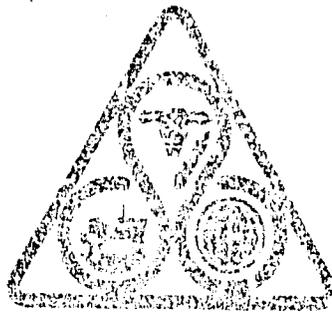


# STUDIES IN RURAL FINANCE

AGRICULTURAL FINANCE PROGRAM



Department of Agricultural Economics and Rural Sociology

THE OHIO STATE UNIVERSITY

COLUMBUS, OHIO

43210

BANK COMPETITION, DEPOSIT MOBILIZATION  
AND FINANCIAL CONCENTRATION IN HONDURAS

Arnoldo Camacho  
Graduate Research Associate  
and

Claudio Gonzalez-Vega  
Professor of Agricultural Economics  
Ohio State University

January, 1984

A report to the Food and Agricultural Development  
Office of the USAID Mission in Tegucigalpa, Honduras.

BANK COMPETITION, DEPOSIT MOBILIZATION,  
AND FINANCIAL CONCENTRATION IN HONDURAS.

I. The importance of deposit mobilization

Following the seminal work of Edward S. Shaw and of Ronald I. McKinnon, it has become increasingly accepted that the financial sector does matter in economic development. <sup>1/</sup> The contributions of the financial sector to economic growth may be associated with the provision of at least four different types of services. <sup>2/</sup> The first set of services is the provision of a universally accepted medium of exchange, which reduces the costs of conducting transactions in commodity and factor markets, increases the flow of trade and market size, and improves the productivity of resources through specialization and division of labor, competition, and the exploitation of economies of scale and of modern technologies. This "monetization" of the economy releases resources from the search and bargain process associated with barter and, due to greater market integration, increases the efficiency with which resources are allocated.

The financial sector also provides services of inter-mediation between surplus and deficit economic units. Surplus units are those with sufficiently abundant resources of their own, in comparison to their own "internal" productive and investment opportunities, so that they earn low marginal rates of return on their assets, as compared to deficit units, which possess few resources, relative to their available opportunities and could, therefore, if they had access to the resources needed to take advantage of those opportunities, earn relatively high marginal rates of return. <sup>3/</sup>

In the absence of finance, economic agents are condemned to take advantage of their productive opportunities only to the extent allowed by their own endowment of resources, while in other cases they are forced to invest their excess resources in poor marginal "internal" activities. There is no reason to expect that those units where savings are generated are necessarily those with the best investment opportunities and highest growth potential. By making the division of labor between savers and investors possible, the financial system channels resources to those activities where they can be most profitably employed.

Through these intermediation services the financial system contributes to the elimination of inferior uses of resources (that is, it destroys uses with low private and social marginal rates of return) as well as to the financing of better alternative uses. This may be accomplished to the extent to which the financial system offers wealth holders financial assets (e.g., bank deposits) that are more attractive forms of keeping wealth than the unprofitable alternatives being eliminated. This, in turn, makes it possible to transfer, through the intermediary, claims on resources towards those economic units with better productive opportunities that otherwise would have not been exploited.

From this perspective, the financial system offers valuable services not only to borrowers (who presumably possess relatively better opportunities), but also to depositors (who at the margin only possess inferior alternative uses of those funds). The financial system contributes in this way to a better allocation of resources, more rapid capital accumulation, and an improvement in the quality of the capital stock.

Market fragmentation, the small size of transactions, the high costs of information, and the uncertainties and risks characteristic of poor economies increase transaction costs in the financial markets of the low income countries. As a result, the returns to savers are low, the total cost of funds to borrowers are high, the size of financial markets is small, and the volume of funds channelled and the variety of financial services provided are reduced. Fragmentation and high transaction costs also imply a large dispersion of the marginal rates of return in the economy, a signal of the existence of ample unexploited opportunities for an improved allocation of resources. Financial progress implies the reduction of these transaction costs as well as a reduction of the dispersion of marginal rates of return. <sup>4/</sup>

Thirdly, the financial system also provides reserve management services. Most economic units accumulate stores of value for emergencies and to take advantage of future opportunities. The financial system reduces the costs and risks of accumulating these precautionary and speculative reserves and, through the provision of "unused lines of credit", it reduces the size of the desired stock of reserves, thus releasing resources for productive purposes.

Finally, the financial system provides services of fiscal support for the public sector. This is an important contribution, in view of the weakness of the tax structures and of the securities markets in the low income countries. The financial sector also contributes to the management of foreign exchange.

