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WHAT'S WRONG (OR RIGHT) ABOUT OUR CREDIT POLICIES?

by

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Some quarters would claim that the real culprit of our problems today in agricultural credit is the set of policies governing the sector. Agricultural credit policies and programs at the turn of 1970s have been shaped towards supporting the agricultural development blueprints of the government on food self-sufficiency, improvement of farm income, agrarian reform and export expansion and diversification. Small farmer development has not been given special emphasis except in cases where it coincides with the broad objectives of food production and agrarian reform.

Government policy oftentimes is torn between maintaining the viability of the lending institutions and pushing the food production programs. Credit is almost always thought of as one of the production inputs similar to seeds, fertilizer, technology, etc. rather than as a part of a distinct financial intermediation process.

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As a result of these basic attitudes and orientation, the main preoccupation of agricultural credit policymakers has been the expansion of the supply of credit resources to the agricultural sector through the credit quota policy, the guarantee fund mechanism and subsidized interest rates.

Legislating the Supply of Funds Through a Loan Quota

To assure a continuous supply of funds to agriculture, an agricultural credit quota was instituted under Presidential Decree No. 717 in May, 1975. All banking institutions were required to allocate 25 per cent of their net loanable funds generated for agricultural credit, at least 10 per cent to the credit needs of the agrarian reform beneficiaries[1/] and the remaining 15 per cent for agricultural credit in general. Agrarian reform credit was defined to include loans outstanding of agrarian reform beneficiaries either for production, housing, or any other purpose, loans to agricultural enterprises under the Agribusiness Priorities Plan as provided for in PD 1159, loans granted to projects undertaken under the corporate farming program (General Order No. 47), and eligible government securities. The 15 per cent agricultural credit consists of agricultural loans outstanding

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1/ Agrarian reform beneficiaries include tillers, tenant farmers, settlers, agricultural lessees, amortizing owners, owner cultivators, farmers cooperatives, and compact farms as determined by the Ministry of Agrarian Reform.

other than those considered under the ten per cent quota and investments in commercial papers issued by entities engaged in agricultural projects.

Minimal Influence of Loan Portfolio

The quota has been largely ineffective, minimally influencing the investment portfolio of banks. Based on the bank's statements of condition, the average ratios of agricultural loans to net loanable funds outstanding and to total loans outstanding in the 4-year period before PD 717 did not differ significantly from those in the four years after the decree (Table 1). Except for the commercial banks which experienced a hefty increase of 16 per cent and 47 per cent in the share of agricultural loans to net loanable funds and total loans respectively, the rest of the banking system exhibited slight positive increases if not declining ratios.

Growth in Supply of Funds

In terms of the growth of net loanable funds generated and the compliance to the quota, however, the supply of funds to the agricultural sector seems to have expanded. Agricultural loans outstanding reported in compliance to PD 717 grew annually by 17.9 per cent in current prices and 5.4 per cent at 1972 prices, from ₱10.3 billion as of December 1976 to ₱16.9 billion as of end 1979. This represents on the average roughly 239 per cent of the required allocation for agricultural credit over the period 1976-79. The loans to agrarian reform

also exceeded the 10 per cent quota by 12 per cent, as the magnitude of agrarian reform credit reported more than doubled from ₱2.6 billion in 1976 to ₱5.8 billion in 1979. Although direct lending rose steadily from ₱862.8 million to ₱2011.1 million in the same period, it constituted only one third of the agrarian reform credit reported and approximately 41 per cent of the statutory requirement. The remaining two thirds or 59 per cent were in the form of government securities.

Possible Inconsistency?

The empirical evidence gathered from the regular bank statements and the special reports on PD 717 compliance seem to be at odds with one another. The former revealed insignificant impact of the credit quota imposition on the banks' loan portfolio while the latter showed substantial effects on the supply of funds to agriculture. The likely conclusion is that in spite of the rapid expansion in agricultural loans, credit to the other sectors of the economy has kept pace with the growth in agricultural loans, thus maintaining the historical share of the agricultural sector in the total amount of loanable resources.

Leakages in the Credit Pipeline

There is also more than meets the eye in the general over-compliance with the quota. Due to the loose definition of net loanable funds generated, the very broad scope of agricultural/agrarian

reform credit, and the inherent susceptibility of the quota policy to misclassification, the banks are prone to include loans which may be only remotely related to agriculture under agricultural credit just to comply with regulations. Moreover, there is no way of ascertaining whether loans claimed as agricultural in fact were. The eligibility of agricultural projects under the quota is not based on the Philippine Standard Industry Classification and other classification systems used for Central Bank supervisory reports leaving greater room for subjective categorization. In the quota compliance reports, the purpose of more than one fourth of loans outstanding was classified as "others", and in the specific case of savings banks, three fourths (Table 3).

Another leakage in the mandated credit pipeline to agriculture is the alternative investment through the purchase of Central Bank Certificates of Indebtedness (CBCIs) and other eligible government securities which are convenient, less risky and more attractive. It is not clear how much of these funds are actually channeled to agricultural projects and small farmer credit even though rediscounting funds used for M-99 and other programs are sourced from CBCIs.

Reluctance of Banks

The banks have been reluctant to participate actively in agricultural credit, especially in small farmer lending due to its high risk and low yield nature. They cite the absence of branches in the rural areas and trained manpower in agricultural lending. However, these obstacles are administratively surmountable as long as the financial institutions are convinced of the viability of small farmer credit.

Alternative investment opportunities such as government securities are obviously preferred to direct lending to agrarian reform beneficiaries.

The paucity of bankable small farmer projects and the location of ARBs have also been cited as constraints to the implementation of the credit quota. In some areas, even rural banks catering to small farmers encounter difficulty in meeting the 10 per cent quota because they are located in non-land reform areas. There are indications that the supply of funds to ARBs may have exceeded the debt absorptive capacity of the borrowers. The ratio of available funds under the 10 per cent quota to the total number of ARBs would amount to P6,746.00 as of December 1979 which was higher than the outstanding obligations of CLT holders and leaseholders found in sample surveys.

Futility of Legislating Supply

The rationale of PD 717 is to channel greater credit resources to the agricultural sector in general and to the ARBs in particular in order to accelerate agricultural production and productivity as well as to enhance social equity. The evidence seems to point to the futility of legislating the supply of funds to any given sector. In the first place, PD 717 has not changed the traditional share of agriculture in total loanable funds. The credit extended under the quota most likely overstates the actual supply of funds to the target clientele considering the leakages in the system from misclassification of loans and investments in government securities. Secondly, we can

always provide water to the horses but we cannot make them drink it. Loans may be available but if concomitant steps are not undertaken to expand the pipeline of bankable projects and strengthen the debt repayment capacity of the borrowers, then credit will be useless.

