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Financial Innovation and Credit Market Development

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The function of a central bank is to promote financial innovations that enlarge the capital market by introducing new credit instruments, cultivating new markets, and introducing new institutional structures. The central bank's goal should be to reduce overall costs and risks on credit transactions.

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Marx, Shumpeter, Kuznets, and others have written about how technical innovations affect economic development, but little attention has been paid to how financial and fiscal innovations affect development.

Financial innovations tend to reduce transaction costs and risks — both subjective and objective — and thus to expand and integrate capital markets. Financial development accelerates the pace of economic development by encouraging savings and investment and increasing output.

Public or government intervention — through a government's central bank — is essential to a sound credit system.

A central bank in a developing country must have a development orientation. The single most important criterion of central bank effectiveness is the extent to which the bank's policies reduce overall costs and risk on credit transactions.

To perform its regulatory function effectively and to promote a sound, healthy financial or credit system, a central bank must have a degree of autonomy. Since 1965 this autonomy has been eroded in both the developed and the developing countries because of the impact of fiscal policy.

The result has been unstable credit and the international debt crisis, which already affect the development process and the functioning of international credit markets.

This is a background paper for the 1989 World Development Report. Copies area available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact the World Development Report office, room S13-060, extension 31393 (32 pages with tables).

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INTRODUCTION

The role of the introduction and diffusion of innovations in the process of economic development has been well recognized in the literature since the seminal works of Marx, Schumpeter, and Kuznets. However, little attention has been paid to the significance of social innovations - in particular, financial and fiscal innovations. Financial innovations tend to reduce transaction costs and risk - both subjective and objective - and as a result bring about widening, deepening, and integration of capital markets. Such financial development accelerates the pace of economic development through its favorable impact on saving, investment, and output.

The relationship between finance and development and the precise role of financial innovations are discussed in Section I, while Section II deals with the nature and characteristics of financial innovations. Section III examines the role of policy intervention in quickening the pace of financial development in the developing countries. The nature and characteristics of financial innovations, essential for financing small farm and nonfarm enterprises and for mobilizing resources from middle- and low-income groups in the developing countries, are illustrated by a case study of an innovative bank in Section IV. Some concluding observations are made in the final section.

I. FINANCE AND DEVELOPMENT

The pace and pattern of economic development are a function, as Adam Smith perceptively observed two centuries ago, of the sequential and circular relationship between the growth of (a) division of labor and (b) extent of the market for real goods and services.[1] The innovations of money and finance tend to increase the size and extent of exchange relationships or markets and thus promote division of labor. This increases returns to scale and technical change.

Money as a unit of account and medium of exchange reduces the transaction and search costs involved in barter transactions. Money as a store of value provides time for making purchase decisions, thus reducing the risk of ill-formed and hasty decisions.[2] Thus, through reduction of transaction costs and risk, money tends to enlarge the size of the market for real goods and services and hence the possibility of division of labor - the two interacting, mutually reinforcing forces that account for sustained economic development.

Just as money reduces transaction costs and risk for contemporary exchanges across space, credit or financial instruments reduce costs of transactions and risk for intertemporal exchanges of goods and services. It is thus that the existence of a credit or a capital market enlarges the market for real goods and services. The impact of money and capital markets on the market for real goods and services is similar to that of reduction of transport costs on trade or exchanges across space.

Unlike the market for real goods and services, credit or capital markets are

inherently imperfect in the sense that there is no certainty about the completion of a credit transaction. A credit transaction involves a relationship between a lender and a borrower in time (hence, in the context of uncertainty). A credit transaction is completed only when the borrower repays the amount borrowed, and there can be no certainty about this repayment.

First, there is the borrower's risk: the expected excess income required for repayment may or may not materialize. In addition, there is the lender's risk, which has two elements. One relates to the same risk facing the borrower, but the lender may have a different perception of it. The other element relates to the borrower's willingness to repay; even if he is able to repay, he may not. Both the lender's and the borrower's expectations with regard to the outcome in time - their perceptions of the riskiness of their ventures - are subjective, based as they are on the data and information available to each one of them and each one's ability to interpret them.[3]

Note that one part of the risk is double counted. The borrower has a certain perception of the risk he faces with regard to, say, his investment project. The lender, too, takes into account the same risk about which he may have a different perception or expectation. If the borrower's subjective risk premium is r_1, the lender's risk or risk premium is $r_1 + ar_1$ (as the lender is likely to be more conservative in his expectations than the borrower) plus r_2, his subjective risk with regard to the borrower's willingness to repay - the moral hazard problem.[4] The total risk premium, thus, would be

$$r_1 + ar_1 + ar_1 + r_2.$$

This means that the borrower's expected rate of return or profit, p, on his investment should exceed the pure interest cost, i, by this magnitude, that is, $r_1 (a + 1) + r_2$ plus t_l (lender's transaction costs) and t_b (borrower's transaction costs). For a credit transaction to take place the following condition should be satisfied:

$$p > r_1 (a + 1) + r_2 + (t_l + t_b) + i.$$

Credit or capital markets come into being and evolve as a result of financial innovations that tend to reduce the total of r (representing $r_1 (a + 1) + r_2$) and of transactions costs (representing $t_l + t_b$) to a level that is mutually acceptable to both lenders and borrowers. The evolving nature and characteristics of these markets, the dealers and the other participants, and the credit or financial instruments are crucially shaped by the financial innovations that are feasible in a given socioeconomic context.

Financial innovations tend to reduce the lender's subjective risk to an extent much greater than they tend to increase transaction costs of lending and borrowing. Risk, of course, can be reduced with better and more accurate information, but this would involve an increase in transaction costs to the lender, to the borrower, or to both. Hence, to be effective, an innovation should have a risk-reducing effect much greater than its cost-increasing effect.

II. FINANCIAL INNOVATIONS

The evolution and integration of capital markets through the introduction and diffusion of financial innovations are not possible without some occupational specialization in the field of credit and finance. Dealers and intermediaries are significant. Isolated and individualized financial transactions (lending and borrowing) among households and firms are quite important in certain sectors of the economy like agriculture and small enterprises, but for capital markets to evolve, it is essential to have dealers who specialize in financial claims or instruments.

A dealer need not be an intermediary; he need not borrow in order to lend. Even for a financial intermediary, his lending activity is crucial because his ability to borrow depends on the quality of his lending. A credit contract is completed only when the borrower repays his debt to the dealer in terms of the original contract. Hence, it is the lender's subjective risk and the innovations that reduce this risk that assume critical significance. What, then, are the nature and characteristics of such innovations?

Nature and Characteristics

The degree of subjective risk depends on how well a lender knows the prospective borrower and can evaluate the borrower's ability and willingness to repay. Of course, the lender can demand information from the borrower and appraise it, but such information may be costly to collect and may not even be reliable.

The innovation of a personal guarantee reduces risk without at the same time increasing transaction costs. Such a guarantee generally must be by a person or firm who has a well-known history and business reputation for financial integrity, considerable assets, and a business that enables him to judge the character and nature of the prospective borrower. A well-established trader giving a personal guarantee for another trader, not known to the lender, illustrates the nature of this innovation. It is thus that a dealer's market expands.

