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**RECENT ECONOMIC GROWTH AND RURAL FINANCIAL MARKETS IN JAMAICA;  
ANALYSIS OF PERFORMANCE, PROBLEMS AND RECOMMENDATIONS**

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# STUDIES IN RURAL FINANCE

**AGRICULTURAL FINANCE PROGRAM**



**Department of Agricultural Economics and Rural Sociology**

**THE OHIO STATE UNIVERSITY  
COLUMBUS, OHIO  
43210**

RECENT ECONOMIC GROWTH AND  
RURAL FINANCIAL MARKETS IN JAMAICA:  
ANALYSIS OF PERFORMANCE, PROBLEMS  
AND RECOMMENDATIONS\*

\*Report for USAID Mission Jamaica,  
October, 1978

by

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## CHAPTER I

### INTRODUCTION:

This study analyses the size, structure and <sup>needed</sup> performance of the rural financial markets in Jamaica. The relative contribution of the various credit institutions in servicing the rural sector is established and subject to specific analysis in separate chapters of this report. Throughout, emphasis will shift between an analysis of the system as a whole and the role and performance of specific institutions within that system.

We begin, first, with an analysis of the macroeconomic setting within which the rural financial markets function. This entails an overview of the real economic performance of the Jamaican economy from 1965 to 1978. The pace and pattern of economic growth is established along with the associated structural features of capital formation, employment, foreign trade, the balance of payments, inflation and credit. The changing structure and performance of the agricultural sector is then <sup>discussed</sup> documented within this scenario.

The <sup>third</sup> next chapter presents an analysis of the national network of rural financial markets. This global perspective investigates the changing features of agricultural credit from the <sup>late</sup> 1960's to the present. Estimates of the expansion of rural credit in real terms are presented along with the factors behind the shifting institutional channels through which <sup>this</sup> the expansion occurred. The pattern of access to credit by farm size is established and the issues of domestic vs. foreign source funding discussed. Finally, the impact of inflation in distorting the rural financial markets is analysed through its effects on the efficiency of credit use and equity.

The fourth chapter [specifically] evaluates the role and performance of the commercial banks in servicing the credit needs of the rural sector. This is then followed by a chapter analysing in detail the experience of the Jamaica Development Bank in channeling credit to agriculture. The growth of credit through this institution in many ways highlights the major problems of rural finance in the Jamaican setting.<sup>7</sup> Performance indicators such as term structure, loan size distribution by farm size, enterprise type, and finally delinquency and arrears are evaluated from the point of view of achieving development objectives and maintaining institutional viability, in the present macroeconomic setting of Jamaica.

Our focus then changes to the three major programs designed to service the credit needs of [the] small farmer: The People's Co-operative Banks network with the Agricultural Credit Board; the Self-Supporting Farmers' Development Program and the recent Crop Lien Program. Each program has a distinct history, each has [carried out] a special role in the rural financial market and each has had its [measure of] problems. The programs are evaluated in terms of the clientel they serve; the quality and impact of the credit they offer; their organizational features and operational procedures; their arrears and their viability in resolving the problem of the small farmer, in Jamaica.

The next chapter summarizes the impact of government policy on the rural financial markets. The role of the Bank of Jamaica with its selective credit controls and the actions of the Ministries of Agriculture and Finance are summarized. Direct governmental financial assistance is shown to have been irregular, crisis-motivated, and restricted to a few commodities. It is concluded that governmental policies have been mainly unsuccessful in bringing about a larger, steady, and more efficient flow of private sector credit to agriculture.

Finally we draw the threads of the analysis together in our concluding chapter, <sup>First we</sup> by reviewing <sup>This is followed by an analysis of</sup> the present state of rural financial markets in the country, the potential for rationalization and reform of the system as a whole and the major institutions functioning within this system, and the complementary action<sup>s</sup> necessary to support this effort.

Finally, words of grateful acknowledgement are clearly appropriate in this introduction. This study could not have been completed successfully without the extensive counsel and co-operation of officials at the Jamaica Development Bank, the Self Supporting Farmers' Development Program, the Bank of Jamaica, and a specific commercial bank which shall remain anonymous for the purposes of this report. At the same time, officials from the Ministry of Agriculture and the Agricultural Credit Board have been generous with their time and advice during crucial periods of our investigation.

The unusual co-operation extended by the professional staffs of the JDB and SSFDP goes beyond anything the authors have ever experienced in work elsewhere. As a result of complete access to their loan accounts and support for extensive field trips, we were able to generate various measures of financial and economic performance from original data sources that are rarely available in studies of formal agricultural credit institutions in less developed countries. This has resulted in a delineation of problem areas that would have been impossible to have understood correctly without this support. Similarly, the long hours of discussion with the officials and the key staff personnel of these institutions helped clarify many areas of confusion or ambiguity associated with the data. Their concern to resolve many of the admit-

tedly serious problems facing their institutions is refreshing, and the authors hope this study can make at least a small contribution towards that effort.

CHAPTER IIREAL ECONOMIC PERFORMANCE OF THE JAMAICAN  
ECONOMY AND DEVELOPMENTS WITHIN THE AGRICULTURAL  
SECTOR, 1965-1978: AN OVERVIEW

This chapter outlines the macro-economic performance of Jamaica from 1965 to the present time. The performance of the agricultural sector is also examined. These analyses provide the recent historical and contemporary contexts within which the specific study of the rural credit system is to be placed.

STRUCTURE AND GROWTH OF OUTPUT

The structure of production at the middle of the 1960s was one in which the six sectors detailed in Table 11.1 accounted for as much as 70 per cent of total gross domestic product at factor cost. Five other sectors jointly comprised the remaining 30 per cent of gross domestic product. Of the six major sectors, the manufacturing and distribution sectors were the largest, and government the smallest. By 1970/72, agriculture had declined from 11.1 per cent to 8.7 per cent of GDP, the share of manufacturing had declined slightly, while that of construction and distribution had risen. The situation in 1977 was remarkably different. Economic activity in the construction and mining sectors had declined significantly from 1975 so that in 1977 mining which began to recover in that year accounted for 10.5% of GDP, while construction, continuing its downward slide, accounted for only 5.9 per cent; largely in response to the foreign exchange crisis and the associated regime of foreign exchange rationing by the monetary

Table II.1

Structure of Gross Domestic Product at Factor Cost 1965-77

Sectors	Mean Percentage Share					
	1965/7	1970/2	1975/7	1975	1976	1977
	(1)	(2)	(3)	(4)	(5)	(6)
Agriculture, Forestry and Fishing	11.1	8.7	9.1	8.5	9.3	9.6
Mining and Quarrying	12.8	12.6	10.3	10.9	9.1	10.3
Manufacture	14.6	13.7	14.9	14.3	15.4	15.0
Construction and Installation	10.3	11.5	8.4	10.5	8.4	6.3
Distribution	13.6	15.9	15.6	17.1	14.9	14.8
Government	7.7	8.6	14.9	13.2	15.7	15.9
Sub Total	70.1	71.0	73.2	74.5	72.8	71.9
Other*	29.9	29.0	26.8	25.5	27.2	28.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Computed from data in National Income and Product Accounts, various years.

\*Note : "Other" consists of the following five sectors: Electricity and Water, Financial Institutions, Real Estate, Miscellaneous Services and Household and Private Non-profit institutions.

authorities, the import-intensive distribution sector which had increased its share of GDP up to 19 per cent in 1975, went into rapid decline and by 1977 accounted for only 14.3% of GDP. In marked contrast, the share of the manufacturing sector continued to grow, partly reflecting the preferential treatment extended to this sector in the allocation of import licenses.

Of significance is the rapid growth in the share of the government sector from 7.7% of GDP in 1965/7 to 14.7% in 1977. This growth was the outcome of several tendencies in the economy. First, governmental activities expanded as the state took on additional productive and regulatory functions. Secondly, beginning with the new People's National Party governmental administration in 1972, public sector employment was adopted as a strategy for absorbing the unemployed. An important development in this respect was the Impact Programme which was designed as a vehicle for temporary employment of the primarily urban unemployed, most of whom were engaged in non-productive tasks. The goal of creating productive developmental work programmes has not been achieved, despite the six years of the Impact Programme's existence. Third, private sector activity has slowed down in response to the deepening economic crisis. <sup>F</sup> ~~The fourth tendency is,~~ <sup>there has been a</sup> the growth of government tax revenues in response to revisions in the levels of taxation and domestic price inflation. The net result of all these tendencies was a significant displacement of the private sector by the burgeoning public sector.