In summary, economic development in the low income countries both depends on and contributes to the growth and diversification of the financial sector. Financial deepening matters, while several classes of services of the financial sector are an important ingredient in the process of growth. Credit is important, but deposit mobilization is important too. These services contribute to development to the extent that they provide incentives for increased savings and investment, and encourage savers to hold a larger proportion of their wealth in the form of financial assets (e.g., bank deposits), rather than in the form of unproductive tangible assets and other money substitutes. The rate and character of growth, in turn, are influenced by the efficiency of the institutions and instruments of the financial sector. That is, the extent to which the financial system increases productive capacity depends on its real size and on the efficiency of its per-

formance, measured mainly by the magnitude and dispersion of the transaction costs imposed on all market participants.

### Financial development in Honduras

During the 1960s and most of the 1970s Honduras experienced a steady and significant process of financial deepening. This financial progress was reflected by the establishment of numerous financial institutions, the provision of a wider range of financial services, and the growth of credit volumes and of other financial magnitudes, when measured in real terms. In effect, the ratio of the money supply, defined in a broad sense as  $M_2$ , with respect to the Gross Domestic Product, increased from 13.0 in 1960 to 34.9 in 1978. At the same time, the ratio of domestic credit from the banking system with respect to the Gross Domestic Product augmented from 11.8 in 1960 to 44.3 in 1978. These ratios were comparatively high among low income countries and reflected a more rapid pace of financial deepening in Honduras than in the other Central American countries. Thus, although Honduras started from the lowest level of financial deepening in the region in 1960, it had progressed beyond the other countries, with the exception of Costa Rica, by the mid-1970s.

Clearly, this process of financial deepening was made possible by the absence of inflation and by exchange rate stability. Absence of inflation, in turn, resulted from the openness of the economy, coupled with a stable exchange rate. Exchange rate stability was made possible by cautious, orthodox fiscal, credit, and monetary policies, specifically targeted to keep the external value of the Lempira constant.

The provision of a generally accepted means of payments has been an important financial service in an economy where only recently have large subsistence sectors been progressively incorporated to the market economy and monetary transactions. Much of Honduras' financial deepening, therefore, can be explained by the "monetization" of the country's economy. The inflationary pressures of the most recent years, however, have reduced the efficiency with which the domestic financial system can provide this service. This is unfortunate, given the extreme openness of the Honduran economy, both on the current and the capital accounts of its balance of payments, and given the increasing internationalization of financial markets. All of this has made easier for domestic economic units to substitute foreign currencies (in particular U.S. dollars) for the domestic means of payments. Although Honduras has not yet

experienced a process of "currency substitution" as has been the case in other small countries (e.g., Costa Rica), it would take only moderate rates of inflation and devaluation expectations to induce a "flight from the domestic money" which, in turn, would severely limit the ability of the domestic financial sector to provide its other valuable services.

This reduced ability of the Honduran financial system to provide the set of services required for efficiency and growth has resulted from the abuse of its role as fiscal support of the public sector. With the stagnation of real incomes that has resulted in the early 1980s from the deterioration of the country's international terms-of-trade, the world recession, and the exhaustion of the import-substitution strategy and the collapse of the Central American Common Market, government revenues have not increased sufficiently to finance rapidly increasing public sector expenditures. Moreover, lenders abroad have placed limits on the stock of external debt that finances the accumulated deficits of the Honduran government. The authorities, therefore, have forced the domestic banking system to finance this deficit, leading to an expansion of domestic credit at a rate

faster than the rate that would maintain stability of the domestic price level and of the exchange rate. At the same time, the private sector has been "crowded out" of the domestic credit portfolios, as the share of the public sector has increased rapidly, from 19.2 percent in 1977 to 33.8 percent in 1982. Also, the private commercial banks have been "crowded out" from Central Bank credit, as the share of the public sector has increased from 39.2 percent in 1977 to 66.8 percent in 1981. Only in 1982 the public sector received 78.4 percent of the annual increment in domestic credit. <sup>5/</sup>

Given a fixed official exchange rate, the excess supply of domestic money has been reflected by an excess demand for foreign exchange. International monetary reserves have been lost, despite large inflows of foreign debt, and import-and-exchange controls have been imposed, while domestic inflationary pressures are evident. In the end, the fiscal deficit has been financed by the loss of international monetary reserves, by foreign borrowing and assistance, by the "crowding out" of the private sector in credit portfolios, and by the inflation tax, all of which increase financial repression and have reversed the favorable long-term

trend of financial deepening in Honduras. In effect, the rates of growth of  $M_1$  and of  $M_2$ , measured in real terms, have been negative for the 1979-1982 period, reflecting a reduced willingness of Hondurans to hold domestic monetary assets. As a result, the ratio of  $M_2$  with respect to the Gross Domestic Product dropped from 34.8 in 1978 to 29.5 in 1982.