This device of a personal guarantee becomes feasible only when the market participants adhere to a common code of business ethics; violation of this code leads to moral reprobation and excommunication from the market. Such a code and sanctions also provide the logic for the innovation of all types of cooperative credit arrangements among relatively homogeneous groups, who may not be considered creditworthy by other dealers and intermediaries. Lending by a dealer to individuals forming a homogeneous and cohesive group against individual as well as collective guarantees also belongs to this class of innovations.[5]

The innovation of short-term credit that is renewed or rolled over (provided repayments are made regularly and in time) is a very economical and effective way to select reliable and dependable borrowers or to avoid the risk relating to adverse selection. Short-term loans for working capital or liquidity requirements have this rationale; a regular borrower, who borrows as well as

repays in time and who has the need to borrow at regular intervals for a known remunerative purpose, poses much less risk than does a new borrower without previous history. The loan size in these cases is a function of the degree of the lender's knowledge of the borrower; what might appear as credit rationing is merely a device for reducing risk to acceptable levels.

The innovation of interlinking credit transactions with trade transactions enables a trader to avoid the moral hazard problem. If a farmer regularly sells his output through a trader, the latter can deduct the principal and interest relating to his loan to the farmer from the sale proceeds due to the farmer. This interlinking of credit and goods markets to reduce the lender's risk is the device used by all types of cooperative credit and marketing societies. On the same principle, a landlord can provide credit to an agricultural laborer or tenant by interlinking credit market with the labor market.[6]

Short-term lending against personal or collective guarantees and/or to dependable and reliable borrowers is possible only when the dealers/lenders have fairly personal knowledge and information about the borrowers and their occupations and assets. But the market for loans based on such personal contacts and on moral or social sanctions is limited. For enlarging and expanding the market, some objective substitute for personal guarantees (formal or informal) becomes essential - a substitute that can have a legal sanction. This is the logic of the innovation of collateral or security, comprising real or financial assets.

If the borrower deals in or possesses goods/assets that are easily marketable without much risk of capital loss, the loan size could be made a function of the value of such assets. The risk of capital loss can be reduced by having a loan size that is smaller than the market value of such assets, thus forcing the borrower to use his own money to finance this margin. This security-cum-equity type of innovation reduces the lender's subjective risk in two ways. First, the risk arising from the possible unwillingness of the borrower to repay virtually disappears. Second, the risk relating to the borrower's ability to pay is reduced as the borrower, because of his equity stake, is induced to manage his business as efficiently as he can.

This innovation, along with the innovation of credit money, create conditions for the emergence of a bank with the capacity to create credit and thus to enlarge its scale of operations and take advantage of economies of scale, which tend to reduce transaction costs of both the bank as well as its borrowers. Further, the bank can reduce risk in a number of ways. With economies of scale, it can specialize in and standardize certain types of financial transactions and thus reduce risk through better expertise. Its scale enables it to pool and spread risks (the "Law of Large Numbers"), which is the basis of insurance.

The security-cum-equity type of innovation also creates the conditions for the emergence of securities markets - markets for financial instruments like all types of bills, bonds, and shares. This innovation of securities markets reduces transaction costs for both lenders and borrowers. The lender's risk is reduced because of the information provided by the market dealers and brokers to the lenders and the negotiability and marketability of securities of all types. The borrower's risk is reduced as a result of the innovation of the joint

stock company with limited liability.

Where such securities markets do not evolve because of specific economic conditions, there emerges the innovation of a universal bank.[7] A universal bank finances both short-term and long-term credit requirements specifically of industrial enterprises. The lender's risk with this innovation is reduced because of the security or collateral provision and also because of the active involvement of the universal bank in the entrepreneurial-managerial decisions of enterprises through its representation on the supervisory boards of these enterprises.[8]

This management role of the bank has the same effect in reducing the lender's risk as has the equity type of innovation. The innovation of the universal bank leads to the evolution of refined techniques of cash flow analysis[9] and project evaluation. These techniques reduce the subjective risk of the lender by enabling him to make a reasonably accurate assessment of risk relating to the ability to pay of the borrowing enterprise.

It is somewhat difficult for one type of dealer to finance the acquisition of, and take as security, assets with which that type is not familiar. Hence, each class of dealers tends to specialize in one type of assets and thus in dealing with one class of borrowers; its technology for transactions and risk appraisal is in tune with this type of assets and the class of borrowers. It would increase both transaction costs and risk for a dealer with a technology suited for one type of transaction to undertake a different type, unrelated to the one in which he has specialized.

For example, a commercial bank that over time has acquired a technology for financing medium-large firms in industry and trade could not finance agriculture or small enterprises without first acquiring a new type of technology suited to these transactions. Informal market dealers have a technology suited for financing small enterprises of all types, and if a commercial bank wants to expand its business in this type of transactions, it would be more economical and effective for it to lend to informal market dealers than to lend directly to the primary borrower.[10]

A given technology is related to a certain class of transactions, comprising certain financial instruments, a certain class of borrowers, and certain assets as security. Dealers who have acquired certain technology/expertise for historical reasons would find it more economical to undertake transactions related to their technology than to venture into fields that require a different type of technology. To deal with a different class of borrowers with different assets requiring financing and as security, therefore, is a function of a new type of dealer. Innovations that expand and deepen the scope of the capital markets are generally introduced by new entrepreneurs and a new type of dealer whose technology and expertise, as well as financial instruments, differ from those of the existing dealers. It is thus that new markets evolve.[11]

Since financial innovations lead to a variety of specialized dealers and markets, they create a diversity of financial instruments, each of them with unique characteristics and features. This diversity of financial products enables primary savers/borrowers to make a choice among instruments that is

better suited to their special requirements. Such diversity stimulates saving in the form of financial assets as well as borrowing that promotes a more efficient allocation and use of resources that can be invested Further, the competition for mobilizing financial resources from the primary savers among this array of specialized dealers tends to integrate the various financial markets.

Once the markets in specialized credit instruments evolve, a large intermediary - commercial or investment bank - can take advantage of economies of specialization along with economies of scale and scope.[12] Thus, this intermediary can deal in all types of credit or financial instruments, leading to the emergence after 1960 of so-called department store banking.[13] Because of technological externalities, interrelationship among markets for various credit instruments, and technological revolution in the field of information gathering, processing, and transmission, this innovation tends to reduce transaction costs for both lenders and borrowers, and to reduce the lender's risk.[14] Commercial and investment banking tend to merge with each other, and loans and securities become close substitutes, giving rise to so-called securitization of loans and as a result financial innovations like note issuance facilities, currency and interest rate Swaps, options and futures.[15] (This is happening, for example, in the Euro-dollar market as well as in the credit markets of the United States.) All these innovations relate largely to global markets; separate institutions dealing in specialized credit or financial instruments particularly in local and national markets have their own distinct niches and are important for cultivating and nurturing new markets.[16]

Preconditions

What, then, are the preconditions for the emergence of such financial innovations, whose nature and characteristics have been described?

First, innovations require trust and confidence among the market participants. This general climate is reinforced by an effective and enforceable legal framework. If lenders and borrowers have to resort to legal safeguards for the greater part of their dealings, the transaction costs would be prohibitive. Without enforceable legal sanctions, the degree of risk in financial transactions would be inordinately high.

Second, there must be monetary stability. The uncertainty inherent in all credit transactions would be accentuated without some degree of monetary stability. Without it, the subjective risk of the market participants would increase and their confidence in the market would be shaken.

Finally, there should be no legal or customary obstacle to experimentation and innovation, particularly with regard to informal credit markets. Established formal dealers are reluctant to change over from one type of technology/expertise to another. To them, the subjective risk as well as transaction costs for the new untried technology appear much higher than those relating to existing technology.