If PD 717 does not work, why keep it? The usefulness of the policy lies more in its symbolic and psychological merits. It represents the high priority accorded by the government to agricultural and agrarian reform credit and directs the private bankers towards the path of social consciousness. We have to search though for a more effective alternative to the quota policy. Our efforts would probably be more fruitful if we focus on making agricultural projects more profitable and less risky through better infrastructure, marketing facilities, technology and other support services, thus making agricultural lending similarly lucrative.

Loan Guarantee Policy

Another instrument used by the government to increase the flow of credit funds to agriculture is the loan guarantee scheme. It seeks to minimize the risks from total loan loss of financial institutions involved in supervised/non-collateral credit and to stabilize their liquidity position through cash advances provided by a fund upon filing of claim. Although the scheme primarily protects the banks, it also helps the small farmer indirectly by providing for loan restructuring and refinancing.

The Agricultural Guarantee Fund was initially established as the Agricultural Guarantee and Loan Fund in 1967 to provide loan and guarantee funds to the rice production program. Other funds subsequently established for basically the same purpose were consolidated into the AGF with fund contributions totalling ₱138 million as of 1979. In 1973, the administration of the Fund was transferred from the Central Bank to the Land Bank of the Philippines, a special government owned bank created to give financial assistance to the land transfer operations of the agrarian reform program.

The AGF has provided guarantee coverage to the M-99 program, the Masaganang Maisan (corn and feedgrains), Gulayan sa Kalusugan (vegetable production), Bakahang Barangay (village level cattle production), cotton production, the Central Bank-International Bank for Reconstruction and Development Credit Project, and the Second Rural Development Land Settlement Project. Although the M-99 program is now covered by crop insurance, commodities and projects other than rice will continue to fall under AGF.

Table 4 summarizes the terms and conditions of the guarantee coverage for different credit programs. The extent of guarantee ranges from 70 per cent to 85 per cent of either the outstanding balance of the loan or the production loss, whichever is lower. The financial institution pays an annual rate of one to two per cent of the guaranteed portion of the loan or the value of the production loan as guarantee fee. The valid causes for claims arise only from nonrepayment of loans due to "force majeure" such as typhoons, other

natural calamities, widespread pestilence, etc. which are beyond the control of borrowers. As of December 31, 1979 close to two thirds of the total ₱4.9 billion loans granted had been guaranteed in the amount of ₱3.2 billion with M-99 accounting for the 89 per cent of the total, or ₱2.9 billion (Table 5).

AGF Benefits Vs. Costs

A TBAC Study analyzing the benefits and costs of the AGF scheme revealed positive net benefits both at the macro level and at the bank level. Credit supply to the M-99 farmers was augmented by ₱154.9 million for Phases I to XIV (1973-1979) by enabling the banks to feed back into the credit stream the AGF payments against claims on loan losses (Table 6). The cost to the public sector in maintaining the CBCIs which can not be retired due to the rediscounting arrears of rural banks was reduced by ₱13.8 million by automatically applying AGF payments against rediscounting obligations of rural banks. The third source of economic benefits is the employment effect equivalent to 25 man years on the average, contributing ₱2.33 million to household income from 1974 to 1979. Compared with the opportunity cost of AGF funds estimated at ₱78.4 million, net positive benefits still accrue to the economy in the amount of ₱76.4 million.

Financially, the AGF operations have been profitable. During the period under review, AGF earned ₱147.0 million from its interim investments and guarantee fees, penalty and other charges while

paying out a total of ₱64.8 million in terms of claims payments and administrative expenses (Table 7). A net income of ₱82.3 million was realized or an annual rate of return on total resources of 9.9 per cent.

From the bank's viewpoint, the benefits from AGF still outweigh the costs. The costs components are the fees, penalty and other charges, and foregone net income on funds tied up with AGF amounting to ₱11.9 million and ₱23.6 million for the rural banks and the Philippine National Bank (PNB), respectively. The benefits, on the other hand, estimated at ₱42.2 for rural banks and ₱25.4 for PNB, emanate from claim payments net of loan recoveries from farmers, estimated net income on additional credit sustained by AGF, and savings in liquidated damages due to the liquidation of rediscounting obligations with AGF payments. The net benefits are clearly positive, ₱30.3 million for rural banks and ₱1.7 million for PNB.

Effective Coverage of Default Risks

For a government program, the AGF scheme has performed fairly well, expanding credit to risky, small farmer programs and managing a financial surplus in its operations. However, in terms of reducing the risks of banks from loan loss due to defaults, it has effectively covered only 10 per cent and 5 per cent of total loan losses respectively experienced by rural banks and PNB in the M-99 and M-Maisan programs (Table 8). This low coverage of default risk is caused by administrative difficulties such as nonpayment of claims due to failure to submit claims and supporting papers on time as well as by the high incidence of loan defaults due to non-force majeure factors such as poverty, incipient dole out mentality of borrowers

and frauds by bank and extension personnel. With the banks shouldering the bulk of the default burden, this in effect increases the lending costs of the banks, discourages them from participating in agricultural and small farmer lending, and offsets the positive impact of AGF on the supply of bank credit. Another shortcoming of the AGF scheme seen from the equity angle is that the primary beneficiaries are the banks, with the farmers only indirectly favored by restructuring and refinancing. The farmers' debt obligations are not liquidated; they are only given a longer lease of time to settle their accounts.

Crop Insurance: Better Alternative?

In order to remedy some of the problems encountered in the AGF, a crop insurance scheme was designed to initially cover Masagana 99 loans. Funds were transferred from the AGF to capitalize the Philippine Crop Insurance Corporation, thus reducing AGF scope to merely 10 per cent of its original program coverage. Crop insurance is expected to benefit more directly the farmers by liquidating their loan obligations although the claim payments will accrue to the banks. The annual premium rate is to be tentatively shared by the farmer, the bank, and the government to the extent of 2, 1, 5, and 7.5 per cent, respectively. In essence, crop insurance is a loan insurance system, protecting still the banks from loan losses rather than the farmer from crop failure.