The reduction of the real size of the Honduran financial system and the "crowding out" of the private sector from domestic credit portfolios have reduced the ability of the sector to provide services of intermediation between savers and investors (between surplus and deficit units). That is, the Honduran financial system has become much less of an intermediary between depositors and borrowers and much more of a fiscal instrument to tax resources away from savers, in order to finance current public sector expenditures. This lack of balance in the provision of different classes of financial services has significantly reduced the ability of the sector to promote economic development and monetary stability.

Moreover, despite its long-term financial progress, Honduras has continued to rely heavily on foreign savings in order to finance its domestic investment. Also, financial markets remain highly fragmented and only a small proportion of the population has access to credit and to other of the new financial services offered. Loan portfolios show a high degree of concentration, which seems to have increased with the crisis and with the contraction of the real value of lending flows.

In effect, measured in constant Lempiras of 1978, the flow of new loans granted by the banking system dropped from 1,383 million in 1978 to 928 million in 1981 and 955 million in 1982. The real value of the flow of new agricultural loans, in turn, declined from 398 million in 1978 to 187 million in 1981 and 204 million in 1982. As a result, the ratio of the flow of new loans with respect to the Gross Domestic Product, which had increased from 29.8 in 1971 to 46.7 in 1977, dropped to 28.7 in 1981. Also, the ratio of the annual flow of new agricultural loans with respect to value added in this sector, which had increased from 26.7 in 1971 to 43.4 in 1977, declined to 20.1 in 1981, a value lower than that for a decade before. <sup>6/</sup>

This contraction in the real value of credit volumes seems to have been accompanied by an even more rapid reduction in the number of borrowers and by more acute problems of recuperation and default than in the past. The resulting "freezing" of significant portions of loan portfolios have further reduced the availability of loanable funds and financial viability. As suggested, lack of access to financial services and loan concentration have been particularly severe in the rural areas, while the transaction costs imposed on all market participants seem to be very high and to vary substantially among borrower classes.

#### Financial market structure and regulation

The financial market of Honduras has been dominated by the private commercial banks, a few public development banks, and several specialized savings banks ("instituciones especializadas de ahorro", equivalent to savings and loan institutions). In this respect, Honduras has not been different from other low income countries, where the liabilities of the monetary system account for most of the claims on intermediary financial institutions that are held by the public and where bank credit is the main source of finance

"external" to the firms. For these reasons, the monetary and banking system has played a crucial role as an intermediary between savers and investors.

All of these institutions have been regulated by the Central Bank, which has influenced the price of the financial services delivered, the entry of new institutions in the market, and the types of financial activities in which the various classes of institutions can engage. The Central Bank has exercised direct price regulation of financial services by setting the official exchange rate, ceilings on loan interest rates and commissions, ceilings on the rates to be paid on foreign currency deposits, differential rediscounting percentages, rates and margins, and differential reserve requirements. <sup>8/</sup> All of these regulations have had a significant impact on bank profitability. Also, ceilings on loan interest rates have indirectly imposed a maximum level on the rates that can be offered on deposits, while differential rediscounting and interest rate structures have further distorted credit allocation, through the rationing processes that have resulted from under-equilibrium interest rates.

Central Bank regulation has also affected the entry of new institutions in the formal financial market of Honduras. First, entry into the market has required the maintenance of a minimum equity capital and proper justification of social benefits, in the case of new institutions, and proof of feasibility and of social gains for the local community, in the case of new branches of existing institutions. Banking legislation and the Central Bank have also regulated the kinds of activities in which different classes of financial institutions can participate. In order to protect depositors and guarantee the financial soundness of the system, the Central Bank has managed reserve requirements and has imposed limits on the proportions of total assets that can be directed towards particular loans or investments. The Superintendency has regularly monitored the financial state of regulated institutions.

In addition to the Central Bank, the Honduran financial system presently includes fifteen private commercial banks, two of which are branches of foreign banks (i.e., Banco Atlántida, de Honduras, El Ahorro Hondureño, de Occidente, La Capitalizadora Hondureña, de los Trabajadores, del Comercio, Con-

tinental, Financiera Centroamericana, Sogerin, de las Fuerzas Armadas, Mercantil, Hondureno del Cafe, de Londres y Montreal, and of America); three public development banks (i e., Banco Nacional de Desarrollo Agricola, known as BANADESA, Banco Municipal Autonomo, and Corporacion Nacional de Inversiones, known as CONADI); the savings and loan department of the Instituto Nacional de la Vivienda and one public savings bank (Financiera Nacional de la Vivienda) as well as six private savings banks (La Vivienda, Vivienda de Sula, Casa Propia, La Constancia, Futuro, Financiera Metropolitana).