Since informal market dealers operate largely on the basis of personal

information and knowledge, they are in a much better position to identify new opportunities for financial transactions (that is, new markets requiring new products and processes). Moreover, their transaction costs and risk for such experimentation are relatively low. With the growth and expansion of the formal markets, the informal dealers have a certain compulsion to innovate. Quite often new markets with new innovative products are created and nurtured by the informal market dealers. Once these new markets grow to a certain size, the formal markets with their scale economies are in a position to introduce the new products and thus compete effectively with the informal markets. This vital role of the informal markets in identifying new opportunities for financial transactions and in introducing innovations for creating and nurturing new markets is little appreciated in the literature as well as by the policymakers.[17]

The innovative ability of the informal capital market is demonstrated at an international level by the functioning of the Euro-Dollar market. This Euro-market is quite similar to the informal credit markets in several developing countries--the markets that are out of reach of the national regulatory agencies. The former is relevant for large participants--large corporations, public entities and sovereign governments--, while the latter for small enterprises of all types. However, both the markets are characterized by relatively low transaction costs for borrowers partly because of this freedom from regulation.

This Euro-market has introduced several innovations or new financial instruments, that have widened the choice with regard to instruments for both savers/investors and borrowers; investors now can choose instruments with characteristics (relating to yield, liquidity, risk and transaction costs), that they prefer and similarly borrowers too have a wider choice with regard to instruments with different cost-risk combinations.

The major innovations introduced in this market tried to deal with the risks arising from the volatility of interest rates and exchange rates, resulting from the breakdown after 1973 of the Brettonwoods system of fixed exchange rates and the structural payment imbalances among the developed countries; these are also the innovations which are relevant for the developing countries that are creditworthy.

The most interesting innovation is the development of the swap market in both currency and interest rate swaps. This has been the most radical or revolutionary innovation that has been introduced in the international market in recent years, as it tends to reduce the risk to borrowers arising from the uncertainties relating to interest rate and exchange rate changes.

III. ROLE OF PUBLIC POLICY

Innovations are generally spontaneous, but they can be induced by policy intervention. Innovations induced by policy intervention are of two types: one is cost and risk reducing, while the other relates to overcoming and offsetting the negative impact of general policy and is cost and risk increasing.

Cost-Risk Increasing Intervention

Interest rate ceilings and credit allocation quotas (for example, those prescribed for commercial banks by central bank/government authorities with a view to enlarging the flow of credit to small enterprises of all types, including those in the agricultural sector) are self-defeating and, in fact, raise the cost of credit to the very sector that the government intends to support.[18] Since the transaction costs and risk for dealing with small enterprises are higher for the banks than those for medium-large enterprises in the trade-industry sectors, the banks either would not lend to the small sector or forestall the government directives by passing on a greater part of their costs and risks to the small sector through noninterest charges of various types.[19] If the banks did literally implement government directives, their financial viability would be adversely affected, and this would endanger the health of the financial system, resulting in undesirable consequences for economic development generally and for development of the small sector in particular. Anyway, it is simply meaningless to fix the price as well as the quantity; this would lead to credit rationing and queues and thus considerable scope for corruption.

Arbitrary interest rate ceilings on lending by the banks lead to low interest rates on deposits, and this has the effect of diverting private saving into commodities or private lending - both of which adversely affect the evolution of financial markets.

Another instance of negative policy intervention is the variety of restrictions placed on the functioning of the informal credit market. This market actually mobilizes resources from and purveys credit to sectors that are generally not within the purview of the formal market. Restrictions of its activity, therefore, either raise costs of credit or block credit to these sectors. Furthermore, the resources that this market mobilizes may be diverted to commodity hoarding and speculation.

Cost-Risk Reducing Intervention

There are, however, types of intervention that have an impact similar to financial innovations or that may induce such innovations. For example, deposit insurance would reduce the subjective risk of primary savers and thus may increase the rate of financial saving. Viable credit guarantee schemes for agriculture and small enterprises may reduce the subjective risk of the dealers and may induce them to lend to these sectors. A deliberate policy of well-designed extension (through branch expansion) of the banking system along with credit allocation quotas and some fixed sum subsidy may induce banks to change their agenda and technology so as to reduce the overall transaction costs and risk to both lenders and borrowers. Effective and self-supporting crop insurance schemes may reduce the risk of lending to the farm sector and also may result in resource mobilization greater than would otherwise occur. Improving the access of farmers and small enterprises to financial and technical consultancy services can raise their productivity, thus reducing the risk of lending.[20]

By exempting saving in the form of financial assets from taxable income, the real rates of return on financial saving can be raised and thus the rate of

financial saving could increase.[21] A fixed sum subsidy to, say, a commercial bank to cover the initial fixed cost of acquiring financial technology required for effective and economical lending to small enterprises, or to open a branch in an unbanked area, can make it possible for the bank to introduce financial instruments suited to the needs of the potential depositors and borrowers.[22]

Thus, the impact of policy intervention on the capital markets should be judged on the basis of this simple criterion: does it reduce overall transaction costs and risk associated with financial transactions. If it does not have this cost-risk reducing effect, it would harm rather than help the evolution and integration of capital markets.[23]

The financial innovations essential for effective and viable financing of small enterprises (including small farms) and for mobilizing resources from small savers are illustrated by the following case study of an innovative commercial bank - the Syndicate Bank.

IV. THE SYNDICATE EXPERIENCE

Till 1969, the large city-based banks in India concentrated on financing large industry and trade in the urban areas. Their transaction costs for these markets were quite low - well within the range of 1.5 to 2 percent, which Keynes indicated many years back as the level below which interest rates cannot fall.[24] They did not enter the field of small-medium enterprises in the farm and nonfarm sectors. In these markets, their transaction costs would have been very high, and at the terms on which they could have lent, it was not possible to widen and deepen these markets.

It was difficult for a new bank to compete with these city banks in their markets. It had to enter a new field - a noncompetitive field - and this related to small-medium enterprises. This objective opportunity was there, but to seize it required an innovative approach to banking - introduction of new products and processes to reduce transaction costs. And this is precisely what the Syndicate Bank did since its origin in 1925.[25]

Characteristics of the Syndicate

The Syndicate Bank was located in the small town of Manipal, India (the only bank with a head office in a rural area), and started with an initial paid-up capital of only 8,000 rupees. Its growth has been remarkable. From a negligible share in banking business till 1950, its share rose to about 1 percent in 1960 and 4 percent in 1975. Still, it was unlike the city-based banks particularly till 1969, when it was nationalized along with the thirteen major banks. In 1968, 32 percent of its branches were in rural areas; for the entire banking system, the share of rural branches was only 22 percent. Its loans to agriculture and small enterprises constituted 30 percent of its total loans; for the other banks, such loans were less than 8 percent of their total loans. Ninety percent of its deposit accounts were small accounts (below Rs. 1,500) accounting for 50 percent of its deposits; and 50 percent of its borrowing accounts related to small-medium enterprises, their share in total borrowing

being 30 percent.

Its average interest rate on loans was not much higher than that of the city banks; in the 1950s and 1960s, it was about 2 percentage points higher than that of the State Bank of India - the largest commercial bank. Since the early 1970s, the rate has been more or less the same as that charged by the major city banks.

How did it, then, manage to grow so rapidly, even with concentration on markets that the city banks found to be unremunerative? Obviously, its transaction costs must have been comparable to the costs of lending to large industry and trade by the city banks.