In terms of 1970 dollars, the Jamaican economy after experiencing moderate rates of growth between 1965 and 1972, entered a period of decline - the deterioration in economic performance being particularly

*Real Rates of Growth of Gross National Product, Gross Domestic Product  
and Selected Measures of Physical Output in 1970 Hawaiian  
Dollars Table II.2 1965-77.*

Growth of GNP, GDP, and Output 1965-1967 (1970 J\$)

	Annual Average Percentage Growth Rates				
	1965/7 to 1970/72	1970/2 to 1975/77	1974 to 1975	1975 to 1976	1976 to 1977
	(1)	(2)	(3)	(4)	(5)
GNP	4.03	-1.61	-2.93	-6.59	-4.03
GNP Per Capita	2.70	-3.25	-1.01	-7.95	-5.39
GDP Total	5.66	-1.75	-2.19	-6.24	-2.51
Agricultural	-4.30	4.24	6.44	2.80	1.17
Mining	1.72	-2.19	-23.45	-21.50	16.65
Manufacture	1.01	3.67	-3.10	8.76	-11.92
Construction	5.13	-4.98	0.81	-25.08	-26.63
Distribution	5.89	0.85	0.69	-18.80	-2.97
Government	3.96	13.79	7.48	11.05	-1.09
GDP Per Capita	4.22	-3.30	-0.27	-7.59	-3.90
Physical Output					
Bauxite	6.54	-2.08	-24.49	-10.25	-10.74
Alumina	18.03	-0.53	-18.01	-20.59	38.21
Sugar	-4.83	-2.24	-3.17	0.45	-18.49
Bananas	-5.19	-9.92	-1.54	12.82	1.14
Root Crops	8.37	4.01	3.26	-10.50	19.84
Vegetables	6.57	0.75	5.69	18.19	8.53
Tourism	6.76	0.77	4.15	-14.84	-17.89

Source: Same as For Table II.1

pronounced from 1975 to 1977. Table II.2 (column 1) shows that real Gross National Product grew at an annual average rate of four per cent from 1965/7 to 1970/72. Gross Domestic Product grew at an annual average rate of 5.66 per cent. Growth per capita, though considerably slower as a result of population growth, was still significantly positive at 2.7 per cent per annum in GNP terms and 4.2 per cent in GDP terms. The main sectoral sources of expansion were the construction sector which was responding to rising demands for residential, office, factory and tourist accommodation<sup>s</sup>, the distribution sector, and the government sector. Other major sectors such as mining and manufacturing, expanded much more slowly. The gross domestic product of the agricultural sector declined at an average annual rate of 4.3 per cent.

The overall expansion of the economy, and its differential growth is also revealed by trends in physical output. Table II.1 details the situation for the main commodities and tourism. It can be seen that the expansion of bauxite, alumina, and tourism was very rapid. In contrast, production of sugar and bananas which are the main agricultural export commodities, declined rapidly, so that despite the faster expansion in the quantitatively less significant domestic agricultural output, the performance of agriculture as a whole was abysmal.

After 1972, GNP and GDP in 1970 prices declined continuously in absolute and per capita terms, except for a small rise in GDP in 1974. Compared to the 1965/7 to 1970/2 period, GNP declined from 1970/2 to 1975/7 at an average annual rate of 1.6 per cent, while GDP declined at the slightly faster rate of 1.8 per cent per year (column 2). The economic decline was particularly fast in 1976, but the provisional data available for 1977 shows a moderate <sup>slowdown</sup> in the rate of decline

in that year. The overall decline in GDP was moderated by positive growth in the gross domestic product of the government and the agricultural sectors in that order of importance. Economic deterioration was especially great in the construction and mining sectors. In 1975 and 1976, the latter declined by 23% and 21 per cent respectively, largely as a result of a recession in the aluminium industry in response to the economic recession in the U.S.A., and serious industrial unrest in the bauxite and alumina industry in Jamaica. Another possible reason is output contraction as a form of protest by the bauxite companies in ~~response~~ <sup>response</sup> to the increases in production taxes and levies unilaterally introduced by the Jamaica<sup>n</sup> Government in 1974. Construction sector GDP fell by as much as 25 per cent in 1976 and 26.6 per cent in 1977 as the mortgage market entered into depression, the demand for new residences diminished drastically, and emigration of middle and higher income recipients increased.

The direction and rate of change in physical output corresponded roughly to those of gross domestic product. Particularly noteworthy is the rapid falling off since 1975 in the number of landed visitors to Jamaica. Since the general world economic recession had abated by 1975, the phasing of the decline in tourism must be attributed to problems in the Jamaican economy and society. Prominent among these are the rapid domestic inflation, and general social instability, especially violent crime.

#### PROFITS, CAPITAL FORMATION AND FINANCING

The developments in national income and production discussed in the immediately preceding subsection, may be linked in macro-economic fashion to the behaviour of profits, domestic savings, foreign borrowing,

and net fixed investment. Economic growth depends in part on the rate of net investment, which itself is determined by profit expectations and the availability of investible funds. In open economies such as Jamaica, foreign savings have historically been an important supplement to domestically generated savings.

Table II.3 (row 1) shows that net fixed capital formation expanded quickly during the period 1965 to 1970, but declined steadily thereafter. As a consequence, while its annual average rate of growth was 10.6 per cent from 1965/7 to 1970/72, the decline from 1970/2 to 1975/7 was even swifter, averaging 14.7 per cent per annum. The decline was especially pronounced in 1976 and 1977 as the details in the Table show. In 1977, real net investment was only \$29 million, as compared to \$250 million in 1970. This <sup>was likely</sup> might reflect a remarkable deterioration in investor confidence, in investment capacity, and in foreign exchange availability for capital expenditures.

The growth trends of profits give some notion of profit expectations. A consistent series on profits is not available for the entire period, since the revised national income and product accounts first issued in 1975 replaced the profits series with one on operating surplus from 1969. However, it is possible to glean the growth trends of profits from the behaviour of the operating surplus variable over time. It can be seen from Table II.3 (rows 4 and 5) that aggregate gross profits in real terms grew at an average annual rate of 4.8 per cent from 1965/7 to 1970/72. <sup>AD 10/10</sup> Operating surplus ~~also~~ in 1970 dollars declined at an annual rate of 2.1 per cent from 1970/2 to 1975/77, though the actual downswing did not commence until 1973. In nominal terms both profits and operating surplus experienced positive growth in the two sub-periods, particularly under the inflationary conditions prevailing

Table II.3

Growth of Net Investment, Profits,  
Savings, and Net Foreign Borrowing  
for Selected Periods 1965-77.

	Annual Average Percentage Growth Rates				
	1965/7 to 1970/72	1970/2 to 1975/77	1974 to 1975	1975 to 1976	1976 to 1977
	(1)	(2)	(3)	(4)	(5)
Net fixed Capital Investment	10.65	-14.70	17.72	-52.15	-67.42
Domestic Savings	-3.33	-62.92	-22.94	-40.48	-38.24
Net Foreign Borrowing	19.33	-0.66	32.22	19.33	-56.34
Profits	4.78	n.a.	n.a.	n.a.	n.a.
Operating Surplus	n.a.	-2.11	-13.63	-11.27	-5.71

Source : Same as for Table II.1.

since 1973. It would however be erroneous to regard the inflation-caused growth of nominal profits as an incentive for growth of capital stock, since the replacement costs of capital goods would also have been rising rapidly under the influence of inflationary domestic and import prices.

One factor underlying the negative growth of fixed capital is the reduced availability of investment funds. Real domestic savings after reaching a peak of \$205.8 in 1968, declined unevenly to \$84 million in 1975. The next two years witnessed dissavings of \$34 million and \$47 million respectively. The time pattern is stated in growth rate terms in Row 2 of Table II.3. Dissavings in the personal sector itself began in 1971, and increased rapidly in subsequent years. Though it is unwise to offer a categorical exploration of the decline in real domestic savings without full empirical investigation, on the basis of data on personal incomes, personal income taxes, and consumer prices (not presented in this study), it appears that the fall off in savings is due to domestic inflation which boosted consumption expenditures in nominal terms (as consumers attempt to maintain real consumption), and reduced real income. Another reason is the sizeable and continuous growth in the rate of personal tax and non-tax payments to the government sector. Also, the usually negative real rates of interest on financial savings instruments might have discouraged personal savings.

The growth retarding effects of the trend of domestic savings was moderated for most of the period by continued inflows of foreign savings. The dependence of the economy on foreign savings has always been acute. Foreign savings averaged 21 per cent of total savings available locally between 1965 and 1967, and averaged 43.8 per cent for 1970 to 1972. In 1975, foreign savings exceeded domestic savings, and

in 1976 and 1977 was greater than the amount of domestic dissavings. Net foreign borrowings (savings) expanded at an average annual rate of 19.3 per cent between 1965/7 and 1970/2 (Row 3, Table II.3), but remained stationary on average between 1970/72 and 1975/77. In fact the inflow of foreign savings fell drastically from \$142 million in 1976 to \$62 million in 1977. In effect, during the 1970s the propulsive role of foreign capital largely ceased, thereby exposing the fragility of the economy and the need for corrective policies at the domestic financial level.

