ANALYSIS OF THE CONTRIBUTIONS OF FINANCIAL INTERMEDIARIES IN THE SAVING AND INVESTMENT PROCESS IN ETHIOPIA, 1961-1973

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July, 1975

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ACKNOWLEDGEMENTS

The writer wishes to express his gratitude to all persons who contributed to the completion of this study. Despite the advice and consultation provided, the author takes full responsibility for any errors that may appear in this study. The author cannot here acknowledge all indebtedness, but several individuals must be singled out. He especially wishes to express appreciation and gratitude to Dr. James F. Jackson, Chairman of the Advisory Committee, for his valuable guidance, encouragement, and understanding in the preparation of this dissertation. Grateful acknowledgements are due to the other members of the Advisory Committee, Dr. Winfield P. Betty, Dr. William M. Kincaid, and Dr. Dean F. Schreiner for their interest and assistance. Special appreciation is extended to Dr. James S. Ang and Dr. Winfield P. Betty who gave inspiration and direction throughout the study. Special thanks are extended to Dr. William D. Warde for his valuable guidance in the statistical analysis.

The writer is heavily indebted to his nephew, Mr. Mekuria Marru for assuming the difficult task of securing and sending data from Ethiopia. Without his help this work could not have been completed. Also, particular appreciation is extended to Mr. Bulcha Demeksa and Mr. Ismail Mekki, both Executive Directors of the World Bank, and Mr. Mike Niebling of the International Monetary Fund for their assistance in furnishing valuable data for the study.

The author is indebted to the peoples of Ethiopia and the United States whose governments' cooperation has made possible the financing of his studies.

The author thanks Mrs. Margaret Estes for typing this study.

Finally, the writer expresses special gratitude to his wife, Aster, to their daughter, Messeret, and to his mother, Bizunesh, for their encouragement, patience, and sacrifice.

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CHAPTER I

INTRODUCTION

It is generally believed that shortage of capital is a major bottleneck to economic development in developing nations. Ethiopia is among the least developed of the developing nations with a per capita income of Eth. $186[1] in 1972 ($ refers to Ethiopian dollar throughout this study) and average annual real growth rate in per capita income for the period 1960 to 1972 of only 2.4 percent.[2]

The dependency of economic development on the capability to finance is not absolutely certain. The literature on financial development theory, which is the subject of Chapter III, carries in it differing view points. At this point, it suffices to mention that an empirical study conducted by Irma Adelman and Cynthia Taft Morris indicates that the degree of industrialization in developing nations depends, more than anything else, on the rate of improvement in the financial system.[3]

Increase in the welfare of people in a nation could be measured by the economic index of per capita consumption. Under normal conditions, these increases are presumed to come from increases in production. Increases in production in turn are made possible through the augmentation in the investment of productive assets. In order for the required level of investment to materialize, short of foreign long-term capital inflows, it must be backed by domestic savings.[4] Since savings and investments are mostly performed by different groups of decision

makers except in the most backward economies, a lag in the former could be an obstacle to development.

Development requires a high rate of investment. Since investment must be financed, and since financial resources (loanable funds) are in short supply in developing nations (because the rate of savings is low and what is saved is often used for unproductive ends) the availability of an adequate financial system capable of facilitating the mobilization of resources and the financing of investment is essential. The first leg of the twenty year development plan (Second Five Year Development Plan) of Ethiopia, 1962-1982, has an average of five percent annual increase in GNP as its goal.[5] However, the rate of investment has been far short to support such a long-term growth rate as will be shown in Chapter II.

Problem

To the casual observer, the activities of financial institutions in Ethiopia may be impressive especially since about 1964. Since then there have been large increases in the number of bank branches. Specialized financial institutions came into being in moderate numbers. Increased mobilization of savings is evident. However, it is not clear whether or not these institutions and their services are growing at rates adequate to meet the growing needs of the economy.

This study makes an in-depth study of the Ethiopian financial system and its development for the period between 1961 and 1973 and examines the specific roles played by the financial system and its counterparts to stimulate development in the economy.

Specific features to be examined will include:

1. the growth and composition of money supply;
2. progress in the monetization of the economy;
3. the growth of saving and time deposits;
4. real growth of money and quasi money;
5. distribution of funds by financial institutions to the different sectors of the economy;
6. growth of assets of financial institutions; and
7. growth of financial institutions' claims on private and government sectors; etc.

A sustained growth in the proportion of demand deposits to money supply is indicative of the modernization of the economy. It also shows that commercial banks are stimulating economic growth at least in the sense that the private business sector[6] is forming a habit of utilizing their facilities increasingly thereby enabling them to make use of the funds deposited with them.

Since a barter economy still prevails in rural Ethiopia, perhaps growth in monetization is another important indicator of the modernization of the economy and its growth. Monetary ratio (the reciprocal of GNP velocity of money) will be used as a measure of monetization of the economy as well as such measures as changes in the ratio of monetary GDP to total GDP and changes in the ratio of monetary investment to total investment in the economy.

A significant growth in saving and time deposits would reveal that banks (commercial as well as others) have been able to induce the public to hold financial assets in place of physical wealth and hoarding of cash.

A growth in the proportion of time and saving deposits and other less liquid sources of funds, including the capital account, to total deposits should lead to a shift in the asset portfolio of banks from short-to-long-term financing. Economic development will be enhanced if banks increase their industrial and agricultural loans and investments under such circumstances assuming there are demands for such financing.

Growth in real money[7] would indicate how much of the nominal growth in money has been inflationary. This should be one good measure of the performance of monetary banking. Many developing countries, especially those in Latin America, while showing phenomenal nominal growth in money supply, their real money growth has been stagnating or in the negative at times.

An examination of the portfolio holdings of the financial system and that of the various types of financial institutions should indicate the extent these institutions are committed to stimulate economic development. For example, growth in industrial finance is indicative of the particular institution's commitment to economic development. Likewise, growth in agricultural finance also reveals inducement to economic development because agriculture, being the mainstay of the economy, should be improved before it is at all possible to achieve a sustained economic growth.

If a type of financial institution finances an increasing proportion of investment in certain economic sectors such as agriculture, industry, etc., the intermediary will be considered to have contributed to economic development. If it finances a constant or declining proportion of the investment, it can be said that it is not contributing to economic development to the extent possible.

There will be no attempt in this study to segregate loans into short- and long-term. There is no such dependable data for Ethiopia. Besides, the commonly prevailing view of associating long-term loans alone to investment is disputed for the simple reason that short-term loans could free a firm's equity capital for fixed investment in plant and equipment. Also, firms, once well established, could renew short-term loans in perpetuity. This is especially true in Ethiopia with regards to commercial banks financing.

A good measure of relative growth of the financial sector to the economy would have been the ratio of financial assets to national wealth. However, data on national wealth is not available even for many developed countries. Therefore, a ratio of financial institutions assets to national income is thought to represent the financial intermediation ratio and thereby indicate the degree of involvement of financial institutions in the efforts of economic development. If there is a significant upward trend of this ratio for the period considered, then it can be presumed that financial institutions are stimulating economic development.

Hypotheses

It is generally known that investment could be financed in one or more of the following ways:

1. self-finance -- financing internally through direct saving;
2. direct-finance -- financing externally whereby deficit spending units issue primary securities to surplus spending units directly; and

3. indirect-finance -- financing externally whereby financial intermediaries issue indirect securities to surplus spending units and purchase direct securities from deficit spending units.

It is obvious that economic development is retarded if only self-finance and direct-finance are accessible and financial intermediaries do not exist. This leads us to Hypothesis No. 1 which deals with indirect financing. It states that in Ethiopia, financial institutions finance an increasing proportion of investment. This hypothesis will have a number of sub-parts dealing with specific types of financial institutions and sectoral investments. The institutions considered are development banks, commercial banks, and thrift institutions. The economic sectors are agriculture, industry and building, construction, and housing.

At such early stage of development where Ethiopia finds herself, private financial institutions, especially commercial banks, shy away from financing investment in agriculture and industry. Their limited and near-liquid sources of finance and their traditional inclination in favor of self-liquidating commercial loans makes them high risk averters. This resulted in the creation of development banks in many less developed countries to facilitate the flow of funds to these sectors. Ethiopia was among the pioneers in establishing such a bank back in 1951.

The loans and investments of the Agricultural and Industrial Development Bank and its predecessors (Development Bank of Ethiopia and Investment Bank of Ethiopia) will be analyzed to see if they have played a major and an increasing role in their sphere of responsibility as compared to commercial banks, the only other financial intermediary

supplying funds to these sectors. Thus, Hypothesis No. 2 states that supply of funds from the Agricultural and Industrial Bank and its predecessors to agricultural and manufacturing industries grows faster than credit from commercial banks.

Before the 1960's commercial banks were the only sources of mortgage finance for building and construction. These sources were very much limited to meet the growing demands especially in the area of housing. To alleviate this problem, the first thrift institution in the country, the Imperial Savings and Home Ownership Public Association, was established in 1962. Later in 1964 the Savings and Mortgage Corporation was organized as a subsidiary of the Commercial Bank of Ethiopia to help complement the efforts of the other financial institutions. Hypothesis No. 3 states that supply of funds from thrift institutions to building, construction and housing grows faster than that from the commercial banks.

Economists believe that saving is a function of income alone at low levels of income. At higher levels of income, changes in interest rates and prices are ordinarily considered additional determinants of saving although there is no universal agreement as to the nature of their relationships.[8]

In the case of Ethiopia, changes in the number of commercial banks' branch offices could be included as an additional factor that may have an effect on saving. This is because penetration of small but growth centers by banks could increase efficiency in the mobilization of resources and improve the quality of services they offer to the public. It is reasonable to expect that people at such places could be induced to save more if the appropriate facilities are made available.

Therefore, Hypothesis No. 4 states that saving is positively related to income, interest rate, and the number of bank offices and negatively related to prices.

Utilization of per capita income data is ordinarily preferred to total national income. However, due to the unavailability of dependable population figures, we have no choice but to make use of the latter.

Hypothesis No. 5 deals with an econometric model for investment. It states that investment is positively related to income and supply of funds from financial institutions and negatively related to prices and interest rates. This hypothesis has a number of sub-parts when investment is considered by economic sectors such as agriculture, industry, etc.

There is a growing consensus based on empirical evidence in some countries that developing countries lack viable projects rather than funds to finance such projects.[9] Therefore, Hypothesis No. 6 states that in Ethiopia lack of viable projects rather than the supply of loanable funds limits investment.

Models

The model to represent Hypothesis No. 1 is simple. To evaluate whether or not each type of financial intermediary has supplied an increasing proportion of its funds to the different economic sectors relative to the sector's respective investment, the following model is used:

1. $f_{t,n} = (F_{t+1,n} - F_{t,n})/F_{t,n}$
2. $i_{t,n} = (I_{t+1,n} - I_{t,n})/I_{t,n}$

$(t = 1, 2, 3, \ldots, T); (n = 1, 2, \ldots, N)$

Where:

$F_{t,n}$ = Funds supplied to sector n in year t.

$I_{t,n}$ = Investment in sector n in year t.

$f_{t,n}$ = Rate of growth of funds supplied to sector n in year t.

$i_{t,n}$ = Rate of growth of investment in sector n in year t.

T = Number of years under consideration.

N = Number of sectors under consideration.

If $f_{t,n} > i_{t,n}$, then the hypothesis that a financial intermediary is supplying an increasing proportion of its funds relative to a sector's investment is true. If $f_{t,n} \leq i_{t,n}$, the hypothesis is false.

To evaluate the second hypothesis; that is, the relative role of the Agricultural and Industrial Development Bank of Ethiopia and its predecessors as compared to that of the commercial banks in financing development projects the following model is used:

1. $d = (D_{t+1} - D_t)/D_t$

2. $b = (B_{t+1} - B_t)/B_t$

$(t = 1, 2, 3, \ldots, T)$

Where:

D_t = Funds supplied by the Agricultural and Industrial Development Bank and its predecessors to agriculture and manufacturing in year t.

B_t = Funds supplied by commercial banks to agriculture and manufacturing in year t.

d = Annual rate of growth of funds supplied by the Agricultural and Industrial Development Bank and its predecessors to agriculture and manufacturing.

b = Annual rate of growth of funds supplied by commercial banks to agriculture and manufacturing.

T = Total number of years considered.

If $d > b$, the hypothesis that funds supplied by the Agricultural and Industrial Development Bank and its predecessors to agriculture and manufacturing grows faster than funds supplied by commercial banks to agriculture and manufacturing is true. Therefore, the data will support that the Agricultural and Industrial Development Bank and its predecessors appropriately filled the gap of one of the missing elements in economic development thus fulfilling their objectives.

If $d \leq b$, the hypothesis will be false. This relationship will indicate that the goals of the development banks are not achieved.

To evaluate the third hypothesis the following model is used:

1. $h = (H_{t+1} - H_t)/H_t$

2. $C = (C_{t+1} - C_t)/C_t$

$(t = 1, 2, 3, \ldots, T)$

Where:

H_t = Funds supplied by thrift institutions to building, construction and housing in year t.

C_t = Funds supplied by commercial banks to building, construction, and housing in year t.

h = Rate of growth of funds supplied by thrift institutions to building, construction, and housing.

c = Rate of growth of funds supplied by commercial banks to building, construction, and housing.

If $h > c$, the hypothesis that supply of funds by thrift insitutions to building, construction, and housing grows faster than the supply of

funds by commercial banks to the same sector will be true. It would mean the data support that the specialized thrift institutions are living up to their objectives. Otherwise, the hypothesis will be false and these institutions will be considered not adequately meeting the needs they are designed to accomplish.

The model to represent the fourth hypothesis is shown below as consisting of three different alternative functions:

1. $S_g = f(GDP, i, Bo, P)$
2. $S_m = f(MGDP, i, Bo, P)$
3. $S_f = f(MGDP, i, Bo, P)$

Equation 1 represents the function of gross domestic savings, equation 2, the function of gross monetary savings, and equation 3, the function of financial savings as measured by the value of both private domestic saving and time deposits in commercial banks and specialized financial intermediaries.

The representation of real saving as a function of national income, price and interest rate is a common place in economic and finance literature.[10] However, the models which are depicted above include bank offices as relevant variable in the case of Ethiopia for reasons mentioned earlier.

The variables are defined as follows:

S_g = Gross domestic saving.

GDP = Gross Domestic product.

i = Interest rate; commercial banks' rates on saving deposits are used in all three equations.

Bo = Bank offices.

P = General price index (GDP deflator).

S_m = Gross domestic saving.

S_f = Financial saving.

MGDP = Monetary gross domestic product.

Hypothesis No. 5 is represented by the following two equations:

1. $I_g = f(GDP, SF, i, P)$

2. $I_m = f(MGDP, SF, i, P)$

Where:

I_g = Gross fixed domestic investment.

SF = Annual supply of funds to the economy excluding funds supplied to internal and external trade and consumer finance.

I_m = Gross fixed domestic monetary investment.

i = Commercial banks' maximum mortgage loan rates.[11]

P, GDP, and MGDP are as defined above.

Economists often deal with planned investment and conceptualize it as a function of gross national income, interest rate, and the stock of capital in the economy.[12] In the case of Ethiopia data on capital stock is not available for a long-enough period and the data available does not cover the agriculture sector.

Rita M. Maldonado used the following investment function on Puerto Rico:[13]

$I = f(i, RE, \Delta GNP, LF)$

Where:

RE = Retained earnings.

LF = Medium- and long-term loans by financial intermediaries.

She found all the variables, with the exception of interest rate, significant at the one or five percent level.

Retained earnings data are not available for Ethiopia.

Since investment in the developed world is predominantly monetary and current theories are based upon the same experiences, segregation of monetary investment from gross investment is absent in the literature. However, the inclusion of such a function as depicted in equation 2 above is relevant in the case of least developed countries where subsistence farming is dominant as in Ethiopia.

When considering sectoral monetary investments, the variables I_m, MGDP, i, and SF are partitioned as shown below.

I_m:

I_a = Gross fixed monetary investment in agriculture

I_i = Gross fixed monetary investment in manufacturing

I_b = Gross fixed monetary investment in building, construction and housing.

MGDP:

$MGDP_a$ = MGDP in agriculture

$MGDP_i$ = MGDP in manufacturing

$MGDP_b$ = MGDP in building, construction, and housing.

i:[14]

i_a = cost of borrowing for agriculture

i_i = cost of borrowing for manufacturing

i_b = cost of borrowing for building, construction and housing.

SF:

SF_a = Annual supply of funds to agriculture

SF_i = Annual supply of funds to manufacturing

SF_b = Annual supply of funds to building, construction and housing.

P:

P_a = GDP deflator in agriculture

P_i = GDP deflator in manufacturing.

In order to analyze the contribution of types of financial intermediaries to the investment efforts in the different sectors of the economy SF is also partitioned as follows:

SF_{da} = Supply of funds from the Agricultural and Industrial Development Bank and its predecessors to agriculture

SF_{di} = Supply of funds from the Agricultural and Industrial Development Bank and its predecessors to manufacturing

SF_{ca} = Supply of funds from commercial banks to agriculture

SF_{ci} = Supply of funds from commercial banks to manufacturing

SF_{cb} = Supply of funds from commercial banks to building, construction, and housing

SF_{tb} = Supply of funds from thrift institutions to building, construction, and housing.

The above partitions in the regression will help complement the analyses which will be presented under hypotheses No. 1 and No. 2.

A direct test of hypothesis No. 6 will require knowledge of the effective supply and demand for investment funds. Data are not readily available regarding these. However, we can take a preliminary step in that direction by analyzing the demand for and the supply of the Agriculture and Industrial Development Bank funds. Since the Agriculture and Industrial Development Bank is the major financial institution supplying investment funds, such treatment cannot be considered too superficial. Therefore, we can narrowly define the effective demand and supply for investment funds as follows:[15]

Demand - the sum total of approved project loans by the bank.

Supply - funds available for lending purposes which include funds temporarily invested in short-term assets, ammortization payments, and unwithdrawn lines of credit from various sources.

We can also use a more conservative measure of the availability of funds as in the following formulation:

Excess funds = current assets - current liabilities - undisbursed commitments + unutilized line of credit.

Organization of the Study

Chapter II reviews the structure of the Ethiopian economy and its evolution. It gives an overview of the socio-economic and political system of the country.

The physical and human resources of the country are examined. The extent of the national resources exploitation for purposes of development is highlighted. Population growth, employment by sector, literacy rate, enrollment in schools and higher institutions of learning, etc., are reviewed. The problems of communications and transportations are briefly reviewed.

The structure of the GDP for the period under consideration is examined. Shifts in the structure of the subsistance agriculture dominated economy is noted. Rates of growth of the various economic sectors are compared and evaluated.

The export-import business is reviewed with the objective of revealing that Ethiopia's exports are almost totally primary agricultural products. Coffee, whose world price fluctuation is known to be

devastating to a poor country like Ethiopia, accounts for about 50 percent of the total export. The country's balance of payment position is highlighted.

The structure of government expenditures and revenues is examined for the period under study to underscore the fact that Ethiopia depends for much of its revenue on indirect taxes rather than on direct taxes. Changes in the structure of revenues and expenditures is noted.

Ethiopia launched its first five year development plan in 1957. Since then, three consecutive five year development plans have been completed. The goals of these plans are outlined. These plans are compared with their implementations. Specific emphasis is given to comparisons of planned and actual investments.

Chapter III reviews literature on concepts and theories of financial development, economic growth, and economic development. The first part of the chapter briefly reviews theories of economic development in general.

The process of financial development beginning with a stage of financial structure dominated by self-finance to that of a financial structure where financial intermediaries proliferate is conceptualized. Literature on the interrelations between financial development and economic development is briefly reviewed.

Two types of financial growth, namely demand-following and supply-leading phenomena are reviewed and their implications for developing countries are examined.

The general characteristics of finance in developing countries are discussed. Some rough measures of the efficiency of financial institutions and financial intermediation useable in developing countries are given.

Chapters IV, V, and VI are the core chapters of this study. The descriptive portions provide statistical data essential for understanding the activities of financial institutions in Ethiopia. The analytical portion is primarily concerned with the allocation function of the financial intermediaries.

Chapter IV deals with the activities of monetary financial institutions in Ethiopia. Historical highlights of the evaluation and development of these institutions are briefly reviewed. The laws and regulations under which they operate are discussed. The sources and uses of funds of commercial banks over the years under study are examined and changes in them are noted. Growth rates in the asset portfolio of commercial banks as well as growth rates in deposits are examined and reasons behind such changes are explored.

Chapter V deals with the activities of non-monetary financial institutions and involves the same type of analysis as in Chapter IV except it deals with heterogeneous type of specialized financial institutions.

In Chapter VI the various models developed above are tested utilizing data furnished in Chapters II, IV, and V, and the Appendixes.

Chapter VII summarizes the major findings and gives conclusions.

FOOTNOTES

[1]In this study all values are in Ethiopian dollar. U.S. $1.00 was equivalent to Eth. $2.48 prior to 1964; Eth. $2.50 for the period of 1964 to November, 1971; Eth. $2.303 for the period of December, 1971, to January, 1973; and Eth. $2.07 afterwards.

[2]Adapted from GNP and population figures from National Accounts Estimates, 1960/61 - 1971/72, National Accounts Department, Central Statistical Office (Addis Ababa, January 23, 1974), p. 2.

[3]Irma Adelman and Cynthia Taft Morris, "An Economic Model of Socio-Economic and Political Change in Underdeveloped Countries," The American Economic Review, LVII (1968), pp. 1184-1218.

[4]Investment as used here refers to real investment in productive assets and excludes investment in real estate used for unproductive purposes, precious metals, and similar unproductive investments; savings, when it is not qualified, refers to real domestic savings; that is, what is saved after consumption and includes both government and private savings.

[5]"Second Five Year Plan," Ethiopia Observer, VII (1963/1964), p. 177.

[6]It is not yet customary in Ethiopia for households to open checking accounts due to low acceptability of checks for transaction purposes.

[7]Refers to nominal money supply deflated by the current price index.

[8]Donald W. Snyder, "Econometric Studies of Household Saving Behavior in Developing Countries: A Survey," The Journal of Development Studies, X (1974), pp. 139-153.

[9]Sayre P. Schartz, Development Bank Lending in Nigeria (Ibandan, 1964), p. 89.

[10]Murray E. Polakoff et al., Financial Institutions and Markets (New York, 1970), pp. 38-40; Snyder, pp. 139-153.

[11]This rate is chosen because it is about the average rate for various types of loans. Since similar changes in the various rates are effected by government monetary policy at about the same time, the choice of the rate to be used should not make a difference in the outcome.

[12]D. C. Rowan and Thomas Mayer, Intermediate Macro-economics (New York, 1972), Chapter 10, pp. 145-166.

[13]Rita M. Maldonado, "The Role of the Financial Sector in the Economic Development of Puerto Rico," (Unpublished Ph.D. Dissertation, New York University, 1969), pp. 166-169.

[14]Actual lending rates by specialized financial institutions are not available for the period considered. However, an examination of rates for selected years and their comparison with commercial banks' lending rates, which are readily available, reveals that commercial banks' maximum rates for business loans are good proxies for industrial loans. Lending rates for agriculture are one percent lower than industrial rates. Lending rates for building and construction are those of commercial banks' mortgage loan rates.

[15]Data on effective demand and supply as defined here are available for the years 1971 to 1973 inclusive.

CHAPTER II

THE STRUCTURE OF THE ETHIOPIAN ECONOMY AND POLITICAL SYSTEMS

The Socio-Political System

Ethiopia is the oldest independent state in Africa with virtually no history of colonization by foreign powers except for Italy's five year occupation about the time of the Second World War.

For about half a century there was a strong central government under a system of pseudo-constitutional monarchy headed by former Emperor Haile Sellassie I until a revolutionary military take over in 1974.

Supreme authority over all the affairs of the nation was exercised by the emperor although the constitution provided for four permanent constitutional bodies: the Crown Council, the Council of Ministers headed by a prime minister, the Senate whose members were appointed by the emperor, and the Chamber of Deputies elected by the people. The latter two constituted a powerless parliament except in cases of safe-guarding their own interests, mainly their holdings in land.

Development planning was instituted in 1957. Since then, three five-year development plans have been implemented. However, their implementation has not yet scratched the surface of revolutionizing agriculture, the mainstay of the economy. This poor outcome is mainly

due to a strong resistence to land reform among some members of parliament and wealthy landlords.

Like most underdeveloped nations, Ethiopia is faced with the dual problem of economic growth and social inequity. The mere increase in gross national product has not solved the problems of the masses. Therefore, what is needed is a policy that leads to greater social equity without undue sacrifices to economic growth. At present, Ethiopia is faced with complex economic, political, and social problems.

Natural and Human Resources

Ethiopia covers a land area of about 470,000 square miles. This area is larger than the combined land size of Oklahoma, Texas, and New Mexico.

Topography, climate, soil fertility of largely uncultivated arable land, abundant rainfall with the exception of the past few drought years, ample reserve of water resources from a vast number of rivers, which are mostly wasted, put the country in a favorable position for agricultural production and processing.

Ethiopia is one of the eight centers of origin of the world's most important cultivated plants.[1] It is believed that Ethiopia occupies first place in the world in the number of its botanical varieties of wheat. It is also thought that it is the center of the origin of cultivated barley and coffee.[2]

The striking differences which exist between the different regions in physical characteristics of climate, altitude and soils enable the country to produce a variety of field crops, fruits and vegetables.

The livestock industry is considered to be even more important than the total crop potential of the country. Ethiopia is believed to have the largest livestock population of all African countries. A 1972 estimate put the number of cattle at 26,353,700; sheep, 13,002,400; goats, 11,414,600; horses, 1,415,400; mules, 1,424,900; donkeys, 3,868,900; camels, 992,400; pigs, 16,000; and poultry, 49,000,000.[3] However, the present contribution of livestock to the economy is very minimal. Livestock productivity is very low due to malnutrition, poor management, prevalent diseases and parasites. As a result, the number of sheep and goats has been shrinking from their 1964 level of 24,631,000 and 18,095,300, respectively.[4]

For the last few years, the country has been sponsoring a vigorous exploration to determine and develop the country's mineral resources. At present small quantities of gold, platinum and copper are produced. The more promising deposits are potash and petroleum. Potash was scheduled for production in 1970, but depressed world prices and the continued closure of the Suez Canal forced its postponement.

Ethiopia has an estimated population of about 26 million of which more than 90 percent is rural, 87 percent earn their living in agriculture.

In 1966 the proportion of the labor force was structured as follows:[5]

Agriculture	86.5%
Industry, building, and mining	6.2%
Services	3.2%
Sales	2.3%
Professional and administrative workers	1.8%

It is estimated by manpower experts that by the year 2000, Ethiopia will still have about 75 percent of its labor force in agriculture.[6]

Considering such a high proportion of labor in agriculture and bearing in mind the universal disguised unemployment detected in agriculture in other developing countries, perhaps it is safe to assume that there are abundant disguised labor reserves in the country that could be channeled to other sectors that need unskilled labor. A good example is building feeder roads. All sectors where unskilled labor is substituted for scarce capital may benefit from such channeling.