Transaction Costs and Functional Cost Structure

Complete data on the cost structure of the city banks are not available. However, the data on establishment expenses are available; establishment expenses include a large part of administrative costs but do not include default risk (bad debt provision). The ratio of establishment expenses to total deposits for the Syndicate was slightly higher than that for the banking system in 1951 and 1961. Since then this ratio has been somewhat lower for the Syndicate than that for the banking system. Quite surprisingly, the Syndicate ratio is comparable to that of the insured commercial banks in the United States.

Much more interesting, however, would be the comparison of the functional cost structure of the Syndicate with the other city banks, who have been financing small-medium enterprises particularly since 1969. However, such data are not available for any bank in any country. Even for the Syndicate, such data could be obtained only for 1975; they were compiled by the Syndicate especially for our purposes. One other major commercial bank located in Bombay could give us these data again only for 1975.

The overall transaction costs of the city bank are lower than those for the Syndicate. This was to be expected since this city bank's lending to small enterprises constitutes only 25 to 30 percent of its total lending, while the share of small enterprise lending in the total for the Syndicate is about 40 percent. However, the city bank's costs are more than three times those of the Syndicate for lending to agriculture and small enterprises.

For deposit mobilization, the Syndicate's administrative costs are much lower than those of the city bank. The interest costs of deposits are somewhat lower for the city bank as demand deposits constitute a much higher proportion of its total deposits.

But how has the Syndicate been able to service a large number of small accounts - deposit as well as borrowing accounts - and thus provide credit to the small enterprises at a cost that is much below that of the city banks? Briefly, the answer is an innovative approach to banking. The creative adaptation of the banking technology to suit local conditions seems to explain

this phenomenon.

Factors Accounting for Low Transaction Costs

New Entrepreneurs. This new style of banking was possible because of the characteristics of the leaders.[26] The promoters came from a lower-middle class background; they belonged to a community that respects learning. None of them came from an industrial house. The city banks were started by promoters who had close links with large industry. Of the three promoters, one was a medical doctor, one an engineer, and the third a trader dealing in hand-loom cloth.

All of them were participants in the movement of socioeconomic reform initiated by Mahatma Ghandi. They wanted to improve the socioeconomic status of the community and the region to which they belonged. Hard work, education, and thrift - these they considered crucial for socioeconomic reform. They had not only a passion for reform but also a hard-headed business sense. They considered banking as an instrument for the purpose; to serve as an effective instrument, it had to be viable and gain vitality for growth.

They were responsible for establishing a school in each village in their district and an education complex, a type of university center at their village of Manipal. The bank management helped the process, but at the same time it was conscious of the deposit potential of these institutions. The bank provided employment opportunities for the educated members of the local community. This helped in terms of having a dependable and dedicated staff. The bank helped the farmers and small enterprises by providing technical assistance; but such assistance enlarged their business. The bank cultivated the habit of thrift in the community through a new deposit scheme called pigmy deposit, but this enlarged the bank's resources.

Recruitment and Promotion Policies. The major factor responsible for the relatively high productivity of the staff has been the Syndicate Bank's recruitment policy.[27] Relatively unsophisticated persons with local contact and rural or semi-urban background are selected. Unlike the city banks, the Syndicate Bank has preferred high school graduates to graduates or post-graduates from a university. Their familiarity with the local scene and their contacts enable them to expand Syndicate business in a variety of ways; they inspire confidence in potential depositors, and they are able to appraise well the soundness of projects and the creditworthiness of borrowers and to assess the business potential of the area in which they function. The information costs thus are reduced; persons without this background would have to collect more information and spend more effort and time in appraising the soundness of borrowers and their schemes.

Since they are high school graduates, they enter the banking business at a fairly young age and thus are more adaptable. Again, since they would not have gotten such a job in the city banks, they consider themselves fortunate and hence are more dedicated, dependable, and disciplined than the graduates. They are prepared to do considerable field work, which is essential for attracting, maintaining, and supervising small accounts. And, of course, their pay scales are lower than those for the graduates in the city banks. The Syndicate average

salary per employee even now is 20 to 30 percent lower than that in the city banks. And the staff's academic qualifications are adequate for the banking business. Persons with university degrees are overqualified for many bank jobs. From the point of view of the institution, such persons are less adaptable, more ambitious, and less disciplined than those who have completed high school.

The promotion policy of the bank builds staff morale and attempts to avoid discontent and demoralization. Somewhat on the Japanese style, a person is promoted in terms of salary and grade on the basis of seniority, provided there are no consecutive adverse reports on his efficiency. But such a promotion does not mean that he would get a more responsible functional assignment. Seniority promotion in a salary grade is divorced from functional promotion. Responsible positions are assigned to bright persons without affecting adversely the salary promotion of others and without affecting favorably their own salary grades. Functional promotion thus is a type of reward for the really deserving; he wins recognition for his worth. The others are not discontented since their salary promotions are not affected.

This divorce of functional promotion from seniority promotion in a salary grade helps the bank in selecting persons for senior management positions. For the top few jobs, which are on a pure selection basis, the bank has a choice from among the persons who are really competent -those who are promoted to a higher function.

Another characteristic of the bank's recruitment policy is worth noting. When feasible, the bank recruits married couples. These couples have proved to be more stable, reliable, and dedicated than other employees.

This recruitment and promotion policy is reflected in the productivity of the Syndicate employees. The deposit accounts handled per employee are 287 for the Syndicate, while they are only 120 for the banking system as a whole. Again, the borrowing accounts per employee are forty-eight for the Syndicate and only fourteen for the banking system. The Syndicate's productivity differential compared with the city banks' would be much greater than what these figures indicate for the comparison is with the <u>average</u> for the banking system as a whole. If the wage differential is considered along with the physical productivity differential, the productivity differential in financial terms would be much more significant than the physical productivity differential.

<u>Technical Assistance.</u> The bank provides technical assistance to farmers as well as to small industrialists. It has a special staff for this purpose. The farm representatives are a special cadre of young officers recruited from the agricultural universities and specially trained for the banking business. Similarly, for the small industry sector, the bank has a cadre of industrial engineers and technicians.

Each one of these officers looks after about five to ten branches depending upon local conditions. The bank's policy of opening branches in clusters in a given region helps it to spread the costs of these special cadres over a number of geographically contiguous branches.

The technical assistance provided helps the borrowers; at the same time it

enlarges the bank's business and reduces its risk. These special cadres are able to appraise credit proposals in the field. Their periodic field visits also provide an effective machinery for supervision as well as recovery of loans.

Decentralized Decisionmaking and Avoidance of Paper Work. The volume of work involved cannot be effectively handled without decentralized decisionmaking. The loans to farmers and small enterprises are sanctioned by the branch managers with the advice of the technical cadre; there is no reference to the head office, and thus the head office costs for such loans are negligible.

The emphasis is on field work not desk work. Local decisionmaking and initiative are valued. The branch and the branch manager are judged on the volume of deposits and the magnitude of loans and their recovery. The bank thus exercises the utmost economy in the sphere of documenting information and its transmittal to the head office. Such reporting procedures would increase costs and divert the attention of the branch manager from banking business to collecting and documenting information, which is hardly relevant for decisionmaking either at the branch or at the head office.

