or changes in economic activity in the community would need to be collected. This might be done with the help of provincial statisticians of the Bureau of Agricultural Economics.

The magnitude of change in policy instruments during any period could be used directly as a policy variable, while non quantifiable changes such as direct intervention could be represented by a dummy variable. Separate regression equations could be estimated for each bank group if it was felt that the bank size would cause a different reaction to policy changes. Comparison of individual equations could provide information on the effects of given policy changes among bank groups. Magnitudes and timing of the effects of policy changes on rural bank operations may yet prove to be quantifiable with improved data and models and a better understanding of time logs between policy change and bank response.

Analysis Using Portfolio Model. The analysis in this section starts with the proposition that rural bank management actions met the assumptions of portfolio theory. This means that their objective

is to maximize their utility, measured by a surrogate--profit. Furthermore, banks are assumed to operate in a market economy.

If the above assumptions apply, changes in the banks' operating environment such as credit policy changes by monetary authorities, would logically result in rural bank management making adjustments in their portfolio. Such adjustments could be considered as the response by the management to government policy change. However, a direct linear relationship should not be expected for a number of reasons. For example, the Central Bank adjustment of its rediscounting rate cannot be expected to result in a fixed-proportionate change in the volume of notes rediscounted by rural banks. This is because the banks' portfolio adjustment has to take into consideration its unique situation including its other assets and liabilities. Secondly, in all probability, the time lag of response is not linear.

This analysis is geared more to estimating the relationships between various items of assets and liabilities and net operating profit. Hence, while results do not show how management reacted to policy changes, they do suggest how various operating and balance sheet items affect profit. These relationships, in turn, may be utilized by policy makers when they implement policy changes that work through the market mechanism rather than by rule, restriction, or intervention.

Net operating profit for the given year is used as the dependent variable in a multiple regression portfolio model. Asset and liability items from the year-end balance sheet of 60 sample banks in the study were used as independent variables. These items were subjectively determined as those that are subject to management

"manipulation." It is also assumed that changes are being effected through managerial decisions in response to outside stimuli (i.e., outside of the bank), e.g., policies or directives issued by the central monetary authorities, and/or actions made by rural bank clients like withdrawals or deposits.

The form of the regression equation on which the data were fitted is as follows:

$$NOP_t = a_t + b_{1t}OBL_t + b_{2t}TRG_t + b_{3t}OSD_t + b_{4t}SD_t + b_{5t}DB_t + b_{6t}AL_t + b_{7t}CL_t + b_{8t}OL_t + b_{9t}IS_t$$

with all the variables deflated by TR_t, and t = 1, 2, . . . 6 corresponding to the years included in the study.

where:

TR = Total Resources

NOP = Net Operating Profit

OBL = Other Bills and Loans

TRG = Total Rediscounting

OSD = Other Savings Deposits

SD = Special Deposits

DB = Due from Banks

AL = Agricultural Loans

CL = Commercial Loans

OL = Other Loans

IS = Investment in Securities

No item from the capital structure of the banks is included as an explanatory variable. Changes in any capital account item (e.g., plough-back) can only be made once a year when the general stockholders

meeting is convened. This includes even those cases where the rural bank stockholders consistently approve all recommendations made by management.

All the variables in the equations have been deflated by the total resources of the given bank for the given year.[18] All the estimated coefficients, therefore, may be interpreted as net rates of return (for assets) or net rates of cost (for liabilities, indicated by negative signs before the coefficient). In addition, as Hester and Zoellner have argued, this deflation process eliminates the problem of heteroskedasticity in the regression analysis. On the other hand, the constant term in the equation can be interpreted as the fixed income, or cost, if the coefficient is negative.

The first two estimated equations were for business year 1971 and 1972. These resulted in R^2 values that are comparable to those obtained in portfolio studies on American commercial banks. For example, the coefficient of determination obtained by Hester and Zoellner for Tenth District banks ranged from 0.18 to 0.35 with significant levels of 49 and 89 percent. For this study, R^2 ranged from 0.31 to 0.51 with significance levels from 48 to 99 percent (Table 10). However, for 1971 and 1972, $R^2$was .41 and .51, respectively.

The four equations for the years 1973 to 1976 had substantially lower R^2s. For 1971 and 1972, it appears that portfolio holdings of rural banks determine, to a large extent, their operating profits. On the other hand, the equations for 1973-1976 failed to show strong

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[18]The value of each variable, therefore, enters the calculations in terms of proportion relative to total resources for the year under consideration.

Table 10. Summary of the Estimated Regression Equations Relating Net Operating Profit to Portfolio Holdings, Sample Philippine Rural Banks, 1971 to 1976

Independent Variables	1971	1972	1973	1974	1975	1976	Pooled 71-76
Other Bills and Loans	.033	.041	-.023	-.008	.020	-.062	-.127
	(.062)	(.040)	(.052)	(.028)	(.030)	(.042)	(.425)
Total Rediscounting	-.021*	.009	-.041	-.015	.008	-.057*	.066
	(.027)	(.018)	(.044)	(.021)	(.027)	(.035)	(.163)
Other Savings Deposits	-.043*	-.042*	.018	-.056*	.057*	-.054	-.018
	(.017)	(.017)	(.038)	(.020)	(.034)	(.043)	(.166)
Special Deposits	-.045	-.056*	-.047	-.004	.015	-.012	-.419
	(.035)	(.020)	(.055)	(.028)	(.039)	(.043)	(.503)
Due from Banks	-.056*	-.030	.064	.108*	.076	.142*	-.356*
	(.066)	(.041)	(.081)	(.048)	(.082)	(.081)	(.110)
Agricultural Loans	.073*	.051*	.113*	.076*	.099*	.105*	-.041
	(.030)	(.022)	(.058)	(.042)	(.060)	(.044)	(.106)
Commercial Loans	.014	.003	.008	.132*	.215*	.146*	-.005
	(.069)	(.059)	(.169)	(.064)	(.098)	(.051)	(.118)
Industrial Loans	.191*	.255*	.178*	-.032	.090	.153*	-.026
	(.102)	(.101)	(.096)	(.068)	(.074)	(.083)	(.061)
Other Loans	-.017	.019	.106*	.051	.050	.093*	.789*
	(.061)	(.043)	(.060)	(.057)	(.071)	(.052)	(.294)
Investment in Securities	.053	.131*	.099	.171*	-.045	.072	-.437
	(.062)	(.035)	(.171)	(.056)	(.094)	(.066)	(.330)
Constant Term	-.011	-.009	-.071	-.040	-.079	-.044	.190
	(.026)	(.019)	(.051)	(.035)	(.053)	(.043)	(.103)
R^2	.407	.508	.332	.350	.264	.214	.460
Significance Level	.995	.999	.482	.976	.876	.730	.999
F-Statistics	3.087	4.339	0.944	2.374	1.645	1.278	9.381

*Significant at 90 percent.

Numbers in parenthesis immediately under the coefficients are the standard errors.

relationships. Some structural changes likely occurred before or during the later years. Events which possibly affected portfolio relationships are listed below.