#### EMPLOYMENT AND LABOUR INCOMES

Economic development is about the material and psychological betterment of human beings. Two critical indices of progress in this sense are the rate of unemployment and the growth of labour incomes in market economies. On the first count the Jamaican economy has performed badly over the last seven years. One consequence of the economic decline has been increasing unemployment. The unemployment rate rose from 17.2% in 1969 to a mean rate of 22.5% in 1972/3, and to a mean rate of 23.3 per cent in 1976/1977 according to the official statistics which are based on surveys of the labour force conducted in April and October every year. These surveys which measure open unemployment, and for that reason alone, if no other, are no doubt biased downwards. Since the total labour force has itself been growing, the numbers actually out of work have grown even faster. For example while the average labour force grew from 752,286 in 1969 to 909,950 in 1977, unemployment rose from an average of 144,700 to 220,200 for the corresponding years.

Table II.4 (Column 1) shows that labour incomes, in real terms, expanded at a slower rate in the 1970s compared with the rate of growth in the latter half of the 1960s (2.54 per cent vs. 7.61 per cent). However, in 1976 and 1977 real labour incomes actually fell. Adequate employment series do not exist prior to 1972 therefore it is not possible to trace the time pattern of labour income per person employed to see whether the growth in total labour income reflects an improved position per worker. On the basis of the series available since 1972, this does not seem to have been the case. Real labour income per worker ~~were~~<sup>was</sup> lower in 1974, 1975, and 1976, despite the higher values of total real labour incomes in those years.

The growth rate of aggregate real labour incomes, however modest, contrasts favourably with that of profits or operating surplus, implying that there has been a tendency towards redistribution of factor incomes in favour of labour. An additional fact worth mentioning is that average labour productivity (measured roughly by the ratio of real gross domestic product to the employed labour force) has been on the decline since 1973, ~~at least~~. From a base of 100 in 1972, the index decreased to 72.5 in 1977. Despite the decline in labour productivity, substantial percentage increases in nominal wage rates were awarded in key sectors of the economy, the increases in the period 1973 to 1976 ~~being~~<sup>were</sup> usually twice those awarded on average during 1966 to 1973 as can be seen in Table II.4 (Columns 2 to 7). It should be noted that these statistics in many instances represent two year awards/<sup>of</sup> contractual labour agreements, that in some cases e.g. mining, ~~they~~<sup>they</sup> represent a catching up on incomes lost over the previous contractual period, ~~and also they~~<sup>A. There is</sup> are based on an incomplete coverage of productive enterprises. For these reasons the statistics should only be regarded as illustrative. However, there is

Table II.4

## Labour Incomes and Wage Increases 1966-77

Year	Real Labour Incomes \$m	Increases in Nominal Wage Rates					Electricity, Gas Water
		Manuf.	Const.	Transport & Storage	Mining	Commerce	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1966	424.0	9.3	12.5	10.7	8.0	13.8	n.a.
1967	452.4	11.9	8.0	10.0	8.0	11.6	n.a.
1968	477.7	12.7	Nil	9.4	18.0	9.9	n.a.
1969	534.6	13.1	16.0	10.4	Nil	13.4	n.a.
1970	586.7	18.1	Nil	17.2	Nil	19.8	n.a.
1971	599.4	18.4	20.0	15.4	21.8	14.1	15.0
1972	667.6	18.8	Nil	22.5	Nil	15.0	23.5
1973	703.5	25.3	25.0	21.6	51.2	20.8	25.0
1974	693.2	46.5	Nil	35.7	Nil	38.9	16.0
1975	725.7	47.5	55.0	30.4	Nil	37.5	42.5
1976	701.5	26.3	Nil	12.5	45.1	37.9	12.5

Sources: Derived from data in National Income and Product Accounts, and in Bank of Jamaica Annual Reports.

Note: Real income is obtained by deflating nominal labour incomes by the Consumer Price Index (1970=100). For columns 2 to 7 "nil" signifies that no increases were awarded in the particular year.

no doubt that the magnitude of increases in nominal wage rates are linked to the rapid rates of consumer price inflation experienced by the economy.

The decline in labour productivity and the pace of wage increases have to be placed in the context of a turbulent industrial relations scene. There were many labour disputes throughout the period. A high proportion of these were concerned with wages. Wage disputes averaged 40 per cent of total labour disputes between 1972 and 1976. About 41 per cent of the total number of disputes involved work stoppages, resulting in a massive loss in man-days of work, and consequently in output.

#### FOREIGN TRADE AND PAYMENTS

Jamaica is heavily dependent on foreign trade as a source of income, productive inputs, and final consumption goods. Through the period 1970-1977, real imports averaged 41 per cent of real GNP, while real exports averaged 35 per cent. It is not surprising, therefore, that developments in the foreign sector condition the behaviour of the domestic economy in such <sup>areas</sup> areas as economic growth, employment, and prices.

The period 1965 to 1976 has been characterised by a widening deficit on <sup>the</sup> current account (See Table 5, Column 1). The deficit increased from \$21.8 million in 1965 to \$127.2 in 1970, and still further to \$275.2 million in 1976. The annual average rate of increase was slower between 1970/2 to 1975/76 (17%) than between 1965/7 to 1970/72 (31%) essentially as a result of physical controls on visible imports and foreign travel expenditures from 1974 onwards, and due to rapid increases in export prices in 1975 and 1976. The current account deficit has also grown in relation to the country's foreign exchange earnings

Table II.5

Foreign Trade and Payments *Balance of Payments 1965-77*

Year	Current Account Balance \$m	Current Account Balance as % Exports plus net travel receipts	Visible Exports \$m	Visible Imports \$m	Balance of Trade in Agriculture \$m	Net Foreign Reserves \$m	% Change Export Price Index (1970 = 100)	% Change Import Price Index (1970=100)	Net Barter Terms of Trade
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1966	-32.0	15.1	196.2	233.7	19.6	52.5	26.3	4.1	104.4
1967	-53.2	24.8	196.8	252.6	8.4	65.0	4.3	2.9	105.8
1968	-86.0	31.7	207.1	319.4	2.8	89.7	7.3	14.1	99.6
1969	-103.0	33.4	240.9	369.4	-3.8	78.3	2.3	1.5	100.4
1970	-127.2	36.5	233.1	435.2	-14.5	95.9	2.7	3.1	100.0
1971	-140.4	38.4	283.9	459.7	-21.1	132.2	8.6	8.6	100.0
1972	-157.6	25.5	300.1	489.3	-30.1	88.7	-5.7	5.2	89.7
1973	-225.0	36.7	354.7	604.5	-45.3	76.1	4.7	39.3	67.4
1974	-151.8	21.1	664.4	850.8	-65.9	130.2	79.2	47.3	82.0
1975	-257.0	31.9	712.7	1021.4	-1.7	56.7	35.2	11.3	99.6
1976	-275.2	42.8	575.7	829.8	-68.9	-181.4	-5.2	4.6	90.2
1977	n.a.	n.a.	678.0	784.2	-2.0	-196.0	n.a.	n.a.	n.a.

Sources: Derived from data in Bank of Jamaica Statistical Digest, and in Statistical Abstract.

as measured by the sum of exports receipts and net travel receipts, as is shown in Column 2 of Table II.5.

In current values, visible exports grew at an average annual rate of 9.8 per cent in 1965/7 to 1970/2, and spurted dramatically at an annual rate of 17.7 per cent from 1970/2 to 1975/7. Actual dollar values are stated in Table II.5, Column 3, where it can be noted that exports fell substantially in 1976. Taking account of the decline in output of the major export industries as described earlier, and noting the rapid rise in export prices in 1974 and 1975 (Table II.5, Column 7) it is clear that the relatively favourable export position is attributable mainly to better export prices, and not to improved production or productivity in the economy.

Table II.5, Column 4 shows that expenditures on visible imports in current values rose rapidly from \$206.4 million in 1965 to \$435.2 million in 1970, and then to \$1021.4 million in 1975. Drastic import restrictions as a policy response to the rapidly deteriorating net foreign reserves position (Table II.5, Column 6), brought about considerable declines in import expenditures in 1976 and 1977. Expenditures on visible imports expanded at an average annual rate of 14 per cent throughout the period 1965 to 1977. As Table II.5, Column 8 shows, import price inflation was a serious problem in the latter half of the period, as the rate rose from an average of 5.8 per cent for 1965/7 to 1970/2 to 25.5 per cent for 1970/2 to 1975/7. Despite the increasing degree and spread of quantitative restrictions in money values, import expenditures in constant (1970) dollars, did not vary much <sup>around</sup> ~~around~~ a mean of \$448 million between 1970 and 1975, apart from the abnormal peak of \$517.1 million in 1972. This is a reflection of the severity

of the import-dependence of the economy. Substantial reductions in real imports, as events of 1976 and 1977 were to reveal, cannot be achieved without severe internal dislocations. The fact that such reductions did occur is evidence more of near bankruptcy in foreign exchange (as Table 5, Column 6 reveals), than of a changed conception of the degree of freedom for manipulating the import component of the balance of payments.

In Table II.5, Column 9, we show <sup>the</sup> time pattern of the net barter terms of trade. It can be seen that since 1966, the terms of trade have tended to deteriorate, though there was a temporary recovery between 1974 and 1976 owing to the abnormal upsurge in world market sugar prices. The deteriorating terms of trade might have depressed real economic activity in addition to aggravating foreign exchange difficulties.