An examination of the literacy rate shows how much of the human capital is underdeveloped. A 1970 estimate puts the literacy rate between nine and ten percent.[7]

Infrastructure

A country's general development depends, among other things, upon the infrastructures of transportation network, communication systems, power supply, education and health services. In the case of Ethiopia not only are there inadequacies in most types of infrastructures, there are severe unbalanced growth between urban and rural areas.

Transportation is a basic ingredient of the exchange economy. Specialization and exchange based on comparative advantage are not possible without moving goods and services from one place to another.

The feature of Ethiopia's rugged topography in the highlands has been a major obstacle to expanding the country's road network. However, the road networks of the urbanized areas are moderately well developed although the total length of all weather highways are only about 5000 miles. In 1966 only eight percent of the total land area of the country was within half-day by mule to an all-weather road.[8] At that time the total length of all-weather roads was 3,812 miles.[9] This shows that

penetration of rural Ethiopia has not been accomplished to date. The combined length of railways has been static at 680 miles for decades.

The only bright feature of the transportation network is the air transport. Transportation by air to developing areas to which roads can not penetrate has been accelerating. However, their high cost form of transportation is not appropriate for moving commodities. The country is directly connected by air with most of Africa, Western Europe and Asia.

Ethiopia mostly depends on hydroelectric power in generating electric energy production. Fortunately, the hydroelectric potential is considerable. About 46 billion kwh of power has been estimated to be practically exploitable from 16 large watersheds in the country, including 38 billion kwh from the Blue Nile Basin.[10] By June, 1972, less than one percent of this potential had been exploited.[11]

The government policy on the development of electric power is stated in the Third Five Year Plan as follows:

> The fundamental objective or power development continues to be that of supplying, with sufficient anticipation, the necessary electric power required by the growth of the economy. The plan is designed to ensure that power capacity keeps just ahead of current demand, in view of the long gestation period required for building power plants.[12]

The World Bank has been most helpful in financing currently electric generating plants and those under construction under long-term loans.

In the area of social infrastructure such as education and health, the country has a long way to go. By June, 1972, there were 2,611 schools with 16,950 classrooms employing 21,267 teachers with an enrollment of 871,916 students. The number of students classified as primary school students was 716,729 and consisted of grades one to six. The number of students classified as junior high school was 79,338, while 61,353 were enrolled in senior high schools. Specialized

vocational schools had 8,612 students with 5,884 students attending schools of higher learning.[13]

The primary school enrollment was about 17 percent of the age group while the ratio for total high school enrollment was about five percent in 1970. Vocational school enrollment ratio was only two percent. The student per teacher ratio was 51 percent and 34 percent for primary school students and high school students, respectively.[14] The ratios for Africa indicate that Ethiopia is indeed very backward in its effort of developing human capital. The average enrollment rate for primary school age population was 40 percent and that of secondary school age population was 15 percent for the whole of Africa back in 1968.[15]

The health and medical facilities are severely in short supply. In 1970 there were only 84 hospitals with 8,254 beds in the whole country. There were 539 clinics, 81 health centers, 336 doctors, 166 health officers, 86 pharmacists, 823 registered nurses, and 3,016 dressers.[16] This would mean there were about 3,000 persons per hospital bed, 298,000 per health center, 45,000 per clinic, 72,000 per doctor, 145,000 per health officer, and 30,000 per registered nurse.

The disparities between urban centers and rural areas are overwhelming considering both economic and social infrastructures. The unbalanced growth of road networks has been mentioned above. The imbalance goes parallel in electrification, education and health services as well. Consequently, the educated few, rather than working under substandard conditions in rural areas, have been continuously absorbed by white collar jobs in urban centers until very recently.

The Structure of the Economy

Ethiopia's economy is dominated by traditional subsistence agriculture. Therefore, it has one of the smallest monetized economies, even by African standards. For example, its monetary gross domestic product (MGDP) was only 57 percent in 1972. In 1969 Kenya had a MGDP ratio of 78 percent, Ivory Coast 85 percent, Cameroon 86 percent, Liberia 91 percent and Zambia 95 percent.[17]

In 1972 Ethiopia's gross domestic product (GDP) at current factor cost amounted to $4,399.4 million. This GDP showed an increase of 89 percent over the GDP of 1961 which was $2,331.7 million. However, GDP at constant factor cost of 1961 was only $3,758.9 million in 1972. There was an annual increase of 4.4 percent over the years 1961 to 1972. When allowance is made for population growth, the annual per capita increase for the same period is reduced to 2.4 percent. Obviously the slackening of the economy was mainly due to the low productivity in agriculture. During the period, the agriculture sector grew at only 2.3 percent while population grew at two percent per annum. Thus, growth in agriculture was almost wiped-off by the growth in population. Average annual growth rates for other sectors were as follows: Industry[18] 7.2 percent, services 7.7 percent, mining and quarrying 7.3 percent, manufacturing 12.8 percent, handicraft and small scale industries 5.9 percent, building and construction 4.9 percent, electricity and water 13.5 percent, educational services 12.4 percent, and medical and health services 6.5 percent.

Although the proportion of agriculture in GDP has declined from 64.5 percent in 1961 to 51.5 percent in 1972, major structural changes

in the economy were not achieved. Table I shows these structural changes.

In 1972 the share of gross domestic fixed capital formation in Gross National Product (GNP) was 12.8 percent. The average share for the period 1961 to 1972 was somewhat higher at 13.0 percent. Gross Fixed Capital formation was $603.1 million in 1972 constituting 82.5 percent of monetary investment and 17.5 percent investment in kind. It has increased by 104.4 percent over the level of 1961 which was $295 million. Monetary investment and investment in kind increased over the 1961 levels by 132.9 and 29.5 percent, respectively.

Agriculture

Agriculture is the mainstay of the Ethiopian economy by all counts. It contributes more than 50 percent of GDP, between 80 and 85 percent of the population earn their living on agriculture. Nearly all of the exports are agricultural goods or products derived from agriculture.

The activities and income generated in many branches of the economy depend on the results achieved in the agriculture sector because agriculture supplies the basic raw materials for manufacturing and processing industries through which the nation's efforts to diversify exports and to accelerate import substitutions are achieved. Also, the volumes of internal trade, transport, and export business are determined by the quantity and turnover of agricultural produce.

Industrialization is among the foremost goals of developing nations including Ethiopia. However, industrialization presupposes improved productivity in agriculture as the size of the population dependent on purchased food obviously increases. If the capacity of the agricultural

TABLE I

PERCENTAGE DISTRIBUTION OF GDP BY SELECTED SECTOR AT CONSTANT FACTOR COST OF 1961*

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Agriculture	64.5	62.9	62.2	60.7	58.9	57.0	56.2	54.8	53.8	53.2	52.0	51.5
Industry	12.3	12.7	13.0	13.5	13.7	14.8	15.7	15.6	16.1	15.7	16.4	16.4
Services	23.2	24.4	24.8	25.8	27.4	28.2	28.1	29.6	30.1	31.1	31.6	32.1
Mining and Quarrying	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Manufacturing	1.9	2.1	2.2	2.6	2.8	3.1	3.2	3.5	3.8	4.1	4.3	4.4
Handicraft and Small Scale Industries	4.2	4.1	4.1	4.2	4.1	4.3	4.3	4.4	4.7	4.9	5.0	4.9
Building and Construction	5.6	5.9	5.9	5.9	5.8	6.3	7.0	6.5	6.4	5.5	5.8	5.9
Electricity and Water	0.4	0.5	0.6	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.1	1.0
Wholesale and Retail Trade	6.0	6.3	6.5	7.0	7.5	7.7	7.4	8.0	8.1	8.6	8.7	8.5
Transport and Communication	3.3	3.5	3.6	4.1	4.5	4.7	4.8	5.1	5.2	5.5	5.8	6.2
Educational Services	0.9	0.9	1.0	1.1	1.1	1.2	1.4	1.5	1.7	1.8	1.8	2.0
Medical and Health Services	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.7

*Data for fiscal year ending July 7.

Source: National Accounts Estimates, 1960/61-1971/72, Unpublished Report, National Accounts Department, Central Statistical Office, January 23, 1974, p. 5.

sector falls short in meeting the increasing off-farm demand for food, food prices are apt to rise initiating a spiral of inflation for all goods. When the demand for food is not met locally, as it was evidenced recently in Ethiopia, it is necessary to import food in order to fill the gap between supply and demand. Thus, scarce foreign exchange resources are diverted from import of the capital goods needed for industrialization.

All the above amounts to stating the fact that the low productivity of agriculture which is dragging the economy need to be improved in order for the country to experience a higher tempo of development unless henceforth unknown mineral resources are exploited.

The reasons behind the low growth in the agricultural sector are numerous. These include insecure tenure and exhorbitant crop sharing by landlords, limited farm inputs, outmoded farm tools, small size of farms, fragmented holdings, etc.

The people of Ethiopia have been active in farming for centuries. However, farm operation has been to a large extent limited to subsistence farming throughout these periods. For centuries the methods of farming, the farm implements and inputs have not changed.

The tenancy problem does not give tenants the security needed to make long-term improvements in their farm that will aid land conservation. This system leads to the serious soil erosion problem the country experiences. The crop sharing arrangement which gives the absentee landlord as much as two-thirds of the produce limits the incentive to produce more. A bill to solve the tenancy problem has been pending in the now defunct parliament for many years without a single outcome.

A 1968 survey of 11 (out of 14) privinces showed that between 65 to 92 percent of the holdings in nine provinces were less than one hectare. Even worse, the holdings were fragmented with an average of three fields per holding.[19]

Although agriculture dominates the economy, its share of investment has always been very low. In 1972 its monetary investment accounted for only 12.0 percent of monetary gross domestic fixed investment. Its share of government development budget has been very low although it has shown some improvements recently. It fluctuated between 2.5 percent and 19.4 percent between 1963 and 1972.[20]

The possibility of increasing agricultural production is great especially when one considers the low yields which prevail in most farms in the country and the successful improvements shown in a pilot comprehensive agricultural development program in Chilalo district since 1967.

A Minimum Package Program (MPP) was introduced in 1971 to improve the productivity of farmers who operate less than twenty hectares. This program provides the low income progressive farmer the essential agricultural inputs such as improved seeds, fertilizers, credits and extension services. While the program looks promising, it excludes those peasants without accessible all-weather roads and reached only 1114 model farmers by June, 1973.[21] This number excludes the Chilalo comprehensive program of about 13,000 farmers. The plan is to reach about 400,000 farmers by 1980.[22] Assuming this plan materializes, the program would reach only a small segment of an estimated four million farmers.

The potential for agricultural goods export to the oil reach Middle East countries is highly favorable to Ethiopia due to its comparative nearness to these markets. Since export duties are extensively used to provide support for governmental services, improved productivity in agriculture will enhance the limited governmental revenue.

Industry

The latest national accounts statistics indicate that the industry sector as a whole contributed about 16.4 percent to GDP in 1972 compared to about 12.3 percent in 1961. The components of industry had the following shares in GDP: mining and quarrying 0.2 percent, manufacturing 4.4 percent, handicraft and small scale industries 4.9 percent, building and construction 5.9 percent and electricity and water 1.0 percent. Manufacturing increased by more than 130 percent and electricity and water by 150 percent over 1961. The other industries did not seem to show any improvement.

The structure of the manufacturing industry for the fiscal year 1971/72 was heavily dominated by the food and textile industries as shown in Table II.

In spite of successful annual growth rates shown by manufacturing and electricity and water industries total industry average annual growth rate for the period 1961 to 1972 was only 7.3 percent as indicated earlier in this chapter. Manufacturing still continues to be a very insignificant component of GDP with its share of 4.4 percent.

The high growth rate in manufacturing is attributed to special government efforts to promote this sector. The government has made direct investments in manufacturing enterprises and financed them

TABLE II

STRUCTURE OF THE MANUFACTURING INDUSTRY,
1971/1972, IN PERCENT

	Gross Value of Product	Value Added
Food	24.2	22.8
Beverages	10.2	16.5
Tobacco	3.8	4.9
Textile	33.1	29.1
Leather and Shoe	3.5	2.4
Wood Industry	3.1	3.5
Paper and Paper Products	0.8	0.2
Printing and Publishing	1.6	2.1
Chemical	10.3	9.4
Non-Metalic Minerals	4.3	5.0
Basic Metal Industries	3.6	2.5
Others	1.5	1.6
Total	100.0	100.0

Source: Annual Survey of Manufacturing Industries, Ministry of Commerce, Industry, and Tourism, Addis Ababa, June, 1974, Tables 2 and 6.

through the development banks. As a result, gross domestic investment in manufacturing has always been greater than that in agriculture. In 1972 it accounted for 15.8 percent of total gross domestic fixed capital formation. The investment proclamation of 1966 is also highly favorable to enterprises investing $100,000 or more to the apparent neglect of small scale industries which employ the largest non-agricultural labor force.

The Investment Decree of 1963 and its amendment by Investment Proclamation of 1966 gives among other privileges, the following income tax relief:

1. A newly established enterprise which invests in Ethiopia before the commencement of operations $100,000 is exempted from income tax for a period of five years from the date of the commencement of operations.
2. Three years exemption from income tax is granted to existing enterprises which invest not less than $200,000 in extension and expansion.

The above privileges are denied to small scale industrialists who venture to start on industrial business of their own. These policies most certainly stifle local industrial talent.

Although there is no detailed capacity survey of the various industries, some industries show symptoms of excess capacity. Working on a shift is unknown to most industries with the exception of the textile industry which operates at capacity. Due to the highly protected market through tariff, some of the industries can afford to operate at half of their normal capacities and still make good profits.

There is an apparent concentration of manufacturing industries in only two of the fourteen provinces. Shoa and Eritrea alone account for nearly 90 percent of the industries.

The first and obvious opportunity for industrialization of a country is to embark on import-substituting industries. The industries existing in Ethiopia are predominantly of this type. However, although these industries are substituting finished goods, imported components of some of the locally produced goods are high. Therefore, dependence on imported final goods are just replaced by imports of inputs. In some of the cases, it is doubtful if cost benefit analysis would support domestic production. For example, the shares of imported inputs in sales value for some selected products are shown below in percent:[23]

Meat canning	40%
Tobacco	38%
Nylon fabrics	39%
Rubber footwear	45%
Household plastic articles	70%
Aluminum ware	75%
Umbrellas	65%
Plastic tubes	60%
Corrugated iron sheets	75%

Services

The contribution of total services to GDP increased from 23.2 percent in 1961 to 32.1 percent in 1972 at constant factor cost of 1961. A breakdown of the services shows that educational services and health and medical services are severely limited. They accounted for only two

0.7 percent of GDP, respectively, in 1972. Distribution services contributed 14.7 percent to GDP compared to their share of 9.3 percent in 1961. Banking, insurance and real estate contributed only 1.3 percent to GDP in 1972 with annual growth rate of 8.2 percent over the period 1961 to 1972.

Export-Import

Export of goods and services was $490.6 million in 1972 which accounted for 10.5 percent of Gross National Product (GNP) at current market prices. For the period between 1961 and 1972 the share of export of goods and services in GNP was reasonably stable ranging between 9.5 percent in 1961 and 12 percent in 1965. The share of commodity exports for the same period varied between 60 and 80 percent of total export goods and services with no apparent trend. The most important export commodity, coffee, accounted for between 48 and 66.5 percent of commodity exports varying as world market prices fluctuate. This conforms with the very characteristics of developing countries which depend to a large extent on a single primary export crop. However, the dependence on coffee exports in Ethiopia is worsened by the fact that it mostly goes to a single market, the United States.

In spite of the relative smallness of Ethiopia's exports, it is commonly believed that its economic growth is influenced by what goes on in the area of exports. There are indications that when the export market shows booms, this is transmitted to the economy in the same manner. When the export market sags, the local economy is adversely affected. This is to be expected considering the small size of the monetized sector of the economy upon which the country depends for

growth. Therefore, bearing in mind the poverty level of the mass and the difficulty of expanding the local market, economic development, for the time being, depends on expansion of the export market with diversified commodities. Due to the rising of prices on imports, especially that of oil, the country's development efforts are at stake unless exports grow at a reasonable level.

Imports of goods and services were $577.8 million in 1972. This amount was 12.5 percent of GNP at current market prices. It varied between 10.4 and 14.3 percent for the period between 1961 and 1972.

The breakdown of imports by end use for 1972 was 4.4 percent raw materials, 16.6 semifinished goods, 8.3 fuel, 38.5 capital goods, 14.3 percent consumer durables, and 17.2 percent consumer nondurables.

The trade balance between 1961 and 1972 has never been in Ethiopia's favor. The same story is true for the balance of payment (current account) net of transfer payments for the period between 1961 and 1971.[24]

Government Revenues and Expenditures

Revenues

Total government revenues in 1972 amounted to $489.9 million. Of this, $432 million was tax revenue while the remaining $57.8 million was non-tax revenue from miscellaneous government operations. The components of total revenue in 1972 were 27.2 percent direct taxes, 29.7 percent indirect taxes on domestic products, 24.7 percent taxes on imports, 6.5 percent taxes on exports, and 11.8 percent non-tax revenues. When this revenue structure is compared to that of earlier

years, there are clear indications that there has been a shift from relative dependence on import taxes to that of direct and indirect domestic taxes. The 1964 revenue structure would clearly reveal this shift in structure: direct taxes 20.9 percent, indirect taxes on domestic products 16.7 percent, taxes on imports 40.0 percent, taxes on exports 9.4 percent, and non-tax revenue 13.0 percent.[25]

Between 1965 and 1972, average annual growth rates of total revenues and its components were: total revenues 7.6 percent, direct taxes 11.6 percent, indirect taxes on domestic products 35.2 percent, taxes on imports 2.1 percent, taxes on exports 5.4 percent, and non-tax revenue 7.6 percent.[26]

The shift in emphasis from import and export taxes to other forms of taxes could be rationalized by the fact that Ethiopia is trying to make the industrial sector more dominant so that the tempo of economic growth could be accelerated. This goal can not be achieved by taxing industrial capital goods and raw material inputs essential for industrialization. Therefore, as more and more industrial consumer goods are produced from within, the tax base on imports has been relatively shrinking although its absolute magnitude remains to grow. It was mentioned above that export earnings are closely tied to the economic growth of the nation. A heavy tax burden should be avoided in order for the country's exports to be competitive in the world market.

Current Expenditures

In 1972 total government current expenditures were $434.4 million excluding expenditure financed by external assistance amounting to $68.8 million. For the same year, current expenditures were distributed

as follows: administrative services 10.8 percent; defense, internal order and justice 41.2 percent; economic services 11.0 percent; social services 32.3 percent; and interest on debt 3.7 percent. The corresponding breakdown for 1964 was: administrative services 16.3 percent defense, internal order and justice 45.9 percent; economic services 15.0 percent; social services 21.8 percent; and interest on public debt 0.9 percent.[27] The relative decline in the share of administrative services, defense, internal order and justice and the increase in the share of social services is encouraging.

Capital Expenditures

Government capital expenditures were $125.9 million in 1972. It represented 23.4 percent of total government expenditures showing a minor improvement over its share in 1964 which was 20.7 percent.[28]

Capital expenditures for economic development accounted for 82.0 percent while expenditure for social development was the remaining 18 percent. The breakdown of the 82 percent on economic development consisted of: infrastructure 50.8 percent; mining, industry and commerce 10.5 percent; agriculture and land reform 13.3 percent; multipurpose projects 1.9 percent; and financial institutions 5.5 percent. An examination of the capital expenditures between 1964 and 1972 shows that by far infrastructure has been the leading sector followed by mining, industry, and commerce although agriculture has taken the second place beginning in 1972.[29]

Capital expenditure grew at an average annual rate of 14.5 percent compared to 7.9 percent for current expenditures for the period 1964 to 1972.[30]

Sources of financing capital expenditures consisted of foreign borrowing, government savings, and domestic borrowing. For the period 1964 to 1972 the rankings of these sources of finance varied with foreign borrowing ranking number one in four of the years and second in the rest followed by government savings with three first place rankings and four second place rankings while domestic borrowing ranked first in two of the years and last in the rest. Beginning 1970 government foreign borrowing has consistently dominated other sources of finance. In 1972 it accounted for 50.0 percent of total government capital expenditures.[31]

Development Plans and Their Implementation

Ethiopia is the first African nation to come up with an integrated development plan. As was mentioned earlier, the First Five Year Plan (FFYP) was instituted in 1957[32] and ran through 1961/62. The Second Five Year Plan (SFYP) covered the period 1962/63 to 1966/67. Technical problems forced the delay of the launching of the Third Five Year Plan (TFYP) from 1967/68 to 1968/69. Hence, the original TFYP covered the period 1968/69 to 1972/73. This period was later extended to cover 1973/74.

First Five Year Development Plan

The broad objectives of the FFYP were as follows:[33]

1. the development of infrastructure as a prerequisite for accelerated economic growth;
2. the spread of education and the training of technical personnel;

3. accelerated development of agriculture; and

4. accelerated industrialization with emphasis on processing domestic raw materials.

A review of the capital expenditure plans and implementation reveals that infrastructure was given first priority. Table III shows investment during the FFYP.

TABLE III

INVESTMENT DURING THE FIRST FIVE YEAR PLAN
(ETH. $ MILLION)

Sector	Planned	Fulfilled	Index of Fulfillment
Agriculture and Forestry	92.1	109.9	120
Mining, Power and Manufacturing	138.0	159.8	116
Transport and Communication	240.0	287.3	120
Social Service	57.0	39.0	68
Housing and Construction	122.5	206.8	169
Others	24.0	36.8	153
Total	673.6	839.6	124

Source: Industrial Development in Africa, U.N., New York, 1967, p. 256.

The only sector whose target investment was under-fulfilled is social services. This result underscores the fact that the country's leaders have undermined the importance of social infrastructures by

first allocating a small sum and then failing to achieve the planned level of investment.

Although overall planned investment was surpassed by 24 percent, the target for the annual national income growth which was 3.7 percent was not attained. National income grew at the rate of 3.2 percent per annum.[34]

Foreign loans and assistance accounted for $170 million of the total investment.[35] This amount represented about 24.6 percent of monetary investment and 10.2 percent of total investment. The projected capital inflow for the plan period was about $198 million. According to reports, the short-fall was not due to the lack of foreign capital. It was the result of delays in project preparation on the part of Ethiopia.[36]

Second Five Year Development Plan

Based on capital expenditure plans, the Second Five Year Plan (SFYP) gave priority to productive sectors of industry and agriculture compared to the FFYP which gave priority to infrastructure. Table IV shows planned capital investments during the SFYP.

Preliminary reports have indicated that investment goals were fulfilled only to the extent of 95.1 percent. However, revised data indicate that actual investment was $2137.5 million which exceeds planned investment by $441.5 million.[37] Unfortunately, the actual investment breakdown by sector is not available for the first year of the plan period. Therefore, it is not possible to judge the extent of sectoral achievements against the goals set in the plan.

TABLE IV

INVESTMENT PLANS BY MAJOR SECTORS, SECOND FIVE YEAR PLAN
(ETH$ $ MILLION)

Sector	Plan Provision	
	Amount	%
Agriculture, Forestry, Fishery	363.0	21.4
Mining, Power, Manufacturing, Handicraft and Small Scale Industries	455.3	26.8
Transport and Communications	325.4	19.2
Social Services	120.8	7.1
Housing and Construction	250.0	14.7
Other Activities	181.5	10.7
TOTAL	1,696.0	100.0

Source: Imperial Ethiopian Government, Second Five Year Development Plan, 1962/1963 - 1966/1967, Addis Ababa, 1963.

Investment was enhanced by foreign loans and grants to the extent of $643 million which is about 30 percent of total investment during the plan period.[38]

The two productive sectors which the plan gave priorities, that is, manufacturing and agriculture fell short of production targets. The plan was for manufacturing and agriculture to grow at 27 and 2.4 percent per annum, respectively. The actual outcome was that manufacturing grew only at 16 percent per annum while agriculture increased by only 2.1 percent per annum.[39]

During the planning period, the sale of $50 million worth of government bonds was planned. However, only about $10 million was secured from such sales.[40]

Third Five Year Development Plan

It was mentioned above that the revised Third Five Year Plan (TFYP) covered a period of six years from 1968/69 to 1973/74. The revision was necessitated mainly as a result of the closure of the Suez Canal which affected the economy adversely. Thus, it was meant to compensate for the slower implementation of the early years of the plan period and to achieve the targets set in six years rather than in five.

Targets of the original plan included growth of the economy at six percent per annum starting with five percent the first year, agriculture 2.9 percent, manufacturing 14.9 percent, and industry as a whole 11.1 percent.[41]

Gross domestic product data covering the whole plan period are not yet available. However, for the first four years, the economy grew only at 4.12 percent per annum which is below the lower revised target of 4.9 percent. Industry grew at only 5.48 percent, manufacturing at 10 percent, and agriculture at almost 2.4 percent per annum.[42]

Gross fixed investment target for the planning period was $3,415 million of which monetary investment was planned to be $2,865 million and investment in kind $550 million. Approximately 52 percent of the monetary investments were to be financed by the public sector and the remaining 48 percent by the private sector. In the area of manufacturing about 60 percent of the total investment was to be financed by the public sector including loans channeled to private firms by government

owned financial institutions. Except for mining and housing all other sectors were to get the major part of their financing from public sectors.[43]

The plan had provisions for gross inflow of foreign capital of $1,050 million consisting of $710 million public and $340 million private.[44] This planned inflow of foreign capital meant that about 35 percent of the gross fixed investment at current prices was to be financed by foreign sources. The $1,050 million excludes $100 million net current transfers anticipated in technical assistance from friendly governments and international bodies.[45]

Actual investment figures for the whole planning period are not yet available for public use. Data for the first four years of the planning period indicate that about 61 percent of the monetary investment and 74 percent of investment in kind goals were attained.[46] If past investment rates are any indications of what is to follow, investment goals for the planning period could not have been fulfilled.

The postponement of a multi-million dollar highway project from 1971/72 to 1973/74 and a $75 million potash project for indefinite period has contributed to the low fixed capital formation in the economy.

Gross domestic monetary saving during the first four year period was $1,437.2 million which is about 59.9 percent of the target for the planning period. In 1969 and 1971 domestic monetary savings decreased by 5.2 and 8.6 percent, respectively, from their respective levels the preceeding year. Gross domestic savings, both monetary and non-monetary, amounted to $486.8 million in 1972 and grew at the unanticipated slow rate of 2.4 percent per annum for the first four years of the plan period.[47]

According to the plan gross domestic savings should have been $600 million by 1972/73 and its average annual growth rate should have registered 12 percent.[48] It is very unlikely this goal might have been achieved during the remaining planning period for which data are not yet accessible.