Important events considered to have been responsible for the poorer regression fits in 1973-76 were the flood of late 1972, the declaration of a state of martial law which inaugurated a new government regime, and the increase in the raw petroleum prices by the OPEC in 1973.

The flood of 1972 inflicted heavy damage on the productive capacity of the area where most of the sample rural banks were located. A program of reconstruction and rehabilitation was launched by the government immediately after the flood waters receded. This program included the ploughing through the rural banking system of calamity funds that enabled rural banks to restructure loans and refinance their farmer-borrowers.

The new government regime under martial law is believed to have promoted a situation of uncertainty among rural bank managers, especially as regards actions they could take. It is apparent that managers were very receptive to government suggestions, especially with respect to the provision of credit to agriculturalist. The dependence of the rural banks on government funds which grew more as a result of the reconstruction and development program should also be cited in this regard.

The increase in the price of raw petroleum promoted a relatively high rate of inflation in the country. The government, trying to hold the lid on inflation while continuing to pursue growth objectives, changed policies as conditions warranted.

An attempt was made to pool data for all years, but many of the coefficients changed substantially. The extraordinary events discussed above could also be the reason for the relatively poor results for the pooled 1971-76 data.

The most important item in a rural bank's loan portfolio (volume and value) is agricultural loans. The coefficient estimated for this variable in all the annual equations has the right sign, i.e., positive, meaning that it generate a positive proportion of net operating income for the rural bank for that particular year (e.g., 7.3 percent in 1971).

Examining the coefficients for this variable for all the six equations, one will note the high net rate of return of 11.3 percent in 1973. Considering this result in reference to Table 8, one notes that 1973 was the year in which agricultural loan volume was not expanded from the preceding year. It is possible that the portfolio make-up of banks in the sample during this year was highly favorable to an increased profit from agricultural loans. Perhaps profits were higher because it was a year of consolidation rather than expansion of agricultural loans. Note that the profit rate decreased to 7.6 percent the following year. Reasons for the variation in this coefficient in the different equations is not entirely clear.

As stated earlier, funds mobilized by the government in support of the 1972 reconstruction and rehabilitation program were channeled to the rural banking system in the form of special deposits. Note that the coefficient for this variable was significant only in 1972. This is indicative of the fact that this source of funds was important to the rural banks during that year.

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Although under a Monetary Board resolution based on the provision of Presidential Decree 116 of 1973, savings and time deposits may be paid at the rate of 6.5 percent to 12.5 percent per annum, the estimated net cost on special deposits to rural banks in the sample ranged from 5.6 percent in 1972 to a positive return of 1.5 percent in 1975.

Signs for the coefficient of other savings deposits, except in 1973 and 1975 follow the a priori expectation. This variable is an item in the liability side of a rural bank's portfolio. In four of the six years the coefficient was between 4 and 6 percent net cost for other savings deposits. The returns on these deposits show up under various loans, so even though deposits show a net cost, the funds they provide serve a positive return in some loan use.

The total rediscounting variable represents the single most important borrowing by the rural banking system. It is a liability so that the coefficients are expected to be negative. The six regression equations resulted in four negative coefficients as expected and two positive coefficients. Also, as expected, the coefficients for total rediscounting were generally smaller than the coefficients for deposits, and of course, net costs are less for rediscounting than for deposits. The rediscounting policy was changed in early 1974 making it cheaper for rural banks to obtain funds from the rediscounting window on paper classified as supervised credit loans. The change appears to be registered in the coefficients which changed from -4.1 percent in 1973 to -1.5 percent in 1974. This means that the estimated net cost to the banks on paper rediscounted with the Central Bank was 4.1 percent in 1973 before the policy change, and it decreased to 1.5 percent in 1974 after the policy was changed. It is

not known why the coefficient increased to -.057 in 1976.

The above analytical result using a portfolio approach suggests that the effect of a policy change is felt by the rural banking system. The rediscounting facility of the Central Bank did favor loans granted under the supervised credit scheme and this seems to be registered in the bank's 1974 operating results.

Changes in the coefficients for the commercial loans variable are more indicative of commercial activities resulting from productive undertakings in the local community served by the rural bank. When agricultural production was relatively low and not much product went into trade channels (1972-1973), profits generated by commercial loans of sample rural banks was correspondingly low. However, in the 1974-76 period profitability of commercial loans improved and the coefficients were significant as well.

There may be questions about the accuracy of the data used in the equations. There is always some possibility of window dressing of year-end balance sheets that banks may do for one reason or another. To the extent that data are not accurate, the analysis would be in error and analytical results would be affected. However, there is no way to detect altered data nor is there a method to use that will offset poor data.

Another possible source of measurement error comes from the aggregation process. The term make up of the loans and securities can not be ascertained. However, for loan variables, the fact that rural banks generally provide only short-term accommodations to their clients, should limit the possible bias in the results.

The portfolio model was useful to the purpose at hand in at

least two respects. First, it did seem to reflect adjustment to changes in government policies as, for example, in the coefficient for total rediscounting as just discussed. Second, the model provided insights into sources of relative costs and returns from the balance sheet. This information can be useful to monetary policy makers to the extent they manipulate policies designed to work through the market system.

The disturbing and unsetling aspect of the portfolio model approach had to do with the variability of coefficients over time. Year to year variation in each coefficient was substantial. Perhaps even more alarming was the degree of change in coefficients when all data for 1971-76 were pooled in a single equation. While agricultural loans, for example, had a positive coefficient for each year 1971-1976, the pooled equation coefficient became negative. This result simply suggests some caution in the use of the portfolio model on such data.

Some Concluding Statements

The approaches to the analysis of the data gathered for this study did not provide conclusive results. There are several possible reasons. It could be due to the abnormality of the period covered, i.e., rehabilitation from flood damage, OPEC action to increase raw petroleum prices and the declaration of a state of martial law inaugurating a new government regime. All these events are unusual "disturbances." In addition, the annual data set used was insufficient for some of the purposes of the study. In particular, data are needed for shorter time periods, such as weeks, months, or

quarters, and also flow as well as stock data are needed to analyze policy instrument changes. Further, additional consideration needs to be given to time lags in the bank reaction process.

While results of the analysis were not conclusive, there were some positive indications and insights. For example, changes in means of several key variables were related to government program changes. This was particularly notable for supervised credit loans. Also the regression of supervised loans on several variables indicated that previous year operating profit were of prime importance to supervised credit granted.

In the portfolio model approach, there was evidence both that government policy changes do affect bank returns and that policy changes through the market place would likely bring changes by banks in their portfolio structure. Hence, while analytical results were less than anticipated and desired, there were some positive results as well as positive suggestions for improvement for such studies in the future.

CHAPTER VI

SUMMARY AND IMPLICATIONS

The agricultural credit system in the Philippines is seen as one where decisions are made at three levels. At the apex is the Monetary Board where monetary and credit policies are formulated in accordance with what it believes to be required by given national goals. The second layer is composed of the financial institutions who respond to the policies, translating the same into loans granted to a variety of end-users. The rural banking system is the more important formal institution involved with agricultural credit, especially the production credit requirements of farmers. The last level where decisions are made is composed of the credit end-users, the farmers who utilize their borrowing capacity in response to the opportunities they perceive. Each of these decision levels has an objective function to maximize. They also have different rules at arriving at "go-no-go" decisions.