There are important ownership, directorate, and financial links between some of the savings banks and some of the commercial banks, and between these financial institutions and non-banking productive enterprises. Several of these institutions are owned by recognized "financial groups". These groups, as well as the small number of institutions and the thin market for specialized financial services have led to the hypotheses, sustained by several observers, that substantial oligopolistic power is exercised in the Honduran financial system. One of the purposes of the present paper is a preliminary exploration of the nature and consequences of the market structure of the Honduran financial system and of its effects

on the ability and willingness of the banks to mobilize domestic deposits and to reward savers appropriately.

Competition and concentration of the financial system

This paper reports the finding of increasing competition in domestic deposit mobilization by the Honduran financial system during the 1971-1982 period. Similar improvements in the competitive environment seem to have occurred during the 1960s too, but those are not measured here. This greater degree of competition has been reflected by increases in the number of participants in the market, by a reduction of the relative importance of the largest banks, and by a generalized expansion of the bank network during the period.

By 1971 eleven private commercial banks and two public development banks already participated in the market for deposits. Only five of these commercial banks, however, had been created before the 1960s. Banco de Honduras had been operating since 1889 and Banco Atlantida, by far the largest bank in those days, had been established in 1914. Both had enjoyed money-issuing privileges. During the 1960s

several new commercial banks were established, while several existing specialized financial institutions (particularly some savings and loan institutions) were transformed into commercial banks. Between 1971 and 1982, the period under study here, five additional commercial banks were created, while one of the previously existing ones, Banco Financiera Hondurena, failed in 1981. Also, competition for deposits by the savings banks augmented during this period, as the number of specialized savings institutions increased from four in 1971 to eight in 1982.

This growth of the Honduran banking system, in terms of the number of participating institutions, was paralleled by the rapid expansion of the number of bank offices. In the case of the commercial and development banks, this number increased from 134 in 1971 to 244 in 1982. This, in turn, implied that the average number of offices increased from 10.3 per bank in 1971 to 14.4 per bank in 1982. BANADESA increased the number of its branches from 21 in 1971 to 27 in 1982, accounting for only six of the 110 new branches established during the period. The rapid expansion of the banking network, therefore, resulted from the decisions of the private commercial banks, which created 104 new offices, and of the savings banks. In effect, the number of offices

operated by the savings banks increased from four in 1971 to 35 in 1982. This represented an increase in the average number of offices from one per savings bank in 1971 to 4.4 per institution in 1982. (See Table 1).

This rapid expansion of the branch network resulted not only from a greater degree of financial deepening, but also from the need to rely on non-interest forms of competition in order to capture a larger share of the market for deposits. Since competition could not take place in the form of explicit interest offerings on deposits, given high reserve requirements and the ceilings imposed on loan rates of interest by the Central Bank, the existing rivalry was expressed in the form of implicit deposit remunerations through a greater number of bank offices.

These implicit payments, in the form of an expanded network and of conveniently located bank offices, in order to increase the clients' access to financial services and reduce their transaction costs (transportation and waiting time), were meant to partially compensate the depositor for the comparatively low rates of interest paid. Moreover, given the constraints on profitability implied by the

regulations, as well as the predominance of borrower interests in the operation of the system, the larger banks attempted to compete for deposits without increasing their interest rates to the same levels paid by some of their competitors. That is, these large banks attempted to rely on their image and prestige, location, and the scope of the financial services offered in order to keep their share of the market, while paying somewhat lower interest rates on deposits. The available evidence seems to suggest that depositors, nevertheless, were influenced in their decisions by the interest rate differentials and these large banks lost part of their share of the market.

Banco Atlantida, which has operated the largest network of offices, increased the number of its branches from 36 in 1971 to 53 in 1982. Despite this expansion, however, the relative importance of its network declined, from 29.8 percent of the total number of bank offices in the system (including the commercial and the development banks) in 1971, to 22.0 percent of the total in 1982. The relative importance of BANADESA, which operates the next largest network, also declined, from 17.4 percent of the total number of offices in 1971 to 11.2 percent of the total in 1982. On the other hand,

Banco de Occidente increased its share in the total number of branches from 5.8 percent in 1971 to 10.8 percent in 1982, while Banco Sogerin increased its share from 1.7 percent of the total number of bank offices in 1971 to 9.1 percent at the end of the period.