Simulating the effects of crop insurance on M-99 operations from 1974 to 1979, it would have covered 36 per cent and 11 per cent of

past due loans of the rural banks and PNB, respectively (Table 9). The major part of the default risks will still be borne by the banks and the concurrent dampening effects on the supply of credit would still be felt. It is not clear whether crop insurance would prove to be financially viable. If it were in operation in 1974-79, the higher claim payments under crop insurance would have cost an additional ₱99.34 million of government funds while administrative overhead would certainly be greater than the ₱5.6 million experience of AGF. This would only be partially offset by the increased premium rate of 3.5 per cent from the farmers and the banks, estimated to yield an increment of ₱86.8 million over the AGF guarantee fees. The rough estimate of a ₱12.5 million deficit, comparing additional claim payments against increased premium and assuming the same level of administrative costs, would certainly eat in o the equity of the crop insurance body. The economic feasibility of crop insurance is further endangered by the contraction in its actuarial base, since the volume of supervised credit has drastically gone down from the 1974-79 levels.

A more reasonable risk sharing arrangement among farmers, banks, and governmer: has to be found. The conversion of AGF and crop insurance to an all risk guarantee scheme may be considered but this may dampen the initiative of banks to collect, spawn dependence of banks on government support, and reinfonce the dole out attitude of borrowers. Another alternative to the government subsidy of the risk

premium component of bank lending costs is a higher lending rate. Writing off the existing past due accounts which are 3 years and older on a staggered basis over a five year period is estimated in the TBAC study to add 10 per cent in the case of rural banks and 16.25 for PNB to their lending costs. The ultimate effect would be a 21.35 per cent lending, and a 37.3 per cent effective cost of credit to the farmer including transaction costs.[2/] If the farmers could afford this - well and good ! However, the rate of return to rice production barely passes the 24 per cent mark. The rice farmer-borrower would be hard put to pay the cost of credit.

Interest Rate Policy

A lot of of drama and emotions have charged the discussion of the issue of interest rates. A tug of war has ensued between national policymakers on one hand and on the other, the members of international funding institutions and the academic community of the developed countries who are "experts" on the problems of developing nations. The former tries to pull the interest rate down in order to encourage investment, accelerate the adoption of improved technology, stimulate production, dampen inflation, ans subsidize priority sectors of the economy and the population. The latter group attempts to pull

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[2/] Technical Board for Agricultural Credit, "Benefit Cost Analysis of Agricultural Guarantee Fund", pp. 12, 14, March 1981.

the interest rate up to reward savers, encourage lenders, and allocate efficiently scarce loanable resources. They claim that high and flexible interest rates would effect a better distribution of income in general, integrate the fragmented rural financial market, and strengthen the financial intermediation process. These are all noble intentions, but who is right? The debate has become so entangled that separating the various strands of thought would be like untying the Gordian Knot.

The "Gordian Knot"

What is the interest rate? This is probably one of the most misunderstood variables in economic theory. It is most often used interchangeably with the savings deposit rate, the lending rate, the price of capital, the opportunity cost of capital, the cost of borrowed funds, the rate of return, etc. People who toss the word around don't bother to specify which concept they are referring to or to qualify whether they meant the pure interest rate, the nominal one or the effective interest rate. To compound the problem, the limiting assumptions of the theoretical model on which basis propositions and advice are given on development policy and strategy are not usually specified in the discussion of interest rates. There is also a wide divergence of opinions on the role and importance of interest rates in influencing economic behaviour.

For our purposes, interest rate may be defined as the price paid for the temporary use of money or the cost of borrowed funds. It is clear and distinct from the rate of return on capital (alternatively

called rate of profit, marginal productivity or efficiency of capital). The interest rate is basically a monetary phenomenon determined by the supply and demand for money while the rate of return on capital is a result of the operation of real forces such as the employment of labor, capital, technology, entrepreneurship, etc. A distinction needs to be drawn too between interest rates and the price of capital. Although interrelated in the sense that interest rate affects the demand for capital, i.e. the present value of the returns from capital is inversely related to the interest rate, the price of capital is the cost of producing the capital good while the interest rate pertains to the cost of borrowed funds.

The confusion arises from equating the interest rate with the price of capital and the rate of return on capital plus bestowing sanctity on the word interest rate by adding the adjectives pure, real, optimum or equilibrium. Under full neoclassical equilibrium conditions, the optimum interest rate must equal the price of capital. However, the stringent assumptions of perfect competition and homogeneous markets made within a static analytical framework are irrelevant to the reality of imperfect and fragmented capital markets of developing countries such as the Philippines. In the same view, the "equilibrium level of interest rates" where demand for funds equals its supply is at best an elusive concept and to D. Khatkate," any attempt to approximate the equilibrium norm for interest rates is likely to be only a conceptually appealing exercise without any practical relevance to the LDCs"[3/] The pure

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[3/] D. Khatkate, "False Issues in the Debate on Interest Rate Policies in Less Developed Countries, 1978.

interest rate which is supposed to reflect only time preference and denotes the opportunity cost of capital or scarcity price of capital is merely a theoretical abstraction. As quoted in G. J. Shackle, "Recent Theories Concerning the Nature and the Role of Interest" in Survey of Economic Theory, Vol. 1, Prof. Boulding stated: "the search for a 'pure' interest rate in abstraction from risk, liquidity, convenience, etc. is meaningless, a search (in a dark room) for a black cat that isn't there." 4/

The interest rate controversy therefore proceeds from semantic difficulties, i.e. equating certain concepts which are not the same, and from the wrong premises of the economic rationale underlying high interest rate policies.

The Philippine Interest Rate Story

In the Philippines, the interest rate policy has been generally characterized by the maintenance of low, inflexible, and differential interest rate ceilings favoring specific sectors of the economy such as small and medium scale industries, exports, food production, agrarian reform, supervised credit programs and rural banks. Since the start of central banking in 1949, interest rates on three sets of instruments have been controlled - saving and time deposits, loans and discounts (Table 10).

4/ G. J. Shackle, "Recent Theories Concerning the Nature and Role of Interest," Survey of Economic Theory, Vol. 1

The rates on saving and time deposits were established initially at 2 to 3.5 per cent in 1956. Changes were made at different intervals with the lower bound climbing from 2 per cent to 7 per cent within a 24 year time span and the upper limit moving from 3.5 per cent to 14.5 per cent in 1980. Lower ceilings were imposed on commercial banks vis-a-vis the thrift banks and the rural banks to give the latter an edge in the savings mobilization effort. Time deposits received higher interest rates than the savings deposit in order to encourage long term funds. On July 1981, interest rate ceilings on savings and time deposit rates were lifted marking a milestone in the history of interest rate policy.