Emphasis and Objectives

This study examined the Philippine Rural Banking System and its role in the financing of agriculture. The objectives were:

1. to describe the evolution of institutions delivering credit to Philippine agriculture, including the role played by the government, and the development of the rural banking system;

2. to describe how rural banks mobilize funds to finance agriculture; and
3. to describe the response by rural bank management to manipluations of credit policy instruments by monetary authorities.

One set of instruments used to achieve national economic development goals in the Philippines is monetary and credit policies. For the agricultural sector, the central monetary authorities have formulated policies designed to increase the volume of institutional loans going into the sector. The objective is to influence an increase in agricultural output. They likewise hope to increase the flow of loan funds from institutional sources to small farmers. The presumption is that institutional funds sources are less costly. Therefore, these group of farmers can then be given the opportunity to increase their productivity and production using new-improved technologies.

Information Gathered for the Study. Monetary Board policies that were changed and implemented during the period 1971 to 1976 were identified. The direction and magnitude of change was recorded. Also, information on sixty sample banks was obtained from their financial statements. The sample banks were selected by a stratified random sampling procedure. The population of banks was first defined as those in operation as of the end of calendar year 1965. The purpose of this definition was to include in the sample only those banks with ten years of operating experience. The list of banks at year end 1965 ranked by financial resources was used as a basis for sample selection. The sixty bank sample was proportionately distributed

among three asset groups.

Financial information from bank balance sheets and income statements was selected for a six year period. Another set of information relating to the manager and the sample bank's capital ownership structure was obtained through a survey conducted during February to May, 1977. A combination of personal interview and mailed questionnaire was used in this survey. Sample banks located more than 200 kilometers from Manila were contacted through the mail, while all those within the 200 kilometer radius were personally visited. However, the personal visits resulted in interviews only about 50 percent of the time. If the manager was in town at the time of visit, chances were improved. On the other hand, returns from the mailed questionnaire were relatively low. Thus, only 35 completed questionnaires resulted from the original sample of 60 rural banks.

On the assumption that rural bank actions are partly conditioned by the economic situation of the community, various data about the municipality were also gathered. Information was obtained from the census of agriculture conducted in 1972 and the population census of 1970.

Results and Observations

The regional distribution of rural banks seems to follow the economic development of the area. Organization of a bank in a given locality appears to be largely a function of the demand for its services, i.e., a demand-led development where investors' decision to establish an institution comes after there are perceived possibilities for profits. Also important apparently, is

accessibility to Manila, both in terms of transportation and communication. This is because the charter to operate a rural bank and considerable assistance are provided by the government through the Central Bank whose offices, up to the late sixties, were only in Manila. It is not surprising, therefore, to find the number of rural banks concentrated in the Luzon area. The capital match-up provision of the Rural Banks Act (RA 720, as amended) has also limited the ability of the Central Bank to immediately grant licenses to all qualified applicants. Some administrative hurdles have favored areas nearer Manila as well.

By the end of the business year 1976, the rural banking system had extended cumulative total accommodations of some nine million loans worth around twelve billion pesos. About 89 percent of this amount went to the agricultural sector. Thus, the system can be considered as having helped mobilize funds to the agricultural sector. Of some importance, however, is the fact that during the 1976 business year, about 81 percent of all the funds that the system loaned out came from its own borrowing, 82 percent of which was in the form of rediscounting. Its other borrowings during this same year also came from the Central Bank, but from the different special funds to support government sponsored programs. Therefore, the system does represent a kind of government arm--a conduit for government funds, in the provision of credit to agriculture.

Different approaches were used to analyze the data gathered. Results obtained were primarily indicative, rather than conclusive. It must be remembered that the study period included unusual, if not abnormal events, i.e., it included the rehabilitation from the damage

caused by the flood of 1972, the adjustments made necessary by the increase in petroleum prices and the declaration of a state of martial law. In addition, the annual data gathered were not sufficient to capture effectively the effects on rural bank operations of policy instrument manipulations by monetary authorities.

The first analysis examined the differences in means between adjoining years for the study variables. Results were somewhat disappointing. Some differences corresponded to the expected theoretical results. Changes occurred as well when not expected. One policy change was the rediscounting rate which was changed in 1974. As expected, there was a statistically significant difference in total rediscountings and supervised loans between 1973 and 1974. However, there were also statistically significant changes in these means between other years in which policy changes were not made. On the basis of the tests of differences in means as related to policy changes, results can only be described as disappointing.

Interviews with rural bank managers attempted to examine the response question, also. A general impression from the interviews was that managers of rural banks react to, and are more critical of, programs and projects where the government asks for their participation than on policies of general application to banks in the financial system, or policies which operate through the market mechanism. There was an almost unanimous negative response from bank managers to a hypothetical situation where interest rates (to pay on deposits and charge on loans) were left for determination by individual rural banks. Most managers believed that cut-throat competition would ensue and would be detrimental to most rural banks, especially those

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competing with commercial banks for clients.

Also, regression analysis was attempted using 1976 data. The volume of supervised credit loans was the dependent variable. Independent variables were of four types: (1) characteristics of the manager; (2) bank capital and ownership structure; (3) the bank's operating results; and (4) economic data for the locality served by the bank. The most important explanatory variable in the estimated equation using this specification was the variable "prior year's net operating profit." This seems to follow the behavioral pattern where one may either be aggressive or timid depending upon the most recent experience.

The coefficient of determination for the preferred regression equation was 0.59 with a significance level of 99 percent. While the equation did explain much of the variation in loan volume, probably additional explanations could be obtained by incorporating policy variables into the equation. However, it was not possible to include policy instruments with the present data set. Information gathered was for a cross-section of banks. Policy variables, on the other hand, affect all banks and are time related. The annual series available was not sufficient to allow a combined cross-section and time series regression analysis. In addition, the question of what time lags occur between a policy change and response was not addressed.

With respect to the portfolio model approach, mixed results were again obtained. The first two equations estimated using the adapted Hester-Zoellner model provided R^2 values and levels of significance that were comparable to those obtained in portfolio studies of American commercial banks. For example, the coefficients of determination

obtained by Hester and Zoellner for Tenth District Banks ranged from 0.18 to 0.35 with significance levels of 49 to 89 percent. In this study, the range of the R^2 value was 0.21 to 0.51 with a significance level ranging from 48 to 99 percent. The coefficients of determination and levels of significane were lower for the 1973 to 1976 period.

Explanation for the poorer statistical results in later years included the flood of 1972, the increase in petroleum prices which promoted a relatively high rate of inflation in 1973, and the declaration of martial law. All these events exerted influences that were believed to distort results in the portfolio model. The structural changes that must have been promoted by these events violated the specification of the model. Nevertheless, based on the estimates for the earlier years in the period studied, a portfolio model has some potential for study of actions taken by banks of different size in response to manipulations in policy instruments.