Generally, three factors could be attributed to the slow growth in the economy during the first four years or so of the plan period:

1. inadequate foreign earnings due to the slow growth of the export market, especially the country's major export, coffee;
2. low level of domestic resource mobilization as evidenced above; and
3. inability to promote investment opportunities and inefficiency in the preparation and execution of projects.

The implementation report of the Third Five Year Plan for manufacturing points out that some of the goals set were too idealistic. These included the processing of mineral products for external and internal markets and the production of low cost agricultural equipment to be used by peasants.[49]

Monetary expansion during the original TFYP period has been below the target of $400 million amounting to only $306 million. This low expansion is attributed to a shortfall in government borrowing which was only $95 million against the target of $209 million.[50]

The meager domestic borrowing by the government is the result of a fear of inflation in the economy that sometimes accompanies deficit financing. Government gross capital inflow was only $339 million against the planned target of $438 million.[51] Thus, the decision by the government to take an ultraconservative stand not to boost the economy

by deficit financing is tantamount to choking economic growth. This argument is especially true due to the fact that government revenues were way below the planned targets from all major sources as Table V below indicates.

TABLE V

CENTRAL GOVERNMENT REVENUE GROWTH RATES
1968/69 - 1971/72 (PERCENT)

Type of Revenue	TFYP Estimate	Actual
Direct Taxes	11.6	14.8
Indirect Taxes on Domestic Product	11.0	9.6
Taxes on Imports	10.0	2.8
Taxes on Exports	6.9	5.4
Total Taxes	14.8	8.3
Non-Tax Revenue	9.3	4.6
Total Revenue	14.2	7.6

Source: Ministry of Finance, TFYP, A Review of Financial Performance, OAS/2615, April 11, 1973 as compiled by the Commercial Bank of Ethiopia, Market Report, November - December, 1973, p. 15.

Table VI shows the balance of payments position during the original TFYP period. Both exports and imports were below their targets. However, it looks obvious that the improvement in the trade balance

TABLE VI

BALANCE OF PAYMENTS 1968/69 - 1972/73
(ETH. $ MILLION AT CURRENT PRICES)

	Plan 1968/69-1972/73	Actual 1968/69-1972/73	Difference*
Exports, F.O.b.	1,893.6	1,689.3	-204.3
Imports, C.i.f.	2,844.0	2,170.5	-673.5
Trade Balance	- 950.4	- 481.2	469.2
Non-Factor Services, Net	234.6	306.4	71.8
Deficit on Goods and NFS	- 715.8	- 174.8	541.0
Investment Income, Net	- 153.9	- 141.0	12.0
Transfers, Net	100.0	148.7	48.7
Private Long-Term Capital, Net	267.0	92.6	-174.4
Private Short-Term Capital, Net	--	13.6	13.6
Public Long-Term Capital Inflow	710.2	379.9	-330.3
Public Amortizations	- 192.3	- 168.0	24.3
Errors and Omissions	- 15.2	29.4	-131.8
Foreign Assets, Net		- 176.4	
(Increase = -)			

*Actual less plan 1968/69 to 1972/73.

Sources: TFYP, National Bank of Ethiopia, and Planning Commission Office Estimates as Compiled in Market Report, Commercial Bank of Ethiopia, November - December, 1973, p. 23.

deficit is due to cuts in imports, perhaps, partly due to import substituting local industries and partly due to a slow down in the import of industrial raw materials and equipment as investment projects did not get executed according to plan.

The foreign resource gap of $484 million was significantly below the planned target of $1,062 million as was the net long-term private and public capital inflow which was $317 million against the plan target of $785 million.

FOOTNOTES

[1]H. P. Huffnagel, Agriculture in Ethiopia (Rome, 1961), p. 177.

[2]Ibid., p. 180.

[3]Central Statistical Office, Statistical Abstract (Addis Ababa, 1972), p. 41.

[4]Central Statistical Office, Statistical Abstract (Addis Ababa, 1965), p. 53.

[5]Eli Ginzberg and Herbert H. Smith, Manpower Strategies for Developing Countries: Lessons From Ethiopia (New York, 1967), p. 24.

[6]Ibid., p. 74.

[7]Irving Kaplan, et al., Area Hand Book for Ethiopia (Washington, D.C., 1971), p. 204.

[8]Ginzberg and Smith, p. 13.

[9]Assefa Bekele and Eshetu Chole, A Profile of Ethiopian Economy (Nairobi, 1969), p. 22.

[10]Ministry of Information, Patterns of Progress: Power and Irrigation in Ethiopia (Addis Ababa, 1969), p. 8.

[11]Central Statistical Office, Statistical Abstract (Addis Ababa, 1972), p. 59.

[12]Imperial Ethiopian Government, Third Five Year Development Plan: 1968-1973 (Addis Ababa), p. 263.

[13]Central Statistical Office, Statistical Abstract (Addis Ababa, 1972), p. 188.

[14]World Bank, World Bank Operations Sectoral Programs and Policies (Washington, D. C., 1972), pp. 288-289.

[15]Ibid., p. 281.

[16]Central Statistical Office, Statistical Abstract (Addis Ababa, 1972), p. 180.

[17]Commercial Bank of Ethiopia, The Ethiopian Economy (Addis Ababa, 1970), p. 15.

[18]Consists of mining and quarrying, manufacturing, handicraft and small scale industries, building and construction, and electricity and water.

[19]Central Statistical Office, Reports of Surveys of 11 Provinces: 1966-1968, Reproduced in Commercial Bank of Ethiopia, Market Report (April, 1971), pp. 2-4.

[20]Commercial Bank of Ethiopia, Market Report (May-June, 1973), p. 15.

[21]Commercial Bank of Ethiopia, Managing Director's General Review Presented to the Tenth Annual General Meeting of Shareholders of Commercial Bank of Ethiopia Covering the 1973 Financial Year (Addis Ababa, 1973), p. 39.

[22]Ibid., p. 42.

[23]IBRD/IDA, Economic Growth and Prospects in Ethiopia, Vol. II, Annex 2, Table 9 (September 22, 1970), p. 48.

[24]Since 1972 the trend has been an improvement on these positions due to both reduction in imports and high export prices for most products, especially haricot beans.

[25]IBRD/IDA, Recent Economic Performance and Future Prospects in Ethiopia, Vol. I (June 15, 1973), Tables 6 and 8, pp. 65 and 67.

[26]Computed from Table 6 footnote No. 25.

[27]IBRD/IDA, Tables 9 and 11, pp. 68 and 70.

[28]Ibid., Table 15, p. 74.

[29]Ibid., Table 13, p. 72.

[30]IBRD/IDA, Computed from Table 14, p. 73.

[31]Ibid., Table 16, p. 75.

[32]Fiscal year begins July 8 and ends July 7.

[33]United Nations, Industrial Development in Africa (New York, 1967), p. 255.

[34]Ministry of Information, Patterns of Progress: Financial and Fiscal Policy of Ethiopia (Addis Ababa, 1968), p. 33.

[35]Ibid.

[36]Krishna Ahooja, "Development and Legislation in Ethiopia," Ethiopia Observer, X (1966), p. 239.

[37]Central Statistical Office, National Accounts Estimates, 1960/61-1971/72 (January 23, 1974), p. 8.

[38]Kaplan, et al., p. 351.

[39]Imperial Ethiopian Government, Third Five Year Development Plan, pp. 44-45.

[40]Ministry of Information, Patterns of Progress: Financial and Fiscal Policy of Ethiopia, p. 36.

[41]Imperial Ethiopian Government, Third Five Year Development Plan, pp. 42-47.

[42]Central Statistical Office, National Accounts Estimates, 1960/61-1971/72, p. 2.

[43]Imperial Ethiopian Government, Third Five Year Development Plan, pp. 49-50.

[44]Ibid., p. 59.

[45]Ibid., p. 58.

[46]Computed from National Accounts Estimates, 1960/61 - 1971/72, Central Statistical Office (January 23, 1974), p. 8.

[47]All figures in this paragraph are computed from unpublished data furnished by the Central Statistical Office.

[48]Imperial Ethiopian Government, Third Five Year Development Plan, p. 58.

[49]Ministry of Commerce, Industry, and Tourism, Implementation Report of the Third Five Year Development Plan (June, 1973), pp. 12-15.

[50]Commercial Bank of Ethiopia, Market Report (November - December, 1973), pp. 12-14.

[51]Ibid., p. 16.

CHAPTER III

A REVIEW OF FINANCIAL DEVELOPMENT AND FINANCIAL DEVELOPMENT MODELS

The Process of Economic Development and Growth

Many economists make a distinction between economic growth and economic development. For example, economic growth is often defined as a sustained growth in per capita output while economic development is referred to as economic growth accompanied by sustained structural change in the economy such as the increase in the size of the secondary sector and the corresponding decrease in the relative importance of the primary (agriculture) sector.[1] However, it is often difficult to have a sustained economic growth without some structural changes in the first place. For instance, Chenery observes that in the developing nations, sustained agricultural growth rates above 5 percent is rare while in industry a growth rate of 10 percent is common.[2]

The process of economic development is essentially the result of the process of capital investment. However, the recent trend in economic thinking has been that technological progress is more important than investment in capital.[3] In the case of developing countries the two are generally indistinguishable.

The problem of economic development of developing countries is viewed by some as the successful application of the backlog of

inventions, technical or otherwise, of the industrial countries to the economies of less developed countries.

Unfortunately, transformation of technologies from the developed world is not easily accomplished. Social attitudes of traditional societies are known to resist change and innovation. Therefore, the process of transforming an underdeveloped economy into one that is developed involves concurrent changes in many spheres including changes from a barter to money economy, from noneconomic to economic motivation, and from simple to complex forms of business organizations.

Development in the Schumpeterian sense is the carrying out of new combinations which covers the following five cases:

1. the introduction of a new good not familiar to consumers, or of a new quality of a good;
2. the introduction of a new method of production not necessarily based upon new scientific inventions; it may be a new way of handling a commodity commercially;
3. the opening up of a new market;
4. the conquest of a new source of supply of raw materials or half manufactured goods; and
5. the carrying out of a new organization of industry such as the creation or the breaking up of monopoly position.[4]

The entrepreneur plays a prominant role in Schumpeter's model of development. The Schumpeterian entrepreneur is any one who carries out new combinations and loses that character in the event of building up his or her business and running it routinely as in the accustomed circular flow.[5]

Schumpeter characterizes the entrepreneur as follows:

> . . . the typical entrepreneur is more self-centered than other types, because he relies less than they do on tradition and connection and because his characteristic task -- theoretically as well as historically -- consists precisely in breaking-up old, and creating new tradition . . . there is the will to conquer: the impulse to fight, to prove oneself superior to others, to succeed for the sake, not for the fruits of success, but of success itself . . . there is the joy of creating, of getting things done, or simply of exercising one's energy and ingenuity . . .[6]

In developing nations, due to mainly social backwardness, entrepreneurial talent is in short supply compared to opportunities for productive activities.

As a result of the inadequacies in entrepreneurship and domestic savings, many developing countries have tried to attract the inflow of foreign capital and know-how to finance their developmental schemes through export trade. However, the instability of world demand for their products have made it difficult for many to orderly execute investment programs financed by export earnings.

Alexander Gerschenkron hypothesizes that the more backward a country is in its industrial development, the more explosive is the spurt of its industrialization if and when it comes.[7] He backs his hypothesis with the experiences of nineteenth century European industrializations. He defined the degree of backwardness qualitatively as ". . . absence, in a more backward country, of factors which in a more advanced country served as prerequisites of industrial development."[8] He suggests that ". . . one of the ways of approaching the problem is by asking what substitutions and what patterns of substitutions for the lacking factors occurred in the process of industrialization in conditions of backwardness."[9]

The rankings on the scale of backwardness used by Gerschenkron is similar to the stage theory utilized by Walt Rostow.[10] However, stage theory implies "that all economies were supposed regularly to pass through the same individual stages as they moved along the road of economic progress."[11]

Gerschenkron discounts the suggestion that there is a uniform set of prerequisites before a country develops and that each country should go through the same process. He showed that empirical evidence supports that some factors can be modified and even skipped as a country industrializes.[12]

The Process of Financial Development

The development of financial institutions is conceptualized as a process that grows in stages similar to that hypothesized by Gurley and Shaw.[13] However, it is dealt here with four basic stages of financial development.

First Stage

The first stage is characterized by rudimentary economy and is dominated by self-finance. Although there are governmental monetary institutions that facilitate the payment mechanism, intermediation does not exist. Each economic unit has a balanced budget whereby consumption and investment are financed from income and internal savings.

It is not hard to trace a period of time in a country's history that justifies the role of finance as described above. Such characteristics of finance could be ascribed to a period of time where improvement in a country's economy is severely hindered by general underdevelopment

in most all aspects of life. Therefore, it is not conducive for financial institutions to play their intermediary roles.

Second Stage

The second stage may still be dominated by self-finance. However, direct finance plays a small but growing role whereby deficit units can now issue debts to surplus units. At this stage of financial development the sources of direct finance do not in any way resemble organized capital and money markets in a progressive economy. Debts are issued on a face to face basis in a highly imperfect market. The only issues that do not require face to face negotiation are government bonds.

Direct external finance as perceived here cannot increase investment to the extent of savings due to the imperfect nature of the market.

There are three basic problems faced by surplus spending units under this type of direct finance:

1. the range of alternatives available are few in terms of types of securities and risk-return relationships;
2. surplus units are not in a position to know the risk characteristics of the securities of deficit units; and
3. there is no secondary market for securities making it difficult for holders to liquidate their holdings when the need arises.

The problems of market imperfections in the traditional direct external financial market and the limited internal source of finance pave the way for financial institutions to participate in intermediation to help reduce the extent of unfulfilled demand for investment funds.

Third Stage

The first two stages could be referred to as those stages of financial development where finance is inhibited by general underdevelopment and vice versa.

The third stage could be characterized by underdeveloped financial system of direct and indirect finance dominated by unorganized capital and money markets and commercial banks.

The economy now has sources of finance consisting of internal finance, direct external finance both organized and unorganized, and indirect finance. The introduction of indirect finance and organized capital markets per se does not make a country financially developed. It takes both time and the will in the part of both government and financial entrepreneurs to go through the path in that direction.

During this stage financial intermediaries are basically underdeveloped. They may hinder industrial and commercial development. At the most they may play a passive role concentrating mainly in areas of financing established businesses. Established businesses and those with wealth are considered credit worthy and accordingly their financial needs are accomodated regardless of the efficiency of the allocation of funds. The financial needs of entrepreneurs are ignored.

Mobilization of financial resources is minimal because financial institutions are not yet accustomed to aggressively seeking funds from surplus spending units.

Fourth Stage

At the fourth stage financial intermediaries proliferate and organized capital markets grow efficient. Financial intermediaries

play a pivotal role in the saving and investment process. They accomodate lenders with earnings, liquidity, and safety suited to their needs. Borrowers too are furnished with funds tailored in terms suited to their financial needs. Above all financial intermediaries actively encourage application for funds and provide extra services.

Financial intermediary specialization grows. The specialization in specific areas of lending, investing, and borrowing activities brings forth an enrichment in the knowledge about the specific markets and financial techniques. It also provides financial institutions with economies of scale.

> On the lending side, the intermediary can invest and manage investments in primary securities at unit costs far below the experience of most individual lenders. The sheer size of its portfolio permits a significant reduction in risks through diversification . . . On the borrowing side, the intermediary with a large number of depositors can normally rely on a predictable schedule of claims for repayment and so can get along with a portfolio that is relatively illiquid.[14]

Both of the above features enable financial intermediaries to pass the benefits to their creditors, lenders, and shareholders. In the following section we will show that such actions will increase savings and investment of an economy.

Interrelations Between Financial Development[15] and Economic Development

The saving and investment process is often discussed in real terms to the apparent neglect of the processes how investment is financed.

Although the cause and effect relationship is not yet clearly understood, financial development seems to be a universal characteristic of economic growth and development in market based economies. However,

the past has not been without some misconceptions. Higgins' view represents such misconceptions.

> Savings should be directed into lending institutions, it is contended, so that they provide the basis for effective extension for credit, rather than being held as cash hoards or invested in jewels: gold, and the like. This argument in this form rests on a misunderstanding. The act of saving is essentially an act of restraint from current consumption; holding cash, or buying jewelry . . . is as much saving as putting money in a bank . . .[16]

It is not claimed that the development of a financial system in itself leads to economic development. Development involves a number of factors with complex relationships. For example, if physical and other resources are lacking no matter how good financial institutions are developed, development may not be in sight. The improvement of financial systems can only aid the utilization of existing resources in such a way as to avoid economic bottlenecks.

Keyenes was among the first economists to recognize the importance of the financial sector of an economy by showing the relationship between equilibrium conditions in money and capital markets and that of the economy.

Gurley and Shaw are pioneers of the theory of financial development with their valuable analytical framework for the study of the effect of financial intermediation on economic development. However, Robert L. Bennet was able to observe that application of the Gurley-Shaw theory is difficult in a country that lacks highly developed money and capital markets. This is because the theory relies heavily on marginal adjustments of demands, supplies, prices, and interest rates.[17]

Gurley and Shaw see the relationship of finance to economic development as follows:

> . . . development is associated with debt issue at some points in the economic system and corresponding accretions of financial assets elsewhere. It is accompanied too, by the 'institutionalization of saving and investment' that diversifies channels for the flow of loanable funds and multiplies varieties of financial claims. Development also implies a cause and effect change in market prices of financial claims and in other terms of trading in loanable funds. Development involves finance as well as goods.[18]

Raymond Goldsmith has carried out a number of empirical studies about the relationship between financial development and economic development of various nations. He was able to show a close association between the two.[19] However, he feels that the development of financial institutions contributes to economic development mainly through their reallocation of saving and investment. He is not sure that the volume of savings and investment is influenced as a result of the introduction and development of financial institutions.[20]

Another study by Adelman and Morris including 70 countries (excluding the developed nations in Europe and North America) and employing data for the post war period showed a clear association between a country's financial development and its gross national product.[21]

Schumpeter refers to financial institutions as essential phenomena of development for they are a bridge between those who wish to form new combinations (entrepreneurs) and the possessors of productive means.[22] He says that the entrepreneur needs credit and he is the only one that can justify credit as an essential element of the economic process. Without the necessary credit the gap cannot be closed and development would be difficult in the market based economy.[23]

Rondo Cameron goes even further and includes entrepreneurial talent and guidance for the economy as a whole as functions of banks. He says that the way in which these functions are performed by banks in

underdeveloped economies may determine the degree of success of the development effort. If they do not vigorously seek out idle funds to supply the entrepreneur for investment in projects of high social return, they may exploit their quasi monopolistic position and end up with unproductive loans.[24]

Alexander Gerschenkron gives financial institutions an important place in the development efforts of developing nations on the eve of industrialization. He proposes:

> The more backward a country's economy, the greater was the part played by special institutional factors designed to increase supply of capital to the nascent industries, and in addition to provide them with less descentralized and better informed entrepreneurial guidance; the more backward the country, the more pronounced was the coerceiveness and comprehensiveness of those factors.[25]

Cameron and Patrick have identified three possible forms of interactions between the financial sector and the other sectors of the economy. These are:

> . . . (1) the case in which inadequate finance restricts or hinders industrial and commercial development; (2) the case in which the financial system is purely permissive and accomodates all 'credit worthy' borrowers; and finally (3) the case in which financial institutions either actively promote new investment opportunities or encourage applicants for finance to come forward, provide them with advice and extra services, etc., . . .[26]

Thus, the role of financial institutions to either facilitate or deter economic development depends on whether or not they allocate their funds to uses which are strategic in the process of resource creation.

Types of Financial Growth

There are two basic paths to financial growth. These are demand-following and supply-leading phenomena. Their basic distinction is that the latter aggressively seeks entrepreneurs and encourages them to

invest in new ventures while the other simply accomodates demand for funds; and adequacy of funds is not always assured. Demand-following phenomenon is profit oriented. Both phenomena may characterize a type of intermediary at the same point in time and over time the phenomena may change from supply-leading to demand-following and vice versa.

Hugh Patrick defined demand-following phenomenon as "the phenomenon in which the creation of modern financial institutions, their financial assets and liabilities, and related financial services is in response to the demand for these services by investors and savers in the economy . . ."[27] It implies that finance plays a passive role. As development progresses this role of finance is expected to grow with it.

Supply-leading phenomenon is just the opposite of demand-following phenomenon. It is "the creation of financial institutions and the supply of their financial assets, liabilities, and related financial services in advance of demand for them, especially the demand of entrepreneurs in the modern, growth-inducing sectors . . ."[28] It has the dual functions of transferring resources from traditional sectors to modern sectors, and of promoting and stimulating an entrepreneurial response in these modern sectors.[29]

It is generally held that such phenomenon has favorable psychological impact on entrepreneurs specially in countries where shortage of entrepreneurship is considered a major constraint on development efforts.[30] Therefore, in developing countries, a supply-leading phenomenon seems to be best suited to accelerate economic growth and development. This suggestion assumes that a developing country learns from experiences of other nations, relatively developed, that certain financial facilities should be created in anticipation of a potential

growth in the need for funds in certain sectors of the economy. This process avoids bottlenecks in the economy. Even if the need for funds is not yet felt, financial institutions may actively promote projects in the particular sectors and solicit applicants for loans.

Japan is an outstanding example where this phenomenon played a significant role early in its development.[31]

A supply-leading financial system cannot initially be expected to operate at a profit. Therefore, such institutions are either in the public sector, for example most development banks in developing countries, or directly or indirectly subsidized by the public sector until they are able to stand on their own.

Characteristics of Finance in Developing Countries

In many developing countries financial markets are thin and financial institutions other than commercial banks are often few. Persons are not generally accustomed to holding financial assets and making use of the services of financial intermediaries. This situation is unfortunate inspite of the fact that the poorer the country is, the greater is the need for institutions to collect and invest the savings.

In contrast, in developed countries, financial assets are dominant and demand deposits, rather than currency, are used in almost all types of transactions making checking accounts as the basic reservoir of money supply.

In developing countries the money supply mainly consists of currency and coins and fluctuates seasonally due to fluctuations in foreign trade with credit expanding and contracting with foreign demand for export

commodities. Due to the state of underdevelopment of both organized money and capital markets, unorganized money market structures tend to dominate in the least developed countries. The economy depends relatively heavily on government budget and on its foreign capital inflows which mainly constitutes aid grants, soft long-term loans, high cost suppliers' credits and direct investment.

Commercial banks are generally the dominant type of organized financial institution being the first to exist and enjoying market monopoly. They tend to concentrate in large urban centers. Other types of financial institutions include agricultural development banks, industrial development banks, mortgage corporations, and infant insurance companies. Financial institutions do not finance a large portion of the household sector investment. In India they finance only 15 to 20 percent of total household investment.[32]

The low interest policy pursued in organized financial markets by many developing countries prohibits financial assets from competing with unorganized sources of funds and real assets. This same policy favors capital intensive techniques of production at the expense of much needed labor intensive methods.

This policy stifles the growth of an economy in two ways: first, negative or low rates on saving and time deposits repels people from keeping their earnings with financial institutions reducing the capacity of the latter to provide funds for investment; second, negative or low real loan rates bring in rationing mechanisms to eliminate excess bids for loans. At these rates institutions will not show the type of aggressiveness and promotion necessary to expand their portfolio holdings. They avoid risks by exclusively dealing with well established

firms to the dismay of entrepreneurs. Such behavior in the part of financial institutions deprives the economy of its potential growth. The following observation by Edward Shaw, regarding the consequences of low interest rates, vividly summarizes the problems of shallow finance in developing countries.

> The general level of loan rates is low at intermediaries, with some set to yield real subsidies to borrowers in specially privileged classifications. These subsidies are an assessment upon depositors: they are biased against savers. They are a bonus for products and processes that utilize capital intensity: they are biased against labor. They sometimes go to investors with projects that score badly in terms of anticipated rates of return: they are biased against factor productivity . . .[33]
>
> . . . Savers with no taste for negative real deposit rates and borrowers excluded from credit rationing in the organized sector can meet on the curb with or without assistance of brokers. Their contracts are at short term. The rates of interest are shockingly high . . .[34]

Because of the existence and activities of the unorganized financial market, government economic policies cannot be expected to be effective in influencing the extent and pattern of investment especially in the household sector.

Some Measures of the Efficiency of Financial Institutions

A good financial system should pass at least two tests of efficiency: operational and allocational efficiencies. Operational efficiency of financial institutions is often measured by the spread between yields to savers and the cost of capital for real investment.[35] This spread is a good measure provided the spread is determined by the market mechanism. A small spread achieved as a result of administered rates common in developing countries cannot necessarily make the system efficient. Allocational efficiency can be measured in terms of

risk-adjusted economic rate of return of projects financed compared to those of rejected projects.

The above measure of allocational efficiency should not imply that financial institutions should always go for projects with the highest potential rate of return. Such policy is not workable specially in developing nations where intangible benefits and costs should bear in the consideration of projects. For example, under conditions of high unemployment a labor-intensive project with moderate potential rate of return may be preferred compared to a capital-intensive project with significantly higher potential rate of return. Nevertheless, experience from developed nations indicates that as financial institutions proliferate and specialization in lending and borrowing activities grows, opening up a larger number of alternative sources of funds for investment projects, both measures of efficiency improve.

Measures of Financial Intermediation in Developing Countries

The degree of intermediation can measure the extent of the involvement as well as the development of financial intermediaries in an economy. There are at least seven rough measures of intermediation that can be used in developing countries. These are:

1. the ratio of assets of financial institutions to gross national product;
2. the ratio of money, time and saving deposits to gross national product;
3. the rate of growth of assets of financial intermediaries;

4. bank office density; that is, the ratio of population to bank offices;
5. the monetization ratio;
6. the ratio of demand deposits to money supply; and[36]
7. the rate of growth in loans and deposits.

Studies have shown that the ratio of assets of financial institutions to gross national product or simply the financial interrelation ratio, as Goldsmith would like to call it, grows with financial and economic development.[37]

The ratio of money, time and saving deposits to gross national product is a reasonable measure of intermediation specially when used for the least developed countries like Ethiopia where money and time and saving deposits are by far the principal financial assets compared both to government and corporate securities. This ratio is very low for sub-Sahar African countries. For example, in the mid 1960's it ranged from 7.6 percent for Niger to 23.4 percent for Kenya. The ratio of total financial assets to gross national product for the highly developed countries in Western Europe and North America is above 100 percent.[38]

Goldsmith found it useful for comparative purposes to utilize the rate of growth of financial institutions' assets on 35 developed and developing nations for the period of 1881 to 1963.[39]

Bank office density is commonly used to measure the accessibility of banking facilities to the public. Cameron was able to use it for the nineteenth century England, Scotland, France, Belgium, Russia, Germany, and Japan.[40] Although such an overall density measure gives some idea of banking development, it may be more useful when it is used

to determine the dispersion of bank offices by calculating densities for regions and towns of certain population size.