The discount rate was used as an instrument of quantitative and selective control of credit with the rates differing according to government priorities. More than 40 circulars have been issued by the Central Bank from 1949 to 1981 to set the discount rate schedule indicating the frequency of the amendments and the volatility of the rates. The focus of priorities also shifted from the type of financial institutions in the 1950's when rural banks were given preferential rates to the kind of economic activity in 1959 and later years -- agriculture loans, export bills, industrial loans, rice and corn production, etc. New priority areas were added from time to time including supervised credit in 1970, grains quedan and National Grains Authority papers in 1978, and non-traditional exports in 1980. The rates implemented on July 1, 1981 rangedfrom 3.0 per cent to maximum of 6 per cent less the lending rate,

differentiated according to maturity, presence of loan supervision and type of export activity.

The lending rates were prescribed by the 1916 Usury Law which was enacted based on the medieval value that "usurious" rates were sinful (Van Atta 1970). Secured loans were charged a maximum of 12.0 per cent per annum, and unsecured loans, 14 per cent. Until mid 1960, these ceilings were nonoperative because prevailing rates were low at around 8 per cent, loan demand was weak, and banks had excess reserves, borrowing little from the Central Bank. Subsequently, however, interest rates rose and the nominal interest rate ceilings were circumvented by inflating the effective interest rates. Service charges, inspection fees, notarial fees, documentation and release fees were added and interest charges were deducted from the total loan amount at the time of the release of the loan proceeds. On January 2, 1976, the interest rate ceiling on loans of more than two years was raised to 19.0 per cent inclusive of all fees and charges but on supervised credit, the ceiling was maintained at 12 per cent. Reforms were instituted in 1979 and 1980 culminating in Circular 783.

Circular 783 provides floating rates on loans of more than 2 years but 16 per cent and 18 per cent ceilings of secured and unsecured loans of 2 years or less, respectively. Maximum rates have also been prescribed for priority activities: 12 per cent for supervised credit and non-traditional exports; 14 per cent for non-supervised loans, traditional exports and small and medium scale industries. The objective is to encourage medium and long term lending to finance capital formation.

The rural financial market is governed by the same interest rate policy. Interest rate ceilings on savings and time deposits have been removed while the rediscount rate on supervised credit and special financing program has been raised to a minimum of 3 per cent. The lending rates, however, are still constrained by the 12-14 per cent ceilings which are expected to squeeze bank profit margins and discourage lending in agricultural and other preferred areas of activity. The underlying assumptions behind the recent interest rate reforms were interest elasticity of savings and positive response of loan volume to higher interest rates while the basic objective was to build up the medium and long term capital market. The lending rate ceilings on supervised credit and the like were maintained to reduce the cost of borrowing of small farmers and other target clientele thereby increasing their chances of being economicallly viable and to encourage investment and production. Since the interest charged do not cover the higher costs and risks of lending to small borrowers, the government shores up the spread of financial institutions by rediscounting eligible note at rates much lower than the savings or time deposit rates.

Facts or Fallacies?

Capital is scarce especially in the developing countries, thus the rental price of capital which is equated with the interest rate should be high in order to ration capital efficiently and discourage

capital intensity. As the basic argument in the case for a higher interest rate policy, this posits a negative and significant relationship between interest rates and the level of capital stock. It can be shown, however, that the link between interest rate and capital is tenuous and the conclusions arising from the hypothesized relationship, misleading.

Firstly, the capital scarcity-argument cannot justify increasing interest rates in the organized financial markets and at the same time, lowering rates in the capital scarce unorganized markets. Secondly, based on the historical evidence on United Kingdom during the 1760s and the period 1832-1975 which were characterized by rapid capital accumulation, the real interest rate was stationary at around 3-3.5 per cent (J.R. Hicks 1967). If the interest rates have not declined with the increase in capital, then we can not expect the rates to be high in developing countries where the capital stock is low.

Another premise frequently banded around in connection with capital scarcity is that the rate of return to capital or the marginal productivity of capital is high in cases of capital scarcity and thus, the interest rate which reflects this rate of profit must be high. This assumption breaks down, however, in the face of evidence that shows that the rate of profit is not necessarily high in low capital situations. Khatkate compared the rates of return among developed and developing countries and found higher levels in capital rich countries such as the United States, Germany and Japan than in

capital starved countries of Columbia, Brazil and Argentina.[5/] He attributes the lower rate of profit to the lack of trained and skilled labor as well as to the low level of technology which are the ingredients to raising capital productivity. According to him, "For a development process to be in high gear, the interest rate which is the price of finance that fuels investment, cannot exceed, in the nature of things, the rate of return to capital. . . If the rate of return to capital is lower in the LDCs (less developed countries), the appropriate interest rate level must also be lower for these countries irrespective of whether they are capital-risk or capital-poor".

Finally, a related vein of thought proposes high interest rate to make capital relatively more expensive than other abundant factor inputs such as labor and its use in the production process, more sparing Again, this suffers from the schizophrenic view of equating the interest rate with the supply price of capital which influences factor proportions. It is also dubious whether changes in techniques can result from changes in factor prices considering the embodiment of technology in the capital goods and the narrowness of the choice of technology. Moreover, credit is fungible and loses its identity once in possession of the individual or the firm; thus, loan proceeds may

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[5/] Deena R. Khatkhate, "False Issues in the Debate on Interest Rate Policies in Less Developed Countries", International Monetary Fund Paper, October 1978, page 13.

either be used for hiring more laborers or for buying machinery regardless of the level of interest rates. Thus, the capital scarcity argument for a high interest rate policy is largely unfounded, derailing development policy prescriptions from their proper objective.

Higher rates on savings and time deposits will increase the level of savings. It is argued that depositors will postpone consumption in view of the higher returns to their savings. However, this view of the interest elasticity of savings is challenged both on theoretical and empirical grounds. The level and form of savings are the results of a two step sequential decision process. Firstly, the household decides on his consumption level leaving a residual called savings. Then, if there is positive savings, a choice is made among alternative forms of assets, whether physical or financial, looking at relative yields, liquidity and risk profiles, maturity patterns, and other related factors. Income was found to be the primary factor determining consumption, and hence the residual, savings. Theoretically, interest rate will exert a positive effect on savings if the substitution effect -- the effect of substituting future consumption for present consumption -- offsets the income effect. If the income effect is stronger, higher interest rates would even tend to lower the savings rate. Any meaningful emprical investigation into the saving-interest rate interaction would therefore have to separate these two effects and examine their interrelationship. This,however, is practically an impossible task considering that the income and substitution effects

are always intermingled. A conceptual problem also exists in delineating the supply of savings from investment, i.e., the demand for savings, because of the necessary equality of expost saving and investment and the interdependence of the saving and investment decisions in developing countries. Consequently, it is difficult to tell whether low savings propensities result from the supply side - for instance, preference of present to future consumption - or from depressed investment conditions indicated by a low rate of return to capital.