The more rapid expansion of the branch network of some of the smaller and newer financial institutions, as well as the expansion of the network of the savings banks, has reduced the degree of concentration of the branching network in the Honduran financial system, as reflected by standard indexes of concentration. One of these is the Herfindahl index of concentration, which is obtained as the sum of the squares of the shares of all market participants and is frequently used to indicate the degree of monopoly power exercised in any market. According to this measurement, a market is said to be highly concentrated if the index is above 1,800, to be moderately concentrated if the index is between 1,200 and 1,800, and to be unconcentrated if the index is below 1,200.

From the perspective of the shares of the individual banks in the total number of bank branches in the Honduran financial system, the Herfindahl index shows a significant

reduction in the degree of market concentration between 1971 and 1982. This index steadily declined from 1,645 in 1972 to 1,194 in 1980 and 1,248 in 1982. The former figure reflects a market that was moderately concentrated, with the index closer to the 1,800 level characteristic of highly concentrated markets, while the latter figures basically represent a non-concentrated market. (See Table 2).

This less concentrated ownership of the branch network has been accompanied also by lesser market concentration from the perspective of the total assets of the financial system. In effect, the share of Banco Atlantida in the total assets of the system declined from 23.5 percent in 1971 to 9.9 percent in 1982, while the share of BANADESA in total assets declined from 21.2 percent in 1971 to 10.0 percent in 1980 and then increased to 13.4 percent in 1982.

The same process of deconcentration can also be observed from the perspective of the total volume of demand deposits mobilized. The share of the largest bank, Atlantida, declined from 33.9 percent of all demand deposits in 1971 to 18.1 percent in 1982, while the share of Banco de Honduras declined from 11.4 percent in 1971 to 3.2 percent in 1981 and to 5.0 percent in 1982. In turn, the share of BANADESA in demand

deposits declined from 20.2 percent in 1972 to 7.8 percent in 1981 and to 9.3 percent in 1982. These higher shares of all the larger banks during 1982, as compared to 1981, are a reflection of the failure of the Banco Financiera Hondurena.

The deconcentration of the market has been even more pronounced with respect to savings deposits and time certificates of deposit. That is, the increase in competition during the period has been more acute in the area of interest-bearing deposits. The share of Banco Atlantida in the total of savings and time deposits declined from 40.0 percent in 1971 to 16.0 percent in 1982. Moreover, the share of the largest four banks, combined, declined from 69 percent of the volume of savings and time deposits in 1971 to 46 percent in 1982.

Moreover, this reduced concentration of the system has been dramatically and conclusively reflected by the corresponding indexes of concentration. The Herfindahl index for the Honduran financial system, with respect to total deposit mobilization, declined from 1,890 in 1971 to 895 in 1982. That is, the market for deposits evolved from one still characterized by a high degree of concentration in the early 1970s, to one that technically speaking is not concentrated at all, in the early 1980s.

The Herfindahl index for the market for demand deposits (checking accounts), which earn no interest, declined from 1,691 in 1971 to 941 in 1982, also reflecting a movement from high concentration to no concentration at all. The extent of this improvement, however, is comparatively smaller than in the previous case, given the preference of the larger banks to mobilize demand deposits rather than interest-bearing deposits. A more significant change in market structure has been reflected by the Herfindahl index for the market for savings and time deposits. In this case, the index dramatically declined from 2,166 in 1971 to 874 in 1982. Not only was this portion of the market highly concentrated in the early 1970s, when rates of inflation were low and deposit rates positive in real terms, but it has become the most competitive portion of the market in the early 1980s, as interest rates became negative in real terms, the financial system had contracted, and competition for funds became more acute.

It is interesting to note that the share of the savings banks in the total deposits of the system increased from 0.3 percent in 1971 to 4.0 percent by 1978 and further improved to 10.3 percent in 1981 and to 8.4 percent in 1982. These

increases have been at the expense of the private commercial banks, whose share declined from 89.0 percent of total deposits in 1971 to 81.5 percent of the total in 1982. The share of the public development banks in total deposits, on the other hand, only slightly declined from 10.6 percent in 1971 to 10.1 percent in 1982.

The Honduran banks operate two classes of branches: sucursales, which are full-service offices, where both loans are granted and deposits are mobilized, and agencias, which are limited-service offices, where deposits are mobilized but loans are not granted. During the 1971-1982 period, the limited-service offices expanded more rapidly than the full-service branches. As a result, the relative importance of the limited-service offices (deposit mobilization windows) increased from 63 percent to 74 percent of the total number of offices, while the relative importance of the full-service branches declined from 37 percent in 1971 to 26 percent in 1982. This suggests that the commercial banks were more interested in using their expanding branching network for deposit mobilization than for loan portfolio management, so competition increased with respect to the market for deposits but may not have increased that much in the market for loans.