The monetization ratio certainly grows with the level of financial and economic development. For example, when nonmonetized income is used as consisting of agricultural production consumed by farmers, imputed rent on owner occupied homes, and imputations for financial services, the monetization ratio was 93 percent for the United States in 1966, 88 percent for Japan for the period 1962-1964, and only about 60 percent for Tanzania for 1960.[41]

The ratio of demand deposits to money supply is known to grow with development as well as loans and deposits in developing countries. The ratio of demand deposits to money supply and the monetization ratio complement each other in their measurement of financial development. While monetization reveals the extent of the gross national product that involves money, the ratio of demand deposits to money supply tells us in what form money is predominantly used.

FOOTNOTES

[1]Rondo Cameron et al., Banking in the Early Stages of Industrialization (New York, 1967), p. 6.

[2]Hollis B. Chenery, "Growth and Structural Change," Finance and Development (September, 1971), p. 18.

[3]R. M. Solow, "Investment and Technical Progress," Mathematical Methods in Social Sciences, eds., K. J. Arrow, et al. (Stanford, 1960), pp. 89-104.

[4]Joseph A. Schumpeter, The Theory of Economic Development: An Enquiry into Profits, Capital, Credit, Interest, and Business Cycle (Cambridge, 1934), p. 66.

[5]Ibid., p. 78.

[6]Ibid., pp. 91-93.

[7]Alexander Gerschenkron, Economic Backwardness in Historical Perspective (Cambridge, 1966), p. 44.

[8]Ibid., p. 46.

[9]Ibid.

[10]Walt W. Rostow, The Stages of Economic Growth (Cambridge, 1965), pp. 1-16.

[11]Gerschenkron, p. 355.

[12]Ibid., pp. 357-358.

[13]John G. Gurley and Edward S. Shaw, Money in a Theory of Finance (Washington, D.C., 1960).

[14]Ibid., p. 194.

[15]Financial development is defined here as increase in the number and variety of financial institutions and/or increases in the value of financial assets relative to gross national product and wealth.

[16]Benjamin Higgins, Economic Development (New York, 1959), p. 484.

[17]Robert L. Bennet, The Financial Structure and Economic Development: The Mexican Case (Baltimore, 1965), p. 35.

[18]John G. Gurley and Edward S. Shaw, "Financial Aspects of Economic Development," The American Economic Review, XLV (1955), p. 515.

[19]Raymond W. Goldsmith, Financial Structure and Development (New Haven, 1969), pp. 372-409.

[20]Ibid., pp. 390-408.

[21]I. Adelman and C. T. Morris, Society, Politics and Economic Development (Baltimore, 1967), pp. 403-404.

[22]Schumpeter, p. 74.

[23]Ibid., p. 107.

[24]Rondo Cameron, ed., Banking and Economic Development: Some Lessons of History (New York, 1972), p. 8.

[25]Gerschenkron, p. 354.

[26]Cameron and Patrick, p. 2.

[27]Hugh T. Patrick, "Financial Development and Economic Growth," Economic Development and Cultural Change (January, 1966), p. 174.

[28]Ibid., p. 175.

[29]Ibid., p. 176.

[30]Ibid.

[31]Cameron, et al., pp. 239-289.

[32]V. V. Bhatt, "Some Aspects of Financial Policies in Developing Countries," Finance and Development (December, 1974), p. 30.

[33]Edward S. Shaw, Financial Deepening in Economic Development (New York, 1973), pp. 86-87.

[34]Ibid., p. 89.

[35]Robert G. Hawkins, "Indicative Planning and the Efficiency of French Capital Markets," Financial Development and Economic Growth: The Economic Consequences of Underdeveloped Capital Markets, ed., Arnold W. Sametz (New York, 1972), p. 43.

[36]Money supply defined narrowly as consisting of currency and demand deposits.

[37]Goldsmith, pp. 206-212, Cameron, et al., pp. 301-308, and Raymond W. Goldsmith, "Financial Structure and Economic Growth in Advanced Countries," in Moses Abramovitz, ed., Capital Formation and Economic Growth (Princeton, 1955), p. 151.

[38]Holger L. Engberg, "The New African Central Banks and Monetary Management," in Arnold W. Sametz, ed., Financial Development and Economic Growth (New York, 1972), pp. 196-197.

[39]Goldsmith (1969), pp. 184-188.

[40]Cameron, et al., pp. 296-300.

[41]Goldsmith (1969), pp. 304-308.

CHAPTER IV

HISTORY AND ANALYSIS OF THE ROLE OF MONETARY FINANCIAL INSTITUTIONS IN ETHIOPIA[1]

Evolutions of Monetary Financial Institutions

The history of banking in Ethiopia dates back to 1905 when the Bank of Abyssinia was established in Addis Ababa under a partnership with the National Bank of Egypt. The partnership arrangement lasted until 1931 when it was replaced by a local bank called the Bank of Ethiopia. The Bank of Ethiopia was in turn liquidated in 1936 when Italy invaded Ethiopia. The activities of both the Bank of Abyssinia and the Bank of Ethiopia were limited to facilitating governmental transactions and some financing of exports.

During the five years of Italian occupation a number of Italian banks' branches were established with branch offices in major towns. In the aftermath of the Italian defeat in 1941 a British bank called Barclays Bank opened banking services in Addis Ababa and operated until 1943.

In 1942 a government owned bank called The State Bank of Ethiopia was established as a commercial bank. In 1943 the same bank was given additional responsibilities of a central bank authorized to control the issue of currency, to manage the foreign reserves of the country and to act as the fiscal agent of the government. This bank continued to

operate as both commercial and central bank for 20 years until its reorganization into separate commercial bank and central bank entities as of January 1, 1964.

The first privately owned commercial bank -- The Bank of Addis Ababa was established in 1964. It started business with a capital of $250,000 subscribed by its founders.

In 1967 Banco di Roma (Eth.) became the second private commercial bank to be chartered. It had an initial capital of two million dollars and five branch offices in 1967. Banco di Roma had been doing business in Eritrea for over 30 years as a branch bank of Banco di Roma of Rome.

In 1970 Banco di Napoli was set up as a share company with a capital of two million dollars. Previously this bank was operating in Eritrea as a branch bank of Banco di Napoli of Naples.

There were three commercial bank branch offices in 1943. This number rose to 22, after twenty years, in 1963. The next ten years witnessed an acceleration in the expansion of bank branches. For example there were 14 new branches in 1967, 13 in 1968, 22 in 1969, 12 in 1970, and 8 in 1971. In 1973 there were 121 branch offices, about one-third of which were concentrated in the two largest cities -- Addis Ababa and Asmara.

Monetary Banking Laws and Regulations

The National Bank of Ethiopia was given certain powers by Article two of the Monetary and Banking Proclamation of 1963. These powers are:

1. regulation of the supply, availability and cost of money and credit;
2. management of foreign reserves;

3. licensing and supervising banks; and

4. performing other customary central bank functions.

Article eight of the same proclamation requires the National Bank to include in its assets an international reserve fund consisting of gold, foreign currencies or foreign securities readily convertible into gold. The level of this reserve is supposed to be at least equal to 25 percent of the notes and its sight liabilities.

Article 12 appoints the National Bank as the fiscal agent of the government thus making it the official depository of the Government as well as the manager of public debt.

Article 17 gives the Bank the power to fix the maximum and minimum rates which commercial banks and other financial institutions, other than development banks,[2] may charge on loans and pay on deposits.

Article 18 authorizes the National Bank to require commercial banks and other financial institutions to maintain with it a balance of not more than 20 percent of their deposit liabilities. Consequently, the National Bank has been requiring these institutions to maintain a 10 percent reserve on demand deposits and 5 percent reserve on saving and time deposits with it. These reserves are computed on average net deposit over each month.

Article 38 empowers the National Bank to fix the ratio of liquid assets to short-term liabilities of commercial banks within a maximum of 30 percent. Pursuant to this provision the National Bank requires a 25 percent liquidity ratio.

Article 32 requires at least 51 percent of the capital of commercial banks to be owned by Ethiopian nationals.

National Bank licensed financial institutions are limited to one-half of their paid up capital and reserves in their equity participation of enterprises by statutory provisions. They are also prohibited from making any kind of credit service to the central government with the exception of the purchase of freely negotiable treasury bills and bonds.

Other restrictive laws on the National Bank licensed financial institutions include prohibition of loans to foreign governments and organizations and investing in foreign securities and real estate. There are also National Bank regulations with the following provisions:

1. banks are required to put aside a minimum of 10 percent of their annual profits to general reserves until such time that these reserves equal the bank's capital;
2. banks may declare only a maximum of 15 percent as cash dividend;
3. banks may not extend credit to any one borrower in excess of 10 percent of the sum of their paid up capital, general reserve fund and surplus without prior approval by the National Bank; and
4. banks shall have a minimum of two million dollars in their capital accounts or their capital accounts shall not be less than 10 percent of their liabilities, whichever is the greater.

Moral suasion appears to be the most important technique of the National Bank in implementing its credit regulation policies. The Ethiopian monetary financial institutions structure lends itself to effective utilization of such techniques mainly because it is easy for the National Bank to contact the individual banks whose head offices are

mostly in the capital city. Also, due to the lack of adequate securities markets, open market operations cannot be used effectively for purposes of credit control. Therefore, it is used primarily to meet budget deficits of the government. When situations are considered too expansionary or too contractionary, the National Bank changes the standard rates of discounts and rediscounts on eligible papers. There are indications that the National Bank has not been happy in expanding commercial bank credits to sectors other than export.[3]

Sources of Commercial Banks' Funds

It was indicated in Chapter III how financial intermediaries transfer surplus funds from savers to debtors. The ability of these institutions to attract savings depend on the services they can offer savers which may include liquidity, safety, and earnings.

The major sources of funds for commercial banks in general are known to be deposit liabilities. The experience of commercial banks in Ethiopia in this regard is explored below. Tables VII to IX show the sources of commercial bank's funds in absolute and relative values as well as their relative growth since the reorganization of monetary financial institutions in 1964.

During the ten year period of 1964 to 1973, total resources of commercial banks continued to increase rising from a level of $224.4 million to $760.3 million, an increase of 238.8 percent. The only two categories of sources of funds which continued to rise during the period were time and savings deposits and capital accounts with the former showing a spectacular growth of 432.7 percent. In 1964, time and savings deposits accounted for 30.4 percent of total resources while

TABLE VII

CONSOLIDATED LIABILITIES AND CAPITAL ACCOUNTS OF COMMERCIAL BANKS (ETH. $ MILLION)

End of Year	Private Deposits			Government Deposits	Foreign Liabilities	Credit from National Bank	Other Liabilities	Capital Accounts	Total*
	Demand Deposits**	Time and Saving Deposits	Total						
1964	81.6	68.2	149.8	11.7	9.2	--	19.3	34.4	224.4
1965	96.2	71.4	167.6	16.6	15.1	5.1	26.4	35.9	266.7
1966	96.2	85.7	181.9	12.8	19.1	6.2	34.0	37.2	291.2
1967	105.3	100.3	205.6	13.6	17.0	4.5	27.7	42.2	310.6
1968	110.0	125.2	235.2	12.1	32.6	13.5	41.6	50.6	385.6
1969	112.6	150.0	262.6	12.1	28.8	53.6	43.5	52.5	453.1
1970	104.7	186.6	291.3	12.5	64.2	72.4	56.1	55.6	552.1
1971	104.8	214.6	319.4	13.4	63.7	73.6	58.8	57.4	586.3
1972	114.8	265.2	380.0	12.7	56.3	51.5	57.3	59.9	617.7
1973	179.1	363.3	542.4	13.6	49.0	15.0	78.9	61.4	760.3

*Summation of Columns (3) to (8).

**Net of Uncleared Effects.

Source: Quarterly Bulletin, National Bank of Ethiopia, June, 1974, pp. 35-37.

TABLE VIII

CONSOLIDATED LIABILITIES AND CAPITAL ACCOUNTS OF COMMERCIAL BANKS (PERCENT)

End of Year	Private Deposits: Demand Deposits	Private Deposits: Time and Saving Deposits	Private Deposits: Total	Government Deposits	Foreign Liabilities	Credit from National Bank	Other Liabilities	Capital Accounts	Total*
1964	36.4	30.4	66.8	5.2	4.1	0.0	8.6	15.3	100
1965	36.1	26.8	62.9	6.2	5.7	1.9	9.9	13.5	100
1966	33.0	29.4	62.4	4.4	6.5	2.1	11.7	12.8	100
1967	33.9	32.3	62.2	4.4	5.5	1.4	8.9	13.6	100
1968	28.5	32.5	61.0	3.1	8.4	3.5	10.8	13.1	100
1969	24.8	33.1	57.9	2.7	6.3	11.8	9.6	11.6	100
1970	19.0	33.8	52.8	2.3	11.6	13.1	10.2	10.1	100
1971	17.9	36.6	54.5	2.3	10.9	21.5	10.0	9.8	100
1972	18.6	42.9	61.5	2.0	9.1	8.3	9.3	9.7	100
1973	23.5	47.8	71.3	1.8	6.4	2.0	10.4	8.1	100

*Sum may not add up to 100 due to rounding errors.

Source: Table VII.

TABLE IX

GROWTH INDICES OF COMMERCIAL BANKS' LIABILITIES AND CAPITAL ACCOUNTS (1964 = 100)

End of Year	Private Deposits			Capital Accounts	Total Resources
	Demand Deposits	Time & Saving Deposits	Total		
1964	100.0	100.00	100.0	100.0	100.0
1965	117.9	104.7	111.9	104.4	118.8
1966	117.9	125.6	121.4	108.1	129.8
1967	129.0	147.1	137.2	122.7	138.4
1968	134.8	183.6	157.0	147.1	171.8
1969	138.0	219.9	175.3	152.6	201.9
1970	128.3	273.6	194.4	161.6	246.0
1971	128.4	314.7	213.2	166.9	261.3
1972	140.7	388.8	253.7	174.1	275.3
1973	219.5	532.7	362.0	178.5	338.8

Source: Table VII.

registering about 48 percent of total resources in 1973. In spite of the absolute growth in capital accounts their share of total resources decreased from 15.3 percent in 1964 to about 8.0 percent in 1973.

Demand deposits have shown a moderate increase during the period except for a two year reversal in 1970 and 1971. Demand deposits were the most important sources of funds from 1964 to 1967 representing 36.4 percent in 1964. Since then their share has decreased to 18.6 percent in 1972. It showed some revival in 1973 registering 23.5 percent. Total private deposits increased from $149.8 million in 1964 to $542.4 million in 1973. This raised its corresponding share from 66.8 percent to 71.3 percent.

Government deposits did not show any significant change in absolute amounts. But their share continuously decreased from 5.2 percent in 1964 to only 1.8 percent in 1973.

Credit from the National Bank of Ethiopia fluctuated widely. It was $5.1 million in 1965. It expanded to $73.6 million in 1971 while registering only $15 million in 1973. Its percentage share fluctuated from 1.4 percent in 1967 to 13.1 percent in 1970.

Foreign liabilities showed some tendency for growth rising from $9.2 million in 1964 to a peak of $64.2 million in 1970. It was $49 million in 1973.

The accelerated growth in time and saving deposits has an important implication in that it can help lengthen the maturity of commercial banks loans which could finance investment projects.

Although the relationship of interest rates to national savings is not absolutely clear, increases in interest rates on saving deposits in banks have heavily stimulated saving deposits in Taiwan in the 1950's

and in South Korea in the 1960's.[4] The experiences of these countries is specially relevant for countries where much of the national savings are in hoards because much of the increase in saving deposits in the above two nations came from the transfer of hoards.

In Ethiopia, a one-half of one percent increase in interest rates on saving and time deposits in 1967 and one percent increase in 1970 are believed to have helped increase the amount of saving and time deposits.[5] It is further suggested that the increase in the interest rate in 1970 has had the effect of shifting demand deposits to saving deposits.[6] This latter contention is questionable considering the fact that in Ethiopia the two types of deposits do not attract the same sources of funds. Households do not generally hold demand deposits but hold almost all of the saving deposits. This leaves demand deposits for the business sector.

Furthermore, a breakdown of the time and saving account into its component parts of saving deposits and time deposits shows that the accelerated growth came from the component of saving deposits and only marginally from time deposits. The latter is generally business deposit in Ethiopia. The amounts of time deposits and saving deposits in 1964 were $33.2 million and $35 million, respectively. But at the end of December, 1973, saving deposits grew to a level of $252.3 million while time deposits attained a level of $111 million.[7]

This shows the relative growth of saving deposits was almost two times that of time deposits. This growth would lead us to suggest that some of the cash hoards have been channeled to saving deposits due to increasing familiarity of commercial banks to the public as well as from increasing income of urbanites who lack alternatives for short-term

investments until their savings grow enough to accomplish certain plans such as buying real estate, establishing own business, etc. Although the total number of saving accounts in commercial banks held by the public is not available, the number of saving accounts for the Commercial Bank of Ethiopia, which accounts for more than 80 percent of all commercial banks resources, jumped from 27,332 in 1964 to 165,626 in 1972.[8]

Uses of Commercial Bank's Funds

One of the major functions of financial intermediaries is the efficient allocation of funds. Their allocational ability partly depends on the demand for their funds and government regulations as well as their willingness to satisfy project demands that will contribute to economic development.

This section examines the absolute and relative growth in the various types of assets of commercial banks in Ethiopia for the period 1964 to 1973. The analysis is based on data shown in Tables X to XV.

Total assets, total loans, and the sum total of loans and investments continued to grow throughout the period without interruption. Compared to their 1964 levels, total assets grew 3.4 times in 1973, private sector loans three times, and the sum of private sector loans and investments 3.1 times. The proportion of the sum of private sector loans and investments to total assets continued to dominate ranging between 61.9 percent in 1973 to 75.6 percent in 1966. Private sector loans alone accounted for between 58.1 percent in 1973 to 67.2 percent in 1972.

Investment in private sectors, which mainly constitutes the equity shares of the Commercial Bank of Ethiopia in its subsidiary of Savings

TABLE X

CONSOLIDATED ASSETS OF COMMERCIAL BANKS (ETH. $ MILLION)

End of Year	Claims on Private Sector				Claims on Government[b]	Foreign Assets	Reserves	Other Assets[c]	Total Assets[d]
		Investment							
	Loans	S.F.I.[a]	Total	Total Loans and Investment					
1964	151.3	--	6.2	157.5	--	36.9	24.5	11.0	230.9
1965	163.5	22.0	29.4	192.9	0.9	36.5	28.9	19.4	278.6
1966	200.1	22.0	29.1	229.2	0.5	29.6	22.1	21.8	303.1
1967	210.8	22.0	30.9	241.7	--	19.3	36.7	24.5	322.2
1968	251.7	27.8	35.7	287.4	0.4	38.2	42.2	30.7	398.8
1969	290.3	26.5	34.3	324.6	15.7	35.1	52.8	45.5	473.8
1970	379.0	27.5	35.3	414.3	18.6	30.3	55.6	57.4	576.3
1971	412.0	29.6	36.4	448.4	13.3	31.3	52.0	68.3	613.3
1972	438.9	26.0	31.2	470.1	13.9	48.6	55.7	73.6	661.9
1973	460.4	18.4	30.5	490.9	43.0	108.8	70.4	79.6	792.8

[a] S.F.I. = Specialized Financial Institutions.
[b] Consists of investments in government securities and treasury bills beginning May 2, 1969.
[c] Includes uncleared effects.
[d] Figures may not add up to totals due to rounding errors.

Source: National Bank of Ethiopia, Quarterly Bulletin (Addis Ababa, June, 1974), p. 34.

TABLE XI

CONSOLIDATED ASSETS OF COMMERCIAL BANKS (PERCENT)

End of Year	Private Sector							
	Loans	Investments	Loans and Investments	Investment in Government Securities	Foreign Assets	Reserves	Other Assets	Total Assets*
1964	65.5	2.7	68.2	0.0	16.0	10.6	4.8	100.0
1965	58.7	10.5	69.2	0.3	13.1	10.4	7.0	100.0
1966	66.0	9.6	75.6	0.2	9.8	7.3	7.2	100.0
1967	65.4	9.6	75.0	0.0	6.0	11.4	7.6	100.0
1968	63.1	9.0	72.1	0.1	9.6	10.6	7.7	100.0
1969	61.3	7.2	68.5	3.3	7.4	11.1	9.6	100.0
1970	65.8	6.1	71.9	3.2	5.2	9.6	10.0	100.0
1971	67.2	5.9	73.1	2.2	5.1	8.5	11.1	100.0
1972	66.3	4.7	71.0	2.1	7.3	8.4	11.1	100.0
1973	58.1	3.8	61.9	5.4	13.7	8.9	10.0	100.0

*Figures may not add up to 100 due to rounding errors.

Source: Table X.

TABLE XII

INDICES OF SELECTED COMPONENTS OF ASSETS
OF COMMERCIAL BANKS
(1964=100)

End of Year	Private Sector Loans	Private Sector Investments	Private Sector Loans & Investments	Investment in Government securities*	Foreign Assets	Total Assets
1964	100.0	100.0	100.0	0.0	100.0	100.0
1965	108.1	474.2	122.5	100.0	98.1	120.6
1966	132.2	469.3	145.5	55.5	80.2	131.3
1967	139.3	498.4	153.5	0.0	52.3	139.5
1968	166.3	575.8	182.5	44.4	103.5	172.7
1969	191.9	553.2	206.1	1744.4	95.1	205.2
1970	250.5	569.3	263.0	2066.7	82.1	249.6
1971	272.3	587.1	284.7	1477.8	84.8	265.6
1972	290.1	503.2	298.5	1544.4	131.7	286.7
1973	304.3	491.9	311.7	4777.8	294.8	343.3

*There was no investment in Government securities in 1964; therefore, 1965 is used as the base year.

Source: Table X.

TABLE XIII

PORTFOLIO OF COMMERCIAL BANKS PRIVATE SECTOR LOANS AND INVESTMENTS (ETH. $ MILLION)

End of Year	Industrial	Agricultural	Building & Construction	Consumer	Exports	Imports	Domestic Trade	Total*
1965	39.6	10.7	39.2	4.5	26.8	33.4	40.5	194.6
1966	46.2	12.6	43.4	3.6	35.0	42.7	45.7	229.2
1967	59.5	10.2	44.1	4.9	30.5	43.7	48.5	241.4
1968	57.0	26.8	46.8	4.6	49.2	49.1	53.9	287.4
1969	58.1	30.3	52.7	7.2	61.9	55.9	62.0	328.1
1970	66.9	34.0	68.0	6.3	73.5	76.0	89.7	414.4
1971	78.1	35.9	70.5	5.9	73.3	92.1	92.7	448.4
1972	82.1	42.2	62.0	4.7	99.5	86.2	93.4	470.1
1973	84.2	47.1	55.4	6.5	125,5	85.7	86.6	491.0

*Figures may not add up to totals due to rounding errors.

Source: National Bank of Ethiopia, Quarterly Bulletin (Addis Ababa, June, 1974), p. 39.

TABLE XIV

PORTFOLIO OF COMMERCIAL BANKS PRIVATE SECTOR
LOANS AND INVESTMENTS (PERCENT)

End of Year	Industrial	Agricultural	Building and Construction	Consumer	Exports	Imports	Domestic Trade	Total*
1965	20.3	5.5	20.1	2.3	13.8	17.2	20.8	100.0
1966	20.1	5.5	18.9	1.6	15.3	18.6	19.9	100.0
1967	24.6	4.2	18.3	2.0	12.6	18.1	20.1	100.0
1968	19.8	9.3	16.3	1.6	17.1	17.1	18.7	100.0
1969	17.7	9.2	16.1	2.2	18.9	17.0	18.9	100.0
1970	16.1	8.2	16.4	1.5	17.7	18.3	21.6	100.0
1971	17.4	8.0	15.7	1.3	16.3	20.5	20.7	100.0
1972	17.5	9.0	13.2	1.0	21.2	18.3	19.9	100.0
1973	17.1	9.6	11.3	1.3	25.6	17.4	17.6	100.0

*Figures may not add up to 100 due to rounding errors.

Source: Table XIII.

TABLE XV

INDICES OF PORTFOLIO OF COMMERCIAL BANKS PRIVATE SECTOR LOANS AND INVESTMENTS (1965 = 100)

End of Year	Industrial	Agricultural	Building & Construction	Consumer	Exports	Imports	Domestic Trade
1965	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1966	116.7	117.7	110.7	80.0	130.6	127.8	112.8
1967	150.2	95.3	112.5	108.9	113.8	130.8	119.7
1968	143.9	250.5	119.4	102.2	183.6	147.0	133.1
1969	146.7	283.2	134.4	160.0	231.0	167.4	153.1
1970	168.9	317.7	173.5	140.0	274.2	227.5	221.5
1971	197.2	335.5	179.8	131.1	273.5	275.7	228.9
1972	207.3	394.4	158.2	104.4	371.3	258.1	230.6
1973	212.6	440.2	141.3	144.4	468.3	256.6	213.8

Source: Table XIII.

and Mortgage Corporation, grew at an accelerated rate in 1965 from its low level in 1964. Since 1966 its absolute value stagnated while its relative proportion in total assets continued to decrease accounting only for 3.8 percent in 1973 compared to 10.5 percent in 1965.

Investment in government securities has been relatively high since 1969 at which time the first treasury bills in the country were issued. However, investment in government securities remained low accounting for between two and three percent of total assets between 1969 and 1972. In 1973, due to high liquidity positions of commercial banks, there was unusually high investment in such securities accounting for 5.4 percent of total assets.

Foreign assets exhibited wide fluctuations, for example compared to their value in the base year of 1964 their growth index was 52.5 percent and 294 percent in 1967 and 1973, respectively. Over the ten year period, they have generally lost their relative magnitudes in total assets except for a reversal in 1973.

The absolute values of commercial bank loans and investments to individual sectors, other than consumer loans, have generally shown annual increases since 1965. However, their levels fell short of preceding years. Such a case was true for industry in 1968, agriculture and exports in 1967, building and construction and imports in 1972 and 1973, and domestic trade in 1973.

Compared to the level of 1965, the 1973 outstanding commercial banks sectoral loans and investments grew 2.1 times for industry, 4.4 times for agriculture, 1.4 times for exports, 2.6 times for imports, and 2.1 times for domestic trade.

Commercial loans which include the financing of domestic and international trade continued to absorb much of the loans of commercial banks. They accounted for 51.8 percent of total assets of commercial banks in 1965. This share was raised to 60.6 percent in 1973.[10] Some central banks in developing countries are known for their policies to discourage the continued domination of such loans and instead encourage the financing of capital development projects.[11] Also, historical experience of financing of initial industrialization of many countries indicates that commercial banks have played a significant role in financing capital formation. These countries include Belgium, Scotland, and Japan[12] and more recently Mexico.[13] In the case of Ethiopia central bank policy is strongly in favor of loans to finance exports alone. For example, the lowest National Bank discount rates were accorded export papers throughout the period under study.