Since nationalization in 1969, information costs have increased because of the directives and requirements of the Reserve Bank of India. The management is attempting, however, to keep them within limits. The central banks and the international banks do have a craze for information and demand such information from the intermediary and final lending agencies - a type of information that may be enlightening for researchers but is irrelevant for real decisionmaking; they still have to realize that there are costs involved - sometimes as large as 1 to 2 percent of the loan portfolio. Instead of reducing transaction costs, they raise them.[28]

Innovative Deposit Schemes. The bank has introduced a variety of innovative deposit schemes linked to motives to save. One recent example is the Farmers' Protection Deposit Scheme. In times of dire necessity arising out of crop failure, the farmer is eligible for a loan equal to double the amount of deposits outstanding in his account. This deposit earns interest at 5 percent per year, and the loan is at a concessional rate of 9 percent per year - repayable over a period of three years. The small farmer does not save normally in the form of a financial asset; interest rate on deposits is not much of an attraction to him, particularly when his transaction costs are high. But he can be induced to save in the form of a deposit if it is linked with borrowing at a time of crop failure. In the absence of crop insurance, this is the type of saving that the farmers need.[29]

This principle of linking deposits with lending for a specific purpose has been applied by the bank in several cases. A farmer, for example, would get a loan for the purchase of a pump set if he has accumulated 25 percent of the cost as fixed or saving deposits. A small industrialist gets a loan for machinery purchase if he accumulates more than 20 percent of the cost as deposits. Such schemes help the bank to mobilize deposits as well as to judge the seriousness of purpose of the borrower. Because of the assurance of a loan, the borrower has inducement to save. Without such assurance in many cases there would not be saving enough for investment, and hence there would be a strong temptation

to use up the funds for financing emergencies or social expenditures.

The bank is particularly known for its Pigmy Deposit, a scheme introduced in 1928 as part of its crusade to inculcate the habit of thrift among relatively poor people. The promoters regarded the Pigmy Deposit as a business opportunity. This opportunity was not seized by the other banks because of the transaction costs involved in collecting small deposits from a large number of relatively uneducated and poor customers.

The scheme, however, proved to be financially profitable for the Syndicate and attractive to the depositors. The principle of the scheme was simple: door-to-door collection of a given amount of deposits (as low as 25 paise) at stated intervals. It was thought that many people - workers, petty shopkeepers, vegetable vendors, hawkers, small traders - could save these small amounts per day or week or month. But they do not have time to go to a bank and deposit this amount regularly. This potential saving was not realized since the poor had no semicontractual obligation to accumulate. With agents appointed to collect such deposits, this saving capacity and inclination can be tapped.

And thus the Syndicate introduced this Pigmy Deposit to be collected periodically from the doorsteps of the saver. The commission rate was linked with the amount of deposits collected, and it has not exceeded 3 percent per year. The interest was 3.13 percent per year if the saver did not withdraw from the scheme for seven years. A depositor saving 0.12 rupees daily could accumulate at the end of the seventh year Rs. 350. Within this period, the saver could borrow from the bank against the security of his deposit.

Such was the original scheme. Its specific features have varied since 1969, but the broad principle remains the same.

On an average, the total cost to the bank of this long-term deposit has varied between 3 and 5 percent per year - significantly lower than the cost of a three- to five-year fixed deposit. Even in 1975, the total cost was only 5.52 percent compared with the cost of fixed deposits at 13 percent.

The bank thus seized a business opportunity without competition from the other banks until 1960. The Pigmy Deposits constituted 14 to 15 percent of total deposits in 1946; this proportion rose to 21 percent in 1960. Since then, its relative significance has declined with the faster growth of the other deposits and competition from the other banks. But even in 1975 these deposits constituted 7 to 8 percent of total deposits. In absolute terms, these Pigmy Deposits are currently more than ten times their amount in 1960.

Such a deposit enabled the saver in seven years to accumulate a fairly sizable sum. Without this facility, he probably would not have saved or saved less. His motivation to save has been to accumulate for an emergency or other anticipated expenditures rather than to earn interest. The deposit thus has been linked with this type of motive among the relatively poor.[30]

Even the commission paid to the agents has not been a net loss to the bank. The agent must keep a security deposit with the bank equal to 10 percent of his commission. This minimizes the danger of the agent disappearing with his

collection.

Central Bank Response to Syndicate Innovations

The Central Bank - Reserve Bank of India - also has been innovative.[31] But with regard to the unconventional practices of the Syndicate, it took a negative attitude. Up until 1965 the Syndicate was considered an unsophisticated, rural bank, and the Central Bank did not like some of its innovations. Central regulatory agencies -particularly when they try to imitate rather than adapt the technology of a developed country - can come in the way of creative adaptation of modern techno' gy.

Wi' ı regard to the Pigmy Deposits, the Syndicate permitted its own employees to wo ı as agents during their spare time. For the bank this was one of the ways of reducing its wage costs and increasing its business; for the employee, it was an incentive to earn more. But in 1962, the Central Bank found this practice to be objectionable on strict banking principles and prohibited the Syndicate from engaging its own employees as agents.

The Syndicate wanted to set up an agricultural demonstration farm in 1964 to enable it to promote the adoption of new high-yielding seeds by the farmers. The Central Bank considered such a venture in technical assistance inconsistent with healthy banking practices. Hence, the Syndicate had to think of other ways. It induced the progressive farmers to set up a voluntary organization called the Syndicate Agricultural Foundation. The bank provides financial assistance to the foundation through annual grants.

In 1960, the bank pioneered a unique investment service through its Investors' Agency Department. This service enabled middle-income savers to invest in shares of reputable companies. The persons joining the scheme were ensured a return of 9 to 10 percent per year on their saving; the bank, in turn, invested these sums in shares. This scheme became very popular with middle-income groups in semi-urban areas--persons who were not familiar with the stock market. It was a precursor to the Unit Trust of India sponsored by the Central Bank in 1964. The following year the Syndicate's investment service ended because the Central Bank thought it could compete with the Unit Trust of India.

Since nationalization of fourteen major banks in 1969, the Central Bank has induced the banks to expand their branches in rural areas so as to provide credit to small enterprises in both the farm and nonfarm sectors. With this emphasis on the widening and deepening of the geographical and functional scope of the banking system, the Syndicate has recently been regarded by the Central Bank as a model bank.

V. CONCLUSION

Credit or finance is one of the strategic factors that determine the pace

and pattern of socioeconomic development. It facilitiates as well as stimulates the development process.[32] Thus, the credit or financial system has what economists call externality. Public or government intervention is essential to promote and develop a sound credit system. The public agency that must perform this function is obviously the central bank, which has to act as a leader, promoter, coordinator, and regulator of the entire financial system.

It is the function of the central bank to promote financial innovations that widen and deepen the credit or capital market through the introduction of new processes and products (credit instruments), cultivation and nurturing of new markets, and introduction of new institutional and organizational structures. The single most important criterion of the effectiveness of central bank action is the extent to which its policies reduce overall transaction costs and risk relating to all types of credit transactions, essential for accelerating the pace of development in the light of the country's development objectives and strategy. For this purpose, a central bank in a developing country has to have, what I have called elsewhere, a development orientation.[33]

A credit system can also distort and obstruct the development process because of what Keynes calls "the inherent instability of credit."[34] To quote Hicks:

> But on the other side there is the penalty that the credit system is an unstable system. It rests upon confidence and trust; when trust is absent, it can just shrivel up. It is unstable in the other direction too; when there is too much "confidence" or optimism it can explode in bursts of speculation. Thus, in order for a credit system to work smoothly, it needs an institutional framework which shall restrain it on the one hand, and shall support it on the other . . . it must be managed by a central bank, whose operations must be determined by judgement, and cannot be reduced to procedure by a mechanical rule.[35]

A central bank in developing countries can perform this regulatory function much more effectively when it also promotes a sound and healthy financial or credit system. Regulatory and promotional functions are vitally interrelated. To perform both these functions effectively, a central bank must have a certain degree of autonomy.[36] This autonomy has eroded, especially since 1965, in developing countries and developed countries like the United States because of the impact of fiscal policy on the credit or financial markets - national as well as international. The result has been instability of credit and international debt crisis, already affecting the development process particularly in some of the developing countries and the functioning of the international credit markets.