Although some of the results, as discussed above, were statistically significant, it was not possible to identify how much of the change in the dependent variable could be attributed directly to the policy instrument that was mainiplated. Neither was it possible to directly relate bank management action to policy changes. The annual data gathered, as specified when the study was conceptualized, was not sifficient for this purpose. Indications, however, suggest that a more appropriate time span for variables might have promise.

Policies are changed at distinct points in time while bank operations are a continuing process. There are instances when bank decisions have already been made and can only be adjusted after some time lags, even when a policy change requires immediate adjustments

within the bank. The time lag can differ among banks in the system as well as between different policy instruments. In addition, the community may affect the operating conditions and the type of bank management response to policy.

All these problems relate back to the difficulty of identifying a framework of anlaysis to employ. At the time this study was conceptualized, it was believed that annual data used in a linear regression function with volume of small farmer loans, approximated by supervised credit loans, as the dependent variable, would suffice for evaluating actions of bank management in response to policy instrument changes. The independent variables identified with the model came from four groups, i.e.: (1) financial data on the bank's capital structure and operating results; (2) personal information about the bank manager; (3) variables describing the economic activities of the bank's sphere of operation; and (4) policy instruments manipulated by authorities during the period studied.

Further evaluation of the bank action after a policy instrument has been manipulated was likewise believed possible from an annual run using a portfolio model relating net profit to asset and liability items that were determined a priori, as subject to adjustments by management when the policy instrument was changed.

Based on the experience gained from this study, it appears that both flow and stock information is needed. Stock data for the period immediately before a policy instrument has been manipulated should provide a picture of the "prior" situation which can be compared with the situation for periods after the change was effected. Analysis of flow data, on the other hand, would provide estimates

of changes in volume per period after a policy instrument has been manipulated. Such data would likely be more reflective of actions than annual data.

The analytical model used in this study may be useful given more appropriate data. It may be necessary to obtain weekly information in some instances. The set needed has to be identified after consideration has been given to the policy instrument that has been manipulated and to the time lag expected. For example, a change in the reserve requirements appears to require weekly data. Some other policy instruments may not require immediate adjustments by the banks, and monthly data may suffice. The timing of the policy change could also have an influence on the decision concerning the data set to obtain. A change in the interest rate to charge agricultural borrowers effected in the middle of a crop season may require only quarterly data, as such a change would affect the flow of loans to agriculture starting only the following crop season.

Some Implications for Policy Consideration

It is disappointing for a study not to arrive at conclusive statements, and from them to be able to recommend possible alternative actions. However, the sketchy knowledge and experience gained from the present exercise can be valuable to others who may struggle with the same questions. The discussion of the data set and analytical framework made above can hopefully help future researchers. On the other hand, some of the insights gained from field observations and discussions with rural bank managers and others are discussed below as implications for policy considerations.

A number of issues have been addressed in this study. Others, however, have been superficially treated. It is clear, however, that the rural banking system, though it may have faults, has indeed provided some significant contributions in the delivery of formal credit to the agricultural sector. Some may argue that owners of the banks have not put in their maximum contribution of funds and efforts, but still the fact remains that it has been able to move funds to people in agriculture.

One frustration from this exercise was lack of data for purposes of evaluating policies as well as actions by bank management in relation to policy instrument changes. The problems of time lags effectively require that information from the member banks in the system be made available to the technical staff for the Council responsible for agricultural credit policy formulation. Data provided could be in aggregated form, i.e., both in terms of bank asset group categories and regional blocks. The technical staff should then be able to make analysis both of stocks and flows for specified periods that would be very important to improved agricultural credit policy formulation.

The data needs of the technical staff discussed above could easily be generated once the need to improve management support to rural banks is recongized. Such improvement might be approached in terms of a centrally located computer-assisted financial analysis service. Rural banks could submit weekly or monthly balance sheets and other financial information. These statements could then be analyzed with aggregates for any subdivision (e.g., asset group and/or regional blocks) from whence operating norms would be established.

Individual bank operating results could then be compared with these norms. Variants from the norm could be pointed out to the bank management with possible alternative actions to correct the deviation. Final decision on the alternative action to follow, however, should be left with rural bank management. They should take into account other internal information relevant to their particular case.

The information that would be provided by individual bank for this financial analysis assistance could be the basic source of the data, in aggregated forms, discussed in the preceding paragraph, as needed to improve the agricultural credit policy formulation function.

Area for Further Research

This study is a very small portion of the problem as regards the delivery of credit to agriculture and especially to small farmers. It has shown that the system of rural banks established twenty-five years ago with strong government support is still basically dependent upon the government, and bank management decisions are subject to some direct government instructions. No attempt, however, was made to take the additional step of trying to simulataneously examine the relationship between the rural banks and their clients.

A study is proposed using a nation-wide sample, stratified by regions and type of farming emphasis that will measure the flow of funds at: (1) the Central Bank; (2) the rural bank; and (3) the farm household. Monetary and credit policies during the period should also be identified and any change in the policy instrument and its magnitude of change recorded.

Funds flow from the Central Bank to the rural banks should be recorded. At the rural bank level, both financial inflow and outflow would need to be recorded as well as the stocks of assets and liabilities at the beginning and the end. A similar procedure should also be done at the farm level, i.e., uses and sources of funds should be recorded, including estimates of asset-liability stocks at the beginning and ending points of time for the research.

In order to have a better estimate of flows at the farm-household level, it is proposed that information be collected by means of a daily diary. This is especially important with respect to the determination of flows for farm and for household activities in cases where the farm business cannot (and are not, in general) be treated separately by farmers. Records of farm family daily financial activities would allow a better estimation of financial flows within the farm household which later could be divided into farming and non-farming related flows.

In addition to the measurement of financial flows and stocks at the rural bank level, additional information could be obtained on how loan decisions are made including whether those decisions are affected by policy instrument changes by monetary authorities.

Analysis of data generated from this proposed study might help to identify the relationships between policy instruments and bank management actions. Perhaps an evaluation of different policies changed during the period covered by the study would be more definitive with the approach suggested for this proposed study.

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APPENDICES

APPENDIX A

QUESTIONNAIRE AND FINANCIAL DATA FORM

Bank ID Number _____ Date _____

MICHIGAN STATE UNIVERSITY
Department of Agricultural Economics
East Lansing, Michigan 48824

Graduate thesis questionnaire on "The Philippine Rural Banking System"
by C. S. Sarmago

I. General Information:

A. Please describe your role and responsibilities in the management of the bank.

_____

_____

_____

_____

_____

1. Do you have to approve all the loans granted? _____
2. If not, what kind/type do you have to approve? _____

_____

3. Who approves other types/kinds?

Kind or Type	Officer Approving
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

B. Do you determine how much of the bank's funds can be lent to:

Agriculture (general)_____ If not, who does? _____
Fisheries _____ If not, who does? _____
Forestry _____ If not, who does? _____
Commerce _____ If not, who does? _____
Industry _____ If not, who does? _____
Farmers cultivating 2 has.
of less _____ If not, who does? _____

Please indicate the proportionate common share ownership of the bank:

President _____% Other members of the Board of Directors _____%

What proportion of the common shareholders own or control sixty percentum (60%) of the paid-up common shares of the bank? _____%

II. Information on the Bank Policy Formulation:

A. How is the general operating policy of the bank set?

_____

_____

_____

_____

_____

_____

1. Who or what group makes the major decisions? _____

2. Who or what group decides on expansion? _____

3. Who or what group decides on new endeavors? _____

4. Who or what group decides the rate of dividend payment?

_____

B. 1. Under what circumstances or what do you think could be done to increase the amount of loan going to farmers cultivating two hectares or less? _____

_____

_____

2. Do you think other government policies/programs could be implemented to help small farmers become better clients of rural banks? _____
What policy or program? _____

_____

_____

_____

4. Could you suggest policies that the central bank might implement which would stimulate rural banks to provide additional credit (amount per borrower or number of borrowers) to farmers cultivating two hectares or less?