The proportion of commercial banks' portfolios in industry continued to decrease in general declining from 20.3 percent in 1965 to 17.1 in 1973. Agriculture increased its share to some extent but still accounted for only 9.6 percent of total commercial banks portfolios in 1973. Agriculture and industry together accounted for only 26.7 percent of commercial banks portfolio in 1973. The corresponding share for building and construction continued to decrease going down from its level of 20.1 percent in 1965 to only 11.3 percent in 1973. Consumer loans have declined relatively over the same period of time and their share never again reached the 2.3 percent level attained in 1965. Their share in 1973 was only 1.3 percent.

Monetary Financial Development

In this section two rough measures of the development of monetary financial institutions are employed. These measures are the proportion of currency in money supply and bank office density. These two measures are supplemented by other more general financial development measures in Chapter VI.

As a country develops the volume of demand deposits as well as its proportion in money supply is presumed to increase. In Ethiopia, the proportion of currency in money supply is considered very high by any standard. It was 69.3 percent of money supply for the year ending December 31, 1973. This ratio is shown in Table XVI along with percentages for other selected developing nations.

The high proportion of currency in money supply in Ethiopia may be indicative of the lack of deposit services in many parts of the country which makes it condusive to hoarding unnecessary amounts of cash by the public.

The proportion of currency in money supply in developed countries is relatively low compared to that of developing countries, for example in 1973 the proportion was 22.1 percent for the United States, 23.8 percent for Canada, and 22.6 percent for Japan.[14]

The number of bank offices relative to population is one measure of bank density that may indicate the extent of financial development. A simple formula suggested by Rondo Cameron for such measure is to divide the product of 10,000 and the number of bank offices by the size of the population. He arbitrarily set a ratio of 1.0 as "high," 0.5 to 1 as "moderate," below 0.5 to 0.1 as "low," and less than 0.1 as "very low."[15]

TABLE XVI

CURRENCY OUTSIDE BANKS AS PERCENT OF MONEY SUPPLY IN SELECTED DEVELOPING COUNTRIES, DECEMBER 31, 1973

Country	% of Currency in Money Supply
Algeria	46.6
Bolivia	69.8
Burundi	53.9
Chile	41.7
Egypt	64.5
Ethiopia	69.3
Gambia	48.2
Ghana	45.9
India	57.4
Indonesia	53.6
Iraq	78.2
Jordan	70.0
Kenya	25.6
Malawi	38.8
Morocco	39.7
Nigeria	47.1
Somalia	48.9
Sudan	55.1
Tanzania	43.2
Uganda	37.6

Source: Computed from data in International Financial Statistics: 1973 Supplement, International Monetary Fund.

The ratio for Ethiopia, based on the above formula, was 0.009 in 1961, 0.018 in 1966, and 0.046 in 1973. It showed some improvement over the period, but it still ranks "very low." This low ratio should not be surprising due to the fact that by the end of 1973, out of 183 towns in the country only 65 towns were served by bank offices.[16] Out of 121 commercial bank offices, 71 or 58.7 percent were concentrated in only two provinces to the apparent neglect of the other twelve provinces.[17]

Conclusions

The total resources of commercial banks continued to increase over the period studied. Especially the growth of time and saving deposits was impressive. In 1964, the share of time and saving deposits in total sources of funds was 30.4 percent compared to the share of demand deposits which was 36.4 percent. By the end of 1973, the share of saving and time deposits grew to 47.8 percent while that of demand deposits declined to 23.5 percent. This structural change in liabilities should encourage commercial banks to lengthen the maturities of their loans and finance development projects. The continued and growing emphasis of commercial loans necessarily stifles development as it shifts funds away from investment projects.

The mobilization of funds by commercial banks is heavily oriented towards big urban centers as revealed by the high concentration of bank offices in few cities. The limited transportation and communication infrastructure in less developed areas is partly to be blamed for none existence of bank offices in such areas.

The portfolios of commercial banks loans and investments continued to grow. The major constituent of the investment portfolios is the equity investment of the Commercial Bank of Ethiopia in its subsidiary, the Saving and Mortgage Corporation of Ethiopia which is the major supplier of funds to building, construction, and housing. The mere fact that the Commercial Bank of Ethiopia is the parent company makes commercial banks leading financers of building and construction. The next chapter gives more about the activities of the Mortgage Corporation and other non-monetary financial intermediaries.

FOOTNOTES

[1]A comprehensive historical review of financial institutions in Ethiopia is given in a special issue of the Ethiopia Observer, Volume VIII, No. 4 (1965).

[2]Development banks are the only specialized financial institutions outside the sphere of control of the National Bank of Ethiopia.

[3]Commercial Bank of Ethiopia, Annual Report (Addis Ababa, 1971), p. 67.

[4]John W. Lowe, "Financial Markets in Developing Countries," Finance and Development (December, 1974), p. 39.

[5]Department of Economic Analysis, The Savings and Credit Market of Ethiopia, Planning Commission Office (Unpublished Report, Addis Ababa, April 1973), p. 35, National Bank of Ethiopia, Seventh Annual Report (Addis Ababa, 1970), p. 13.

[6]Department of Economic Analysis, p. 39.

[7]National Bank of Ethiopia, Quarterly Bulletin (June, 1974), p. 35.

[8]Commercial Bank of Ethiopia, Annual Reports (Addis Ababa, 1972), p. 55.

[9]Sectoral loans and investments for commercial banks are not available for prior years. Please see Tables XIII to XV for data on sectoral analysis.

[10]Between 1968 and 1971 a 20-year loan of $35.3 million from Italy was channeled through the Commercial Bank of Ethiopia and mostly used to finance imports.

[11]Andrew F. Brimmer, "Central Banking and Economic Development," Journal of Money, Credit, and Banking, III (November, 1971), p. 786.

[12]Rondo Cameron, et al., Banking in the Early Stages of Industrialization (New York, 1967), pp. 97, 148-149, 288.

[13]Sayre P. Schatz, Development Bank Lending in Nigeria (Ibadan, 1964), p. 115.

[14]Computed from data in International Financial Statistics: 1973 Supplement, International Monetary Fund, pp. 55, 227, 449.

[15]Cameron, et al., p. 297.

[16]Commercial Bank of Ethiopia, Tenth Annual Directors' Report (Addis Ababa, 1973), p. 45.

[17]Ibid.

CHAPTER V

HISTORY AND ANALYSIS OF NON-MONETARY FINANCIAL INSTITUTIONS IN ETHIOPIA

Evolution of Non-Monetary Financial Institutions[1]

The origin of non-monetary financial institutions in Ethiopia dates back to 1945 when the Agricultural Bank of Ethiopia was created by Proclamation No. 75 for the purpose of granting small agricultural loans to farmers who have lost their means of production during the Italian occupation. The bank was under the control of the Ministry of Agriculture. It granted loans for the purchase of farm inputs including seeds, livestock, and small implements. The size of the loans ranged between $500 and $1,500 for a maximum term maturity of three years.[2] In 1949, when it was renamed the Agricultural and Commercial Bank of Ethiopia, it was authorized to undertake general banking activities and came under the control of the State Bank of Ethiopia.[3] In 1951 it was absorbed by the Development Bank of Ethiopia which was created by Proclamation No. 116 with a share capital of $11 million wholly owned by the Government. Article 1 of the Proclamation stated that the purposes of establishing it were to assist in the development of industrial and agricultural production and to foster the investment of private capital.

Article 2 had given the Development Bank of Ethiopia broad powers to achieve the objectives set in Article 1. Among the powers given were

the authority to make loans and participate in equities of any industrial or agricultural business enterprise or to guarantee such loans and to issue bonds or any other form of liabilities. However, the bank never utilized its right to issue bonds.

The Imperial Savings and Home Ownership Public Association was chartered in 1962 and began operation in 1963 "to provide a means by which to borrow money at reasonable rates of interest in order to facilitate the individual's ownership of his own home."[4] Mortgage loans are granted to members only for a maximum term of maturity of 16 years. Between its inception and 1973, the Association helped finance the ownership of about 600 houses out of a total membership of about 9000.[5]

Another Government owned development bank called the Investment Bank of Ethiopia (later renamed Ethiopian Investment Corporation) was established in September, 1963, with a paid up capital of $2.5 million to promote investment in the economy by providing medium- and long-term loans to agricultural, industrial, and commercial businesses. Its loan policy gave priority to Government owned businesses. It also participated in the equity of private sector projects with the objective of gradually turning over its share to private individuals as the latter accumulate enough capital of their own.

In July, 1965, the Mortgage Corporation of Ethiopia was created as a subsidiary of the Commercial Bank of Ethiopia with a capital of $2 million and assets of outstanding loans of $20 million transferred to it from the mortgage financing activities of the parent company.[6] In 1970 it was renamed the Saving and Mortgage Corporation of Ethiopia.

The Development Bank of Ethiopia and the Ethiopian Investment Corporation were engaged in the same area of responsibilities in the

development efforts. Since both were Government intermediaries, it was felt that the operation of both created unnecessary duplication of efforts given the limited technical personnel and resources available in these institutions. Consequently, the merging of these institutions was recommended by the Financial Intermediaries Reorganization Commission which was set-up under the Third Five Year Development Plan to advise the Government how best to reorganize financial intermediaries. The two institutions were merged into a new bank called the Agricultural and Industrial Development Bank by Decree No. 55 of 1970. This action reduced the number of non-monetary financial intermediaries in the country to three; namely, the Imperial Savings and Home Ownership Public Association, the Savings and Mortgage Corporation of Ethiopia, and the Agricultural and Industrial Development.

Objectives and Policies

The overall objective of development banks in developing countries could be viewed as helping stimulate the missing elements necessary for development.[7] These elements may include capital, entrepreneurship, managerial and technical skills. Sayre Schatz and a number of other economists identify two main functions of development banking; namely, the function of providing capital by way of credit and/or equity participation and the function of providing various kinds of technical, commercial and other services to investors. Schatz called the first function "pure development banking" and the combination of both functions "augmented development banking."[8] If development efforts are to bear fruits, capital from development banks ought to be accompanied by the necessary services.

The Agricultural and Industrial Development Bank

The general objectives of the Agricultural and Industrial Development Bank are the mobilization of resources and the investment of available funds in agricultural, industrial, mining, and other developmental projects, not reserved for other financial intermediaries, by way of equity participation, medium- and long-term loans and/or guarantees.[9]

The general policies of the bank include the following:[10]

1. In financing any single project the bank's participation in loans and/or equity is limited to a maximum of 50 percent of the total cost of the project. However, in exceptional cases for agricultural loans of less than $50,000 the bank may finance the total cost of the fixed investment of the project provided that 50 percent of the loan is paid back within a year.
2. The financial commitments of the bank to any single enterprise can at no time exceed 10 percent of the bank's paid-up capital plus unimpaired reserves.
3. The bank's total equity investments cannot exceed the sum of its paid-up capital and reserves.
4. Maturity of medium- and long-term loans range between a minimum of five and a maximum of ten years with a grace period not normally exceeding two years after the completion of the project.
5. The bank's long-term debt to equity ratio is not allowed to exceed three to one.

The three to one debt-equity ratio is the recommended limit by the World Bank for any development bank that deals with it in raising funds.

In processing applications for financing projects, the Agricultural and Industrial Development Bank considers six factors. These are:[11]

1. the technical soundness of the project;
2. the existence of present and future markets for the outputs of the project;
3. the existence of adequate management talent and proper organizational set-up including proper accounting methods;
4. the financial returns of the project as measured by the project's internal rate of return and the net present value of the discounted cash flow projections;
5. the social benefits of the project as measured by such things as the opportunities for employment, skill development of manpower, foreign exchange savings or earnings, etc.; and
6. the credit worthiness of the applicant.

Thrift Institutions

Under the category of thrift institutions are the Imperial Savings and Home Ownership Public Association and the Savings and Mortgage Corporation of Ethiopia. Both specialize in financing building and construction.

The two basic functions of the Imperial Savings and Home Ownership Public Association are mobilizing urban savings and granting members low cost funds to build their own homes. They provide mortgage loans up to $20,000 and $30,000 for single family and two-family dwellings, respectively.

The sphere of activities of the Savings and Mortgage Corporation of Ethiopia include mortgage financing of industrial, commercial, and

residential buildings. To a small degree, it also lends on personal guarantees, makes advances on deposits and shares and finances the purchase of vehicles.

In the area of mortgage financing, it fully finances economy type residential buildings which cost between $5,000 and $20,000. It finances half of the cost of residential buildings which cost $30,000. For residential buildings whose costs are above $30,00 but within $100,000 it finances 30 percent of the cost. Apartment buildings are financed to the extent of 60 percent of the construction cost or a maximum of $300,000.[12] Until 1973, the terms of maturity were up to a maximum of five years. Since then, they have been raised to a maximum of ten years.

Sources of Funds of Non-Monetary Financial Intermediaries

In this section the absolute and relative growth of the various sources of funds for non-monetary financial institutions for the decade 1965 to 1974 is discussed. The analysis is based on data presented in Tables XVII to XIX.

The amount of total resources with non-monetary financial institutions in 1965 and 1974 were $52.6 million and $235.3 million, respectively. The 1974 amount was 4.47 times the corresponding amount for 1965. In each of the years between 1965 and 1974 total resources continued to increase. In general all categories of sources of funds improved over the period from their initial low levels in 1965. Time and saving deposits rose from $3.3 million in 1965 to $40.9 million in 1974. The 1974 figure is over twelve times that of 1965. Its share in

TABLE XVII

CONSOLIDATED LIABILITIES AND CAPITAL ACCOUNTS OF NON-MONETARY FINANCIAL INSTITUTIONS
(ETH. $ MILLION)

End of Year	Time and Saving Deposits	Capital Accounts	Credit from Commerical Banks	Credit from Govern-ment	Foreign Liabil-ities	Other Items (net)	Total[a]
1965	3.3	31.9	0.6	4.4	12.5	--	52.6
1966	6.6	34.0	21.2	8.1	29.6	1.2	100.7
1967	5.0	41.4	25.0	5.3	13.4	0.1	90.2
1968	6.5	43.0	26.7	6.2	15.7	0.5	98.6
1969	7.3	45.2	26.4	6.9	25.3	-0.9	110.2
1970	11.0	47.7	26.7	18.9	31.7	-1.0	135.0
1971	13.5	40.2	29.0	20.9	30.4	-1.3	132.6
1972	25.1	68.9	25.2	17.8	28.6	-1.9	163.7
1973	34.0	88.1	22.3	31.3	42.4	-1.4	216.7
1974*	40.9	101.0	26.2	23.7	43.6	-0.1	235.3

*1974 data are for June 30.

[a]Figures may not add up to totals due to rounding errors.

Source: Quarterly Bulletin, National Bank of Ethiopia, June, 1974, p. 42, and International Financial Statistics, International Monetary Fund, April, 1975, p. 139.

TABLE XVIII

CONSOLIDATED LIABILITIES AND CAPITAL ACCOUNTS OF NON-MONETARY FINANCIAL INSTITUTIONS (PERCENT)

End of Year	Time and Saving Deposits	Capital Accounts	Credit From Commercial Banks	Credit From Government	Foreign Liabilities	Other Items (net)	Total[a]
1965	6.3	60.6	1.1	8.4	23.8	0.0	100
1966	6.5	33.8	21.0	8.0	29.4	1.2	100
1967	5.5	45.9	27.7	5.9	14.8	0.1	100
1968	6.6	43.6	27.1	6.3	15.9	0.5	100
1969	6.6	41.0	23.9	6.3	22.9	-0.8	100
1970	8.1	35.3	19.8	14.0	23.5	-0.7	100
1971	10.2	30.3	21.9	15.8	22.9	-1.0	100
1972	15.3	42.1	15.4	10.9	17.5	-1.2	100
1973	15.7	40.6	10.3	14.4	19.6	-0.6	100
1974*	17.4	42.9	11.1	10.1	18.5	0.0	100

*1972 data are for June 30.

[a]Percentages may not add up to 100 due to rounding.

Source: Table XVII.

TABLE XIX

GROWTH INDICES OF LIABILITIES AND CAPITAL ACCOUNTS OF NON-MONETARY FINANCIAL INSTITUTIONS
(1965=100)

End of Year	Time and Saving Deposits	Capital Accounts	Credit from Commercial Banks	Credit from Government	Foreign Liabilities	Total
1965	100.0	100.0	100.0	100.0	100.0	100.0
1966	200.0	106.6	3533.3	184.1	236.8	191.4
1967	151.5	129.8	4166.7	120.4	107.2	171.5
1968	197.0	134.8	4450.0	140.9	125.6	187.4
1969	221.2	141.7	4400.0	156.8	202.4	209.5
1970	333.3	149.5	4450.0	429.5	253.6	256.6
1971	409.1	126.0	4833.0	475.0	243.2	252.1
1972	760.6	216.0	4200.0	404.5	228.8	311.2
1973	1030.3	276.2	3716.7	711.4	339.2	412.0
1974*	1239.4	316.6	4366.7	538.6	348.8	447.3

*1974 data are for June 30.

Source: Table XVII.

total resources increased from 6.3 percent in 1965 to 17.4 percent in 1974. However, the level of saving mobilization attained in 1974 was still far below satisfactory. The resource structure remains heavily weighed by capital accounts and foreign liabilities. For the level of capital accounts which these institutions have at their disposal they have a long way to go in attracting deposits before a proper balance could be achieved between capital and domestic liabilities.

Capital accounts continued to grow throughout the period except for a decline in 1971. Apparently, the 1971 decline was brought about by the write-off of uncollectible accounts which were due to the predecessors of the Agricultural and Industrial Development Bank. The amount of capital accounts was $31.9 million in 1965. In 1974 it rose to $101.0 million. This amount was over three times that of 1965. Capital accounts remained by far the most important sources of funds even though their relative share declined from 60.6 percent in 1965 to only 42.9 percent in 1974.

Almost all of the credits from the commercial banks directed to non-monetary financial institutions originate from the Commercial Bank of Ethiopia and goes to its subsidiary, the Savings and Mortgage Corporation of Ethipia. In 1965 such credit was only $600,000. But in 1966, within a year after the establishment of the Savings and Mortgage Corporation of Ethiopia, it increased to $21.2 million. In 1974 it was $26.2 million after reaching its peak of $29.0 million in 1971.

Credit from the Government has increased but to a lesser degree than credit from commercial banks. It was $4.4 million in 1965. It rose to its peak level of $31.3 million in 1973. Its level in 1974 was

about 5.4 times that of 1965. The 1974 amount was 10.1 percent of total resources compared to 8.4 percent in 1965.

Foreign liabilities have shown moderate growth over the years with some degree of fluctuations. They were $12.5 million in 1965 and rose to $43.6 million in 1974. The 1974 level was about 3.5 times that of 1965. However, its share in total resources declined from 23.8 percent in 1965 to 18.5 percent in 1974.

Uses of Funds of Non-Monetary Financial Intermediaries

This section deals with a general analysis of assets of non-monetary financial intermediaries for the decade 1965 to 1974. However, detailed analysis of the portfolio of non-monetary financial institutions is saved for Chapter VI. The following analysis is based on data presented in Tables XX to XXII.

Total claims on the private sector including loans and equity holdings increased by more than four times over the period. They rose from $50.9 million in 1965 to $213.6 million as of April 30, 1974. Throughout the period they accounted for more than 90 percent of total assets. The portion of claims of the Agricultural and Industrial Development Bank on the private sector continuously rose over the period with the exception of declines in 1967 and 1971. The decline in 1971 was due to the write-off of uncollectible accounts which was mentioned in the preceding section. Outstanding claims of the Bank on the private sector were $49.6 million in 1965. This amount rose to $156.8 million as of April 30, 1974. The 1974 amount was over three times the amount of 1965. The unusual accelerated growth of claims of

TABLE XX

CONSOLIDATED ASSETS OF NON-MONETARY FINANCIAL INSTITUTIONS (ETH. $ MILLION)

End of Year	Cash	Foreign Assets	Claims on Government	Claims on Private Sector: Thrift Institutions	Claims on Private Sector: AIDB[a]	Claims on Private Sector: Total	Total Assets[b]
1965	1.2	0.3	0.2	1.3	49.6	50.9	52.6
1966	1.9	0.5	0.2	25.4	72.6	98.0	100.7
1967	2.3	0.2	0.6	29.2	57.9	87.1	90.2
1968	3.3	0.2	1.3	33.2	60.6	93.8	98.6
1969	1.1	0.1	1.3	34.7	72.8	107.5	110.2
1970	1.7	0.2	1.1	38.0	94.0	132.0	135.0
1971	5.6	0.3	1.0	39.4	86.3	125.7	132.6
1972	8.0	0.5	1.0	41.6	112.5	154.1	163.7
1973	14.5	0.5	1.0	51.0	149.6	200.6	216.6
1974*	18.7	1.5	1.1	56.8	156.8	213.6	234.8

*Data for 1974 are for April 30.

[a]AIDB = Agricultural and Industrial Development Bank and its predecessors.

[b]Figures may not add up to total due to rounding errors.

Source: Quarterly Bulletin, National Bank of Ethiopia, June, 1974, p. 41.

TABLE XXI

CONSOLIDATED ASSETS OF NON-MONETARY FINANCIAL INSTITUTIONS (PERCENT)

End of Year	Cash	Foreign Assets	Claims on Govern-ment	Thrift Institutions	AIDB[a]	Total	Total Assets[b]
1965	2.3	0.6	0.4	2.5	94.3	96.8	100
1966	1.9	0.5	0.2	25.2	72.1	97.3	100
1967	2.5	0.2	0.7	32.4	64.2	96.6	100
1968	3.3	0.2	1.3	33.7	61.5	95.2	100
1969	1.0	0.1	1.2	31.5	66.1	97.6	100
1970	1.2	0.1	0.8	28.1	69.6	97.7	100
1971	4.2	0.2	0.7	29.7	65.1	94.8	100
1972	4.9	0.3	0.6	25.4	68.7	94.1	100
1973	6.7	0.2	0.5	23.5	69.1	92.6	100
1974*	8.0	0.6	0.5	24.2	66.8	91.0	100

[a]AIDB = Agricultural and Industrial Development Bank and its predecessors.

[b]Percentages may not add up to 100 due to rounding errors.

*Data for 1974 are for April 30.

Source: Table XX.

TABLE XXII

GROWTH INDICES OF SELECTED ASSETS OF NON-MONETARY FINANCIAL INSTITUTIONS (1965 = 100)

End of Year	Foreign Assets	Claims on Govern-ment	Thrift Institutions	AIDB[a]	Total	Total Assets
1965	100.0	100.0	100.0	100.0	100.0	100.0
1966	166.7	100.0	1953.8	146.4	192.5	191.4
1967	66.7	300.0	2246.1	116.7	171.1	171.5
1968	66.7	650.0	2553.8	122.2	184.3	187.4
1969	33.3	650.0	2669.2	146.8	211.2	209.5
1970	66.7	550.0	2923.1	189.5	259.3	256.6
1971	100.0	500.0	3030.8	174.0	246.9	252.1
1972	166.7	500.0	3200.0	226.8	302.7	311.2
1973	166.7	500.0	3923.1	301.6	394.1	411.8
1974*	500.0	550.0	4369.2	316.1	419.6	446.4

*Data for 1974 are for April 30.

[a]AIDB = Agricultural and Industrial Development Bank and its predecessors.

Source: Table XX.

the Bank in 1972 and 1973 amounted to $26.2 million and $37.1 million, respectively. This growth is mainly attributed to the transfer to the Bank of the Government's loan and equity investments in two major companies; namely, Addis Tyre and Ethiopian Tannery. The share of the Agricultural and Industrial Development Bank claims on the private sector, in the total assets of non-monetary financial institutions significantly declined from 94.3 percent in 1965 to 66.8 percent on April 30, 1974.

Thrift institutions' claims on the private sector accelerated from an insignificant amount of $1.3 million in 1965 to $25.4 million in 1966. This acceleration was due to the creation of the Savings and Mortgage Corporation of Ethiopia and the transfer of the outstanding mortgage loans of the Commercial Bank of Ethiopia to the former. By April 30, 1974, thrift institutions' claims on the private sector rose to $56.8 million which was about 44 times the amount of 1965 and only 2.2 times the corresponding amount of 1966. The percentage of the claims of thrift institutions in total assets of non-monetary financial institutions rose from 2.5 percent in 1965 to 24.2 percent in 1974. The 1974 percentage share shows a decline compared to the 25.2 percentage share in 1966.

Other asset categories which include foreign assets and claims on the Government were small in magnitude and showed minor changes over the period under consideration considering their low levels in 1965. Their shares in total assets remained low and did not show significant changes.

Cash showed accelerated growth since 1971. It was only $1.2 million in 1965 and $1.7 million in 1970. It rose to $5.6 million in 1971, $8.0

million in 1972, $14.5 million in 1973, and $18.7 million as of April 30, 1974. The accelerated liquidity coincided with the reorganization of the former development banks by merging the Ethiopian Investment Corporation with the Development Bank of Ethiopia. In 1965 cash accounted for only 2.3 percent of total assets. It represented eight percent of total assets as of April 30, 1974.

Conclusions

All sources of funds for non-monetary financial intermediaries increased significantly over the period studied. However, the level of savings mobilization attained by these institutions was still far below satisfactory in 1974. The resource structure is heavily weighed by capital accounts and foreign liabilities specially for the Agricultural and Industrial Development Bank.

The two thrift institutions lack the necessary funds to meet the investment demand in building, construction, and housing. Specially financing needs of housing have always been larger than the meager resources of the thrift institutions.

The share in the private cliams of the Agricultural and Industrial Development Bank and its predecessors out of the total claims of non-monetary financial institutions declined over the years. This decline might have been caused by shortages of viable development projects to be financed as well as by the excessive amounts of overdue accounts and bad debts. Hypothesis six in Chapter VI raises the question whether viable projects or inadequacies of funds are the limiting factors.

FOOTNOTES

[1]For detailed historical sketch of financial institutions in Ethiopia see Ethiopia Observer, Vol. VIII, No. 4 (1965).

[2]Food and Agriculture Organization of the United Nations, Agriculture in Ethiopia (Rome, 1961), p. 460.

[3]Sylvia Pankhurst, "The Development Bank," Ethiopia Observer, III (1959), p. 41.

[4]A Decree to Provide for the Creation and Regulation of the Imperial Savings and Home Ownership Public Association, Negarit Gezeta, 20th year, No. 19, 8 September, 1961.

[5]Imperial Savings and Home Ownership Public Association, Twelveth Annual Report: 1972/73, p. 37.

[6]Taffera Deguefe, A Guide to Service (Addis Ababa, 1973), p. 18.

[7]William Diamond, Development Banks (Baltimore, 1957), pp. 16-17.

[8]Sayre P. Schartz, Development Bank Lending in Nigeria (Ibadan, 1964), p. 107.

[9]Agricultural and Industrial Development Bank, Policies and Operations (June 18, 1971), p. 2.

[10]Ibid., pp. 3-4.

[11]Ibid., p. 3.

[12]Planning Commission, The Savings and Credit Market of Ethiopia (Addis Ababa, 1973), p. 27.