The autonomy of central banks and the conditions for the emergence of an international central bank are complex issues; they are related to the discipline of political sociology - a type of inquiry that can analyze the causal factors responsible for the behavior of actors in the political field.

NOTES

1. See Adam Smith, The Wealth of Nations, ed. Andrew Skinner (London: Penguin Books, 1970), Bk. 1, chaps. 1-3. Allyn Young described the relationship between division of labor and extent of the market as "one of the most illuminating and fruitful generalizations which can be found anywhere in the whole literature of economics." (See Allyn Young, The Economic Journal, vol. 38, no. 152 (December 1928). For an elaboration of the theme, see Nicholas Kaldor, "The Irrelevance of Equilibrium Economics," The Economic Journal, vol. 82, no. 328 (December 1972).

2. See John Hicks, The Crisis in Keynesian Economics (Oxford: Basil Blackwell, 1974), pp. 53-57; and John Hicks, Money, Interest and Wages (Cambridge, Mass.: Harvard University Press, 1982), p. 258.

3. The asymmetry of information and expectations among different classes of lenders and borrowers account for unique characteristics of the credit or financial markets. First, supply and demand for credit are related not only to interest rates but also to other variables. Hence, supply and demand schedules for credit relate to terms of credit and not merely to interest rate. Second, supply and demand schedules for credit are interdependent. Third, if demand is related only to interest rate, there is the phenomenon of credit rationing. Fourth, the structure of credit markets can vary widely from monopoly to competition (oligopolistic-oligopsonistic, monopolistic-monopsonistic, competitive monopoly, etc.).

   See J. E. Stiglitz, "Information and Economic Analysis: A Perspective," in Supplement to the Economic Journal, vol. 95; Arvind Virmani, The Nature of Credit Markets in Developing Countries, World Bank Staff Working Paper 564 (Washington, D.C. World Bank, 1982); and V. V. Bhatt and Alan R. Roe, Capital Market Imperfections and Economic Development, World Bank Staff Working Paper 338 (Washington, D.C.: World Bank, 1979).

   Mainstream economic theory tends to regard these unique features of the credit or financial markets as "market imperfections," but actually they are inherent in the very functioning of credit markets. See George J. Stigler, "Imperfections in the Capital Market," Journal of Political Economy (June 1967).

   Sometimes the perceptions or expectations of both lenders and borrowers change in the same direction. Expectations tend to be based on what Keynes calls "average opinion thinks about average opinion" or what Pigou calls "errors of optimism and pessimism." This results in "inherent instability of credit." See John Maynard Keynes, A Treatise on Money (London: Macmillan and Co., 1930), vol. 1, p. 27; John Hicks, Money, Credit and Wages (Cambridge, Mass.: Harvard University Press, 1982), p. 675; and R. G. Hawtrey, Currency and Credit (London: Longmans, Green and Co., 1919), p. 4.

4. On this, see John Maynard Keynes, The General Theory of Employment Interest

and Money (New York: Harcourt, Brace and World, 1964). To quote:

> Two types of risk affect the volume of investment . . . The first is the entrepreneur's or borrower's risk . . . Now the first type of risk is, in a sense, a real social cost, though susceptible to diminution by averaging as well as by an increased accuracy of foresight. The second, however, is a pure addition to the cost of investment . . . Moreover, it involves in part a duplication of a proportion of the entrepreneur's risk, which is added twice to the pure rate of interest . . . For if a venture is a risky one, the borrower will require a wider margin between his expectation of yield and the rate of interest in order to induce him to lend . . . This duplication of allowance for a portion of the risk has not hitherto been emphasized, so far as I am aware; but it may be important in certain circumstances. (pp. 144-145)

5. For a historical account of financial innovations, see John Hicks, A Theory of Economic History (Oxford: Oxford University Press, 1969), chaps. 5 and 6.

6. A. Braverman and T. N. Srinivasan, Interlinked Credit and Tenancy Markets in Rural Economies of Developing Countries, World Bank Staff Working Paper 433 (Washington, D. C.: World Bank, October 1980).

7. See Alexander Gerschenkron, Economic Backwardness in Historical Perspective (Cambridge, Mass.: Harvard University Press, 1962). To quote:

> In particular, the story of the Credit Mobilier of the Brothers Pereire is often regarded as a dramatic but, on the whole, rather insignificant episode . . . It seems to be much better in accord with the facts to speak of a truly momentous role of investment banking of the period for the economic history of France and of large portions of the Continent . . . But more important than their slavish imitations was the creative adaptation of the basic idea of the Pereires and its incorporation in the new type of bank, the Universal Bank, which in Germany, along with most other countries on the Continent, became the dominant form of banking. The difference between banks of the credit-mobilier type and commercial banks in the advanced industrial country of the time (England) was absolute. Between the English bank essentially designed to serve as a source of short-term capital and a bank designed to finance the long-run investment needs of the economy, there was a complete gulf. The German banks, which may be taken as a paragon of the type of the Universal Bank, successfully combined the basic idea of the credit mobilier with the short-term activities of commercial banks . . .the banks acquired a formidable

> degree of ascendancy over industrial enterprises, which extended far beyond the sphere of financial control into that of entrepreneurial and managerial decisions. (pp. 11-16)

8. See J. Cable, "Capital Market Information and Industrial Performance: The Role of West German Banks," The Economic Journal, vol. 95, no. 377 (March 1985). To quote:

> As is well known, German companies make little use of their relatively undeveloped external capital market, and depend heavily on the banking system for their external finance. Moreover, the banks not only supply or arrange access to investment funds, but are also extensively represented on the supervisory boards of companies, and in control of very large blocks of equity voting rights. The system of industrial financing which results can be viewed as one of "quasi-internal capital markets," with potentially important informational and transaction-costs implications . . . there is a significant positive relationship between the degree of bank involvement in lending industrial companies and their financial performance. (pp. 119 and 130)

9. For this and other financial innovations that emerged after 1960, see Janet Kelly, Bankers and Borders (Cambridge, Mass.: Ballinger Publishing Co., 1977), chap. 6. The pure security approach is described as "backward looking," while the cash flow approach as "forward looking." To quote:

> "While the British banks would make advances to Rolls-Royce because of the extensive assets of the company, American banks would assess the company's cash flow to see if the company would be able to service the loan over the necessary period." (p. 131)

10. Such a link is illustrated by the experience of rural banks and private development banks in the Philippines. See Katrine Anderson Saito and Dan P. Villanueva, Transaction Costs of Credit to the Small-Scale Sector in the Philippines, Domestic Finance Studies 53 (Washington, D. C.: World Bank, December 1978).

11. See Joseph A. Schumpeter, Business Cycles (New York: McGraw Hill Co., 1939), vol. 1, pp. 93-97. Schumpeter emphasizes that innovation is generally introduced by the rise to leadership of new men, who set up a new firm and with a new plant.