The final point of significance to this report concerns the agricultural balance of trade. Precise estimates of foreign trade in agricultural commodities are not available. However, agriculturally based trade can be approximated by the sum of sections 0 (Food), 1 (Beverages and Tobacco), and 4 (Animal and Vegetable Oils and Fats) of the SITC trade accounts. The results of that exercise for the years 1965 to 1977 are summarised in Table II.5, Column 5. It can be seen that Jamaica's agricultural trade balance deteriorated almost continuously throughout the period, and became negative at a growing rate from 1969 to the present.

## PRICES AND CREDIT

The year 1973 marked a turning point in the inflationary experience of Jamaica. The rate of retail price inflation had been rising gradually during the 1960s and early 1970s. However, from 1973, the annual rate of inflation accelerated to a mean of 20 per cent between 1973 and 1975, slowed down to an average of 10 per cent for the next two years, and seems to be proceeding at an average rate of 30 per cent during 1978. Table II.6, Column 1 contains the details.

The explanations for the slower inflation of the years prior to 1973 are to be <sup>found</sup> ~~sought~~ almost entirely in slowly rising import prices derived from the creeping inflation in the main industrial market economies and occasionally, as in 1967, by small devaluations of the Jamaican currency. However, the rapid inflation of the more recent years is attributable to an amalgam of factors foremost among which are massive import price inflation, rapid wage increases, and unprecedented growth rates of domestic credit in excess of the growth in domestic availability of real goods and services.

Since the trends in import prices and wages have already been described, it remains only to sketch the growth of credit. Table II.6, Column 2, reveals that nominal domestic credit grew from \$229.4 million in 1969 to \$545.9 million in 1973 and then even more rapidly to \$1291.4 million in 1977. Much of the expansion was associated with the widening government budgetary deficit. The budget entered into a deficit in 1969, which grew rapidly between 1973 and 1977 (Table II.6, Column 4). The expansion of nominal domestic credit (and its associated aggregate demand for goods and services) in the face of depressed production and import restraint had inflationary consequences.

Table II.6  
Inflation and Credit and Deficit Indices

Year	% Change in CPI	Total Monetary Sector Nominal Domestic Credit \$m	Total Monetary Sector Real Domestic Credit \$m	Nominal Government Deficit \$m	Real Government Deficit Surplus \$m	Real Government Deficit as % Real GNP
	(1)	(2)	(3)	(4)	(5)	(6)
1966	1.94	145.5	199.9	23.0	30.5	3.2
1967	2.79	163.8	217.5	33.5	43.5	4.4
1968	5.93	201.9	262.2	31.0	34.0	3.2
1969	6.30	229.4	251.8	-20.9	-20.9	-2.0
1970	8.58	277.0	277.0	-41.0	-38.3	-3.4
1971	6.70	342.1	319.7	-58.8	-53.7	-4.8
1972	5.81	453.1	414.2	-70.0	-52.9	-4.0
1973	17.63	545.9	412.6	-90.5	-52.5	-4.4
1974	27.33	643.3	372.9	-167.9	-83.0	-7.0
1975	17.39	847.4	418.9	-206.0	-92.0	-8.0
1976	9.72	1067.3	476.9	-418.3	-164.5	-15.2
1977	11.20	1291.4	507.8	n.a.	n.a.	n.a.

Source: Derived from data in Bank of Jamaica Statistical Digest.

Note: (1) Deflator used is Implicit GDP deflator (1970 = 100)

(2) Price and Credit Variables are period averages.

Nominal rates of interest for all major financial assets remained relatively stable over the period under review. Details for selected interest rates are given in Table II.7, columns 1, 3, 5 and 7. It should be pointed out that the prime loan rate of interest is considerably lower than the weighted average of rates actually charged on loans. The data available for 1975, 1976 and 1977 give weighted actual nominal loan rates of 13.6% and 13.9% respectively. A result of domestic price inflation was a decline in real interest rates. From the information in columns 2, 4, 6, and 8 of Table II.7, it is clear that real interest rates on commercial bank assets and liabilities, and on government securities were substantially negative for most of the period since 1966. Implicitly, savers were being penalized, and borrowers subsidized by the prevailing structure of negative real rates of interest.

Without detailed statistical investigation, one cannot be categorical about the effects of the deposit rates of interest on the behaviour of commercial bank deposits. However, it does appear from the data in Table II.8, columns (2) and (4), that the growth of nominal savings and time deposits has been slowing down. In real terms, both categories of deposits have declined since 1972.

The realized demand for monetary sector real credit has grown steadily, as Table II.6, columns (3) and (7) show. Recently, however, private sector demand for credit has declined. Commercial bank total liquidity, inclusive of government securities, has consequently been greater over the latter period, especially since 1975. The commercial banks have reacted to the recent depression in the credit market by reducing deposit rates of interest and increasing loan rates of interest.

Table II.7  
*The Changing Structure of* Interest Rates 1966 - '77

Year	Average Interest Rate on Comm. Bank Savings Deposits		Average Interest Rate on Commercial Bank Time Deposits		Average Prime Loan Rate of Interest		Average Interest Rate on Ja. Treasury Bills	
	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1966	3.00	1.06	4.00 to 4.05	2.06 to 2.56	7.2	5.26	4.65	2.71
1967	3.37	0.58	4.25 " 4.94	1.46 " 2.15	7.3	4.51	4.67	1.88
1968	3.75	-2.18	4.29 " 4.75	-1.64 " -1.18	7.5	1.57	4.47	-1.46
1969	3.42	-2.88	4.50 " 4.83	-1.80 " -1.47	7.7	1.40	3.52	-2.78
1970	3.50	-5.08	4.42 " 4.92	-4.16 " -3.66	8.0	-0.58	4.03	-4.55
1971	3.44	-3.26	6.00 " 8.00	-0.70 " 1.30	7.6	0.90	3.81	-2.89 <sup>24</sup>
1972	3.29	-2.52	6.04 " 7.42	0.23 " 1.61	8.0	2.19	4.97	-0.84
1973	4.25	-13.38	7.69 " 9.03	-9.94 " -8.60	9.0	-8.63	5.81	-11.82
1974	4.25	-23.08	9.12 " 12.16	-18.21 " -15.17	11.0	-16.33	7.20	-20.13
1975	6.00	-11.39	5.37 " 11.56	-12.02 " -5.83	10.0	-7.39	6.94	-10.45
1976	7.00	-2.72	5.75 " 14.00	-3.97 " 4.28	11.0	1.28	7.26	-2.46
1977	7.00	-4.20	3.46 " 12.40	-7.74 " 1.20	11.0	0.20	7.21	-3.99

Source: Derived from data in Bank of Jamaica Statistical Digest.

Note: (1) Averages are period averages.

(2) Real Interest Rate is measured as the nominal rate of interest minus the rate of change in the consumer price index for the corresponding year.

as a means of reducing operating costs and increasing unit earnings to counter the decline in bank credit. Depending on the interest rate sensitivities of depositors and borrowers, these policy measures by the banks could result in a further reduction in the supply of savings and time deposits, and in the demand for credit.

The government has been a major beneficiary of commercial bank credit. The growth in commercial bank credit to the government is shown in columns 8 and 9 of Table II.8 in nominal values and as a percentage of total commercial bank assets. The growth in credit to the government has resulted partly from the attempts by the banks to offset a fall off in private sector credit demand through acquisition of government securities. Frequent upward revisions in the minimum required ratio of liquid assets to prescribed liabilities have also contributed to the shift of financial resources to the government. Moral suasion and the fact that government securities are the most lucrative of the eligible liquid assets combine to ensure that government will be the main beneficiary of explicit policies increasing the statutory liquid asset ratio. If the banks are forced to substitute government securities for private sector credit, their overall earnings would be lower than with a different asset-portfolio. A further consequence of the large weight of government securities in the banks asset-portfolio is that private depositors are implicitly subsidizing the government, given the prevailing structure of negative real rates of interest.

Table II.8

## Commercial Bank Deposits, Liquidity and Credit to Government 1966-1977

Year	Savings Deposits \$m		Time Deposits \$m		Liquidity as Percent of Total Bank Assets			Comm. Bank Credit to Government	
	Nominal	Real	Nominal	Real	Actual Liquidity	Required Liquidity	Excess Liquidity	\$m	% Bank Assets
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1966	76.7	105.3	24.7	33.9	n.a.	n.a.	n.a.	12.6	6.2
1967	88.0	116.9	31.2	41.4	n.a.	n.a.	n.a.	15.5	6.9
1968	106.0	137.7	43.3	56.2	n.a.	n.a.	n.a.	22.2	8.0
1969	129.4	142.0	58.2	63.9	16.3	13.1	3.2	29.6	8.8
1970	143.5	143.5	79.7	79.7	15.9	13.3	2.6	44.5	10.9
1971	168.0	157.0	106.1	99.1	17.7	13.2	4.5	55.3	11.2
1972	194.0	177.3	131.9	120.6	14.9	13.0	1.9	66.5	11.0
1973	225.9	170.7	144.4	109.1	15.2	12.9	2.3	83.4	11.4
1974	255.9	148.3	167.7	97.2	16.3	14.9	1.4	88.0	10.5
1975	310.7	153.6	209.6	103.6	18.0	16.1	1.9	99.8	10.2
1976	342.9	153.2	243.2	108.7	19.5	17.5	2.0	120.6	11.7
1977	414.1	162.8	207.7	81.7	29.7	20.8	8.9	247.8	33.2

Source: Derived from data in Bank of Jamaica Statistical Digest, and Bulletin.