It has already been claimed that in Honduras the rural sector has benefited from financial deepening to a lesser extent than the urban sector. This urban-bias hypothesis seems to be confirmed by the data on the concentration of the financial system on a regional perspective. That is, although the expansion of the branch network has made the financial sector more competitive as a whole in the mobilization of deposits, it has concentrated these efforts in the urban areas. In effect, the share of the banking network concentrated in the urban areas of Tegucigalpa and San Pedro de Sula increased from 57 percent in 1971 to 62 percent in 1982.

In order to compute the Herfindahl index of concentration from a regional perspective, an operational region was defined as a region where at least one full-service office operated at any one point in time during the period. This Herfindahl index increased from 1,862 in 1971 to 2,097 in 1982. That is, from the perspective of the number of banking offices operating in a region, the distribution of branches in Honduras is highly concentrated and this degree of concentration increased during the period. This phenomenon in part reflects the increasing urban concentration observed in general as well as the rationing criteria used by the banks.

When only full-service offices are considered, the network can be said to have been moderately concentrated from a regional perspective. However, as was the case in general, the Herfindahl index of concentration increased during the period, from 1,536 in 1971 to 1,658 in 1982. These measures of concentration consider the location of different branches only and do not reflect the concentration of lending activity, in terms of credit volumes.

It is not surprising to find that, when only limited-service branches are considered, the market was highly concentrated from a regional perspective. This is a reflection of the proliferation of deposit-windows in the urban areas. In this case, the Herfindahl index increased from 2,154 in 1971 to 2,271 in 1982. That is, the increase in competition for deposits took place mostly in existing and easy-to-service markets, mainly in the urban centers of Tegucigalpa and San Pedro de Sula. The proportion of limited-service branches in these two cities remained at 62 percent throughout the period. In the urban areas transaction costs were low both for depositors and for the intermediary. As a result, the rural areas have not been provided with deposit mobilization services that, as previously discussed, are also an important ingredient of the package of services to be offered by a complete financial system.

Despite increased competition and the other significant changes in market structure that took place during the period, the restrictions on interest rates as an incentive to depositors severely limited the ability of the banks to increase the real value of their total deposits. While in real terms, demand deposits had grown at an average rate of 1.2 percent per quarter during 1970-1974 and of 2.0 percent per quarter during 1974-1978, they declined at an average rate of -1.0 percent per quarter during 1979-1981. Similarly, savings deposits, that had increased at average quarterly rates of 1.9 percent and 2.7 percent during the 1970-1974 and 1974-1978 periods, declined at an average rate of -1.3 percent per quarter during 1979-1981. Finally, time deposits, that had grown very fast, at rates of 3.8 percent and 4.5 percent per quarter during 1970-1974 and 1974-1978, also declined, at an average quarterly rate of -2.2 percent. <sup>9/</sup>

In order to maintain the real value of their loanable funds in the presence of declining deposit mobilization, and in order to sustain their profit levels, the banks induced important changes in the structure of their assets and liabilities. Particularly noticeable is the increase in the banks' risk exposure during the 1971-1982 period. This in-

crease in risk exposure has been reflected by important increments in the leverage multiplier of the banking system as a whole, which is defined as the ratio of the banks' total assets with respect to their equity capital. For the whole financial system this leverage multiplier increased from 7.5 in 1971 to 16.8 in 1980, but then declined to 13.1 in 1982. This decline was explained in part by the failure of one of the important banks in 1981 and by the generalized contraction of the real size of the Honduran financial system that has characterized its evolution during the recent crisis.

Access to Central Bank rediscounting and to foreign funds also allowed the commercial and, particularly, the development banks, to expand their portfolio of assets without having to emphasize domestic deposit mobilization. That is, the ratio of total assets of the system with respect to total deposits mobilized increased from 1.96 in 1971 to 2.98 in 1979 and then declined to 2.63 in 1982, as Central Bank financing and foreign borrowing were restricted. Comparatively poor deposit mobilization, in comparison to asset expansion, has resulted in the relative stability of the deposit multiplier, which ranged between 3.81 in 1971 and 5.99 in 1980. The 1982 level of the deposit multiplier, of 4.99, was similar to the 1972 level, of 4.59.

The expansion of the portfolio of assets through higher leverage multipliers has varied much from bank to bank. In 1971 the leverage multiplier ranged between 4.0 and 27.9 for the private commercial banks, while it was 3.8 for BANADESA. In 1982, the leverage multiplier ranged between 6.6 (for a recently created bank) and 29.8, with the exclusion of the subsidiary of a foreign bank, which showed a multiplier of 96.0. It had increased to 21.7 in 1981 for BANADESA, but then dropped to 6.3 in 1982, as this bank was recapitalized.