The empirical evidences available seem to indicate a negative or insignificant relationship between saving and real interest rates - Williamson (1968), Encarnacion (1979) and Mejia, 1979. The interest rate may have a more definitive influence on the form of savings, as shown in the studies of Robert Emery and Gilbert Brown (1973) on the Korean interest rate experience. The rise in savings was a shift in the form of saving from accumulation of consumer goods to accumulation of financial assets. Encarnacion also argued that the interest rate reform in Korea should be considered along with other policies and developments which tended to increase income. According to him, substantial loans at preferential rates were still extended in spite of the high nominal rates and there was a large inflow of cheap credit from abroad. Along with the high growth rate of the Korean economy, these factors all contributed to the growth of savings. "A priori", therefore, we cannot expect the interest rate to have a positive and determinate impact on the level of savings and this seems to be substantiated by

by statistical evidences available.

The interest rate has a strong and positive influence on loan supply. It is claimed that interest earnings comprise the bulk of the agricultural lenders' total revenues and thus, substantial increases in lending rates will induce a greater amount of loans. Definitely, the interest rate will have an impact on lender behaviour, but is this the critical variable that determines loan supply? To our minds, focussing on the interest rate as the most important variable in credit supply is quite simplistic and ignores the nuances of profit maximizing behavior and the essence of credit as a temporary use of money.

The lender will allocate his funds in order to realize the greatest amount of profits. He will, therefore, try to maximize his revenues, minimize his costs and increase his chances of collecting the loan principal and interest charges. If we decompose the lending rate into its primary elements - administrative costs, default risk, the cost of funds, and the profit margin, the crucial variable which determines the terms of lending is the transaction costs (i.e. the administrative costs plus the default risk). No matter how high the expected interest yield is from a financial transaction, if the costs are high and the probability of recovering the principal and earning the interests is practically nil, then the transaction is not worth it. Thus, a "security syndrome" exists in bank lending policies which sometimes determines the allocation of credit. The collaterals offered

for security often get first and priority attention in the decision to lend or not.

It can be seen that the supply of funds is influenced not merely by the interest rate but by the security, margin requirements, repayment terms, compensating balances, and other variables. The advocates of high interest rate policies are naive in assuming that loans will be forthcoming if you raise the interest rates high enough. The strategy is to reduce the transaction costs through financial innovations and by ensuring that the money will be returned with a certain profit, credit will be supplied.

Interest rate is the primary determinant of borrower behaviour. The price of credit, the interest rate, is considered the major factor affecting borrowing and thus since the interest rate is low, then borrowers will demand more funds than what the lenders will be willing to supply. In the same breath, critics of the low interest rate policy hold that "borrowers loan transaction costs are more important in determining loan demand among small and new borrowers than are interest rates".[6/] The inconsistency is quite obvious from these two statements - if the interest rate is not important, then loan

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6/ Dale W. Adams and Douglas H. Graham, "A Critique of Traditional Agricultural Credit Projects and Policies", Economics and Sociology Occasional Paper No. 621, June 20, 1980, page 13.

demand will not follow the movement of interest rates and it certainly can not be the cause of "excess demand".

In a study on the determinants of borrowing behavior conducted by Felicitas Evangelista, consumption expenditure was a significant explanatory variable of the borrowings of the farm household below a certain threshold level of income.[7] Above this threshold, the major determinant was capital expenditure The relationship between borrowings and interest rate was found to be insignificant. Thus, another, myth in the interest rate story explodes.

High rates of interest will allocate funds to their most efficient uses. The argument states that low rates of interest would make feasible investment projects with low rates of return, thus allocating inefficiently scarce loanable resources. Dale Adams illustrates that "if expected interest rates are negative, the borrower may realize an income transfer by taking a loan, investing the money in an asset that increases in value at the same pace as inflation and later liquidating the asset to repay the loan".[8]

This argument, however, confuses and equates the interest rate (monetary factor) with the rate of profit (real factor). It is

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[7] TBAC-UPBRF, "Financing Integrated Development in the Rural Community of farms on the Masagana 99", 1979.

[8] Dale W. Adams and Douglas H. Graham, Ibid, page 10.

the latter which allocates resources among competing uses, not the former. Each asset whether a consumption good, production good, inventories, cash, bank deposits, bonds, etc., has a specific rate of return. Cash, for instance, has an implicit rate of return in terms of its liquidity or convenience of transaction plus any increase in its purchasing power. A consumption good, such as food or clothing, gives the individual a certain degree of satisfaction which may be termed as a return on consumption. If production or investment goods are held, a quantifiable rate of return also accrues to the holder. Of course, various assets differ also in risk and liquidity characteristics. A tractor may yield high returns but it involves risks of breakdown, fuel, etc. and lacks liquidity because it can not be immediately resold at a reasonable price.

Firms and individuals with a given amount of funds will then allocate their funds according to the relative rates of return. Assets will tend to be held in combinations such that the marginal rates of return on all assets are equal and the differences among them would only reflect varying risk and liquidity features. Translating this theoretic frame to the agricultural scene, the farmer-borrower will channel his loan proceeds to the asset or project which yields the highest return. If he chooses to spend on food or medicine to sustain himself and his family rather than on fertilizer and pesticides, the reason is that the perceived rate of return on the consumption goods is higher than the expected yield from the producer goods. Or he may buy a televesion set hinted by the Adams' illustration which costs more at some future

time instead of using the funds for the intended productive purpose of the loan. The comparative returns, in the eyes of the farmer, favor the consumer durable rather than the productive purpose. This is rational behavior and does not have anything to do with whether the interest rates are high or low, positive or negative. In order to compete effectively with alternative uses of funds, the rate of profit from agricultural investments must be increased through better infrastructure, improved technology, marketing support and more reasonable input and product prices. The policy prescription of high or positive real interest rates is completely off tangent.