Note: Deflator is Implicit GDP deflator (1970 = 100).

## IMPORTANCE OF AGRICULTURE

The agricultural sector although diminishing in national importance is still a central pivot of the economy, and as such is accorded a great deal of policy attention. Table II.9 shows that in 1977, the agricultural sector was the fifth largest subsector, with its gross domestic product accounting for approximately 9 per cent of total gross domestic product. Its percentage share has been declining through time, largely as a result of the faster expansion of the other major sectors of the economy.

The agricultural sector is more significant as an absorber of labour. For the years 1975 to 1977, agriculture employed an average of 34.8 per cent of the total employed labour force, despite losses of labour through migration to urban areas and to the mining industries. Reflecting the lower level of wages paid in agricultural occupations, the proportion of labour incomes generated directly in the sector has been much smaller, and has tended to decline over time. Table II.9 shows that the proportion averaged .9 per cent in 1965-7, 5.7 per cent in 1970-2, and 6.2 per cent in 1975-77. Further insights can be had from an examination of relative product per worker (measured by sector of gross domestic per worker times the total labour/total GDP ratio). In 1974, the relative product in agriculture was \$0.22 compared to \$11.48 in mining, \$1.14 in manufacturing, and \$1.61 in construction. In 1976, the relative products per worker were \$0.26, \$8.15, \$1.51 and \$1.53 respectively.

Agriculture has historically been very important to the Jamaica balance of payments. Despite the emergence of non-agricultural exports such as bauxite and alumina, manufactures, and tourism, on a significant

Table II.9

## Importance of Agriculture

	Mean 1965-67	Mean 1970-72	Mean 1975-77
% Share of GDP	11.1	8.7	9.4
% Share of Employed Labour Force	n.a.	n.a.	34.8
% Share of Labour Incomes	9.4	5.7	6.2
% Share of Visible Export Earnings	35.2	23.1	23.1

Sources: Derived from data in National Income and Product Accounts, Annual Abstract of Statistics, and the Labour Force, various years, (Department of Statistics - Jamaica).

scale since the 1960s, agricultural commodities account for a large share of export earnings, and an even larger proportion of merchandise exports. Table II.9 reveals that between 1975 and 1977, agriculturally based exports (SITC 0, 1 and 4) comprised 23 per cent of merchandise exports. This represented a fall in relative importance from 35 per cent in 1965-1967, despite an upward trend in the current values of agriculturally based exports until 1976. The main agricultural export is sugar which accounted for an average<sup>of</sup> 31 per cent of total agricultural exports (inclusive of molasses and rum) for the period 1966 to 1972. Because of unprecedented price increases, sugar exports trebled its share over the next three years. Second in order of importance are banana exports, which comprised an average 20 to 22 per cent of total agricultural exports between 1966 to 1972, declining to 10 per cent between 1974 and 1976. As can be seen from Table II.10, coffee, citrus, pimento, and cocoa are minor agricultural exports which have been growing unsteadily in importance within recent years, in the face of relative neglect in terms of government policy supports in the areas of marketing and financial incentives.

The significance of the agricultural sector to the balance of payments is not limited to export earnings. The potential for agricultural import substitution should also be considered. The growth in agricultural imports has been charted in an earlier section. What needs to be stressed additionally, is the dependence of the economy on imported supplies of food not only in terms of amounts, but also in terms of consumption habits for foods that cannot be produced locally. Imported foodstuffs comprised as much as 27.5 per cent of total food consumption expenditures between 1965 and 1967, and 23.4 per cent between 1970 and 1972. By drastically

Table II.10

Agricultural Exports *Excludes 1965-76.*  
 \$m current

	Total	Sugar	Bananas	Coffee	Cocoa	Citrus	Pimento
1965	n.a.	31.2	12.2	0.5	0.9	6.8	1.0
1966	n.a.	32.8	12.6	0.4	0.8	6.1	1.8
1967	56.8	30.2	13.3	0.5	0.5	5.3	1.4
1968	61.3	34.0	13.8	0.7	1.0	5.1	1.6
1969	58.3	28.6	12.5	0.7	1.0	6.7	4.2
1970	56.5	30.0	11.8	1.1	1.3	4.8	3.1
1971	56.5	30.7	11.7	1.5	1.3	4.2	2.3
1972	61.2	33.8	11.8	1.4	2.1	4.2	3.2
1973	70.2	35.4	16.4	2.0	2.6	3.6	4.1
1974	110.7	74.4	11.5	3.3	2.9	3.9	5.0
1975	177.0	139.7	14.6	3.1	3.5	4.7	4.3
1976	92.9	55.9	11.9	4.1	2.6	3.9	4.6

Source: Derived from Economic Survey (National Planning Agency), various years.

curtailing imports, the economic authorities depressed these percentages to 17.1 between 1975-77, at a cost of serious domestic food shortages in 1975 and 1976. With expanded domestic foodcrop production in 1977, the economy finally began to displace, as distinct from suppressing, imported food. While no one would seriously argue for total self-sufficiency in food production, it is likely that further import displacement is possible without encroaching on resource availabilities for export agriculture. This point is taken up again in the final sub-section.

#### STRUCTURE OF AGRICULTURE

Many good descriptions of agriculture in Jamaica exist. Therefore, this subsection is intended to be a brief sketch of salient features in order to provide within the body of this report, some basic structural description. According to the 1968 Census of Agriculture, 1.5 million acres or approximately 54 per cent of the landed area of Jamaica was under agriculture. This average would have no doubt changed since then as some farms stagnated or ceased operations, and as new farms were established. It is estimated that in 1970 out of a total crop acreage of 494,700 acres, 34 per cent was under sugar cane, 20 per cent under coconuts, and 17 per cent under bananas. Minor export crops, and domestic food crops accounted for roughly 29 per cent of crop area. The structure of the livestock population (including poultry) in 1970 shows a relative majority of cattle (40 per cent out of a total of 699,923 head), followed by goats and pigs in roughly equal percentage (29.7%). The large share of the pig industry is of fairly recent origin, dating no further back than 1960. Other measures of the output structure of the agricultural sector can be derived from

*Small  
rural  
96*

GDP data. On the basis of GDP in purchaser values, sugar comprised 23.3% of the agricultural sector's GDP between 1970 and 1972, and 17.3 per cent between 1975 and 1977. "Other main exports" accounted for 8.2% and 10.9 per cent respectively. Root crop production for domestic consumption constituted 25.8% between 1970-72, and 24.8% between 1975 and 1977, while "other primary products" comprised 24.5% and 23.0% for the corresponding years. Livestock was of a roughly equivalent share, i.e. 26.4% and 23.9 for 1970-2 and 1975-77 respectively.

The size distributions of farm units and farm lands <sup>mainly</sup> were highly skewed. According to the 1968 Census of Agriculture, 78 per cent of an estimated 185,484 farms were under 5 acres, a further 20 per cent are between 5 to 25 acres in size. These two size categories accounted for a total of 567,366 acres, or 36 per cent of total acreage. Small farms tend to be located on land of poorer quality, both in terms of soil fertility, slope and accessibility. While the large farms are relatively specialised in export agriculture and livestock production the small farms are more diversified in their range of activities, and account for nearly all of a wide range <sup>of</sup> domestic foodcrop production including rootcrops (e.g. yams, tania, sweet potatoes, vegetables such as pumpkins, and fruits.) The main large farm crop is sugar cane cultivated on large estates. It is necessary to note, though, that cane farmers contributed importantly to the total supply of sugar cane. Between 1966 and 1974, cane farmers contributed, on average, 49 per cent of total tonnage of cane ground, within a range of 46 to 52 per cent. Recent changes in the ownership of the industry, especially government acquisition and the establishment of cooperatives have increased farmers' share to 78 per cent.

Since export agriculture benefits more greatly from governmental supports in terms of marketing facilities, implicit or explicit subsidies,

and credit, it can be deduced that small farmers are less well served by the agricultural bureaucracy and support organisations than are large farmers.

The marketing of agricultural commodities in Jamaica might be dichotomised into two main categories. Export crops are sold under highly structured arrangements in which the government plays a major role either directly or through quasi-public agencies and statutory boards. Prices are known with a fair degree of certainty, and internal transport from farmgate to shipment or processing point is usually provided or assisted. In contrast, domestically marketed commodities have no such highly structured arrangements. A government marketing agency, the Agricultural Marketing Corporation, does exist, but handles no more than 20 per cent of domestic trade. Higglers, supermarkets, and on few occasions consumers buy directly from farmers with the higglers accounting for an estimated 70 to 80 per cent of the trade. It is widely believed that the higglers provide better prices to farmers in times of scarcity, while the AMC with its system of minimum guaranteed or contract prices provide better prices in times of glut. It seems that domestically marketed agricultural commodities exhibit greater price fluctuations and create greater uncertainty for farm incomes.