CHAPTER VI

ANALYSIS OF THE ROLE OF FINANCIAL INTERMEDIARIES IN THE SAVING AND INVESTMENT PROCESS IN ETHIOPIA

Funds Supplied by Financial Intermediaries

In this section hypotheses one, two, and three which were developed earlier in Chapter I are tested. In general, hypothesis one states that, in Ethiopia, the rate of growth of the supply of funds[1] by financial intermediaries is greater than the corresponding rate of growth in investment. The specific relationships to be tested are:

1. the relative growth of the supply of funds by all financial intermediaries to investment in the economy;
2. the relative growth of the supply of funds by types of financial intermediaries to investment in the economy; and
3. the relative growth of the supply of funds by types of financial intermediaries to selected sectors of the economy compared to the sectors' respective investments.

The annual growth rate (arithmetic growth rate) of the supply of funds by all financial intermediaries and the growth rate of investment in the economy are presented in Table XXIII. Data in this table are used to test parts of hypothesis one.

Table XXIV depicts comparisons of rates of growth of the sectoral supply of funds by types of financial intermediaries and rates of growth

TABLE XXIII

COMPARISONS OF RATES OF GROWTH OF THE SUPPLY OF FUNDS BY FINANCIAL INTERMEDIARIES AND THE RATE OF GROWTH OF INVESTMENT IN THE ECONOMY (PERCENT)

Year Ending July 7	Gross Fixed Investment	Monetary Fixed Investment	Supply of Funds		
			Commercial Banks	Non-Monetary Financial Institutions	Total
1961/62	9.3	9.4	32.9	5.1	29.0
1962/63	4.3	4.9	8.7	11.6	9.0
1963/64	14.1	20.5	15.5	21.7	16.2
1964/65	9.3	11.1	23.1	174.4	41.5
1965/66	14.4	18.4	22.7	42.7	27.4
1966/67	7.6	9.1	8.1	29.5	13.7
1967/68	4.1	4.6	15.7	-6.7	9.0
1968/69	1.1	0.8	11.2	16.7	12.6
1969/70	-5.8	-8.0	18.0	10.4	16.0
1970/71	8.2	9.7	20.2	-1.6	14.6
1971/72	8.8	10.3	6.0	7.0	6.2
Ave.[a]	6.8	8.2	16.6	28.2	17.7

[a]Ave. = Average growth rate over the eleven year period.

Source = Tables XLVI and XLVII.

TABLE XXIV

COMPARISONS OF RATES OF GROWTH OF SECTORAL SUPPLY OF FUNDS BY FINANCIAL INTERMEDIARIES AND RATES OF GROWTH OF SECTORAL MONETARY INVESTMENTS (PERCENT)

	Investments			Supply of Funds					
				Commercial Banks			A.I.D.B.[d]		Thrift Institutions
Year Ending July 7	Agri.[a]	Mfg.[b]	Buildg. & Constr.[c]	Agri[a]	Mfg[b]	Constr[c]	Agri[a]	Mfg[b]	Buildg. & Constr.[c]
1961/62						7.7	2.7	0.9	
1962/63						4.6	-0.3	24.0	
1963/64						8.8	20.2	12.0	848.3
1964/65	1.4	15.4	-4.4			40.3	34.2	80.5	5284.7
1965/66	17.8	0.0	-2.5	-38.3	3.3	34.8	43.7	75.1	7.2
1966/67	3.8	11.6	21.3	100.0	8.5	9.0	-16.0	1.8	7.4
1967/68	17.3	17.2	11.4	-12.9	10.8	0.6	10.7	2.6	15.6
1968/69	-6.9	8.5	5.9	167.0	16.9	1.1	24.0	28.3	11.7
1969/70	-19.9	-3.1	-3.1	20.2	-2.8	17.3	10.8	4.1	3.4
1970/71	14.0	5.9	-3.9	-26.8	12.3	30.6	6.8	56.0	7.5
1971/72	38.9	0.1	18.6	20.0	27.4	-15.8	42.7	2.5	8.1
Ave.[e]	8.3	6.9	5.4	32.7	10.9	12.6	16.3	26.2	688.2

[a]Agri. = Agriculture
[b]Mfg. = Manufacturing
[c]Buildg. & Constr. = Building and Construction
[d]A.I.D.B. = Agricultural and Industrial Development Bank and its predecessors.
[e]Ave. = Average growth rate for the period under each category.

Source: Tables XLVI and XLVII.

of sectoral monetary investments. Data in this table are utilized to test hypothesis three and parts of hypothesis one.

Table XXV presents comparisons of growth rates of funds supplied by development banks and commercial banks.

Table XXIII shows that the supply of funds by all financial intermediaries to the economy grew at the average annual rate of 17.7 percent compared to the corresponding growth rates of 6.8 percent and 8.2 percent in gross fixed investment and monetary fixed investment, respectively. An examination of individual years reveals that in each of the years, with the exception of fiscal year 1971/72, the supply of total funds grew faster than the growth of investment in the economy.

The supply of funds by commercial banks to the economy grew at the average annual rate of 16.6 percent while that of non-monetary financial institutions grew at 28.2 percent. Thus, in both cases the supply of funds to the economy grew faster than investments in the economy. The growth rate of funds supplied by non-monetary financial institutions in fiscal year 1964/65 increased by 174 percent over the level of 1963/64. This unusual expansion is due to the creation of the Savings and Mortgage Corporation of Ethiopia in 1965 as noted earlier in Chapter V. However, even if the data for fiscal year 1964/65 is excluded, the average annual growth rate for the remaining years, which would be 13.8 percent, is still larger than the growth rate of investment in the economy.

When individual years are considered, the growth rates of the supply of funds by commercial banks were greater than the corresponding growth rates of investments in the economy with the exception of fiscal year 1971/72. Likewise, the growth rates of the supply of funds by non-monetary financial institutions were greater than the corresponding

TABLE XXV

GROWTH RATES OF FUNDS SUPPLIED BY DEVELOPMENT BANKS AND COMMERCIAL BANKS TO AGRICULTURE AND MANUFACTURING (PERCENT)

Year Ending June 30	A.I.D.B[a]	Commercial Banks
1961/62	1.9	
1962/63	11.6	
1963/64	15.7	
1964/65	58.5	
1965/66	62.5	-5.6
1966/67	-4.5	21.3
1967/68	5.1	5.4
1968/69	26.8	45.3
1969/70	6.3	5.2
1970/71	39.5	-3.2
1971/72	12.8	25.2
1972/73	39.8	1.9
Ave.[b]	25.1	11.9

[a] A.I.D.B. = Agricultural and Industrial Development Bank and its predecessors.

[b] Ave. = Average growth rate for period under consideration.

Source = Table XLIX.

growth rates of investments in the economy in seven out of the eleven years during the period 1961/62 to 1971/72. Two of the remaining four years -- fiscal years 1967/68 and 1970/71 showed declines in the supply of funds compared to their respective preceding year levels.

Table XXIV shows that the supply of funds by commercial banks to agriculture, manufacturing, and building and construction grew at average annual rates of 32.7 percent, 10.9 percent, and 12.6 percent, respectively.[2] The average annual growth rates of investment in agriculture, manufacturing, and building and construction were 8.3 percent, 6.9 percent, and 5.4 percent, respectively.

The average annual growth rates of funds supplied by development banks to agriculture and manufacturing for the period of 1961/62 to 1971/72 were 16.3 percent and 26.2 percent, respectively. When the period of 1964/65 to 1971/72 is considered, the supply of funds by development banks to agriculture and manufacturing grew at average annual rates of 19.6 percent and 31.4 percent, respectively, compared to the corresponding average annual growth rates of investment in agriculture and manufacturing of 8.3 percent and 6.9 percent, respectively. Thus, the above analysis leads to the conclusion that hypothesis one is true; that is, in Ethiopia financial intermediaries as a group and/or individually by type finance an increasing proportion of investments in the economy and selected important sectors of the economy.

Table XXV presents the growth rates of funds supplied by development banks and commercial banks to both agriculture and manufacturing. For the period 1961/62 to 1972/73 the average annual growth rate of funds supplied by development banks to both agriculture and manufacturing was 25.1 percent. The growth rate was 23.5 percent for the shorter period

over 1964/65 to 1972/73. The growth rate of funds supplied by commercial banks to the two sectors was 11.9 percent over the period of 1964/65 to 1972/73. The growth rates prove that hypothesis two, which states that funds supplied by the Agricultural and Industrial Development Bank and its predecessors to agriculture and industry grew faster than funds supplied by commercial banks to the same sectors, is true. This finding implies that the activities of the Agricultural and Industrial Development Bank and its predecessors have been in accord with the general objectives set for them; that is, to supply the missing elements essential for development.

Columns seven and ten of Table XXIV depict the growth rates of funds supplied by commercial banks and thrift institutions, respectively, to building and construction. The average annual rate of growth of funds supplied by commercial banks over the period 1961/62 to 1971/72 was 12.6 percent as indicated earlier. The average annual growth rate of funds supplied by thrift institutions over the period 1963/64 to 1971/72 is given as 688.2 percent. However, this high rate is exaggerated by the fact that in fiscal year 1963/64 the first thrift institution, namely the Imperial Savings and Home Ownership Public Association, had just completed its full year of operation while it granted a very small amount of loans in the few months of 1962/63 it had been in operation. Thus, this situation made the growth rate of 1963/64 over 1962/63 unusually high. Again, in fiscal year 1964/65 the second thrift institution, namely the Savings and Mortgage Corporation of Ethiopia, was created and outstanding mortgage loans of the Commercial Bank of Ethiopia were transferred to it which abnormally expanded thrift institutions' claims against building and construction. Therefore, fiscal years 1963/64 and

1964/65 are excluded for the purpose of analysis. When the period of 1965/66 to 1971/72 is considered, the average annual growth rate of funds supplied by thrift institutions becomes only 8.7 percent. This growth rate is lower than the 11.1 percent growth rate attained by the supply of funds from commercial banks to building and construction over the same period of time.

The above analysis rejects hypothesis three which states that supply of funds by thrift institutions to building, construction, and housing grows faster than the corresponding supply of funds by commercial banks to the same sector. This finding implies that in Ethiopia thrift institutions are not living up to their objectives and are not adequately meeting the needs they were created to accomplish. This fact is not refuted by the authorities of thrift institutions as several of their annual reports indicate lack of funds to finance the growing demand of urban housing.

Econometric Models

Limitations of Data

It should be emphasized at the outset that data for the analysis in this chapter are major limiting factors. Available data on real savings and investments are on annual basis and are not available for periods before fiscal year 1960/61 and after fiscal year 1971/72. There are no data on sectoral investments for periods before fiscal year 1963/64.

Data on sectoral supply of funds for commercial banks are not comparable for periods before 1965 and beginning 1965. The financial years of the various financial institutions differ which makes it

difficult to make comparative analysis without introducing some errors in data adjustments.

Monthly or quarterly data are available for the supply of funds. Usage of such data could have increased the number of observations and would have made results of the analysis more precise. Unfortunately neither quarterly nor monthly data could be used because data for other variables in the models such as investment and gross domestic product are on annual basis.

The models to be tested in this section were presented in Chapter I under hypotheses four and five. The following list gives the variables used in the regression equations:

X_1 = Gross domestic product (GDP)

X_2 = Interest rate on commercial banks' saving deposits

X_3 = Number of bank offices

X_4 = Gross domestic product deflator

X_5 = Monetary gross domestic product (MGDP)

X_6 = Total supply of funds by all financial intermediaries to the economy

X_7 = Commercial banks' maximum mortgage loan rates

X_8 = Supply of funds from financial intermediaries to the economy excluding funds supplied to internal and external trade and consumer loans

X_9 = MGDP in agriculture

X_{10} = Supply of funds to agriculture

X_{11} = Cost of borrowing in agriculture

X_{12} = GDP deflator in agriculture

X_{13} = MGDP in manufacturing

X_{14} = Supply of funds to manufacturing

X_{15} = Cost of borrowing in manufacturing

X_{16} = GDP deflator in manufacturing

X_{17} = MGDP in building and construction

X_{18} = Supply of funds to building and construction

X_{19} = Cost of borrowing for building and construction

X_{20} = Supply of funds from the Agricultural and Industrial Development Bank and its predecessors to agriculture

X_{21} = Supply of funds from commercial banks to agriculture

X_{22} = Supply of funds from the Agriculture and Industrial Development Bank and its predecessors to manufacturing

X_{23} = Supply of funds from commercial banks to manufacturing

X_{24} = Supply of funds from commercial banks to building and construction

X_{25} = Supply of funds from thrift institutions to building and construction

S_g = Gross domestic saving

S_m = Gross domestic monetary saving

S_f = Financial saving

I_g = Gross fixed domestic investment

I_m = Gross fixed domestic monetary investment

I_a = Gross fixed monetary investment in agriculture

I_i = Gross fixed monetary investment in manufacturing

I_b = Gross fixed monetary investment in building and construction

U = Residual

Hypothesis Four

Hypothesis four was represented by the following three alternative functions:

$$S_g = a + b_1X_1 + b_2X_2 + b_3X_3 - b_4X_4 + U \quad (1)$$

$$S_m = a + b_5X_5 + b_2X_2 + b_3X_3 - b_4X_4 + U \quad (2)$$

$$S_f = a + b_5X_5 + b_2X_2 + b_3X_3 - b_4X_4 + U \quad (3)$$

Gross Domestic Savings. Equation 1 represents the hypothesized function of gross domestic savings. Least squares multiple regression tests indicate that the overall F value for this model is significant. The four independent variables together explain 92.7 percent of the total variation in the dependent variable. However, none of the four partial F tests are significant. The reason for the low efficiency of the regression estimates is attributed to the high multicollinearity present as shown in Table XXVI.

TABLE XXVI

CORRELATION COEFFICIENTS OF EQUATION (1)

	X_1	X_2	X_3	X_4
S_g	0.95	0.83	0.93	0.93
X_1		0.92	0.99	0.98
X_2			0.94	0.91
X_3				0.97

Such a high degree of multicollinearity suggested a probable presence of a time trend in the data.

In order to adjust for the time trend the values of both dependent and independent variables are replaced by their first differences (annual changes) and equation 1 is transformed into equation 1a:[3]

$$s_g = a + b_1x_1 + b_2x_2 + b_3x_3 - b_4x_4 + u \qquad (1a)$$

The transformation reduces the multicollinearity problem. At the same time it reduces the R^2 percentage of the four variable model to 29.7 percent from its level of 92.7 percent before transformation. Also, the overall F value is deemed not significant for this model. Partial F tests indicate that only x_2 is deemed significant at the 0.2 level. It is therefore obvious that the transformed model does not improve the fit. An attempt is made to improve the efficiency of the model by lagging the independent variables. But the lagged variables gave even poorer results. These results are not presented here. Perhaps other variables such as the level of unemployment, changes in family size, urbanization, literacy rate, etc., are important in explaining variations in the gross domestic savings in the case of Ethiopia. However, unfortunately data on these variables are not readily available.

In spite of the low R^2 of the above four variable model, the stepwise regression procedure of maximum R^2 improvement technique is used in order to arrive at the best one variable model, the best two variable model, etc. The results of the regressions are given in Table XXVII.

The best one variable model regresses gross domestic savings on x_2 (interest rate). Variable x_2 explains 24.1 percent of the total

TABLE XXVII

REGRESSION RESULTS OF GROSS DOMESTIC SAVINGS
(11 OBSERVATIONS: 1962-1972)

Variable		Regression Number			
		1	2	3	4
F Value		2.86	1.59	0.96	0.63
R^2		0.241	0.285	0.293	0.297
Intercept		13,722,222	27,636,466	38,561,237	39,305,449
x_1	b		-0.081	-0.163	-0.190
	t		(-0.701)	(-0.517)	(-0.518)
x_2	b	79,155,555	94,248,973	95,273,261	93,231,821
	t	(1.690)**	(1.784)**	(1.693)**	(1.517)*
x_3	b				415,027
	t				(0.196)
x_4	b			2,789,529	3,345,508
	t			(0.281)	(0.303)

*Significant at the .2 level.

**Significant at the .15 level.

variation in the dependent variable. Its coefficient is significant at the 0.13 level. The best two variable model introduces x_1 on top of x_2. The two variables together explain 28.5 percent of the total variation in the dependent variable. The overall F test is significant at the 0.3 level. Partial F tests indicate that x_2 is significant at the 0.11 level. The best three variable model improves the R^2 only marginally and makes the overall F value not significant. In both the one variable and the two variable models our a priori expectation that gross domestic savings is a positive function of interest rate holds true. The negative coefficient of x_1 was not expected. It is perhaps due to the inflation component of the gross domestic product since it is expressed at current factor cost.

Gross Domestic Monetary Savings. Equation 2 represents the hypothesized function of gross domestic monetary savings. Regression tests indicate that the overall F value for the four variable model is significant. The R^2 is 0.913. However, similar to the case of equation 1, none of the partial F tests are significant. Again, the low partial F values can be explained by the presence of high multicollinearity.

Utilization of the first differences of the variables in the model significantly reduced the multicollinearity problem and transformed equation 2 into equation 2a:

$$s_m = a + b_5x_5 + b_2x_2 + b_3x_3 - b_4x_4 + u \qquad (2a)$$

The transformation reduces R^2 to .245 from its level of 0.913 and the overall F values becomes not significant. The partial F tests indicate that only x_2 is significant at the 0.24 level. Equation 2a is a poor fit perhaps for the same reasons given under equation 1a. The results of the maximum R^2 improvement technique are shown in

Table XXVIII. These results are almost identical to that of Table XXVII.

Financial Savings. Equation 3 represents the hypothesized function of financial savings. Regression tests of the model give a significant overall F value. The four variables appear to explain 98.6 percent of the total variation in the dependent variable. A high level of multicollinearity is observed. When the first differences of the variables are employed, the multicollinearity problem is significantly reduced and equation 3 is transformed into equation 3a:

$$s_f = a + b_5x_5 + b_2x_2 + b_3x_3 - b_4x_4 + u \qquad (3a)$$

The transformation reduces R^2 to 0.241 from its level of 0.986 before the transformation. The overall F value is deemed not significant. The maximum R^2 improvement technique regresses financial savings on x_3 for a single variable model. However, this variable is deemed not significant even at high levels of risk. The reason could be attributed to the overconcentration of bank offices in big cities which might have led to movements of savings from existing ones to new ones rather than actual mobilization of savings. The results of the regressions are presented in Table XXIX. Although none of the regression runs could be considered good fit all the coefficients have the expected signs.

Hypothesis Five

Hypothesis five was represented by the following alternative functions of equation 4 for gross fixed investment, and equation 5, for gross fixed monetary investment:

TABLE XXVIII

REGRESSION RESULTS OF GROSS DOMESTIC MONETARY SAVINGS
(11 OBSERVATIONS: 1962-1972)

Variable		Regression Number			
		1	2	3	4
F Value		2.41	1.26	0.76	0.49
R^2		0.211	0.240	0.245	0.245
Intercept		12,355,555	27,881,213	27,340,100	29,640,803
x_2	b	76,188,889	88,130,792	85,925,937	85,441,502
	t	(1.553)**	(1.587)**	(1.429)**	(1.310)*
x_3	b			430,552	449,479
	t			(0.209)	(0.201)
x_4	b				514,937
	t				(0.074)
x_5	b		-0.118	-0.140	-0.163
	t		(-0.548)	(-0.555)	(-0.395)

*Significant at the 0.25 level.

**Significant at the 0.2 level.

TABLE XXIX

REGRESSION RESULTS OF FINANCIAL SAVINGS
(11 OBSERVATIONS: 1962-1972)

Variable		Regression Number			
		1	2	3	4
F Value		0.63	0.83	0.63	0.48
R^2		0.066	0.171	0.224	0.241
Intercept		16,239,634	4,707,649	5,160,758	5,902,745
x_2	b				9,533,413
	t				(0.363)
x_3	b	554,268		570,141	509,768
	t	(0.786)		(0.689)	(0.566)
x_4	b		-3,206,160	-3,030,301	-3,132,263
	t		(-1,279)*	(-1.162)*	(-1.119)
x_5	b		0.152	0.111	0.105
	t		(1.105)	(0.721)	(0.631)

*Significant at the 0.3 level.

$$I_g = a + b_1X_1 + b_6X_6 - b_7X_7 - b_4X_4 + U \quad (4)$$

$$I_m = a + b_5X_5 + b_6X_6 - b_7X_7 - b_4X_4 + U \quad (5)$$

Gross Fixed Investment. In equation 4, the four variables together appear to explain 96.8 percent of the total variation in gross fixed investment with a significant overall F value. An examination of the correlation matrix in Table XXX shows the presence of multicollinearity.

When the first differences of the variables are employed, the multicollinearity problem is significantly reduced, and equation 4 is transformed into equation 4a:

$$i_g = a + b_1x_1 + b_6x_6 - b_7x_7 - b_4x_4 + u \quad (4a)$$

TABLE XXX

CORRELATION COEFFICIENTS OF EQUATION (4)

	x_1	x_6	x_7	x_4
I_g	0.94	0.94	0.97	0.89
X_1		0.99	0.93	0.98
X_6			0.92	0.96
X_7				0.91

The transformation reduces R^2 to 0.714 from its level of 0.968 before transformation. The overall F value is significant at the 0.08 level of significance. The results of regressions of the maximum R^2

improvement technique are presented in Table XXXI. The best one variable model regresses gross fixed investment on x_4. Variable x_4 explains only 19.2 percent of the total variation in the dependent variable with a level of significance of 0.2.

An introduction of a second variable, namely x_7, raises the R^2 percentage to 54.8. The overall F value is significant at the 0.05 level. The partial F tests for both x_4 and x_7 are significant at the 0.04 level.

The best three variable model replaces x_4 by x_1 and x_6. The R^2 percentage rises to 71.1 with an overall F value significant at the 0.03 level. The partial F tests indicate that x_1 is significant at the 0.01 level while both x_6 and x_7 are significant at the 0.04 level. Since the four variable model has an R^2 not significantly different from that of the three variable model, the latter may be considered the best fit.

In reference to the three variable model the positive coefficient of x_6 is as expected. It states that a dollar change in the total supply of funds from financial intermediaries, adjusted for gross domestic product and cost of funds, is accompanied by about 94 cents change in gross fixed investment in the same direction. The negative coefficient of x_1 and the positive coefficient of x_7 were not expected. The positive coefficient of x_7 may be explained by the observation that as more funds are made available to sectors of the economy low in priority or to risky ventures, the overall cost of capital rises with investment. The negative coefficient of x_1 is difficult to explain. It is partly due to the inflation component of gross domestic product which is expressed at current factor cost.

TABLE XXXI

REGRESSION RESULTS OF GROSS FIXED INVESTMENT
(11 OBSERVATIONS: 1962-1972)

Variable		Regression Number			
		1	2	3	4
F Value		2.14	4.85	5.74	3.75
R^2		0.192	0.548	0.711	0.714
Intercept		34,035,673	27,583,412	31,134,731	37,635,642
x_1	b			-0.286	-0.364
	t			(-3.615)***	(-1.160)
x_4	b	-3,890,400	-5,788,997		2,176,679
	t	(-1.464)*	(-2.584)**		(0.257)
x_6	b			0.937	1.052
	t			(2.538)**	(1.765)*
x_7	b		34,442,324	41,817,809	41,636,109
	t		(2.510)**	(3.376)**	(3.125)**

*Significant at the 0.2 level.

**Significant at the 0.04 level.

***Significant at the 0.01 level.

When supply of funds to trade and consumer loans, which are only indirectly related to investment, are excluded and only supply of funds to agriculture, manufacturing, and building and construction are considered equation 4a is transformed into equation 4b:

$$i_g = a + b_1x_1 + b_8x_8 - b_7x_7 - b_4x_4 + u \qquad (4b)$$

The regression results are shown in Table XXXII. The number of observations is reduced from 11 to 7 due to data limitations. The best fit appears to be the two variable model consisting of x_1 and x_7. The R^2 percentage of the two variable model is 74.3 compared to 54.8 of the best two variable model of equation 4a. x_1 is significant at the 0.05 level while x_7 is significant at the 0.08 level. The transformed supply of funds variable (x_8) fails to enter the model of the best fit. The signs of the coefficients of all the variables remain the same after the transformation.

Gross Fixed Monetary Investment. The multicollinearity problem of equation 5 was detected and the first differences of the variables were employed to regress gross domestic fixed monetary investment. The transformed equation is:

$$i_m = a + b_5x_5 + b_6x_6 - b_7x_7 - b_4x_4 + u \qquad (5a)$$

The four variable model explains 68.9 percent of the total variation in the dependent variable. The overall F value is significant at the 0.1 level. However, the partial F values of two out of the four variables, namely x_5 and x_4, are not significant. Variables x_6 and x_7 are significant at the 0.21 and 0.02 level, respectively.

The best one variable model which regresses gross domestic fixed monetary investment on x_7 explains only 21.4 percent of the variation in the dependent variable. The best two variable model introduces x_4

TABLE XXXII

REGRESSION RESULTS OF GROSS FIXED INVESTMENT
(7 OESERVATIONS: 1966-1972)

Variable		Regression Number			
		1	2	3	4
F Value		2.90	5.77	3.22	1.66
R^2		0.367	0.743	0.769	0.769
Intercept		64,312,357	57,993,694	48,422,889	53,778,044
x_1	b	-0.185	-0.231	-0.228	-0.268
	t	(-1.704)*	(-2.893)***	(-2.606)**	(-0.592)
x_4	b				1,225,002
	t				(0.090)
x_7	b		73,263,249	69,764,364	68,769,113
	t		(2.415)**	(2.066)*	(1.610)
x_8	b			0.364	0.393
	t			(0.579)	(0.471)

*Significant at the 0.15 level.

**Significant at the 0.08 level.

***Significant at the 0.05 level.

on top of x_7. The two variables together explain 56.1 percent of the total variation in the dependent variable. The overall F value is significant at the 0.04 level. The partial F values for x_7 and x_4 are significant at the 0.03 and 0.04 levels, respectively. The best three variable model raises the R^2 percentage to 65.6 and the overall F value is significant at the 0.05 level. The newly entered variable, x_6, is significant at the 0.02 level.

Results of the regressions are presented in Table XXXIII. Perhaps the three variable model could be considered the best fit. Variables x_6 and x_4 have the expected positive and negative coefficients, respectively. The positive coefficient of x_7 was not expected but is explainable as noted earlier. The coefficient of x_6 states that a dollar change in the supply of funds from financial intermediaries to the economy, adjusted for the cost of funds and the rate of inflation, is accompanied by about 48 cents change in gross fixed monetary investment in the same direction.