The distribution of Central Bank credit has changed significantly. In 1971 BANADESA received 92 percent of the Central Bank's direct assistance. This proportion had declined to 34 percent by 1980 and represented 53 percent in 1982. In 1980 Banco Financiera Hondurena, about to fail, received 20 percent of the Central Bank direct assistance. During the most recent years the Central Bank has had to help three small but rapidly expanding banks to meet their capital adequacy standards and prevent them from failing. These three banks have received 31 percent and 27 percent of direct Central Bank assistance in 1981 and 1982. These funds have represented up to 25 percent of their assets.

Similarly important changes have taken place on the asset side of the financial system's balance sheet. In the first place, the proportion represented by cash and reserves has increased, in the case of the private commercial banks, from 14.3 percent of total assets in 1971, to 19.5 percent in 1982. This increase has been caused, mostly, by the proportion represented by the holdings of public sector securities, as reserve requirements have been increased, but the banks have been allowed to hold public sector securities to satisfy the requirements. These public sector securities represented only 4.6 percent of total assets in 1971, but their relative importance increased to 11.9 percent in 1982. This is just another manifestation of the greater fiscal role that the banking system has been asked to play.

On the other hand, there has been a long-term trend for the relative importance of the loan portfolio to decline. Loans represented 59.7 percent of the total assets of the whole financial system in 1971, but their relative importance had declined to 37.9 percent by 1979, as inflationary expectations increased. In recent years, the share of loans in

total assets has experienced some recuperation, to represent 43.4 percent in 1982. In the particular case of the private commercial banks, the share of loans in total assets declined from 49.9 percent in 1973 to 35.4 percent by 1980, but also recuperated to 42.2 percent in 1982. These data suggest that the commercial banks have moved away from lending and into holding other forms of investment, like real estate, tangible assets and foreign assets, that serve as inflation hedges or are less risky than loans, and into holding more government debt, as a consequence of the fiscal crisis. The reduction of the relative importance of the loan portfolio may also reflect the impact of loan rate ceilings, coupled with high lending costs. In all of these cases, the role of the financial system as a provider of intermediary services between surplus and deficit units has been jeopardized.

In summary, the Honduran financial system has actively competed for deposits, on the basis of non-interest rewards to savers, reflected by the rapid expansion of the branching infrastructure, particularly in the urban centers. Interest rate restrictions, however, have both induced too much access to Central Bank and foreign funds, and may have also contributed to the still highly concentrated distribution of loan portfolios in Honduras.

## NOTES

1. The main references are: John G. Gurley and Edward S. Shaw, Money in a Theory of Finance, Washington, D.C.: The Brookings Institution, 1960; Edward S. Shaw, Financial Deepening in Economic Development, New York: Oxford University Press, 1973; Ronald I. McKinnon, Money and Capital in Economic Development, Washington, D.C.: The Brookings Institution, 1973; Maxwell J. Fry, "Money and Capital or Financial Deepening in Economic Development," Journal of Money, Credit and Banking, X, Nov. 1978.
2. The importance of the services of the financial sector were emphasized by Shaw, while McKinnon stressed the role of deposit mobilization in resource allocation. See Millard Long, "A Note on Financial Theory and Economic Development," in Rural Financial Markets in Developing Countries, J.D. Von Pischke, Dale W Adams and Gordon Donald, eds., Baltimore: The Johns Hopkins University Press, 1983; and Claudio Gonzalez-Vega, "Los Mercados Financieros Rurales en la Republica Dominicana. Un Marco Teorico de Referencia para su Investigacion," Studies in Rural Finance, Ohio State University, Nov. 1983.
3. The emphasis is on marginal rates of return. See Claudio Gonzalez-Vega, "Interest Rate Restrictions and the Socially Optimum Allocation of Credit," in Savings and Development, IV: 1, January, 1980.
4. The importance of finance in market integration and a reduction in the dispersion of marginal rates of return to improve the quality of the capital stock is emphasized by McKinnon. See Ronald I. McKinnon, "Financial Policies," in Policies for Industrial Progress in Developing Countries, J. Cody, H. Hughes, and D. Wall, eds. New York: Oxford University Press, 1980.
5. The figures on Honduran financial development come from Claudio Gonzalez-Vega, "An Assessment of Financial Markets for Agricultural Credit in Honduras," in An Assessment of Rural Financial Markets in Honduras, Douglas H. Graham et al, Ohio State University, 1981,

and Claudio Gonzalez-Vega, "Estabilidad Macroeconomica y el Sistema Financiero: El Caso de Honduras," Studies in Rural Finance, Ohio State University, April, 1983.