_____

5. Do you consider existing policies of the central bank with respect to interest rates you are allowed to pay depositors unduly restricitve? _____
Please explain. _____

_____

How about the rates of interest rural banks are allowed to charge borrowers, do you believe it sufficient to generate more equity capital to rural banking? _____

Please explain. _____

6. Do you think it will be better for the rural banking system if individual rural bank is allowed to determine the rate of interest it will pay its depositors and charge borrowers? _____, Please explain. _____

Would you rather have rates of interest paid and charged by rural banks quoted as a range? _____, Please explain. _____

C. During the years 1972 to 1976, did anything outside of the banking system, e.g., calamities, infra-structure construction, etc. happen that you believe affected the general operations of your bank? _____ If so, please indicate how operation was affected.

Event/Government Non-Credit Program	How Operations Affected
In 1976:	
In 1975:	
In 1974:	
In 1973:	
In 1972:	

D. Please outline below the flow of an application for agricultural loan from receipt of application to grant of loan.

Office(s) Receiving	Action Taken	Basis for Action	How Basis Set	Time Elapse (days)

E. What, and if applicable, specify the quantity or value of assistance received/provided by the Central Bank or the Government or the RBAP & Others (Specify) During the Last Five Years.

Form of Assistance	From Whom Received	Quantity or Value

F. In addition to providing loans, what other services does the bank provide to clients? _____

III. Information on the Manager's Decision Making Process

A. Please indicate the information obtained within the bank that is used in making decisions concerning the general operation of the bank, how used and ranking of each in terms of importance to the decision.

Information	How Used	Rank

B. In addition to the collateral offered by the borrower, what information about him do you examine before deciding whether to grant or disapprove the loan application, where information is secured and their rank of importance to the decision.

Information	Source(s)	Rank

C. What economic indicators and/or information outside of the bank do you regularly follow/monitor and use in making decisions for the general operations of the bank, how are these used, the rank of importance and source(s) of the economic indicators/other information.

Indicators/Information	How Used	Rank	Source(s)

D.1. On May 8, 1974, the Central Bank reduced the rediscounting rate from 3% to 1%. How soon were you able to know about it? _____ days. Did this change affected your bank operations? _____ If so, how? _____

Are you satisfied with the results of your action? _____, If not, what adjustment(s) did you make? _____

or going to implement soon? _____

2. On April 20, 1970, reserve requirements on deposit liabilities was increased. How soon were you able to know about it? ____, days. Did this change affected your bank operations? _____ If so, how? _____

Are you satisfied with the results of your action? _____. If not, what adjustment(s) did you make? _____

or going to implement soon? _____

3. Did your bank immediately participate in the non-collateral lending program? (e.g. Masagana 99) _____. Please explain _____

What,if any, do you have to say for or against the implementation of the credit aspect of the Program? _____

Would you suggest any adjustment in program implementation that will benefit your bank and/or other rural banks? _____ Please specify. _____

How about adjustments within the bank? Did you make any during the different periods of the non-collateral lending program? _____. Please specify and indicate reason(s) for the same and the results of the adjustment made or that which is expected.

Adjustment Made	Reason(s)	Expected Results

IV. Information About the Manager:

Age: _____ Highest Educational Attainment: _____
Specialized Training: _____
_____
_____

Work experiences (indicate in terms of yeary and fraction thereof and the place where the experience was obtained, the location)

As Manager of this bank _____(years) As Manager of another bank _____(years) Where? _____ As employee of this bank (specify the position held) _____
(position) _____(years)
Other bank and non-bank employment, please indicate position and location of work.

Position Held	Length	Location of Work

THANK YOU!

RB Code No. _____

STATEMENT OF CONDITION
As of 31 December 19__
R E S O U R C E S

Cash and Due from Banks				
Cash/Checks on Hand/Vault				
Due from the Central Bank				
Due from all Others				
Loans Outstanding	Current	Past Due	Total	
Agricultural				
Commercial				
Industrial				
Others				
Reserve for Bad Debts				
Investment in Securities				
Securities for Legal Reserve				
Preferred Stock Redemption Securities				
Premyo Savings Bonds				
Others				
Fixed Assets (Net Book Value)				
Bank Premises				
Furniture, Fixtures and Equipment				
Transport Equipment				
Leasehold Improvement, including extention offices				
Others				
Other Assets				
Accounts Receivables				
Assets Acquired in Settlement of Loans Under:				
Supervised Credit				
Non-Supervised Credit				
Prepaid Items				
Stationeries and Supply Inventories				
Accrued Interest Payable				
Miscellaneous Assets				
Others _____				
T O T A L R E S O U R C E S				

LIABILITIES AND CAPITAL ACCOUNTS

Deposit Liabilities				_____
Demand Deposits			_____	
Savings Deposits			_____	
Time Deposits			_____	
Special Deposits			_____	
Barrio Guarantee and Savings Fund Deposit			_____	
Others			_____	
Bills Payable	Supervised	Non-supervised	Total	_____
CB Rediscounting	_____	_____	_____	
Agricultural Loan Fund	_____	_____	_____	
Industrial LF	_____	_____	_____	
Emergency Loans	_____	_____	_____	
Others	_____	_____	_____	
Loans Payable				_____
CB-IBRD	_____	_____	_____	
Others	_____	_____	_____	
Unearned Interest and Discounts				_____
Other Liabilities				_____
Accounts Payable	_____	_____	_____	
Dividend Payable	_____	_____	_____	
Accrued Interest Payable	_____	_____	_____	
Miscl. Liabilities	_____	_____	_____	
T O T A L L I A B I L I T I E S				_____
Capital Accounts				_____
Common Shares Paid-in			_____	
Preferred Shares Paid-in			_____	
Surplus			_____	
Undivided Profits			_____	
Reserved for Redemption of Preferred Shares			_____	
Reserved for Contingencies			_____	
Other Surplus Reserves			_____	
Net Income/Loss (-)			_____	
Others _____			_____	
TOTAL LIABILITIES AND CAPITAL ACCOUNTS				_____

STATEMENT OF INCOME AND EXPENSES
As of 31 December 19 ____

GROSS INCOME

Interest Income on Loans Granted			_____
Agriculture, including Fisheries & Forestry		_____	
Supervised	_____		
Non-Supervised	_____		
Commercial		_____	
Supervised	_____		
Non-Supervised	_____		
Industrial		_____	
Supervised	_____		
Non-Supervised	_____		
Others _____		_____	
Interest Income From Securities			_____
Government Securities for Legal Reserve		_____	
Other Government Securities		_____	
Others		_____	
T O T A L I N C O M E			_____

OPERATING EXPENSES

Salaries and Wages			_____
Directors and others in Board		_____	
All other personnel		_____	
Interest Payments			_____
Deposit Liabilities		_____	
Bills and Loans Payable		_____	
Rents			_____
Stationery and Supplies			_____
Postage, Telephone, Telegraph, Light and Water			_____
Travel Expenses, including representation allowances			_____
For Members of the Board of Directors		_____	
For all other Personnel		_____	
Advertising			_____
Depreciation of Buildings and Equipment			_____
Bad Debts Write-Offs, including Guarantee Fees			_____
TOTAL EXPENSES			_____
NET INCOME BEFORE INCOME TAXES			_____

APPENDIX B

THE RURAL BANKS ACT
(Republic Act 720, as amended)

THE RURAL BANKS ACT
Republic Act No. 720, as Amended

SEC. 1. The short title of this Act shall be "Rural Banks' Act."