When supply of funds to trade and consumer loans are excluded from the total supply of funds to the economy, transforming equation 5a into equation 5b as shown below and the number observations is reduced from 11 to 7, the adjusted supply of funds, x_8, becomes less significant. As the regression results in Table XXXIV show, the best fit appears to be a two variable model with variables x_7 and x_4 entering. They explain 71.2 percent of the variation in the dependent variable. The overall F value is significant at the 0.09 level. The partial F values of x_7 and x_4 are significant at the 0.08 and 0.06 levels, respectively.

$$i_m = a + b_5x_5 + b_8x_8 - b_7x_7 - b_4x_4 + u \qquad (5b)$$

TABLE XXXIII

REGRESSION RESULTS OF GROSS FIXED MONETARY INVESTMENT
(11 OBSERVATIONS: 1962-1972)

Variable		Regression Number			
		1	2	3	4
F Value		2.44	5.11	4.45	3.32
R^2		0.214	0.561	0.656	0.689
Intercept		18,618,750	24,373,189	4,964,666	22,477,688
x_4	b		-5,842,070	-7,339,605	
	t		(-2.515)**	(-2.999)***	
x_5	b				-0.295
	t				(-0.799)
x_6	b			0.478	0.922
	t			(1.391)	(1.400)
x_7	b	27,431,250	38,514,598	44,806,875	46,416,044
	t	(1.564)*	(2.707)**	(3.155)***	(3.152)***

*Significant at the 0.15 level.

**Significant at the 0.04 level.

***Significant at the 0.02 level.

TABLE XXXIV

REGRESSION RESULTS OF GROSS FIXED MONETARY INVESTMENT
(7 OBSERVATIONS: 1966-1972)

Variable		Regression Number			
		1	2	3	4
F Value		2.62	4.94	2.84	1.54
R^2		0.344	0.712	0.740	0.754
Intercept		81,164,660	19,737,007	65,367,913	47,043,322
x_4	b		-6,881,888		-2,819,542
	t		(-2.645)***		(-0.346)
x_5	b	-0.375		-0.459	-0.289
	t	(-1.620)*		(-2.385)**	(-0.531)
x_7	b		79,093,958	68,005,516	72,452,648
	t		(2.352)***	(1.850)*	(1.589)
x_8	b			0.521	0.395
	t			(0.756)	(0.439)

*Significant at the 0.2 level.

**Significant at the 0.1 level.

***Significant at the 0.008 level.

Sectoral Fixed Monetary Investments. When equation 5b is partially partitioned by selected sectors of agriculture, manufacturing, and building and construction the following transformed equations evolve.

$$i_a = a + b_9x_9 + b_{10}x_{10} - b_{11}x_{11} - b_{12}x_{12} + u \qquad (5c)$$

$$i_i = a + b_{13}x_{13} + b_{14}x_{14} - b_{15}x_{15} - b_{16}x_{16} + u \qquad (5d)$$

$$i_b = a + b_{17}x_{17} + b_{18}x_{18} - b_{19}x_{19} + u \qquad (5e)$$

Equation 5c represents the function of the hypothesized monetary investment in agriculture. A regression test on all the four variables reveals that they explain 98.5 percent of the total variation in the dependent variable. The overall F test is significant at the 0.005 level. The regressions results of the maximum R^2 technique are presented in Table XXXV. It appears the four variable model is the best fit. Variables x_{11} and x_{12} have the expected negative coefficients. The negative coefficients of x_9 and x_{10} were not expected. The reasons behind the negative coefficient of x_9 could be attributed to the inflation component of monetary gross domestic product in agriculture. The negative and significant coefficient of x_{10} perhaps reflects utilization of inappropriate data for the supply of funds variable.

It is recalled that, in this study, the supply of funds data are for outstanding loans and equity holdings of financial intermediaries because data on annual disbursements of loans are not readily available for the period studied. Under normal conditions such data would be expected to reflect the actual funds supplied to the economy and its various sectors. In other words, it can be reasonably assumed that outstanding positions of loans and equity holdings rise and fall with current disbursements of loans and equity holdings. However, in the

TABLE XXXV

REGRESSION RESULTS OF FIXED MONETARY INVESTMENT IN AGRICULTURE (8 OBSERVATIONS: 1965-1972)

Variable		Regression Number			
		1	2	3	4
F Value		28.65	25.46	44.97	48.18
R^2		0.827	0.911	0.971	0.985
Intercept		13,479,510	12,122,120	13,768,710	16,951,981
x_9	b	-0.354	-0.271	-0.276	-0.327
	t	(-5.353)***	(-4.202)**	(-6.735)***	(-6.977)***
x_{10}	b			-0.203	-0.341
	t			(-2.902)**	(-3.302)**
x_{11}	b				-3,875,215
	t				(-1.623)
x_{12}	b		-468,989	-510,684	-400,062
	t		(-2.164)*	(-3.694)**	(-2.965)**

*Significant at the 0.1 level.

**Significant at the 0.05 level.

***Significant at the 0.005 level.

case of Ethiopia, it looks as if the above assumption does not hold true. The most obvious reasons are the excessive levels of overdue accounts, most of which are either in litigations or are claims against bankrupt business entities. As these overdue accounts rise over time, since they are not customarily deemed bad debts for many years, they inflate the outstanding accounts. This situation can easily bring about a negative relationship between the supply of funds as defined here and fixed monetary investments in sectors of the economy where overdue accounts are large and growing.

In order to examine the relative influence of the funds supplied by the Agricultural and Industrial Development Bank and its predecessors on agricultural investment compared to that of commercial banks, funds supplied to agriculture, x_{10}, are partitioned into two variables. The new variables are funds supplied by the Agricultural and Industrial Development Bank and its predecessors to agriculture, x_{20}, and funds supplied by commercial banks to agriculture, x_{21}. This partitioning transforms equation 5c into 5f:

$$i_a = a + b_9x_9 + b_{20}x_{20} + b_{21}x_{21} - b_{11}x_{11} - b_{12}x_{12} + u \qquad (5f)$$

When agricultural monetary investment is regressed on all five variables, the R^2 percentage is 96.7 and the overall F test is significant at the 0.09 level. However, the partial F values are not impressive. The coefficient signs remain the same as before transformation.

The regression results of the maximum R^2 technique are shown in Table XXXVI. It appears that the three variable model, which regresses the dependent variable on x_9, x_{21}, and x_{12}, is the best fit. However, it is difficult to arrive at any kind of conclusion regarding the

TABLE XXXVI

REVISED REGRESSION RESULTS OF FIXED MONETARY INVESTMENT IN AGRICULTURE (8 OBSERVATIONS: 1965-1972)

Variable		Regression Number				
		1	2	3	4	5
F Value		28.65	25.46	27.24	21.59	11.73
R^2		0.827	0.911	0.953	0.966	0.967
Intercept		13,479,510		11,489,123	13,677,590	14,147,055
x_9	b	-0.354	-0.271	-0.209	-0.246	-0.252
	t	(-5.353)***	(-4.202)**	(-3.418)*	(-3.567)*	(-2.838)+
x_{11}	b					-615,574
	t					(-0.190)
x_{12}	b		-468,989	-611,181	-674,072	-670,276
			(2.164)+	(-3.214)*	(3.455)*	(-2.281)*
x_{20}	b				-0.382	-0.417
	t				(-1.082)	(-0.895)
x_{21}	b			-0.210	-0.170	-0.185
	t			(-1.914)	(-1.499)	(-1.166)

+Significant at the 0.1 level.

*Significant at the 0.04 level.

**Significant at the 0.01 level.

***Significant at the 0.003 level.

relative influence of variables x_{20} and x_{21}. The reason, as mentioned before, is the apparent fault in the supply of funds data.

Equation 5d represents the hypothesized function of fixed monetary investment in manufacturing. The four variables together explain only 53.6 percent of the total variation in fixed monetary investment in manufacturing. The overall F test is not significant. A reduction in the number of variables does not give satisfactory results as evidenced by the regression results of the maximum R^2 technique shown in Table XXXVII. The supply of funds variable does not enter any of the reduced variable models.

A partition of funds supplied to manufacturing, x_{14}, into those from the Agricultural and Industrial Development Bank and its predecessors, x_{22}, and those from commercial banks, x_{23}, gives the following five variable equation:

$$i_i = a + b_{13}x_{13} + b_{22}x_{22} + b_{23}x_{23} - b_{15}x_{15} - b_{16}x_{16} + u \qquad (5g)$$

This transformed model does not improve the R^2 percentage compared to the model in equation 5d. The results of the regressions are shown in Table XXXVIII. In the five variable model x_{22} has the expected positive coefficient. But the coefficient is too small to be of any good and is not significant.

Equation 5e represents the hypothesized function of fixed monetary investment in building and construction. The three variables explain 79.1 percent of the total variation in the dependent variable. The overall F value is significant at the 0.08 level. The partial F tests are significant for x_{17} and x_{18} at the 0.25 and 0.03 levels, respectively. From the regression results presented in Table XXXIX, it appears that the three variable model gives the best fit. The positive

TABLE XXXVII

REGRESSION RESULTS OF FIXED MONETARY INVESTMENT IN MANUFACTURING (7 OBSERVATIONS: 1966-1972)

Variable		Regression Number			
		1	2	3	4
F Value		2.58	1.56	1.15	0.577
R^2		0.341	0.439	0.535	0.536
Intercept		2,420,000	8,317,078	9,479,044	9,434,601
x_{13}	b		-0.366	-0.520	-0.508
	t		(-0.836)	(-1.040)	(-0.751)
x_{14}	b				-0.012
	t				(-0.041)
x_{15}	b	6,480,000	9,556,737	10,527,905	10,517,700
	t	(1.607)*	(1.721)*	(1.766)*	(1.44)
x_{16}	b			568,267	561,107
	t			(0.790)	(0.625)

*Significant at the 0.2 level.

TABLE XXXVIII

REVISED REGRESSION RESULTS OF FIXED MONETARY INVESTMENT IN MANUFACTURING (7 OBSERVATIONS: 1966-1972)

Variable		Regression Number				
		1	2	3	4	5
F Value		2.58	1.56	1.15	0.58	0.23
R^2		0.341	0.439	0.535	0.537	0.539
Intercept		2,420,000	8,317,078	9,474,044	9,983,245	10,702,053
x_{13}	b		-0.366	-0.520	-0.598	-0.598
	t		(-0.836)	(-1.040)	(-0.846)	(-0.420)
x_{15}	b	6,480,000	9,556,737	10,527,905	10,671,774	10,868,653
		(1.607)*	(1.721)*	(1.766)*	(1.438)	(0.980)
x_{16}	b			568,267	587,355	632,761
	t			(0.790)	(0.653)	(0.416)
x_{22}	b					0.040
	t					(0.054)
x_{23}	b				-0.046	-0.057
	t				(-0.101)	(-0.085)

*Significant at the 0.2 level.

TABLE XXXIX

REGRESSION RESULTS OF FIXED MONETARY INVESTMENT IN BUILDING AND CONSTRUCTION (8 OBSERVATIONS: 1965-1972)

Variable		Regression Number		
		1	2	3
F Value		11.93	8.05	5.07
R^2		0.665	0.763	0.791
Intercept		11,221,060	10,280,620	11,166,820
x_{17}	b		0.170	0.179
	t		(1.436)*	(1.437)*
x_{18}	b	-0.694	-0.720	-0.693
	t	(-3.454)**	(-3.870)**	(-3.495)**
x_{19}	b			-63,881
	t			(-0.745)

*Significant at the 0.25 level.

**Significant at the 0.03 level.

coefficient for x_{17} and the negative coefficient for x_{19} are as expected. It is recalled that in all previous models the gross domestic product was negatively related to investment. The reason given for the negative relationship was the inflation component of gross domestic product. In the case of building and construction there is no inflation component in the sectoral gross domestic product because figures in the raw data are the same at both current factor costs and constant factor costs. Thus the positive coefficient of monetary gross domestic product in building and construction, in a way, verifies the reasons given earlier for the negative relationships.

The partition of funds supplied to building and construction, x_{18}, into those from commercial banks, x_{24}, and thrift institutions, x_{25}, gives the following transformed equation:

$$i_b = a + b_{17}x_{17} + b_{24}x_{24} + b_{25}x_{25} - b_{19}x_{19} + u \qquad (5h)$$

As the result of the partitioning the R^2 values have improved significantly at all levels. For example, the three variable model now explains 87 percent of the variation in the dependent variable compared to 79.1 percent before partitioning. Again the three variable model is selected as the best fit by the maximum R^2 improvement technique. The regression results are presented in Table XL.

In reference to the three variable model the overall F value is significant at the 0.04 level. The partial F tests for x_{17} and x_{24} are significant at the 0.15 and 0.04 levels, respectively. The negative coefficients for the partitioned variables were not expected but could be explained by reasons given earlier. The positive coefficient of x_{17} is again as expected. It states that a dollar change in the monetary gross domestic product in building and construction, adjusted for

TABLE XL

REVISED REGRESSION REGULST OF FIXED MONETARY INVESTMENT IN BUILDING AND CONSTRUCTION (8 OBSERVATIONS: 1965-1972)

Variable		Regression Number			
		1	2	3	4
F Value		15.69	12.48	8.91	5.01
R^2		0.723	0.833	0.870	0.870
Intercept		9,379,071	8,329,205	9,499,060	9,488,793
x_{17}	b		0.180	0.181	0.180
	t		(1.814)*	(1.840)*	(1.588)
x_{19}	b				59,689
	t				(0.006)
x_{24}	b	-0.948	-0.991	-0.963	-0.964
	t	(-3.961)***	(-4.835)***	(-4.714)**	(-3.553)**
x_{25}	b			-0.297	-0.296
	t			(-1.062)	(-0.854)

*Significant at the 0.15 level.

**Significant at the 0.04 level.

***Significant at the 0.008 level.

supply of funds from commercial banks and thrift institutions, is accompanied by 18 cents of fixed monetary investment in building and construction in the same direction.

Demand and Supply of Investment Funds

It was indicated in Chapter I that the analysis of the supply of and demand for the Agricultural and Industrial Development Bank funds will give a preliminary indication if lack of viable projects rather than the supply of funds limit investment as stated in hypothesis six. The following two alternative measures are employed to test this hypothesis:

1. yearly differences between supply and demand;[4] and
2. availability and magnitude of excess funds.

Due to the lack of data, the analysis is limited to the three years of 1970/71 to 1972/73. The supply and demand relationship presented in Table XLI shows the widening of excess supply of funds over demand over the three year period. The more conservative measure, excess funds, implies excessive liquidity position only in fiscal year 1972/1973.

The conclusions that can be drawn from the above analysis is that during the three years studied there were no symptoms of severe lack of funds. This conclusion is reached assuming that the approved loans reflect the effective demand for funds. The existence of above $30 million in liquid funds during the fiscal year of 1972/73 implies either lack of viable projects, conservative screening of applications, or both. The fact that the bank and its predecessors have had excessively large overdue accounts at court for many years rejects the notion

that conservative screening of applications was the policy. In fiscal year 1970/71 alone inactive loans in litigation were $9,178,639.[5]

TABLE XLI

DEMAND AND SUPPLY OF THE AGRICULTURAL AND INDUSTRIAL DEVELOPMENT BANK FUNDS (ETH. $ MILLION)

Year Ending July 7	Supply 1	Demand 2	Difference 3 = 1-2	Excess Funds*
1970/71	19,371,826	16,043,000	3,328,826	- 4,554,204
1971/72	38,629,340	29,221,177	9,408,163	- 1,241,438
1972/73	77,287,796	47,111,314	30,176,482	32,371,362

*See definition in Chapter I.

Source: Agricultural and Industrial Development Bank, Annual Reports, 1970/71 - 1972/73.

Measures of Financial Development

In Chapter IV two rough measures of financial development namely, the proportion of currency to money supply and bank office density were discussed. In this section, three additional measures are employed to evaluate the status and trend of financial development in Ethiopia.

Table XLII presents indices of nominal and real values of financial assets which are defined for the purpose of analysis in this section, as consisting of money supply and time and saving deposits. According to

these indices Ethiopia has shown a real financial growth over the period considered. The nominal growth has been successfully accompanied by real financial growth.

TABLE XLII

INDICES OF NOMINAL AND REAL VALUES OF FINANCIAL ASSETS

Year Ending July 7[a]	Indices	
	Nominal Values	Real Values[b]
1960/61	1.00	1.00
1961/62	1.06	1.07
1962/63	1.29	1.30
1963/64	1.45	1.41
1964/65	1.70	1.63
1965/66	1.80	1.67
1966/67	1.84	1.69
1967/68	1.99	1.76
1968/69	2.17	1.89
1969/70	2.48	2.06
1970/71	2.51	2.05
1971/72	2.65	2.26

[a]Where July 7 data are unavailable June 30 data are used.

[b]Adjusted by the gross domestic product deflator.

Source: International Financial Statistics, International Monetary Fund and National Accounts Estimates, 1960/61 - 1971/72, Central Statistical Office, p. 2.

Although Ethiopia has shown impressive real financial growth for the past decade or so, finance in relation to gross national income is still very small as shown in Table XLIII. The maximum ratio of financial assets to gross national product attained was 14.4 percent. This ratio was achieved in fiscal year 1971/72. This ratio is extremely low compared to those of other countries.[6] The ratio of total assets of financial intermediaries to gross national product is low as also shown in Table XLIII.

TABLE XLIII

RATIOS OF FINANCIAL ASSETS AND TOTAL ASSETS OF FINANCIAL INTERMEDIARIES TO GROSS NATIONAL PRODUCT (PERCENT)

End of Fiscal Year	Financial Assets to GNP	Total Assets to GNP
1960/61	10.5	
1961/62	10.7	
1962/63	12.5	
1963/64	12.8	
1964/65	13.8	
1965/66	13.5	
1966/67	13.1	11.5
1967/68	13.3	11.9
1968/69	13.7	13.5
1969/70	14.3	14.6
1970/71	13.6	15.2
1971/72	14.4	16.4

Source: Same source as Table XLII.

FOOTNOTES

[1]In this study, supply of funds consist of both loans and financial investments by intermediaries unless indicated otherwise.

[2]The growth rate for the period 1964/65 to 1971/72 was 14.7 percent. This rate is preferred to the rate of 12.6 percent since it is based on the same period of time as the rate of investment growth.

[3]Lower case letters in equations represent first differences while upper case letters represent absolute values of variables.

[4]See Chapter I for definitions of Supply and Demand.

[5]Agricultural and Industrial Development Bank, Annual Report 1970/71, p. 37.

[6]See footnote 38, Chapter III.

CHAPTER VII

SUMMARY AND CONCLUSIONS

This study deals with an in-depth analysis of the Ethiopian financial system, its development, and its contribution to economic development and growth for the period of 1961 to 1973. It examines the specific roles played by the financial system and its counterparts as far as the available data permits. The results cannot be expected to be as conclusive as studies with many more observations.

Results of Tests of Hypotheses

The core of the study consists of six hypotheses. Hypothesis one states that in Ethiopia, the rate of growth of the supply of funds by financial intermediaries is greater than the rate of growth of investment. This hypothesis is accepted because it is shown that financial intermediaries as a group or types of financial intermediaries indeed finance increasing proportions of investments in the economy and in selected important sectors of the economy.

Hypothesis two states that supply of funds from the Agricultural and Industrial Development Bank and its predecessors to agriculture and manufacturing industries grows faster than the supply of funds from commercial banks to the same sectors. This hypothesis is also accepted due to the findings that funds supplied by the former grew at the rate of 23.5 percent while funds supplied by the latter grew at the rate of

11.9 percent. This finding indicates that development banks have worked towards filling-in for the missing elements essential for development.

Hypothesis three is used to evaluate the relative roles of thrift institutions and commercial banks in financing building, construction, and housing. The hypothesis states that supply of funds from thrift institutions to building, construction, and housing grows faster than that from commercial banks. This hypothesis is rejected because supply of funds from thrift institutions grew at the rate of 8.7 percent compared to that supplied by commercial banks which grew at the rate of 11.1 percent. These findings imply that thrift institutions, in spite of their specialized role to finance building, construction and housing, did not adequately meet the needs for which they were created.

Hypothesis four utilizes econometric models and states that saving is a positive function of income, interest rate, and bank offices and a negative function of prices. This hypothesis is represented by three alternative functions of gross domestic savings, gross domestic monetary savings, and financial savings. Originally, absolute values of variables were utilized in the regressions of all the three functions. The results produced a high degree of multicollinearity. The degree of multicollinearity suggested a probable presence of a time trend in the data.

In order to adjust for the time trend the values of both dependent and independent variables are replaced by their first differences. This transformation reduces the multicollinearity problem. At the same time it reduces the R^2 ratio significantly and the overall F value is deemed not significant in all three equations. For instance, the R^2 ratio for the four variable model of the gross domestic savings is reduced to 0.297 from its level of 0.927 before transformation. The magnitudes in

the reduction of the R^2 ratios for the functions of gross domestic monetary savings and financial savings are also large.

In the function of gross domestic savings, interest rate and bank offices have the expected positive coefficients. But the negative coefficient of gross domestic product is surprising. It can perhaps be explained by the inflation component of the gross domestic product since it is expressed at current factor costs.

In the function of gross domestic monetary savings, interest rate and bank offices again have the expected positive coefficients. However, the negative coefficient of monetary gross domestic product was not expected. Again it may be explained by the inflation component of the monetary gross domestic product.

In the function of financial savings all the coefficients have the expected signs although none of the regression runs could be considered good fit. The low and 'not significant' coefficient of bank offices could be attributed to the fact that banks are overconcentrated in big cities to the apparent neglect of less populated areas where mobilization of savings should be directed. The concentration of bank offices in the big cities, while being at easy reach to their customers, might not have helped the mobilization of savings for the economy as a whole. As new bank offices open they may cause movements of savings mainly from existing banks.

After the original three equations representing different aspects of savings are transformed, the independent variables are lagged in an attempt to improve the efficiencies of the models. However, the lagged variables gave much more poorer fits. Therefore, perhaps variables such as the level of unemployment, changes in family size, urbanization,

literacy rate, etc., are important in explaining variations in savings in the case of Ethiopia. Unfortunately data on these variables are not readily available.

Hypothesis five is also represented by econometric models. It states that investment is a positive function of income and supply of funds from financial intermediaries and a negative function of interest rate and prices. This hypothesis is represented by alternative functions of gross domestic fixed investment and gross domestic fixed monetary investment. The former function is tested in aggregate while the latter is tested by economic sectors as well as in aggregate.

At first regressions are run employing absolute values of variables. Although the R^2 ratios are high and the overall F values are significant for such specifications the multicollinearity problem persists. When the first differences of the variables are used the multicollinearity problem is significantly reduced. Therefore the summary and conclusions given below are for first differences results.

The four variable model of gross fixed investment explains 71.4 percent of the total variation in the dependent variable. The overall F value is significant at the 0.08 level of significance. However, the three variable model which explains 71.1 percent of the total variation may be considered the best fit. This model enters gross domestic product, supply of funds, and interest rate. All of these variables are significant at the level of 0.04 or better. The positive coefficient of the supply of funds variable is as expected. The negative coefficient of gross domestic product and the positive coefficient of interest rate were not expected. The probable explanation for the former was given earlier. The positive coefficient of interest rate may be explained by

the rationale that as more funds are made available to sectors of the economy low in priority or to risky ventures, the overall cost of capital rises with investment. The coefficient of the supply of funds states that a dollar charge in the supply of funds from financial intermediaries to the economy, adjusted for income and interest rate, is accompanied by about 94 cents change in gross domestic fixed investment in the same direction.

When the supply of funds to trade and consumer loans, which are only indirectly related to investment, is excluded and only the supply of funds to agriculture, manufacturing, and building and construction is considered the best fit appears to be a two variable model. This model consists of gross domestic product and interest rate. The adjusted supply of funds variable not only fails to enter the model of the best fit, but it is also not significant in any of the models it enters.

The best fit for the function of gross domestic fixed monetary investment is a three variable model consisting of variables interest rate, total supply of funds by all financial intermediaries to the economy, and gross domestic product deflator. The three variables explain 65.6 percent of total variation in the dependent variable. The coefficient of the supply of funds is positive which is as expected. It states that a dollar change in the total supply of funds by all financial intermediaries, adjusted for interest rate and inflation, is accompanied by about 48 cents change in gross domestic fixed monetary investment in the same direction. The negative coefficient of the price index is as expected. While the positive coefficient of the

interest rate was not expected, it can be rationalized as was discussed earlier.

When supply of funds to trade and consumer loans are excluded from the total supply of funds to the economy and the number of observations is reduced from 11 to 7 not by choice but due to data limitations, the adjusted supply of funds variable becomes less significant and fails to enter the model of the best fit.

The best fit for the function of agricultural fixed monetary investment consists of all four variables namely, monetary gross domestic product in agriculture, supply of funds to agriculture, cost of capital in agriculture, and gross domestic product deflator in agriculture. The last two variables have the expected negative coefficients. But the negative coefficients for the first two were not expected. The probable cause for the negative coefficient of the monetary gross domestic product has been rationalized earlier. The negative and significant coefficient of the supply of funds variable while highly surprising can perhaps be explained by the type of data utilized for this variable. The use of outstanding loans and equity holdings instead of actual current disbursements of funds by financial intermediaries is at least part of the problem. The outstanding loans include excessive amounts of overdue accounts some of which could safely be considered bad debts. Thus these bad debt accounts inflate the outstanding claims of financial intermediaries to the extent they are not written off from the books and appropriate adjustments made. This situation can easily bring about a negative relationship between the supply of funds as defined here and fixed monetary investments in sectors of the economy where overdue accounts are large and growing.

The supply of funds to agriculture is partitioned into funds supplied from the development banks and funds supplied from the commercial banks in an attempt to determine the relative influence of the sources of funds on agricultural investment. According to the regression results both sources of funds are negatively related to the agricultural investment. Under the circumstances of limited data it is misleading to arrive at any kind of conclusions. Future research utilizing actual disbursements may further improve the understanding of the relationships between investment and supply of funds.

The four variables in the function of fixed monetary investment in manufacturing explain only 53.6 percent of the total variations in the dependent variable. The overall F test is not significant. A reduction in the number of variables does not give satisfactory results. The supply of funds variable does not enter any of the lower variable models.

The three variable model for the function of fixed monetary investment in building and construction is the best fit. It explains 79.1 percent of the variations in the dependent variable. The overall F value is significant at the 0.08 level of significance. The positive coefficient of the sector's monetary gross domestic product and the negative coefficient of costs of capital are as expected. Again, the negative coefficient of the supply of funds was not expected but can perhaps be explained by the kind of supply of funds data utilized as discussed earlier.

A preliminary analysis of the demand and supply of investment funds in Ethiopia tends to indicate that supply of funds are not the limiting factors in agriculture and manufacturing industries. The availability of excess liquid funds with the Agricultural and Industrial Development

Bank rather implies lack of viable projects to be financed. This finding supports hypothesis six. However, it should be taken only as tentative until a detailed study covering longer periods is undertaken.

Some Aspects of Financial Development

The Ratio of Demand Deposits to Money Supply

The ratio of demand deposits to money supply (currency and demand deposits) is known to grow with financial and economic development. This ratio was 30.7 percent for Ethiopia for the year ending December 31, 1973. The ratio for developed countries is generally about 80 percent. The low ratio for Ethiopia is indicative of the inadequacy of deposit facilities and their unfamiliarity to the public, however such factors as individual willingness to hold demand deposits and the overall communication system plays an important role in the level of this ratio.