The key factor in developing the rural financial market is to adopt flexible nominal interest rates which change with inflation /Gonzalez-Vega, 1977, Vogel, 1977, D. Adams 1981/. The fragmentation of the rural financial market is traced to the low interest rate policy. Hence. with positive real rates of interest, these imperfections would be eliminated, saving and investment would be greater, lenders will participate actively in the rural and agricultural financing, borrowers will obtain the loans they need and repay promptly, and everybody would live happily ever after.

This fairy tale rests on theoretical abstract that is largely irrelevant for dealing with the dynamics of change. Its static framework allocates given resources on the basis of given supply demand schedules and a perfectly competitive market structure where behavioural patterns of the participants are adaptive i.e., prompt, rational and uniform for all the actors. What is needed,

V.V. Bhatt suggests, is a theory of economic evolution which focuses on "how and why supply and demand schedules and the market forms change and why behavior patterns of different actors are not the same and deal with the essence of competitive behavior - the powerful motivation to do better than the other in an environment in which the future is unknown".[9/]

The critics of the low interest rate policy use the same theoretical tool of a competitive market in analyzing the role of finance in economic development. A perfect capital market is assumed and if the resources do not flow where they should, the diagnosis is that the interest rate policy - the price policy - must be the problem. The solution is to remove these distortions caused by policy through the adoption of an interest rate which reflects the real scarcity of capital and presto - the market will function perfectly and resources would be allocated efficiently!

The "strawmen" of capital scarcity, competitive market model and the relationship of interest rate with savings, lending and borrowing behavior have all been struck down in the foregoing sections. Any theory which ignores innovations, creative responses to changes in the socio-economic environment, changes in organization and market forms, and competitive behavior such as the one advanced by the rural financial market "experts" loses all sense of reality and is ill equipped to

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9/ V. V. Bhatt, "Interest Rate, Transaction Costs and Financial Innovations", Domestic Finance Studies No. 47, page 2.

deal with basic problems of development.

A twist to the policy prescription of high interest rate policy has recently been made by introducing the element of inflation. Now, the magic word that determines the level of interest rates and influences saving, lending, borrowing and investment behavior is inflation -- not the opportunity cost of capital, or the equilibrium level of interest rates, or the rate of profit. The disciples of this line of thinking have completely misunderstood the monetary and real forces in operation in the economy. In the "general theory of the relative prices of (rates of return) different assets" suggested earlier the rate of inflation is merely one of the rates of return of a particular type of assets, e.g. consumption goods. At most, the rate of inflation will have a neutral impact on the various rates of return being assessed by a fundholder, converting the profit rates to real terms but certainly not "the" rate which would allocate funds to various assets.

The phenomenon of financial market fragmentation characterized by the coexistence of the informal market with high interest rates arises not because of the presence of interest rate ceilings in the formal market but because of different markets for differenct "products". Each financial transaction involves a unique relationship between a lender and a borrower over a period of time. Thus, the product is not homogeneous even though it is denominated in money and differs with the characteristics of the borrower and the lender. The critical determinant of the lending terms to each class of borrower is the

transaction cost - the administrative cost plus the default risk - and the fragmented capital market is due to varying transaction costs with different types of borrowers. We can therefore progressively integrate the separate markets through financial innovations that would reduce these transaction costs. The consequent decline in lending and borrowing costs will produce shifts in the supply-demand schedules for credit, widening and deepening the rural financial market.

Junk High Interest Rate Policy

The interest rate debate has become so involved and emotional that the critics of low and managed interest rate policies have even ascribed intentions to the policymakers of developing countries. According to them, the failure to adopt their policy prescription of positive real interest rates may be due to the slowness of mind and resistance to change of policymakers, that "it takes a good deal of time for policymakers to understand, accept, and adopt the ideas included in these new views (on the rural financial market)."10/ Another reason offered for the lack of change in interest rate policy is that this is being used as a political tool by graft ridden and corrupt officials to allocate patronage and "administrative profits". Still another explanation, a more charitable one, is advanced stating

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10/ Dale W. Adams, and Douglas H. Graham, Ibid pp 21-23

that policy-makers realize the wisdom of the policy change but are unable to do so because the present low interest rate policy offsets other distortions in the economic system that penalizes agriculture. Finally, they also admit the possiblity that they could be wrong but this is very remote, considering that "enough information is at hand and enough knowledgeable people agree on the results".

It is important at this point to assemble the various threads of argument on the interest rate controversy presented in this chapter. The sources of confusion in the debate is terminology - equating non-identical concepts with each other - and misleading economic rationale. Interest rate policies can not be based on capital scarcity and the effects of the interest rate on savings, lending and borrowing are at best ambiguous. The primary determinant of savings is income and interest rate may have a more definitive effect on the form of savings rather than on its level. The loan supply follows a profit maximizing pattern and is affected more significantly by transaction costs, security, margin requirements, repayment terms, and characteristics of the lender and borrower. Borrowing and investment behavior are determined essentially by the rate of return which is the variable that allocates funds efficiently.

From the ashes of the high interest rate policy, what is the Phoenix that will rise? We have to view the rural financial market through an entirely different set of lenses than that suggested by a static, perfectly competitive market. The crucial factor in integrating and developing the rural financial market is the reduction

of the administrative costs and default risk inherent in small farmer and rural credit through financial innovations. The creation of a financial intermediary, the bank, was an innovation and so are the Agricultural Guarantee Fund and the crop insurance scheme which were designed to lower the default risks in rice production loans. The Lead Bank concept in India is also a promising idea to pursue in the area of financial innovations.

Reducing transaction costs, however, is not enough. Even if we significantly lower the cost of lending from 30 per cent to 20 per cent, if the expected rate of profit in agricultural projects and investments is 15 per cent, there will be no inducement to borrow or to invest. In fact, the transaction costs are inversely correlated with the rate of return - administrative costs are high because of inadequate credit worthiness which is linked to low returns, and repayment problems are due to the low profitability of investment in the rural sector. The government efforts must be poured into improving the economic rate of return in the agriculture and rural sectors through agricultural research, basic infrastructure, education and training, marketing systems, fair and equitable prices, etc. Credit alone cannot raise the rate of return to agriculture and if the rate of profit can not be increased, credit will not make a difference.