Two final points are to be noted in this sub-section. First, the farmer population is old and aging fast, as outward migration to the towns continue. The average age of farmers is estimated to be 50 years, with 13 per cent of farmers being more than 65 years old. Even the more recent government land settlement schemes are characterised by this age structure. Stone, on the basis of a survey of 420 Project Land Lease tenant farmers, has established that 28 per cent of them were

between the ages of 40 to 49, 23 per cent between 50 to 59, and 11 per cent between 60 to 69 years of age. Since the old ages of the farmers can conceivably present a barrier to adoption of new technology and risk taking, it is important to induce young people into farming. However, peasant agriculture with its features of small landholdings, low productivity, unsatisfactory marketing arrangements, and unstable commodity prices does not offer sufficiently attractive income prospects to the rural youths.

Secondly, not only are farmers old, but small farmers tend to be functionally illiterate or semi-literate. Most have had no post primary education, including courses of agricultural instruction. The low level of reading skills implies that agricultural extension would have to be labour-intensive if the technology and quality of agricultural production is to be upgraded. At the present, there are no signs that agricultural extension staff exist in sufficient numbers.

#### RECENT PERFORMANCE

Table II.2 depicts <sup>ed</sup> in growth rate terms the performance of the agricultural sector indexed by gross domestic product and by physical output. For the past seven years, total agricultural GDP in 1970 dollars has been growing at a modest rate, in marked contrast to the previous seven years when growth was negative. The period average, however, reveals a relatively stagnant real performance in 1976 and 1977. In general, domestic agricultural GDP exhibits a <sup>less</sup> ~~peer~~ growth performance than <sup>agricultural exports,</sup> ~~export agricultural commodities.~~ For example, export agriculture's annual average rate of growth was -11.6 per cent between 1965/7 to 1970/2, and -3.70 per cent between 1970/2 to 1975/7. In

comparison, domestic agriculture grew at -5.7 per cent and 1 per cent for the corresponding periods. The GDP accruing from livestock farming has been on a rising trend since 1965. Average annual growth was 1.5 per cent in the first period and 2.7 per cent in the second, but this is still low in relation to the growth in demand for livestock products. The statistics on physical output for a few of the major commodities provide for additional insight into the sector's performance. It can be seen from the details in Table II.2 that banana production declined more sharply than sugar production on average, though expansion was rapid in 1976. In contrast, root crop production grew rapidly in 1965/7 to 1970/2, and though slowing down in the next period still averaged a growth rate of 4 per cent. It is noteworthy that production of vegetables and root crops received a boost by the emphasis on domestic food production under the emergency production plan which was implemented in 1977. Additional data available on sugar cane reaped as a ratio to acreage planted reveal that yields of cane per acre ~~has~~ *have* been falling almost continuously through time. Between 1965 and 1967, one acre yielded an average of 30 tons of cane, by 1970-72 the average had dropped to 28 tons, and by 1974-76 had decreased still further to 25 tons per acre.

*Declines in efficiency*  
 These ~~efficiency declines~~ have been occurring despite substantial government assistance in the form of guaranteed loans from financial institutions and government equity acquisition linked with capital injections. In addition government has granted capital consumption allowances of 40 per cent since 1970 and duty free importation of agricultural machinery and equipment, not only for sugar but for the agricultural sector generally.

Furthermore, in the light of the above incentives, it is somewhat surprising to observe that gross capital formation in agriculture has hardly <sup>grown</sup> in nominal terms between 1965 and 1973, and has in fact declined in real terms. Similarly expenditures on agricultural machinery and equipment was constant in nominal terms and declined in real terms. The absolute values themselves are quite low. For instance real investment in 1974 (the last year for which data are available) was \$12.6 million, while real expenditures on machinery and equipment was \$5.3 million.

Unsatisfactory prices might be one possible reason for the unimpressive record in agricultural production. Table II.11 shows that these <sup>prices</sup> have, until 1975, moved very slowly for at least the minor export crops. However, sugar prices have not been slow to rise, and indeed doubled between 1974 and 1975. Moreover, without information on costs of production one cannot fully appraise the adequacy of these price trends. Unfortunately, such data are not available. There are other factors which might have contributed to the poor state of agricultural production. Among these are praedial larceny which seriously reduces the marketed output of producers for the domestic market and difficulties in obtaining required labour. Inadequate, irregular and expensive supplies of improved chemical inputs have also adversely affected production. Marketing difficulties present another set of disincentives. In addition to all these influences, it is widely believed that agricultural production has been seriously constrained by an insufficiency of working and investment capital.

Table II.11

Agricultural Prices for Selected Export Crops 1966-'76  
(Tanzanian \$)

	\$ per ton Sugar	\$ per box Coffee <i>weight?</i>	\$ per box Cocoa	Average \$ per ton Bananas
1966	80.62	2.46	2.50	114.90
1967	85.66	2.48	2.70	115.05
1968	88.80	2.59	3.10	161.75
1969	94.79	2.40	3.40	155.81
1970	102.36	2.65	3.68	162.66
1971	102.91	2.60	3.68	173.51
1972	122.39	3.05	3.68	176.88
1973	135.53	3.60	3.88	246.66
1974	275.92	5.20	4.68	293.67
1975	550.75	7.40	5.76	360.89
1976	243.09	9.20	6.00	293.40

Source: Economic Survey (National Planning Agency), various years.

CONCLUSION

One important conclusion which should be drawn from the foregoing review of the macro-economic performance of the economy, is that developments in the rural financial markets, to be discussed in the remainder of this study, have been taking place within a context of virtually continuous and accelerating decline in the real sector of the economy since 1972. The agricultural sector did not perform as badly as other main sectors, and in fact grew moderately whether its performance is measured in terms of output, exports, or employment. It was observed, however, that export agricultural growth lagged, productivity declined, and ~~that~~ furthermore, real net capital investment has been falling. These trends, if allowed to continue unchecked, do not augur well for the future of the agricultural sector and for its continued importance in the national economy.

Secondly, the output and productivity trends, together with ~~structural characteristics such as the~~ <sup>old average age of farmers,</sup> ~~old age and low skill levels~~ of the farming community, poor soil and ~~other~~ agronomic conditions, and marketing difficulties, could obviously have an adverse effect on the performance of the rural financial markets. Thirdly, the financial sector clearly has been experiencing other difficulties associated with the mobilisation and allocation of funds. Real domestic savings, inclusive of commercial bank deposits have failed to grow satisfactorily, and real interest rates have been generally negative. Foreign capital inflows which usually augmented domestic resource availabilities have abated. Private sector demand for banking sector credit has diminished; and <sup>the</sup> government has been absorbing an increasing proportion of local credit resources at low cost.

The manner in which the various institutions in the rural financial market have been affected by all these developments, and the ways in which they have performed are the issues to be analysed next.

CHAPTER IIITHE NATIONAL NETWORK OF AGRICULTURAL CREDIT IN JAMAICA  
STRUCTURE, PERFORMANCE AND PROBLEMSINTRODUCTION

The preceding chapter presented the overall economic setting within which financial markets in general and rural financial markets in particular have operated in recent years. Stagnant or declining economic and agricultural growth, rising inflation, and growing distortions in the financial sector clearly affected the structure and performance of rural financial markets. These conditions seriously affect the prospects for institutional reform and policy recommendations for the future. This chapter reviews the recent experience of the formal national network of agricultural credit in Jamaica: its growth, institutions and its performance in serving the needs of the rural sector. Succeeding chapters will investigate in more detail the role and performance of the agricultural loan activities of commercial banks, the Jamaica Development Bank and various small farmer credit programs.

Formal rural financial markets in Jamaica consists of the following institutions <sup>and programs;</sup>

- (1) the commercial banks;
- (2) <sup>Agricultural Loans from the Commercial Banks of</sup> The Jamaica Development Bank (hereafter the JDB);
- (3) the Self Supporting Farmers' Development Program (hereafter the SSFDP);

- (4) the direct loans to farmers from the Agricultural Credit Board (hereafter ACB);
- (5) the loans from the Agricultural Credit Board to the People's Co-operative Banks (hereafter the PCB's) who in turn relend these to small farmers;
- (6) the recent Crop Lien Loan Program of the Ministry of Agriculture;
- (7) the commodity boards serving key export crops;
- (8) the Ministry of Agriculture, and
- (9) non-bank financial intermediaries such as trust companies, building societies, life insurance companies, and credit unions. <sup>In addition,</sup> ~~No doubt,~~ informal sources of rural credit exist as well, but <sup>documentary</sup> the size and importance of these sources have been postponed for future field work.