12. See John Hicks, Capital and Growth (Oxford: Clarendon Press, 1965), p. 292.

13. See R. W. Goldsmith, "Some Reflections on the Past, Present and Future of Financial Institutions," mimeo (1974). To quote:

> There are two tendencies at work which have already operated since the early history of financial institutions, tendencies which you may call the specialty shop and the department store principle. A specialty shop in finance holds, essentially, one type of financial instrument and raises most of its funds also by one, though a different instrument. At certain times and certain countries, the one or the other system has prevailed. England was, during most of its modern financial history, a financial specialty shop country, as was the United States. Germany, on the other hand, has always been more of a financial department store country, France being generally in the middle. In the last decade, however, there has been a definite tendency, in virtually all countries, for the department store model of finance to gain, particularly in the field of deposit banking . . . Finally, something happened during the fifties and the sixties. It probably became obvious to bankers that, if they continued to do business as before they would continue to lose in importance. This trend soon became worldwide, partly because it is much easier to transfer financial technology from one country to another than to do so in the case of industrial technology . . . This movement towards financial department store operations is, I think, one of the most important trends to watch in developed countries in the next generation . . . It has always been present to some extent and is particularly pronounced in less developed countries. (pp. 82-84)

For the rationale of such a strategy in oligopolistic markets, see Swati Bhatt, Non-Price Competition in Oligopolistic Industries, Phd. diss., Princeton University, 1986.

14. On technological changes in the electronics industry and their impact on structural changes in the financial institutions and markets, see C.A.E. Goodhart, Monetary Theory and Practice (London: MacMillan Press, 1984), chap. 5.

15. See the survey on "International Investment Banking" in The Economist, vol. 294, no. 7385, March 16, 1985, pp. 44-84.

16. Ibid.

17. On the role of informal markets, see Yung Chul Park, The Unorganized Financial Sector in Korea, 1945-75, Domestic Finance Studies 28 (Washington, D. C.: World Bank, 1980); T. A. Timberg and C. V. Aiyar, Informal Credit Markets in Domestic Finance Studies 62 (Washington, D. C.: World Bank, 1980); and Juergen U. Holst, "The Role of Informal Financial Institutions in the Mobilization of Saving," in Savings and Development, ed. Denis Kessler and Pierre-Antoine Ullmo Economica (Paris, 1985).

18. See J. C. Sandesara, Efficacy of Incentives for Small Industry (Bombay: Industrial Development Bank of India, 1982), Shahid Yusef, The Commercial Banking Industry in Brazil 1964-74, Domestic Finance Studies 39 (Washington, D. C.: World Bank, 1977); and Undermining Rural Development with Cheap Credit, ed. Dale W. Adams, Douglas H. Graham, and J.B. von Pischke (London: Westview Press, 1984).

19. On the noninterest cost of borrowing, see Jerry R. Ladman, "Loan-Transaction Costs, Credit Rationing, and Market Structure," in Undermining Rural Development with Cheap Credit, chap. 8; and T. Riley, Non-interest Costs of Lending and Borrowing Domestic Finance Studies 65 (Washington, D.C.: World Bank, 1980).

20. See V. G. Patel, Innovations in Banking: The Gujerat Experiments, Domestic Finance Studies 51 (Washington, D.C.: World Bank, 1978); and V. V. Bhatt, Financial Institutions and Technical Consultancy Services: The Indian Experiment in Small Enterprise Promotion, EDI Seminar Paper 24 (Washington, D. C.: World Bank, 1981).

21. See V. V. Bhatt, Development Perspectives (London: Pergamon Press, 1980), chap. 15.

22. On this cost-risk reducing package of measures, implemented by a central bank, see C. Rangrajan, Innovations in Banking: The Indian Experience, Domestic Finance Studies 66 (Washington, D. C.: World Bank, 1980).

23. Mainstream economic theory and studies ignore these vital aspects of financial policies and emphasize the importance of unregulated markets and interest rate structure. This theory is congenitally incapable of analyzing the role and functioning of credit markets. For prescriptions based on this theory, see R. I. McKinnon, Money and Capital in Economic Development (Washington D. C.: The Brookings Institution, 1973). See also Bhatt, Development Perspectives, introduction.

24. See Keynes, The General Theory of Employment Interest and Money, p. 208.

25. The following section is based on information specially obtained from the Syndicate Bank of India. Having been a member of the Board of Directors from 1969 to 1972, the author had the benefit of detailed discussions with the top management of the bank and access to confidential data. See also N. K. Thingalaya, Innovations in Banking: The Syndicate's Experience, Domestic Finance Studies 46 (Washington, D. C.: World Bank, 1978).

26. See Selden Menefee, The Pais of Manipal (New York: Asia Publishing House,

1969); and Schumpeter, Business Cycles, vol. 1, pp. 93-97. The Syndicate Bank's experience supports Schumpeter's hypothesis that innovation is generally introduced by the rise to leadership of new men, setting up a new firm and with new plant (in this case, a new organization principle).

27. V. V. Bhatt, Structure of Financial Institutions (Bombay: Vora & Co., 1972), chap. 2.

28. V. V. Bhatt, Division of Public and Private Finance: Research Program and Its Rationale, Domestic Finance Studies 43 (Washington, D.C.: World Bank, 1977),pp. 13-15.

29. Bhatt, Structure of Financial Institutions, chap. 4.

30. Ibid., chap. 4.

31. V. V. Bhatt, Some Aspects of Financial Policies and Central Banking in Developing Countries, EDI Seminar Paper 11 (Washington, D.C.: World Bank, 1974).

32. See Hicks, Capital and Growth, pp. 289-291. To quote:

> The beginning of a process of expansion might occur because of real factors (inventions and the like) raising the real prospective rate of profit. But it might also occur because of financial improvements, diminishing the size of our "gap," thereby permitting access to funds for improvements which could have been made earlier, if the necessary funds had been forthcoming. It is not savings only that are required, but a channel of communication between potential savings and potential real investment. (p. 290)

See also Schumpeter, Business Cycles, vol. 1. pp. 111-112; and John Hicks, Economic Perspectives (Oxford: Oxford University Press, 1977), pp. 78-79. What Schumpeter calls innovations and Hicks calls impulses require credit creation; the latter is, as Schumpeter observes, the "monetary complement of innovation."

33. Bhatt, Some Aspects of Financial Policies and Central Banking in Developing Countries.

34. Keynes, A Treatise on Money (London: Macmillan and Co., 1930), vol. 1, p.27.

35. John Hicks, Critical Essays in Monetary Theory (Oxford: Oxford University Press, 1967), pp. 158-59 and 164.

There is the same problem of the instability of credit at the international level as exemplified by the post-1975 functioning of the international credit markets and the recent international debt crisis. To again quote Hicks:

> There is the same problem of the instability of credit. There is the same need that international credit should be managed, in order to be secure . . . The remedy . . . would be an International Central Bank, an International Bank which would underpin the credit structure, but in order to underpin it must have some control over it. That was what Keynes, who understood this international aspect very clearly, wanted to get at Bretton Woods, but all he got was a Currency Board . . . the IMF. That, we are finding, . . . is not enough. (pp. 172-172)

36. Central Banks do not have this autonomy either in the developing or the developed countries. This is indeed a political problem. In this connection, see Hicks, Economic Perspectives. To quote:

> This perhaps is a dream; I do not claim to be a judge of political possibilities. But I am not afraid to draw the moral, which emerges rather clearly from the line of thought I have tried to follow out, that the issue with which we have been concerned is political -even constitutional - as well as economic. There is the technical economic problem of the Instrument; but it is tied up with the political problem of how to secure that it is used decisively. This is a problem which Keynesian economics, so it seems to me, has refused to face; while the monetarists, who have seen it, have to face the political implications. For myself, I would face it. I think we should say that monetary regulation is a major function of Government; but we should emphasize that if it is to be exercised decisively, it needs to be separated, in what is in fact the constitutional sense, from other functions. We need to remember the ancient doctrine of the Separation of Powers. The judicial function, in well-ordered States, is recognized to be a function of Government, but a function that is better separated. So it is with the monetary function. (pp. 132-133, emphasis added)

APPENDIX TABLES

Table 1. Syndicate Bank and the Commercial Banking System, Selected Years 1960-74 (percentage share)

Category	1960	1965	1970	1974
Deposits	0.9	1.8	2.6	4.0
Loans and Advances	1.0	1.7	2.6	3.9
Branches	2.9	3.3	4.1	3.8
Borrowing Accounts	-	15.0	-	12.0

Source: N. K. Thingalaya, Innovations in Banking: The Syndicate Experience, Domestic Finance Studies No. 46 (Washington D. C.: World Bank, Development Economics Department, 1978).

Table 2. Syndicate Bank and the Banking System: Some Indicators, 1968 and 1975 (in percent)

Category	Syndicate Bank		Banking System		
	1968	1975	1968	1975	
1. Rural Branches/ Total Branches	32	39	22	37	
2. Rural Deposits/ Total Deposits		-	12	-	8
3. Agricultural Advances/ Total Advances		12	13	0.3	10
4. Advances to Small Industry/ Total Advances		11	14	8	12
5. Advances to Small Business/ Total Advance		7	14	negligible	8
6. Share of 3+4+5 in Total Advance		30	41	8.3	30
7. Borrowing Accounts under 3, 4, & 5/Total Borrowing Accounts		50	65		
8. Deposit Accounts under Rs. 1,500/Total Deposit Accounts		90	89		
9. Deposits for Deposit Accounts under Rs. 1,500/Total Deposit		50	50		

Source: Same as in Table 1.

Table 3. Structure of Costs: Syndicate Bank, Selected Years 1950-75

Type of Cost	Percentage of Total Assets					
	1950	1955	1960	1965	1970	1975
A. Operating Costs	5.03	4.76	5.69	6.40	8.00	10.01
B. Deposit Costs	3.05	3.39	4.30	4.39	5.39	7.39
(a)Administrative Costs	1.53	1.55	1.64	1.59	1.64	1.66
(b)Interest Costs	1.53	1.85	2.66	2.80	3.75	5.72
C. Total Cost of Loans and Investments	0.73	0.66	1.13	1.90	2.46	2.46
(a) Administrative Costs	0.60	0.49	0.96	1.73	2.17	2.20
(b) Default Risk	0.13	0.17	0.17	0.16	0.29	0.27
D. Cost of Excess Capacity*	1.25	0.70	0.25	0.11	0.15	0.15
E. Total Cost (B(a) + C(a) + C(b) +D) (Other than Interest Cost on Deposits)	3.51	2.31	3.02	3.60	4.25	4.27
F. Total Earnings	7.84	5.75	7.46	7.52	8.30	10.23

*Note: Represents the losses of new branches during their gestation period: four years for rural branches, two years for semi-urban branches, and one year for urban-metropolitan branches.

Source: The same as in Table 1.

Table 4. Cost Structure: Loans and Advances, 1975 (as percentage of total under each category)

Sector	Syndicate Bank			Large Metropolitan Bank (Bombay)		
	Admin. Costs	Default Risk	Total	Admin. Costs	Default Risk	Total
Agriculture	0.80	1.00	1.80	6.06	1.39	7.45
Small Industry	0.85	0.79	1.64	5.18	1.86	6.04
Other Small Enterprises	2.75	1.00	3.75			
Total: Loans and Advances	2.24	0.52	2.76	1.70	0.70	2.20

Source: For Syndicate Bank, the some as in Table 1. For the large Metropolitan Bank (Bombay), the data were given by the bank concerned; it does not want its identity to be revealed.

Table 5. Cost Structure: Deposits of Syndicate Bank: 1975
(as percentage of total deposits under each category)

Cost Item	Deposit Category				
Deposits	Current	Pigmy	Savings	Fixed & Cummulative	Total
Interest Costs	-	0.48	4.30	11.70	6.86
Incentives & Commissions	-	3.94	0.09	0.01	0.14
Administrative Costs	0.20	1.10	2.57	1.30	1.55
Total	0.20	5.52	6.96	13.01	8.55

Source: The same as in Table 1.

Large Metropolitan Bank (Bombay)	Interest Costs	6.50
	Other costs	3.29
	Total	9.79

Source: The Bank.

Table 6: Establishment Cost as a Percentage ofTotal Deposits, Selected Years 1951-75

Year	Syndicate Bank	Banking System	United States - All Insured Commercial Banks
1951	2.27	1.70	
1961	2.12	1.80	
1971	2.80	3.00	
1975	3.02	3.06	2.90

Source: For Syndicate Bank, the same as in Table I. For the Banking System in India, Centre for Monitoring Indian Economy, Basic Statistics Relating to the Indian Economy, vol. 1: All India (September 1977, Bombay), Table 19.1. For the United States, Federal Reserve bulletin vol. 63,no. 7, (July 1977).

Table 7. Structure of Deposits, Selected years 1950-75 (Rs. Million)

Year	Current	Pigmy	Savings	Fixed	Total
1950	7.0	6.9	7.0	16.0	36.9
	(19.0)	(18.7)	(19.0)	(43.4)	(100.0)
1955	9.0	15.5	15.0	27.2	66.7
	(13.5)	(23.2)	(22.5)	(40.8)	(100.0)
1960	20.3	39.1	35.7	93.6	188.7
	(10.8)	(20.7)	(18.9)	(49.6)	(100.0)
1965	104.0	93.6	124.3	269.2	591.1
	(17.6)	(15.8)	(21.0)	(45.5)	(100.0)
1970	258.7	154.3	396.1	868.4	1,677.5
	(15.4)	(9.2)	(23.6)	(51.8)	(100.0)
1975	892.1	397.3	1,322.4	2,754.2	5,366.0
	(16.6)	(7.4)	(24.6)	(51.3)	(100.0)

Note: Figures in parentheses represent percentage of the total.

Source: Same as in Table I.

Table 8. Growth of Pigmy Deposits: Branch Category-wise, Selected Years 1950-75 (Rupees 000's)

Year	Rural	Semi-Urban	Urban	Metropolitan	Total Branches	Number of
1950	510 (7.4)	2,869 (41.4)	2,447 (35.3)	1,107 (16.0)	6,933 (100)	79
1955	1,142 (7.4)	6,129 (39.5)	6,116 (39.4)	2,119 (13.7)	15,506 (100)	93
1960	1,961 (5.0)	14,519 (37.1)	12,957 (33.1)	9,678 (24.7)	39,115 (100)	139
1965	7,360 (7.9)	32,102 (34.3)	30,976 (33.1)	23,136 (24.7)	93,574 (100)	204
1970	14,198 (9.2)	50,156 (32.5)	45,681 (29.6)	44,292 (28.7)	154,327 (100)	461
1975	49,050 (12.3)	121,150 (30.5)	110,420 (27.8)	116,680 (29.4)	397,300 (100)	778

Note: Figures in parentheses represent percentage of Total Pigmy Deposits.

Source: Same as in Statement I.

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