Table 1

AVERAGE RATIOS OF AGRICULTURAL LOANS TO NET LOANABLE FUNDS OUTSTANDING AND TOTAL LOANS OUTSTANDING

Institution	Agricultural Loans/Net Loanable Funds Outstanding		Agricultural Loans/Total Loans Outstanding	
	Before PD 717 (1971-74)	After PD 717 (1976-79)	Before PD 717 (1971-74)	Before PD 71 (1976-79)
Rural Banks	1.15	1.0	.94	.91
Commercial Banks	0.25	0.29	.19	.28
Development Banks	0.22	0.20	.23	.22
Savings Bank	0.005	0.02	.05	.09

Source: Technical Board for Agricultural Credit, "An Evaluation of the Agricultural Credit Quota Policy"

Table 2

NET LOANABLE FUNDS GENERATED, AGRICULTURAL CREDIT QUOTA, COMPLIANCE TO THE QUOTA, AND DIRECT LENDING TO AGRARIAN REFORM BENEFICIARIES

(As of dates indicated, in ₱M)

Date	Net Loan-able Funds Generated	Estimated Agricultural Credit Quota			Volume of Compliance to Quota			Percentage Compliance to Quota			Direct Lending		
		25%	15%	10%	25%	15%	10%	25%	15%	10%	Volume	Share to Agrarian Reform Credit Reported	Share to Quota
ec. 1976	25,856.8	6,464.9	3,880.4	2,585.7	10,329.8	7,716.7	2,613.1	159.7	198.9	101.1	862.8	33.0	[illegible]
une 1977	23,076.2	5,769.1	3,461.5	2,307.6	7,691.7	5,264.1	2,427.6	133.3	152.1	105.1	280.7	11.5	[illegible]
ec. 1977	32,120.7	8,030.2	4,818.1	3,212.1	9,910.8	8,277.6	1,633.2	123.4	171.8	50.8	n.a.	n.a.	n.a.
une 1978	35,741.7	8,935.4	2,096.0	3,574.1	13,265.8	7,868.7	5,397.1	229.6	375.4	146.9	n.a.	n.a.	n.a.
ec. 1978	35,877.2	8,969.3	5,381.3	3,587.7	14,166.4	9,140.5	5,025.9	157.4	169.8	140.0	1,724.8	34.3	[illegible]
une 1979	42,400.8	10,600.2	6,360.2	4,240.1	14,040.6	8,727.0	5,313.6	132.4	137.2	125.3	1,869.2	35.2	[illegible]
ec. 1979	48,895.6	12,223.9	7,934.3	4,889.6	16,945.0	11,191.8	5,753.2	138.6	141.0	117.6	2,011.1	34.9	[illegible]
nnual Growth ate In Current Prices	23.6%	23.6%	23.6%	23.6%	17.9%	13.2%	30.1%	(13.2%)*(29.1%)*		16.3%	32.6%	5.8%*([illegible]	
In 1972 Prices	10.5%	10.5%	10.5%	10.5%	5.4%	1.2%	16.2%	-	-	-	18.5%	-	-

* Increase (decrease) from 1976 to 1979.

Source: Technical Board for Agricultural Credit, "Agricultural Creditrends" and Agricultural Credit Plan Appraisal Reports.

Table 3

PERCENTAGE SHARE OF "OTHERS" IN CLASSIFICATION OF AGRICULTURAL CREDIT IN COMPLIANCE TO THE QUOTA POLICY

	Commercial Banks	Development Banks	Savings Banks	Total
10% credit quota	37.4	29.4	64.3	36.7
15% remaining agricultural credit quota	17.9	19.5	74.8	20.7
TOTAL	22.4	20.1	74.7	23.5

Source: Technical Board for Agricultural Credit, "An Evaluation of the Agricultural Credit Quota Policy".

Table 4

AGRICULTURAL GUARANTEE FUND CONTRIBUTIONS
(As of Dec. 31, 1979)

Source	Amount Contributed (₱M)	Per Cent Contribution (%)
1. Rice and Corn Production and Coordinating Council (RCPCC)[1/]	20.8[2/]	15.1
2. Social Security System (SSS)	10.4	7.5
3. Government Service and Insurance System (GSIS)	11.9	8.6
4. Central Bank (CB)	41.0	29.7
5. U.S. Agency for International Development (USAID)	6.9	5.0
6. Budgetary appropriation under RA 6390	47.0	34.1
TOTAL	138.0	100.0

1/ Now the National Food and Agriculture Council (NFAC)

2/ Inclusive of interest earnings.

Source: Technical Board for Agricultural Credit, Agricultural Creditrends 1979.

Table 5

GUARANTEE OPERATIONS COVERING PRODUCTION LOANS
EXTENDED BY RBs AND PNB UNDER SUPERVISED CREDIT PROGRAMS
(As of December 31, 1979)
(Amounts in ₱ Million)

Program	Loans Granted 1/	Loans Guarantee	Per Cent of (1) to (2)	Per Cent To Total	Claims Paid	Recover Made
	(1)	(2)	(3)	(4)	(5)	(6)
M 99	4,137.0	2,891.1	70.0	89.1	81.83	24.3
M-Maisan	507.3	349.5	69.0	10.8	2.28	.5
Vetetable Financing	21.1	2.9	13.7	0.9	-	-
Cotton	8.4	1.3	15.5	a/	-	-
Small Fishermen	3.3	.4	12.1	a/	-	-
4th CB-IBRD Credit	236.2	.3	.1	2	-	-
TOTAL	4,913.3	3,245.5	66.0	100.0	84.11	24.9

1/ Loans granted under M-99 are as of February 1970 for RBs, as of April, 1980 for PNB. Loans granted under the other financing programs are as of December 31, 1979.

a/ Less than 1 per cent.

Source: Technical Board for Agricultural Credit, Agricultural Creditrends 1979.

Table 6a

EQUATIONS SHOWING THE NEGATIVE IMPACT OF ACCUMULATED LOAN DEFAULTS ON LOANS GRANTED BY RBs AND PNB TO M-99 FARMERS

a) RB Level

$$LG_t = 65.5295 - .2418\ D_t - 1 + 555.5485F_t$$

(12.27)* (24.64)* $R^2 = .9637$

b) PNB Level

$$LG_t = 86.5995 - .2585D_{t-1} + 477.8693F_t$$

(5.496)* (10.2161)* $R^2 = .9471$

LG_t = Loans granted to M-99 borrowers during the current phase, in ₱M;

D_{t-1} = Cumulative amount of uncollected M-99 loans as of the immediately preceding phase, in ₱M;

F_t = Number of M-99 farmer-applicants deemed by the bank as "good" credit risks, proxied by the number of M-99-borrowers during the current phase, in millions.