This study concentrates on the first six sources outlined above. Except for the Crop Lien Program, financial support through the Ministry of Agriculture has a strong explicit subsidy component rather than credit in the conventional sense. Similarly, support through the Commodity Boards consists of a mixed subsidy-credit component. In this latter case, the subsidy cum credit elements are so intermixed that it is difficult to separate out the credit functions per se. Also, much of the statutory boards credit is financed through government guaranteed loans issued through the commercial banking network or the JDB rather than through direct government budgetary support so that we capture this element through our loan data from these other institutions. Finally, the relative contribution of credit to farmers from non-bank financial intermediaries is small compared to other sources and thus will be

ignored here. Finally it should be mentioned that savings are another part of rural financial markets along with credit. This study, however, has chosen to concentrate on the latter.

### STRUCTURE OF RURAL FINANCIAL MARKETS IN THE LATE 1960s

In the 1960s the most important formal credit institutions financing the needs of the agricultural sector were the commercial banks and the Agricultural Credit Board. The commercial banks were originally created to service the needs of foreign trade and, in the case of agriculture, handle the financial needs of the large estates in export agriculture. In more recent years, these banks have expanded into domestic manufacturing, business, wholesale and retail and personal consumer loans. In agriculture they have begun to service not only export agriculture, but a wide range of other agriculture<sup>of</sup> activities such as livestock, poultry, citrus, dairy and horticulture. In general, the banks' customers are the large <sup>and medium sized</sup> farmers or the <sup>various</sup> co-operatives. It would be unusual for commercial banks to be financing the needs of very small farmers, ~~except for intensively farmed high value farming activities (floriculture, poultry, etc.)~~. The Agricultural Credit Board (ACB), on the other hand, is a public source of credit that serves both large and small farmers. The ACB "direct borrower" line of credit goes to a small number of large to medium sized farmers and the ACB credit to the network of People's Co-operative Banks (the PCB's) serves small farmers with loans generally under J\$1,000. This latter type of credit was originally financed through a revolving fund set up in 1944 and generally supplemented through the ensuing years by direct budgetary allocations

*However, as well as seen in the next chapter, there is a significant small loan component in the agricultural portfolio of some commercial banks.*

from the central government. The ACB acts as the administrator of the revolving fund <sup>which</sup> and the government <sup>finances</sup> ~~supplements~~ while the PCB's act as the retail outlet in the countryside for these funds provided by the ACB. A more detailed discussion of the operations of rural credit in the commercial banks and the ACB will follow in later chapters.

Table III.1 portrays the changing roles of the commercial banking network and the ACB from 1966 through 1969. While credit from the ACB represented over 75 per cent of total agricultural credit in 1966, it experienced essentially no growth over the next three years. Commercial bank lending to agriculture, on the other hand, grew substantially. Thus, by 1969 we see that the increases in credit were being financed largely through the commercial banks. The ACB, as will be seen later, was not able to continue its predominant role in financing agriculture due to two factors:

- (1) declining allocations from the annual budget of the government; and
- (2) a growing rate of arrears on its outstanding loans which compromised its potential to recycle loans into new loans for agriculture.

Another feature of the sources of credit at that time was the lack of long term financing. Neither the commercial banks nor the ACB were prepared to <sup>provide</sup> ~~promote~~ loans for medium to long run investment needs. Commercial bank financing, while performing a valuable role in facilitating agricultural output, was still a relatively short term activity and not designed to finance long term investment needs. The PCB portfolio of the ACB also had a large short term component and, one

Table III.1

Changing Pattern of Loans Outstanding  
to Agriculture in late 1960's

	J \$000				Net Chg 1966-69
	1966	(%)	1969	(%)	
	(1)		(2)		(3)
Commercial Banks <sup>1</sup>	3,692	(24)	9,351	(45)	5,659
Agricultural Credit Board <sup>2</sup>	11,850	(76)	11,601	(55)	-241

Sources: ACB and the files on commercial bank loans at the Bank of Jamaica.

<sup>1</sup> Loans outstanding on 31st December 1966 and 1969.

<sup>2</sup> Loans outstanding on 31st March 1966 and 1969.

suspects, a large diversion of its small loans into consumer expenditure by its loan recipients. In any event, the small sized PCB loans were clearly too small (generally less than \$1,000) to finance any significant amount of investments.

### AGRICULTURAL CREDIT IN THE 1970s

By the late 1960s it was strongly felt that development loans were necessary to increase productivity in Jamaican agriculture and a consensus emerged that the existing institutional framework for financing agriculture was unable to satisfy that need. Either the current institutions had to change or new institutions created to service this need. At the same time this concern coincided with the interest of international agencies to promote agricultural development through <sup>agricultural loan</sup> project loans. Several new institutions were established in 1969. First the SSFDP program was created to service the development needs of small to medium sized farmers (5 to 25 acres). This program was launched with funds from the Inter-American Development Bank (IDB) and initially placed under the control of the Ministry of Rural Development and Agricultural Credit Board. In 1974 control was shifted to the Jamaica Development Bank. Second, the Jamaica Development Bank was established in late 1969 with World Bank funding and was given a mandate to promote long term development financing for industry, tourism and agriculture. The loans to agriculture were directed to large farmers undertaking expensive long term investments in such areas as citrus, coconuts and livestock, (i.e. dairy and beef projects).

With these institutional innovations, the profile of lending in agriculture changed considerably in the 1970s. Table III.2 shows

Table III.2

Loans Outstanding to Agriculture (at End of Year) in  
Current Values by Institutional Source 1970-1977  
(J \$000)

Year	Commercial Banks	Agricultural Credit Board (ACB)		
		Total	Direct Borrowers	P.C. Banks
	(1)	(2)	(3)	(4)
1977	90,545	20,711	4,856	15,855
1976	82,385	19,133	4,144	14,989
1975	71,061	17,866	3,585	14,281
1974	26,586	16,306	2,515	13,791
1973	22,473	15,271	2,243	13,027
1972	12,927	14,904	1,918	12,986
1971	11,959	13,958	1,449	12,509
1970	10,093	13,038	1,008	12,030

	Jamaica Development Bank (JDB)	Self Supporting Farmers Dev'ment Program (SSFDP)	Ministry of Agriculture (Crop Lien)	Grand Total
	(5)	(6)	(7)	(8)
1977	24,507(27,006) <sup>3</sup>	21,200 <sup>1</sup>	9,488	166,451(168,950)
1976	19,415	15,788		136,721
1975	12,051	11,765		112,743
1974	7,438	9,730		60,060
1973	3,429	7,833 <sup>2</sup>		49,005
1972	1,399	5,933 <sup>2</sup>		35,162
1971	606	4,033 <sup>2</sup>		30,557
1970	55	2,133		25,320

Sources: Statistical Digest (Bank of Jamaica), various years; Monetary Statistics (Dept. of Statistics), various years; Annual Reports of the JDB, SSFDP and Ministry of Agriculture.

1 - Provisional.

2 - Interpolated values between 1970 and 1974.

3 - Loan balance in parantheses for JDB in 1977 reflects upward re-evaluations of outstanding balances due to correction for devaluation on dollar linked loans to farmers.

the growth of agricultural credit from 1970 to 1977 by institutional source. Several conclusions can be derived from the Table:

- (1) Commercial banks are the largest suppliers of credit to agriculture, followed (in more recent years) by the JDB, the ACB and the SSFDP lines of credit;
- (2) The most rapidly growing agricultural credit programs were those financed by the JDB and SSFDP;
- (3) U.S. dollar based loans (i.e. the funding behind the JDB and SSFDP) were far more important than domestic based funding in expanding the loan portfolio to agriculture;
- (4) As a whole, the "old line" source of public sector credit for agriculture (ACB) grew very slowly during this period and within this organization the credit to the smaller farmer component (the P.C. Banks) grew much more slowly than the larger farmer credit portfolio (i.e. direct borrowers).
- (5) For the system as a whole, credit expanded most rapidly for larger farmers (the commercial banks, the JDB portfolio and the direct borrowers within the ACB) and medium sized farmers (the SSFDP). Credit to small farmers grew very slowly (the PC Banks) except for the final year 1977 when the crop lien program of the Ministry of Agriculture was launched. This was directed to small farmers with less than five acres.

One comment is in order on these data. The large increase in commercial bank lending to agriculture from 1974 to 1975 in column 1 is largely due to an accounting and classification change in the form used by the commercial banks to report their loan activity to the Central

Bank (i.e. the Bank of Jamaica). Loans which had been previously recorded under the service sector or distributive trades such as loans to the Agricultural Marketing Corporation and the Banana Board were, <sup>in 1975</sup> now reported under agriculture. Land acquisitions financing now appeared for the first time under agriculture. There was also a substantial increase in the "other" category in 1975 over that recorded in this category in 1974. In summary, we can conclude that the sharp increase in commercial bank lending to agriculture in 1975 was exaggerated. If we had had a similar classification and reporting procedure prior to 1975 common to that used from 1975 onward, we would have discovered higher levels of commercial bank lending to agriculture than those actually recorded for these earlier years (1970-74). Conversely, if we had kept the old reporting procedure, the levels from 1975 onwards would be substantially lower than those shown in Table III.2. Thus any interpretation we give to the growth of commercial or aggregate lending activities to agriculture will have to take this change in reporting procedure into account.