The Monetization Ratio

The monetization ratio also grows with the level of financial and economic development. The monetization ratio and the ratio of demand deposits to money supply complement each other in the measurement of financial development. Monetization reveals the extent of the gross national product that involves monetary transactions while the ratio of demand deposits to money supply indicates the form of money that is predominantly used in the economy.

When monetization is measured by monetary gross domestic product, it was only 57 percent for Ethiopia in 1972. This is very low compared

even to those of many countries in Africa. For example, in 1969, it was 78 percent for Kenya, 85 percent for Ivory Coast, 86 percent for Cameroon, 91 percent for Liberia, and 95 percent for Zambia.

Bank Office Density

Bank office density roughly measures the accessibility of banking facilities to the public. Although the bank office density for Ethiopia has shown some improvement over the period studied, it is still very low. There was one bank office per over 200,000 people in 1973. In the same year out of 183 towns only 65 towns were served by bank offices.

Nominal Versus Real Growth in Money Supply

When money supply is broadly defined to include time and saving deposits, the comparison of its real growth to its nominal growth indicates how much of the growth in the nominal supply of money is inflationary. Research findings indicate that many countries often show phenomenal nominal growth in money supply while the corresponding real growth stagnates or is in the negative at times.

In the case of Ethiopia the nominal growth in money supply has been successfully accompanied by real growth in money supply as depicted in Table XLII. This real growth rate is to be expected considering the ultraconservative monetary policy Ethiopia continued to follow over the years.

The Ratio of Financial Assets to Gross National Product

The ratio of financial assets to gross national product remains very low in Ethiopia. It has shown only marginal improvements between 1961 and 1973. It was 10.5 percent in fiscal year 1960/61. It rose to 14.4 percent in fiscal year 1971/72. Considering this ratio is above 100 percent for many developed countries, Ethiopia has a long way to go in order to significantly improve its status as measured by this ratio. This ratio complements the monetization ratio discussed above.

The Ratio of Total Assets to Gross National Product

The ratio of total assets of financial intermediaries to gross national product is also very low for Ethiopia in spite of the moderate improvements shown over the last few years for which data are available. It was 11.5 percent in fiscal year 1966/67 and continuously improved to attain a level of 16.4 percent in fiscal year 1971/72.

Policy Implications

The objective of this study was not to come-up with policy recommendations concerning financial institutions in Ethiopia. The objectives were to examine the financial aspects of development in Ethiopia and to investigate and evaluate the roles of the various financial institutions in their respective fields of activities. Wherever possible the experiences of financial institutions in other countries have been incorporated.

The direct and indirect contributions of financial institutions to savings and investment were basic preoccupations of this study. The regression models utilized in the study may be helpful not only for explaining but also for forecasting the future course of some of the dependent variables. As the country's data bank improves over the years the results of some of the models may be improved.

SELECTED BIBLIOGRAPHY

"A Decree to Provide for the Creation and Regulation of the Imperial Savings and Home Ownership Public Association." Negarit Gazeta, 20th Year, No. 19, September 8, 1961.

Adelman, Irma, and Cynthia Taft Morris. "An Economic Model of Socio-Economic and Political Change in Underdeveloped Countries." The American Economic Review, Vol. LVII (1968), pp. 1184-1218.

Agricultural and Industrial Development Bank. Policies and Operations, Addis Ababa, June 18, 1972.

Agricultural and Industrial Development Bank. Annual Report 1970/71, Addis Ababa, July 7, 1971.

Agricultural and Industrial Development Bank. Annual Report 1971/72, Addis Ababa, July 7, 1972.

Agricultural and Industrial Development Bank. Annual Report 1972/73, Addis Ababa, July 7, 1973.

Ahooja, Krishma. "Development and Legislation in Ethiopia." Ethiopia Observer, Vol. X, No. 4 (1966), pp. 234-324.

Ahooja, Krishma. "Banking Legislation in Ethiopia." Ethiopia Observer, Vol. VIII, No. 4 (1965), pp. 280-293.

Ahooja, Krishma. "The Banks of Modern Ethiopia." Ethiopia Observer, Vol. VIII, No. 4 (1965), pp. 277-279.

Ahooja, Krishma. "The Bank of Abyssinia: A Portrait." Ethiopia Observer, Vol. VIII, No. 4 (1965), pp. 355-358.

Beckhart, B. Haggott. "Criteria of a Well Functioning Financial System." Marshall D. Ketchum and Leon T. Kendall (Eds.), Readings in Financial Institutions. New York: Houghton Mifflin Co., 1965, Chapter 6, pp. 79-102.

Bekele, Assefa, and Eshetu Chole. A Profile of the Ethiopian Economy. Nairobi: Oxford University Press, 1969.

Bennet, Robert L. The Financial Structure and Economic Development: The Mexican Case. Baltimore: John Hopkins Press, 1965.

Bhatt, V. V. "Some Aspects of Financial Policies in Developing Countries." Financial and Development (December, 1974), pp. 29-31, 42.

Boskey, Shirley. Problems and Practices of Development Banks. Baltimore: John Hopkins Press, 1959.

Brimmer, Andrew F. "Central Banking and Economic Development." Journal of Money, Credit, and Banking, Vol. III, No. 4 (November, 1971), pp. 780-792.

Broehl, Wayne G., Jr. "A Less Developed Entrepreneur?" Columbia Journal of World Business, Vol. V, No. 2 (March-April, 1970), pp. 26-34.

Brothers, D. S. Mexican Financial Development. Austin: University of Texas Printing Press, 1966.

Cameron, Rondo E. Banking and Economic Development: Some Lessons of History. New York: Oxford University Press, 1972.

Cameron, Rondo E. et al. Banking in the Early Stages of Industrialization. New York: Oxford University Press, 1967.

Central Statistical Office. Statistical Abstract. Addis Ababa, 1965.

Central Statistical Office. Statistical Abstract. Addis Ababa, 1966.

Central Statistical Office. Statistical Abstract. Addis Ababa, 1967.

Central Statistical Office. Statistical Abstract. Addis Ababa, 1968.

Central Statistical Office. Statistical Abstract. Addis Ababa, 1969.

Central Statistical Office. Statistical Abstract. Addis Ababa, 1970.

Central Statistical Office. Statistical Abstract. Addis Ababa, 1971.

Central Statistical Office. Statistical Abstract. Addis Ababa, 1972.

Chenery, H. B. "Growth and Structural Change." Finance and Development. (September, 1971), pp. 16-27.

Commercial Bank of Ethiopia. Annual Report. Addis Ababa, 1971.

Commercial Bank of Ethiopia. Annual Report. Addis Ababa, 1972.

Commercial Bank of Ethiopia. The Ethiopian Economy. Addis Ababa, 1970.

Commercial Bank of Ethiopia. "Managing Director's General Review Presented to the Tenth Annual General Meeting of Shareholders of the Commercial Bank of Ethiopia Covering the 1973 Financial Year." Addis Ababa, 1973.

Commercial Bank of Ethiopia. Market Report. April, 1971.

Commercial Bank of Ethiopia. Market Report. May/June, 1973.

Commercial Bank of Ethiopia. Market Report. November/December, 1973.

Commercial Bank of Ethiopia. Tenth Annual Directors' Report. Addis Ababa, 1973.

Davenport, Robert W. Financing the Small Manufacturer in Developing Countries. New York: McGraw-Hill, 1967.

Davis, Stanley M. "Entrepreneurial Succession." Administrative Sciences Quarterly (December, 1968), pp. 402-416.

Degeffe, Tafara. A Guide to Service. Addis Ababa: Comercial Printing Press, 1973.

Degeffe, Tafara. "Credit Institutions in Ethiopia." Ethiopia Observer, Vol. VIII, No. 4 (1965), pp. 324-330.

Degeffe, Tafara. "The Commercial Bank of Ethiopia." Ethiopia Observer, Vol. VIII, No. 4 (1965), pp. 331-338.

Diamond, William. Development Banks. Baltimore: The Hopkins Press, 1957.

Dorrance, Graene S. "A Framework for the Determination of Central Banking Policy." International Monetary Fund Staff Papers, Vol. XVII (July, 1970), pp. 215-245.

Gerschenkron, Alexander. Economic Backwardness and Historical Perspective. Cambridge: Harvard University Press, 1966.

Ginzberg, Eli, and Herbert H. Smith. Manpower Strategies for Developing Countries: Lessons from Ethiopia. New York: Columbia University Press, 1967.

Goldsmith, Raymond W. Financial Intermediaries in the American Economy. Princeton: Princeton University Press, 1958.

Goldsmith, Raymond W. Financial Structure and Development. New Haven and London: Yale University Press, 1969.

Gurley, John G., and Edward S. Shaw. "Financial Aspects of Economic Development." The American Economic Review, Vol. XLV (1955), pp. 515-538.

Gurley, John G., and Edward S. Shaw. "Financial Intermediaries and the Saving-Investment Process." Journal of Finance, Vol. XI (May, 1956), pp. 257-276.

Gurley, John G., and Edward S. Shaw. Money in a Theory of Finance. Washington, D.C.: The Brookings Institution, 1960.

Higgins, Benjamin. Economic Development. New York: Norton, 1959.

Huffnagel, H. P. Agriculture in Ethiopia. Rome: Food and Agriculture Organization of the United Nations, 1961.

Imperial Ethiopian Government. Third Five Year Development Plan: 1968/1973. Addis Ababa: Berhanena Selam Printing Press, 1968.

Imperial Ethiopian Government Ministry of Information. Patterns of Progress: Power and Irrigation in Ethiopia. Addis Ababa, 1969.

Imperial Ethiopian Government Ministry of Information. Patterns of Progress: Financial and Fiscal Policy of Ethiopia. Addis Ababa, 1968.

Imperial Savings and Home Ownership Public Association. Twelveth Annual Report: 1972/73. Addis Ababa, 1973.

International Bank for Reconstruction and Development. World Bank Operations: Sectoral Programs and Policies. Washington, D.C.: 1972, pp. 281-289.

International Bank for Reconstruction and Development and International Development Association. Economic Growth and Prospects in Ethiopia. Volume II, Washington, D.C., September 22, 1970.

International Bank for Reconstruction and Development and International Development Association. Recent Economic Performance and Future Prospects in Ethiopia. Volume 1, Washington, D.C., June 15, 1973.

Jucker-Fleetwood, Erin E. Money and Finance in Africa. London: George Allen and Unwin LTD, 1964.

Kane, Joseph A. "The Economic Significance of Industrial Development Banking in the Developing Countries." (Unpublished Ph.D. Dissertation, Temple University, 1972.)

Kaplan, Irving, et al. Area Handbook for Ethiopia. Washington, D.C.: U.S. Government Printing Office, 1971.

Khan, Rauf Ahmed. "The Effectiveness of Development Finance Corporations in a Developing Economy: The Pakistan Experience." (Unpublished Ph.D. Dissertation, University of Colorado, 1973.)

Khonsary, Reza. "The Role of Commercial Banks in Financing Economic Growth in Japan, 1951-1963." (Unpublished Ph.D. Dissertation, New York University, 1966.)

Konczacki, Z. A. "Currency and Banking in Ethiopia." The South African Journal of Economics, Vol. XXX, No. 3 (1962), pp. 205-220.

Lowe, John W. "Financial Markets in Developing Countries." Finance and Development (December, 1974), pp. 38-41.

Maldonado, Rita Marinita. "The Role of the Financial Sector in the Economic Development of Puerto Rico. (Unpublished Ph.D. Dissertation, New York University, 1970.)

Ministry of Commerce, Industry and Tourism. Implementation Report of the Third Five Year Development Plan. Addis Ababa, June, 1973.

Ministry of Commerce, Industry and Tourism. Annual Survey of Manufacturing Industries. Addis Ababa, June, 1974.

Mohammed, Duri. "Private Foreign Investment in Ethiopia." Journal of Ethiopian Studies, Vol. VII, No. 2 (July, 1969), pp. 53-78.

Morrison, George R. Time Deposit Growth and the Employment of Bank Funds. Chicago: Association of Reserve City Bankers, 1965.

Nash, Manning. Primitive and Peasant Economic System. San Francisco: Chandler Publishing Company, 1966.

National Bank of Ethiopia. Quarterly Bulletin. Addis Ababa, June, 1974.

National Bank of Ethiopia. Seventh Annual Report. Addis Ababa, 1970.

Nevin, Edward. Capital Funds in Underdeveloped Countries. New York: St. Martin's Press Incorporated, 1961.

Paauw, Douglas S. Financing Economic Development: The Indonesian Case. Glencoe: The Free Press, 1960.

Pankhurst, Richard. "The History of Currency and Banking in Ethiopia and the Horn of Africa from the Middle Ages to 1935." Ethiopia Observer, Vol. VIII, No. 4 (1965), pp. 358-408.

Pankhurst, Sylvia. "The Development Bank of Ethiopia." Ethiopia Observer, Vol. III, No. 1 (1959), pp. 40-43.

Patel, I. G. "Selective Credit Controls in Underdeveloped Countries." International Monetary Fund Staff Papers, Vol. IV (1954), pp. 73-84.

Patinkin, Don. "Financial Intermediaries and the Logical Structure of Monetary Theory." American Economic Review (March, 1961), pp. 95-116.

Patrick, H. T. "Financial Development and Economic Growth." Economic Development and Cultural Change, Vol. XIV (January, 1966), pp. 174-189.

Planning Commission. The Saving and Credit Market of Ethiopia. (Unpublished Report, Addis Ababa, April, 1974.)

Polak, J. J., and Victor Argy. "Credit Policy and the Balance of Payments." International Monetary Fund Staff Papers, Vol. XVIII (March, 1971), pp. 1-24.

Polakoff, Murray E., et al. Financial Institutions and Markets. New York: Houghton Mifflin Co., 1970.

Powers, Terry Allen. "Financial Intermediaries and Economic Development in Costa Rica, 1953-1968." (Unpublished Ph.D. Dissertation, The University of Texas at Austin, 1971.)

Raffaele, Joseph A. The Economic Development of Nations. New York: Random House, 1971.

Rostow, Walt Whitman. The Stages of Economic Growth: A Non-Communist Manifesto. Cambridge: University Press, 1965.

Rostow, Walt Whitman. The Economics of Take-Off Into Sustained Growth. New York: St. Martin's Press, 1968.

Rowan, D. C., and Thomas Mayer. Intermediate Macro Economics. New York: Norton and Co., Inc., 1972, Chapter 10.

Rozental, Alek A. Finance and Development in Thailand. New York: Praeger Publishers, 1970.

Sametz, Arnold W. Financial Development and Economic Growth. New York: New York University Press, 1972.

Schartz, Sayre D. Development Bank Lending in Nigeria. Ibadan: Oxford University Press, 1964.

Schumpeter, Joseph A. The Theory of Economic Development: An Inquiry Into Profits, Capital, Credit, Interest, and Business Cycle. Cambridge: Harvard University Press, 1934.

Shaw, Edward S. Financial Deepening in Economic Development. New York: Oxford University Press, 1973.

Snyder, Donald W. "Econometric Studies of Household Saving Behavior in Developing Countries: A Survey." The Journal of Development Studies, Vol. X (1974), pp. 139-153.

Solow, R. M. "Investment and Technical Progress." Mathematical Methods in Social Sciences. Eds. K. J. Arrow, et al. Stanford: Stanford University Press, 1960, pp. 89-104.

Stillson, Richard Thomas. "An Analysis of Financial Intermediation in the Context of Financial Development." (Unpublished Ph.D. Dissertation, Stanford University, 1970.)

United Nations. Methods of Financing Economic Development in Under-developed Countries. New York, 1949.

United Nations. Industrial Development in Africa. New York, 1967.

United Nations. Survey of Economic Conditions in Africa. Part I. New York, 1973.

Villanueva, D. P. "A Survey of the Financial System and the Saving-Investment Process in Korea and the Philippines." Finance and Development (June, 1971), pp. 16-19.

Wai, U. Tun. "Interest Rates in the Organized Markets of Underdeveloped Countries." International Monetary Fund Staff Papers, Vol. V (1956/57), pp. 249-278.

Wai, U. Tun. "Interest Rates Outside the Organized Money Markets of Underdeveloped Countries." International Monetary Fund Staff Papers, Vol. VI (November, 1957), pp. 80-142.

Yener, Ergun. "Financial and Capital Market Development in Turkey: Problems and Prospects." (Unpublished Ph.D. Dissertation, University of North Carolina at Chapel Hill, 1970.)

APPENDIX A

SELECTED NATIONAL ACCOUNT ITEMS

TABLE XLIV

GROSS DOMESTIC PRODUCT AND MONETARY GROSS DOMESTIC PRODUCT FOR SELECTED ECONOMIC SECTORS
(ETH. $ MILLION)

Year Ending July 7	Gross Domestic Product	Monetary Gross Domestic Product	MGDPa	MGDPi	MGDPb
1960/61	2,331.7	962.6	286.9	43.9	65.4
1961/62	2,415.3	1,035.9	290.5	52.8	78.1
1962/63	2,517.4	1,112.1	305.7	61.5	81.2
1963/64	2,728.6	1,254.9	331.0	76.1	88.1
1964/65	2,960.5	1.442.9	377.8	94.4	96.4
1965/66	3,181.4	1,591.7	389.7	108.2	116.7
1966/67	3,373.5	1,738.5	432.0	124.8	146.1
1967/68	3,601.6	1,887.8	447.4	142.3	135.9
1968/69	3,819.1	2,044.7	479.8	159.8	140.6
1969/70	4,154.8	2,261.0	540.1	179.5	115.2
1970/71	4,399.5	2,451.5	565.6	211.0	133.3
1971/72	4,399.4	2,505.8	565.0	223.9	143.8

MGDPa= Monetary gross domostic product in Agriculture.
MGDPi= Monetary gross domostic Product in Manufacturing.
MGDPb= Monetary gross domostic Product in Building and Construction.

Source: Central Statistical Office, Addis Ababa.

TABLE XLV

REAL NATIONAL SAVINGS AND FINANCIAL SAVINGS
(ETH. $ MILLION)

Year Ending July 7	Gross Savings	Gross Monetary Savings	Financial Savings
1960/61	256.7	175.4	27.9
1961/62	265.0	176.2	36.2
1962/63	271.3	180.0	57.2
1963/64	328.9	240.3	63.7
1964/65	371.0	279.7	78.6
1965/66	350.5	258.9	84.1
1966/67	410.0	317.2	94.7
1967/68	447.1	352.7	123.7
1968/69	431.1	334.3	145.3
1969/70	478.2	376.9	184.7
1970/71	447.8	344.5	216.0
1971/72	486.8	381.5	260.3

Source: National Accounts Estimates, 1960/61-1971/72, Central Statistical office, January 23, 1974, pp. 6 and 8 for real savings; International Financial Statistics, International Monetary Fund, 1961-1973, pages on Ethiopia, for financial savings; Imperial Savings and Home Ownership Public Association, Twelveth Annual Report, 1972/73, p. 36; Savings and Mortgage Corporation of Ethiopia, Annual Reports, 1965 to 1972.

TABLE XLVI

GROSS DOMESTIC FIXED INVESTMENT AND GROSS DOMESTIC FIXED MONETARY INVESTMENT FOR SELECTED ECONOMIC SECTORS (ETH. $ MILLION)

Year Ending July 7	GDFI[a]	GDFMI[b]	FMIA[c]	FMIM[d]	FMIB[e]
1960/61	295.0	213.7			
1961/62	322.6	233.8			
1962/63	336.6	245.3			
1963/64	384.1	295.5	34.9	56.5	82.0
1964/65	419.7	328.4	35.4	65.2	78.4
1965/66	480.3	388.7	41.7	65.2	76.4
1966/67	516.8	424.0	43.3	72.8	92.7
1967/68	537.9	443.5	50.8	85.3	103.3
1968/69	543.8	447.0	47.3	92.6	109.4
1969/70	512.5	411.2	37.9	89.7	106.0
1970/71	554.4	451.1	43.2	95.0	101.9
1971/72	603.1	497.8	60.0	95.1	120.9

[a]GDFI= Gross domestic fixed investment.
[b]GDFMI= Gross domestic fixed monetary investment
[c]FMIA= Fixed monetary investment in agriculture
[d]FMIM= Fixed monetary investment in manufacturing.
[e]FMIB= Fixed monetary investment in building and construction.

Source: National Accounts Estimates. 1960/61-1971/72. Central Statistical Office, January 23, 1974, p.8.

APPENDIX B

FUNDS SUPPLIED BY FINANCIAL INTERMEDIARIES

TABLE XLVII

TOTAL FUNDS SUPPLIED BY FINANCIAL INTERMEDIARIES
(ETH. $ THOUSAND)

Year Ending* June 30	Total Funds Supplied	FETC[a]	TFSC[b]	TFSN[c]
1960/61	95,727.0		82,400.0	13,327.0
1961/62	123,514.0		109,500.0	14,014.0
1962/63	134,636.5		119,000.0	15,636.5
1963/64	156,525.0		137,500.0	19,025.0
1964/65	221,515.8	119,299.7	169,300.0	52,215.8
1965/66	282,300.0	157,332.0	207,800.0	74,500.0
1966/67	321,100.0	170,713.3	224,600.0	96,500.0
1967/68	349,900.0	179,963.0	259,900.0	90,000.0
1968/69	394,100.0	223,532.6	289,100.0	105,000.0
1969/70	457,100.0	240,968.2	341,200.0	115,900.0
1970/71	524,000.0	281,839.4	410,000.0	114,000.0
1971/72	556,500.0	306,605.5	434,500.0	122,000.0

*Data adjusted to June 30 for financial years ending on dates other than July 7 or June 30.
[a]FETC= Total funds supplied excluding trade and consumer loans.
[b]TFSC= Total funds supplied by commercial banks.
[c]TFSN= Total funds supplied by non-monetary financial institutions.

Source: International Financial Statistics, International Monetary Fund, 1961-1973, pages on Ethiopia; Development Bank of Ethiopia, Annual Reports, 1968 and 1969; Ethiopian Investment Corporation, Annual Reports, 1967/68 and 1969/1970; Imperial Savings and Home Ownership Public Association, Annual Reports 1965/66 to 1972/73; Savings and Martgage Corporation of Ethiopia, Annual Reports, 1965 to 1972; "Development Bank of Ethiopia," Ethiopia Observer, Volume VIII, No. 4 (1965), pp344-351.

TABLE XLVIII

FUNDS SUPPLIED BY FINANCIAL INTERMEDIARIES
TO SELECTED ECONOMIC SECTORS
(ETH. $ THOUSAND)

Year Ending June 30*	Agriculture	Manufacturing	Building and Construction
1963/64	8,530.2		22,669.8
1964/65	11,444.5	56,640.7	51,214.5
1965/66	23,049.7	70,737.6	63,544.7
1966/67	27,014.1	74,782.6	68,916.7
1967/68	26,798.7	80,378.4	72,786.0
1968/69	49,658.5	97,495.8	76,378.3
1969/70	57,912.4	97,555.8	85,500.1
1970/71	49,452.3	127,800.3	104,586.9
1971/72	64,034.8	146,601.1	95,969.7

*Data Adjusted to June 30 for financial years ending on dates other than July 7 or June 30.

Source: Same Source as Table XLVII.

TABLE XLIX

FUNDS SUPPLIED BY TYPES OF INTERMEDIARIES TO SELECTED ECONOMIC SECTORS
(ETH. $ THOUSAND)

Year Ending June 30*	Commercial Banks to			A.I.D.B.[a] to		Thrift Institutions to Building & Construction
	Agriculture	Manufacturing	Building and Construction	Agriculture	Manufacturing	
1960/61				6,927.5	6,734.5	
1961/62				7,117.5	6,799.0	
1962/63				7,097.5	8,430.0	39.0
1963/64				8,530.2	9,441.5	369.8
1964/65	10,700.0	39,600.0	31,300.0	11,444.5	17,040.7	19,914.5
1965/66	6,600.0	40,900.0	42,200.0	16,449.7	29,837.6	21,344.7
1966/67	13,200.0	44,400.0	46,000.0	13,814.1	30,382.6	22,916.7
1967/68	11,500.0	49,200.0	46,300.0	15,298.7	31,178.4	26,486.0
1968/69	30,700.0	57,500.0	46,800.0	18,958.4	39,995.8	29,578.3
1969/70	36,900.0	55,900.0	54,900.0	21,012.4	41,655.7	30,600.0
1970/71	27,000.0	62,800.0	71,700.0	22,452.3	65,000.3	32,886.9
1971/72	32,400.0	80,000.0	60,400.0	32,034.7	66,601.0	35,569.7

*Data adjusted to June 30 for financial years ending on dates other than July 7 or June 30.

[a]A.I.D.B. = Agricultural and Industrial Development Bank and its predecessors.

Source: Same source as Table XLVII.

APPENDIX C

PRICE INDICES

TABLE L

GROSS DOMESTIC PRODUCT PRICE INDICES
(1960/61 = 100.0)

Year Ending July 7	General	Agriculture	Manufacturing
1960/61	100.00	100.00	100.00
1961/62	99.25	98.62	104.97
1962/63	99.59	98.50	109.04
1963/64	102.88	101.07	111.42
1964/65	104.34	102.07	118.30
1965/66	107.64	107.47	116.85
1966/67	109.00	109.92	125.05
1967/68	112.57	115.45	126.26
1968/69	114.79	119.36	126.62
1969/70	120.67	128.51	128.31
1970/71	122.25	130.27	133.29
1971/72	117.04	174.12	136.03

Source: National Accouts Estimates, 1960/61-1971/72, Central Statistical Office, January 23,1974, pp. 2-3.

APPENDIX D

INTEREST RATES

TABLE LI

SAVING DEPOSIT RATES AND LENDING RATES
(PERCENT)

Year	Saving Deposit Rate	General Average Borrowing Rate	Industrial Borrowing Rate	Agricultural Borrowing Rate	Building and Construction Borrowing Rate
1961	4.5	7.0	7.0	6.0	7.0
1962	4.5	7.0	7.0	6.0	7.0
1963	4.5	7.0	7.0	6.0	7.0
1964	4.5	8.5	9.0	8.0	8.5
1965	4.5	8.5	9.0	8.0	8.5
1966	4.5	9.0	9.0	8.0	9.0
1967	5.0	9.0	9.0	8.0	9.0
1968	5.0	9.5	10.0	9.0	9.5
1969	5.0	9.5	10.0	9.0	9.5
1970	6.0	9.5	10.0	9.0	9.5
1971	6.0	10.0	11.0	10.0	10.0
1972	6.0	10.0	11.0	10.0	10.0

Source: National Bank of Ethiopia.

APPENDIX E

COMMERCIAL BANK OFFICES

TABLE LII

COMMERCIAL BANK OFFICES

Year	Number
1961	18
1962	18
1963	22
1964	29
1965	38
1966	40
1967	54
1968	67
1969	89
1970	101
1971	109
1972	115
1973	121

Source: Commercial Bank of Ethiopia.

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