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* Values in parentheses are t-values indicating statistically significant regression coefficients at 1 per cent level.

Source: Technical Board for Agricultural Credit, "A Study on the Benefits and Costs of Masagana 99 Program", 1981.

Table 6b

ESTIMATED ADDITIONAL LOANABLE FUNDS SUSTAINED BY AGF
IN THE M-99 PROGRAM THROUGH CLAIMS PAYMENTS,
BASED ON EQUATIONS IN EXHIBIT 1
(Amounts in ₱M)

M-99 Phase	Rural Bank		PNB	
	Cumulative Loan Losses Coverd by Claim payments	Increment in M-99 Loans sustained by AGF a/	Cumulative Loan Losses Covered by Claim payments	Increment in M-99 Losses sustained by AGF b/
I & II	3.612	-	6.186	-
III	13.468	.87	15.100	1.60
IV	13.969	3.26	15.486	3.90
V	23.854	3.38	19.363	4.00
VI	26.846	5.77	21.745	5.00
VII	29.026	6.49	23.679	5.62
VIII	29.242	7.02	24.291	6.12
IX	33.199	7.07	29.409	6.28
X	33.858	8.03	30.092	7.60
XI	45.614	8.19	36.184	7.78
XII	45.64	111.03	36.187	9.35
		11.04		9.35
TOTAL		72.15		66.60

a/ (.2418) x (previous phase's cumulative loan losses), per Exhibit 1.

b/ (.2585) x (previous phase's cumulative loan losses), per Exhibit 1.

Source: Technical Board for Agricultural Credit, "Benefit Cost Analysis of the Agricultural Guarantee Fund Scheme", 1981.

Table 7

BENEFITS AND COSTS OF AGF, MACRO LEVEL[1/]
FOR THE PERIOD 1974-1979

	Amount (₱M)	Per Cent Contribution (%)
TOTAL BENEFITS	147.05	100.0
Earnings from interim investment	112.35	76.4
Guarantee fees, penalty and other charges	34.70	23.6
TOTAL COSTS	64.77	100.0
Cost of Protection	59.21	91.4
Claims payments	84.11	129.8
Less: Loan recoveries	24.90	38.4
Administrative Cost	5.56	8.6
NET BENEFITS	82.28	100.0
Annual Average	13.71	
Annual Average as Per Cent of Total Resources as of December 1979	9.93%	

1/ For the annual figures, see Annex Table 5.

Source: Technical Board for Agricultural Credit, "Benefit-Cost Analysis of the Agricultural Guarantee Fund Scheme", 1981

Table 8

SHARING OF DEFAULT RISK BURDEN IN M-99 AND M-MAISAN CREDIT PROGRAMS, 1974-1979

	Amounts (₱M)		In Per Cent of Loans Granted		Per Cent Contribution	
	RB	PNB	RB[a/]	PNB[a/]	RB	PNB
Total uncollected loans	338.6	507.9	15.25	20.95	100.0	100.0
Borne by AGF [b/]	34.03	25.18	1.53	1.04	10.0	5.0
Borne by Bank [c/]	304.57	482.72	13.72	19.91	90.0	95.0

a/ Total M-99 loans granted: RB = ₱2,065.9 million as of February, 1980; PNB = ₱2,071.1 as of April, 1980. Total M-Maisan loans granted as of December 31, 1979: RB = ₱154.2 million; PNB = ₱353.1 million.

b/ Claims payments net of loan recoveries from farmers.

c/ Includes the 15 per cent counterpart risk borne by banks under AGF and other loan defaults not covered by AGF either because of non-participation in AGF or because the nature of default is outside the AGF liability.

Source: Technical Board for Agricultural Credit, "Benefit-Cost Analysis of the Agricultural Guarantee Fund (AGF) Scheme," 1981.

Table 9

SIMULATED SHARING OF DEFAULT RISK BURDEN IN M-99 CREDIT PROGRAM UNDER CROP INSURANCE, 1974-1979

	Amounts (₱M)		In % of Loans Granted		Per Cent Contribution	
	RB	PNB	RB	PNB	RB	PNB
Total uncollected loans 1/	310.90	426.20	15.05	20.58	100.0	100.0
Borne by crop insurance 2/	112.18	46.37	5.43	2.24	36.1	10.9
Borne by Bank	198.72	379.83	9.62	18.34	63.9	89.1

1/ M-99 loans only. As of February 1980 for RBs; as of April 1980 for PNB.

2/ [(Guarantee payments/loans guarantee) x Amount of loans granted] / 1.85

Source: Technical Board for Agricultural Credit, "Benefit-Cost Analysis of the Agricultural Guarantee Fund (AGF) Scheme."

Table 10

SCHEDULE OF CHANGES IN CENTRAL BANK REDISCOUNT RATES,
MAXIMUM INTEREST RATES ON BANK LOANS,
AND SAVINGS AND TIME DEPOSITS
(Rate in % Per Annum)

Date	CB Cir./MAAB/ MB Resol. No.	CB Rediscount Rate	Bank Lending Rate a/	Bank Savings Deposit Rate	Bank Time Deposit Rat
1949 - August 4	MBR 164	1.5 b/			
December 29	MBR 317	3.0 b/			
1952 - August 7	MBR 491	2.0 b/			
August 14	RA 821		8.0 c/		
June 19	CB Cir. 32		8.0-12.0		
1954 - January 19	CB Cir. 75	1.5 b/			
1955 - September 9	RA 1403	0.5-1.5			
1956 - July 1	CB Cir. 67			2.0-2.5	2.0-3.5
July 31	CB Cir. 71			2.0-3.5	2.0-2.5
1957 - April 1	RA 378	0.5-2.0			
August 28	RA 1226	0.5-4.5			
October	CB Cir. 74			3.0-3.5	3.0-3.5
1959 - February 3	MAAB	0.5-5.0			
May 5	MAAB 1222		7.5-12.0		
1960 - March 21	CB Cir. 103				3.0-4.0
October 26	CB Cir. 112				4.0
November 21	MAAB	0.5-4.0			
1969 - May 5	MBR 719	0.5-3.0			
June 1	MAAB 1476		7.0-12.0		
1962 - January 8	MAAB	0.5-6.0			
June 1	MAAB	0.5-3.0			
1963 - March 27	CB Cir. 149			3.0-4.0	3.75-4.5
July 30	CB Cir. 157				3.5-4.5

a/ Excluding bank service and other charges.

b/ Basic rediscount rates for commercial banks only.

c/ Applicable to commercial banks only.

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