SEC. 2. It shall be the declared policy of Congress - to promote and expand the rural economy in an orderly and effective manner by providing the people of the rural communities with the means of facilitating and improving their productive activities and to encourage cooperatives. Towards this end, the Government shall encourage and assist in the establishment of a system of rural banks which will place within the easy reach and access of the people credit facilities on reasonable terms. The Department of Agriculture and Natural Resources, The Department of Commerce and Industry, and other appropriate agencies or instrumentalities of the Government shall, in cooperation with the Rural Bank, provide advice on business or farm management and proper use of credit for production and undertaking.

SEC. 3. In furtherance of this policy, the Monetary Board of the Central Bank of the Philippines shall formulate the necessary rules and regulations governing the establishment and operation of Rural Banks for the purpose of providing adequate credit facilities to small farmers and merchants, or cooperatives of such farmers or merchants and to supervise the operation of such banks.

SEC. 4. No Rural Bank shall be operated without a Certificate of Authority of the Monetary Board of the Central Bank. Rural Banks shall be organized in the form of stock corporations. Duly established cooperatives and corporations primarily organized to hold equities in rural banks within a defined region, provided any such corporation is at least partly owned by residents of that particular region, may organize a Rural Bank and/or subscribe to the shares of stock of any Rural Bank. With the prior approval of the Monetary Board, the extent of the equity investment in any rural bank of corporations contemplated under this section shall not be subject to any limitation, the provisions of existing laws to the contrary, notwithstanding. One hundred percent of the capital stock of any Rural Bank shall be owned and held directly or indirectly by citizens of the Philippines: Provided, however, That if said subscription of private shareholders to the capital stock of a Rural Bank cannot be secured or is not available, the Development Bank of the Philippines, on representation of the said private shareholders, and upon approval of the Monetary Board of the Central Bank, shall subscribe to the capital stock of such Rural Bank, which shall be paid in full at the time of subscription, an amount equal to the fully paid subscribed capital of the private share holders but not exceeding one million pesos. Provided, further, That such shares of stock subscribed by the Development Bank of the Philippines may be sold at any time at par to private individuals who are citizens of the Philippines: Provided, finally, That in the sale of shares of stock subscribed by the Development Bank of the Philippines, the registered stockholders shall have the right of pre-emption

within one year from the date of offer in proportion to their respective holdings, but in the absence of such buyer, preference, however, shall be given to residents of the locality or province where the Rural Bank is located. All members of the Board of Directors of the Rural Bank shall be citizens of the Philippines: Provided, however, That no full-time appointment or elective public official shall at the same time serve as officer, director, legal counsel or consultant of any Rural Bank except in cases where such service is incident to financial assistance provided by the Government or a Government-owned or controlled corporation to the bank."

SEC. 5. Loans or advances extended by Rural Banks, organized and operated under this Act, shall be primarily for the purpose of meeting the normal credit needs of any small farmer or farm family owning or cultivating, in the aggregate, not more than fifty hectares of land dedicated to agricultural production as well as the normal credit needs of cooperative and small merchants. For the purpose of this Act, a small merchant shall be one whose capital investment does not exceed Fifty Thousand Pesos. In the granting of loans, the Rural Bank shall give preference to the application of farmers and merchants whose cash requirements are small.

Loans may be granted by Rural Banks on the security of lands without Torrens titles where the owner of private property can show five years or more of peaceful, continuous and uninterrupted possession in the concept of an owner; or of portions of friar land estates or other lands administered by the Bureau of Lands that are covered by sales contracts and the purchasers have paid at least five years installment thereon, without the necessity of prior approval and consent by the Director of Lands; or of portions of other estates under the administration of the Land Authority or other governmental agency which are likewise covered by sales contracts and the purchasers have paid at least five (5) years installment thereon, without the necessity of prior approval and consent of the Land Authority or corresponding governmental agency; or of homesteads or free patent lands pending the issuance of titles but already approved, the provisions of any law or regulations to the contrary notwithstanding: Provided, That when the corresponding titles are issued the same shall be delivered to the register of deeds of the province where such lands are situated for the annotation of the encumbrance: Provided, further, That in the case of lands pending homesteads or free patent titles, copies of notices for the presentation of the final proof shall also be furnished the creditor rural bank and, if the borrower applicants fail to present the final proof within thirty (30) days from date of notice, the creditor rural bank may do so for them at their expense: Provided, furthermore, That the applicant for homestead or free patent has already made improvements on the land and the loan applied for is to be used for further development of the same or for other productive economic activities: Provided, finally, That the appraisal and verification of the status of a land is the full responsibility of the rural bank and any loan granted on any land which shall be found later to be within the forest zone shall be for the sole account of the rural bank to the exclusion of the Central Bank counterpart.

The foreclosure of mortgages covering loans granted by rural banks shall be exempt from the publication in newspapers now required by law where the total amount of loan, including interests due and unpaid, does not exceed three thousand pesos (₱3,000.00). It shall be sufficient publication in such cases if the notices of foreclosures are posted in at least three of the most conspicuous public places in the municipality and barrio where the land mortgaged is situated during the period of sixty days immediately preceding the public auction. Proof of publication as required herein shall be accomplished by affidavit of the sheriff or officer conducting the foreclosure sale and shall be attached with the records of the case: Provided, That when a homestead or free patent land is foreclosed, the homesteader or free patent holder, as well as their heirs shall have the right to redeem the same within two years from the date of foreclosure in case of a land not covered by a Torrens title or two years from the date of the registration of the foreclosure in the case of a land covered by a Torrens title: Provided, finally, That in case of borrowers who are mere tenants the produce corresponding to their share may be accepted as security.

SEC. 6. With the view to insuring balanced rural economic growth and expansion, Rural Banks may, within limits and conditions fixed by the Monetary Board, devote a portion of their loanable funds to meeting the normal credit need of small business enterprises whose capital investment does not exceed Fifty thousand pesos and of essential rural enterprises or industries, other than those which are strictly agricultural in nature.