6. See Gonzalez-Vega, "Estabilidad Macroeconomica.." cit, and Claudio Gonzalez-Vega, "Honduras: Instability and Stagnation. Review of the Macroeconomic Situation and Some Suggested Solutions," Agency for International Development, Tegucigalpa, July, 1983.
7. See Carlos E. Cuevas and Douglas H. Graham, "Interest Rate Policies and Borrowing Costs in Rural Financial Markets: A Case Study," and Carlos E. Cuevas and Douglas H. Graham, "Agricultural Lending Costs in Honduras," both Studies in Rural Finance, Ohio State University, 1983.
8. Central Bank regulations are periodically reported in Banco Central de Honduras, Boletin Estadistico, monthly.
9. See Carlos E. Cuevas and Robert C. Vogel, "Desarrollo del Sistema Financiero y Movilizacion de Ahorros: La Experiencia de Honduras en el Periodo 1970-1981," Studies in Rural Finance, Ohio State University, April, 1983.

Table 1. Honduras: Number of bank offices, average number of offices per bank and proportion of full-service and limited-service branches. 1971-1982.

Year	Number of offices		Offices per bank		Percentage of offices	
	Banks*	Savings banks	Banks*	Savings banks	Full-service	Limited-
1971	134	4	10.3	1.0	.37	.63
1972	147	5	11.3	1.2	.35	.65
1973	159	5	12.2	1.2	.33	.67
1974	174	5	11.6	1.2	.32	.68
1975	182	6	12.1	1.5	.31	.69
1976	194	9	12.9	1.8	.30	.70
1977	205	9	13.7	1.8	.29	.71
1978	217	11	14.5	1.8	.28	.72
1979	228	18	14.3	2.2	.27	.73
1980	246	27	14.5	3.4	.26	.74
1981	244	32	14.4	4.0	.26	.74
1982	244	35	14.4	4.4	.26	.74

Includes both private commercial and public development banks. The percentage of offices of the last columns are referred to these banks only.

Source: Computed from Central Bank information on the number of offices operated by the financial institutions under its regulation.

Table 2. Honduras: Herfindahl index of concentration, for the number of offices, total deposits, demand deposits, and savings and time deposits, per institution, in the financial system. 1971-1982.

Year	Number of offices	Total deposits	Demand deposits	Savings and time deposits
1971	1,635	1,890	1,691	2,166
1972	1,645	1,535	1,440	1,922
1973	1,621	1,467	1,411	1,817
1974	1,482	1,436	1,384	1,848
1975	1,490	1,475	1,375	1,722
1976	1,424	1,222	1,070	1,495
1977	1,361	1,093	980	1,298
1978	1,337	1,072	1,074	1,117
1979	1,273	1,071	1,159	1,040
1980	1,194	1,005	1,038	1,029
1981	1,271	962	941	1,000
1982	1,248	895	986	874

Source: Computed on the basis of balance sheet data published in Banco Central de Honduras, Boletín Estadístico, several years.

Table 3. Honduras: Number of BANADESA offices, proportion of bank offices in Tegucigalpa and San Pedro de Sula and regional Herfindahl indexes of concentration, 1971-1982.

Year	Number of BANADESA offices	Proportion of urban bank offices*	Herfindahl Index of Concentration*		
			Total offices	Full-service	Limited-service
1971	21	.57	1,862	1,536	2,154
1972	21	.57	1,867	1,488	2,155
1973	22	.56	1,833	1,442	2,083
1974	22	.58	1,887	1,461	2,124
1975	22	.58	1,885	1,477	2,106
1976	22	.58	1,914	1,507	2,122
1977	26	.60	2,011	1,575	2,221
1978	27	.61	2,053	1,575	2,265
1979	27	.61	2,081	1,607	2,318
1980	27	.62	2,093	1,638	2,276
1981	27	.62	2,097	1,657	2,271
1982	27	.62	2,097	1,657	2,271

\* It is the proportion of branches of the commercial and development banks that are located in Tegucigalpa and San Pedro de Sula. The Herfindahl index of concentration has been computed from a regional perspective, as explained in the text.

Source: The same as in Tables 1 and 2.

Table 4. Honduras: Financial sector multipliers. 1971-1982.

Year	Leverage multiplier	Deposits multiplier	Ratio of assets to deposits
1971	7.45	3.81	1.96
1972	8.66	4.59	1.87
1973	9.66	5.04	1.92
1974	10.41	4.87	2.07
1975	10.34	3.92	2.63
1976	11.74	4.65	2.52
1977	14.22	5.31	2.68
1978	15.04	5.59	2.69
1979	16.34	5.49	2,98
1980	16.79	5.99	2,80
1981	16.21	5.76	2,81
1982	13.13	4.99	2.63

Source: The same as in the previous tables.