SEC. 7. To provide supplemental capital to any Rural Bank until it has accumulated enough capital of its own or stimulate private investments in Rural Banks, the Development Bank of the Philippines shall, upon certification of the Monetary Board which shall be final, of the existence of such need, subscribe within thirty days to capital stock of any Rural Bank from time to time in an amount equal to the total equity investment of the private shareholders which shall be paid in full at the time of subscription but not exceeding one million pesos: Provided, however, That shares of stock issued to the Development Bank of the Philippines, pursuant to this section, may, at any time, be paid off at par and retired in whole or in part if, in the opinion of the Monetary Board, the Rural Bank has accumulated enough capital strength to permit retirement of such shares or if an offer is received from private sources, to replace the equity investments of the Development Bank of the Philippines with an equivalent investment or more in the common stock of such Bank. In case of such retirement of stock or replacement of equity investments of the Development Bank of the Philippines, the registered private shareholders of the Rural Bank shall have the right of pre-emption within one year from date of offer in proportion to their respective holdings.

Stock held by the Development Bank of the Philippines, under the terms of this section, shall be made preferred only as to assets upon liquidation and without the power to vote and shall share in dividend distributions not exceeding two percent thereof without preference:

Provided, however, That if such stock of the Development Bank of the Philippines is sold to private shareholders, the same shall be converted into common stock of the class provided for in section nine.

SEC. 8. The Development Bank of the Philippines is authorized to obtain from the "Counterpart Fund" and "Special Account" authorized under Repbulic Act Numbered six hundred and four such amounts as it may require, but not more than two million pesos, for the purpose of subscribing to the shares of stock of Rural Banks, and of granting loans to such banks as provided in section 12 of this Act. All funds obtained by the Development Bank of the Philippines from the "Counterpart Fund" and "Special Accounts" shall constitute a revolving fund and together with the interest which will accrue thereon will be used solely as provided for in this section.

SEC. 9. Stock preferred as to assets upon liquidation shall be issued only to represent contributions to capital stock of the Rural Bank by the Government through the Development Bank of the Philippines. If there are no such pbulic investments, only one class of stocks shall be issued by any Rural Bank. The powers of the Monetary Board over Rural Banks shall extend to prescribing the amount, value and class of stock issued by any Rural Bank, organized under this Act.

SEC. 10. The power to supervise the operation of any Rural Bank by the Monetary Board of the Central Bank as herein indicated, shall consist in placing limits to the maximum credit allowed any individual borrower; in prescribing the interest rate; in determining the loan period and loan procedures; in indicating the manner in which technical assistance shall be extended to Rural Banks; in imposing a uniform accounting system and manner of keeping the accounts and records of the Rural Banks; in undertaking regular credit examination of the Rural Banks; in instituting periodic surveys of loan and lending procedures, audits, test-check of cash and other transactions of the Rural Banks in conducting training courses for personnel of rural banks; and, in general, in supervising the business and corporate operations of the Rural Banks.

The Director of the Department of the Central Bank designated by the Monetary Board to supervise Rural Banks shall have the power to enforce the laws, orders, instructions, rules and regulations promulgated by the Monetary Board applicable to rural banks: to require Rural Banks, their directors, officers and agents to conduct and manage the affairs of the Rural Bank in a lawful and orderly manner; and, upon proof that the Rural Bank or its board of directors or officers are conducting and managing the affairs of the bank in a manner contrary to laws, orders, instructions, rules and regulations promulgated by the Monetary Board or in a manner substantially prejudicial to the interests of the government, depositors or creditors, to take over the management of such bank when specifically authorized to do so by the Monetary Board after due hearing until a new board of directors and officers are elected and qualified without prejudice to the prosecution of the persons responsible for such violations under the provisions of sections thirty-two, thirty-three and thirty-four of Republic Act

Numbered Two hundred sixty-five, as amended.

The management of the Rural Bank by the Central Bank shall be without expense to the Rural Bank, except such as is actually necessary for its operation, pending the election and qualification of a new board of directors and officers to take the place of those responsible for the violations or acts contrary to the interests of the government, depositors or creditors.

The director and the examiners of the Department of the Central Bank charged with the supervision of Rural Banks are hereby authorized to administer oaths to any director, officer or employee of any Rural Bank or to any voluntary witness and to compel the presentation of all books, documents, papers or records necessary in his or their judgment to ascertain the facts relative to the true condition of any Rural Bank or to any loan.

SEC. 11. With the written permission of the Monetary Board of the Central Bank, any Rural Bank may:

(a) Accept savings and time deposits;
(b) Open current or checking accounts. The Monetary Board shall determine when a Rural Bank may be authorized to open current or checking accounts;
(c) Act as correspondent for other financial institutions;
(d) Act as a collection agent;
(e) Act as a trustee over estates or properties of small farmers or small merchants as these terms are defined in section five of the Rural Banks' Act;
(f) Rediscount paper with the Philippine National Bank or Development Bank of the Philippines, or other banks and their branches and agencies. The Central Bank shall specify the nature of the paper deemed acceptable for rediscount, as well as the rediscount rate to be charged by any of these institutions;
(g) Act as official depository of municipal, city or provincial funds in the municipality, city or province where it is located, when authorized by the Monetary Board in accordance with the provisions of Repbulic Act Numbered two hundred sixty-five and subject to such limitations as may be deemed necessary for the protection of these funds.

SEC. 11-A. Rural Banks may invest in equities of allied undertakings, except banks, as may be approved by the Monetary Board: Provided, that (1) the total investment in equities shall not exceed twenty-five percent of the net worth of the Rural Bank; (2) the equity investment in any single enterprise shall be limited to fifteen percent of the net worth of the Rural Bank, and (3) the equity investment of the Rural Bank in any single enterprise shall remain a minority holding in that enterprise except where the enterprise is not a financial intermediary; Provided, further, that where such allied undertaking is a wholly or majority-owned subsidiary of a Rural Bank, the same may be

subject to examination by the Central Bank; Provided, finally, that equity investments shall not be permitted in non-related activities.

SEC. 12. The Development Bank of the Philippines shall, within sixty days from certification of the Monetary Board, which shall be final, extend to a rural Bank a loan or loans from time to time repayable in ten years, with interest at the rate of two percent per annum, against security which may be offered by any stockholders of the Rural Bank, Provided -

(a) that the Monetary Board is convinced that the resources of the Rural Bank are inadequate to meet the legitimate credit requirements of the locality wherein the Rural Bank is situated;

(b) that there is a dearth of private capital in the said locality; and

(c) that it is not possible for the stockholders of the Rural Bank to increase the paid-up capital thereof.

SEC. 13. In an emergency or when a financial crisis is imminent, the Central Bank may give a loan to any Rural Bank against assets of the Central Bank which may be considered acceptable by a concurrent vote of at least five members of the Monetary Board.

In normal times, the Central Bank may rediscount against paper evidencing a loan granted by a Rrual Bank to any of its customers which can be liquefied within a period of three hundred sixty days: Provided, however, That for the purpose of implementing a nationwide program of agricultural and industrial development, Rural Banks are hereby authorized, under such terms and conditions as the Central Bank shall prescribe, to borrow, on a medium or long-term basis, funds that the Central Bank or any other government financing institution shall borrow from the International Bank for Reconstruction and Development or other international or foreign lending institutions for the specific purpose of financing the above-stated agricultural and industrial program. Repayment of loans obtained by the Central Bank of the Philippines or any other government financing institution from said foreign lending institutions under this section shall be guaranteed by the Republic of the Philippines.

SEC. 14. All Rural Banks created and organized under the provisions of this Act, with net assets not exceeding one million pesos excluding the counterpart capital subscribed and paid in by the government under sections seven and eight of this Act shall be exempt from the payment of all taxes, charges, and fees of whatever nature and description: Provided, however, That when the net assets of a rural bank exceeds one million pesos, the taxes, charges and fees shall be levied in proportion that such excess bears to the said net assets: Provided, finally, That when the net assets of a rural bank shall exceed three million pesos, it shall pay all taxes, fees and charges, like any other bank.

SEC. 15. The Central Bank of the Philippines shall extend technical assistance to any Rural Bank in the process of organization or during the course of operations whenever it is requested to do so or whenever the Monetary Board deems it necessary, to preserve, protect and promote the objectives of this Act: Provided, however, That said assistance shall be without cost or obligation on the part of the Rural Bank.

SEC. 16. Any city or municipal judge in his capacity as notary public, ex officio shall administer the oath to or acknowledge the instruments of any Rural Bank and its borrowers or mortgagors, free from all charges, fees and documentary stamp tax, collectible under existing laws, relative to any loan or transaction not exceeding Five Thousand Pesos.

SEC. 17. Any register of deeds shall accept from any Rural Bank and its borrower or mortgagors for registration, free from all charges, fees and documentary stamp tax, collectible under existing laws, any instrument, whether voluntary or involuntary, relating to loans or transactions extended by a Rural Bank in an amount not exceeding Five thousand pesos: Provided, however, That charges, if any, shall only be collectible on the amount in excess of Five thousand pesos; and that in instruments related to assignments of several mortgages consolidated in a single deed, charges or fees, if any, shall be levied only on the amount in excess of Five thousand pesos of the consideration in the assignment of each mortgage.

SEC. 18. Any Rural Bank organized under this Act may, pursuant to regulations promulgated for the purpose by the Monetary Board, be required to contribute to the Central Bank an annual fee to help defray the cost of maintaining the appropriate supervising department within the Central Bank in an amount to be determined by the Monetary Board but in no case to exceed one twentieth of one percent (1/20 of 1%) of its average total assets during the preceding year, as shown on its end-of-month balance sheets, after deducting its cash on hand and amounts due from banks, including the Central Bank.

SEC. 19. Every invididual acting as officer or employee of a Rural Bank and handling funds or securities amounting to one thousand pesos or more, in any one year, shall be covered by an adequate bond as determined by the Monetary Board; and the by-laws of the Rural Bank may also provide for the bonding of other employees of officers of Rural Banks.

SEC. 20. For the purpose of carrying out the objectives of this Act, the Central Bank is authorized to require the services and facilities of any Department or instrumentality of the Government or any officer or employee of any such Department or Government instrumentality.

SEC. 21. Rural Banks organized and operated under the provisions of this Act shall act as agents of the Philippine National Bank and

the Rehabilitation Finance Corporation (now Development Bank of the Philippines) in places where the latter have no branch or agency.

SEC. 22. A fine of not more than two thousand pesos or imprisonment for not more than one year, or both, at the discretion of the court, shall be imposed upon:

1. Any officer, employee, or agent of a Rural Bank who shall -

   (a) make false entries in any bank report or statement thereby affecting the financial interest of, or causing damage to, the bank or any person; or
   (b) without order or a court of competent jurisdiction disclose any information relative to the funds or properties in the custody of the bank belonging to private individuals, corporations, or any other entity; or
   (c) accepted gifts, fees or commissions or any other form of remuneration in connection with the approval of a loan from said bank; or
   (d) overvalue or aid in overvaluing any security for the purpose of influencing in any way the action of the bank on any loan; or
   (e) appear and sign as guarantor, indorser or surety for loans granted by the bank.

2. Any applicant for a loan from, or borrower of a Rural Bank who shall -

   (a) misuse, misapply, or divert the proceeds of the loan obtained by him from its declared purpose; or
   (b) fraudulently overvalue property offered as security for a loan from the said bank; or
   (c) give out or furnish false or willful misrepresentation of material facts for the purpose of obtaining, renewing, or increasing a loan or extending the period thereof; or
   (d) attempt to defraud the said bank in the event of court action to recover a loan; or
   (e) offer any officer, employee or agent of a Rural Bank a gift, fee, or commission or other form of compensation in order to influence such bank personnel into approving a loan application; or
   (f) dispose of or encumber the property or the crops offered as a security for the loan.

3. Any examiner, or officer or employee of the Central Bank of the Philippines or of any department, bureau, office, branch or agency of the Government who is assigned to examine, supervise, assist, or render technical service to Rural Banks and who shall commit any of the acts enumerated in paragraph one of this section or connive or aid in the commission of the same.

SEC. 23. Any justice of the peace or register of deeds who shall demand or accept, directly or indirectly, any gift, fee, commission or other form of compensation in connection with the service or shall arbitrarily or without reasonable cause delay in the acknowledgment of administration of oath or the registration of documents required to be performed by said justice of the peace as provided in section sixteen and by said register of deeds as provided in section seventeen of this Act, shall be punished by a fine of not more than one thousand pesos or by imprisonment for not more than one year, or both, at the discretion of the court.

SEC. 24. Any bank not organized under this Act and any person, association or corporation doing the business of banking, not authorized under this Act which shall use the words "Rural Bank" as part of the name or title of such bank or of such person, association, or corporation, shall be punished by a fine of not less than fifty pesos for each day during which said words are so used.

SEC. 25. The Monetary Board of the Central Bank shall submit a report to the Congress as of the end of each calendar year of all the rules and regulations promulgated by it in accordance with the provisions of this Act, as well as its other actuations in connection with Rural Banks, together with an explanation of its reasons therefor.

SEC. 26. If any provision or section of this Act or the application thereof to any person or circumstances, is held invalid, the other provisions or sections of this Act, and the application of such provision or section to other persons or circumstances, shall not be affected thereby.

SEC. 27. The provisions of Republic Acts Numbered Two hundred and sixty-five, as amended, and Three hundred thirty-seven, as amended, insofar as they are applicable and not in conflict with any provision of this Act, are hereby made a part of this Act.

SEC. 28. This Act shall take effect upon its approval.

Approved, June 5, 1952, as Rep. Act No. 720
Amended, June 15, 1954, by Rep. Act No. 1097
Amended, Sept. 9, 1955, by Rep. Act No. 1408
Amended, June 18, 1960, by Rep. Act No. 2670
Amended June 27, 1961, by Rep. Act No. 3128
Amended, June 22, 1963, by Rep. Act No. 3778
Amended, June 19, 1964, by Rep. Act No. 4106
Amended June 19, 1965, by Rep. Act No. 4199
Amended, June 12, 1969, by Rep. Act No. 5989
Amended, January 29, 1973, by Pres. Decree No. 122