#### AGRICULTURAL CREDIT AND FARM SIZE

Turning now to a more detailed perspective on the farm size issue, Table III.3 presents information on the shares of loans outstanding (panel A) and the shares of the annual increases in loans outstanding (panel B) by farm size. Farm size distribution is determined by the institutional source of the loan. Whether in terms of acreage, size of loan or gross assets of the farmer there is a common consensus that the institutional sources listed here largely serve the farm sizes indicated in Table III.3.

Table III.3

Percentage Distribution of Total Agricultural Loans  
Outstanding and Annual Increases of Agricultural Loans  
for Selected Years by Farm Size Categories 1971-1977

## A. Total Loans Outstanding (%)

Farm Size and Institutions	1971 (1)	1974 (2)	1971 (3)
<b>I. Large Farmers</b>	72.0	60.8	45.8
(a) Commercial Banks	(54.4)	(44.2)	(39.1)
(b) ACB Direct Loans	(2.9)	(4.2)	(4.7)
(c) JDB	(14.7)	(12.4)	(2.0)
<b>II. Medium Sized Farmers</b>			
(a) SSFDP-JDB	12.7	16.2	13.2
<b>III. Small Farmers</b>	15.2	22.9	40.9
(a) ACB-PC Banks	(9.5)	(22.9)	(40.9)
(b) Crop Lien Program	(5.7)	-	-
<b>TOTAL</b>	100.0 (\$166,451,000)	100.0 (\$60,060,000)	100.0 (\$30,556,000)

## B. Annual Increases in Loans Outstanding (%) during the year indicated

	1977 (1)	1974 (2)	1971 (3)
<b>I. Large Farmers</b>	46.9	76.0	54.9
(a) Commercial Banks	(27.4)	(37.2)	(36.0)
(b) ACB Direct Loans	(2.4)	(2.5)	(8.3)
(c) JDB	(17.1)	(36.3)	(10.6)
<b>II. Medium Sized Farmers</b>			
(a) SSFDP-JDB	18.2	17.2	36.7
<b>III. Small Farmers</b>	34.8	6.9	9.2
(a) ACB-PC Banks	(2.9)	(6.9)	(9.2)
(b) Crop Lien Program	(31.9) ←	-	-
<b>TOTAL</b>	100.0 (\$29,730,000)	100.0 (\$11,054,000)	100.0 (\$5,177,000)

Source: Derived from sources in Table III.2

Panel A shows that from 1971 to 1977 there was a relative increase in loans outstanding to large farmers, a constant share going to medium sized farmers, and a declining share of total agricultural credit going to small farmers. These data, however, are compromised by the exaggerated share associated with the commercial banks in 1977 for the reasons explained above. Confining our perspective, however, to the period 1971-1974 (i.e. the period before the exaggeration of the credit estimate to 1975), we can see that the institutions serving larger farmers still registered a substantially increased relative share of total credit (from 46 to 61 per cent) while those serving medium or small farmers increased their shares very little or fell sharply. The share of total agricultural credit associated with the small farmer oriented PC Banks fell sharply from 41 per cent in 1971 to 23 per cent in 1974.

Shifting our focus to panel B we can interpret the results unambiguously for the most recent period (1977), since we are talking about the share of incremental annual increases in credit rather than the share of total credit outstanding. If we ignore the year 1975, the results are free from the exaggerated shift factor that operated in that year for commercial banks. Thus, in 1971 institutions serving larger farmers accounted for 55 per cent of the increase in credit during that year, 76 per cent in 1974 and only 47 per cent in 1977.

A sequential pattern of credit increases emerges during this decade, and it is instructive to note these by institutional source. In 1971, the medium farm size oriented SSFDP program was the source of the largest increase in annual credit (along with commercial bank credit) at roughly 37 per cent. In 1974, the JDB source rises to prominence to almost equal the incremental contribution of the commer-

cial banks. By 1977 we see yet another shift, this time to the Crop Lien program which accounted for 32 per cent of the total annual increase in that year. In other words, as a new institutional source of credit comes "on line", it dominates the annual increases in credit for the next few years as it disburses quickly its new source of funding. Then this source declines as a new institution arises to play its role of relative dominance. Thus, the SSFDP predominates the early 70s, the JOB in the period 74-76 and the Crop Lien program in 1977. The commercial banks, in contrast, maintain a less volatile level through these years while the "traditional" small farmer PC Bank program has declined steadily to the point that in 1977 it accounted for only 3% of the total annual increase in credit. If the Crop Lien program had not been initiated in 1977, the small farmer share of the annual increase in credit would have declined to practically nothing in relative terms. This was very likely one reason, among others, why the Crop Lien program was initiated. Evidence suggests that the large to medium sized farmer clientele had been well served with credit through the 1970s while the small farmer had not.

#### DOMESTIC vs. FOREIGN SOURCE FUNDING

Another interesting feature of agricultural credit in the 1970s is the role of foreign source vs. domestic source funding. As stated earlier, in the 1960s there were no foreign sources used to fund agricultural credit and, as a result, a limited number of institutional outlets for rural credit, in effect, the commercial banks and the ACB. The former received its funds from depositors and thus had to make its

loans in relatively riskless agricultural enterprises. The ACB, on the other hand, received annual budgetary supplements but, as seen in the 1970s, this did not increase much and the ACB's relative role in the total credit portfolio declined. By 1971, however, this scenario of exclusive domestic source funding had changed with the advent of the JDB and SSFDP programs heavily financed with foreign funds and associated domestic counterpart funds. Panel B of Table III.3 indicates that in 1971 roughly 57 per cent of the increase in agricultural credit came from these heavily foreign oriented fundings (37 per cent in the SSFDP program and 11 per cent in the JDB). In 1974 this had declined slightly to 53 per cent, but by 1977 it had fallen to 35 per cent. The relative decline in 1977 was due to the emergence of the domestically financed Crop Lien program in this year.

In sum, foreign source financing has been of considerable importance to the growth of agricultural credit in Jamaica in the 1970s. Even more importantly, it has been the most important source for long term development finance in agriculture. The domestic sources are almost all short term and not related to long term investments designed to modernize agriculture. A problem for the future is the prospective decline of these sources of finance within the rural financial markets of Jamaica. This problem will be addressed in greater detail in Chapter V when we deal with the problems of the agricultural portfolio of the JDB. Suffice it to say at present that the decline of the foreign source funding is related to the growing delinquency of past loans made with these funds. With the rise in arrears, foreign sources such as the World Bank are reluctant to continue their project support to the

institutions making these loans. Thus, it is unlikely that the development portfolio of agricultural credit will increase in the late 1970s and early 1980s at the rate it increased in the early seventies. This suggests there will be a concomitant decline in the rate of growth of total agricultural credit during this period.

#### NOMINAL vs. REAL CREDIT EXPANSION IN THE 1970s

The large increase in agricultural credit recorded in Table III.2 is misleading, since it is stated in nominal or current value terms. By this standard, agricultural credit increased 6.7 times from 1970 to 1977. However, if we correct for inflation by using the implicit GDP deflator<sup>in</sup> panel A of Table III.4, we see that credit to the agricultural sector only increased 2.6 times its initial level in 1970. The increase in real credit can be seen by institutional source in panel B. Of interest is the erosion of the credit base of the traditional ACB credit portfolio during this period as it records a decline in its loans outstanding from 1970 to 1977 in 1970 dollars. The growing arrears in this portfolio, combined with only modest budgetary support from the government during this period means that its portfolio was bound to decline in real terms as inflation increased after 1973. The foreign source loan base increased in real terms during this period as the SSFDP and JDB registered significant increases. And, of course, the positive increase (in real terms) for the commercial banks is affected in part through the exaggerated upward shift in agricultural credit in 1975 and the annual increases for later years under its expanded definition covering agricultural loans.

*Handwritten notes:*  
 The deflator  
 from 1970-77  
 is used

Table III.4

**Loans Outstanding to Agriculture in Current and  
1970 Dollars by Institutional Source 1970 - 1977**

**A. Total Agricultural Credit in Current Values  
and in 1970 Dollars (End of Year Balances)**

	Current Values (J \$000)	In 1970 Dollars (J \$000)	Net Annual Chg
	(1)	(2)	(3)
1977	166,451	65,455	4,364
1976	136,721	61,091	6,000
1975	112,743	55,731	20,914
1974	60,060	34,817	-2,224
1973	49,005	37,041	4,900
1972	35,162	32,141	3,583
1971	30,557	28,558	3,238
1970	25,320	25,320	-

**B. Agricultural Credit in Current and 1970  
Values by Institutional Source (J \$000)**

Source	Current Values		In 1970 Dollars	
	1970	1977	1977	Net Chg 1970-77
	(1)	(2)	(3)	(4)
(1) Commercial Banks	10,093	90,545	35,606	+25,513
(2) Agr. Credit Board				
Total	13,038	20,711	8,144	-4,894
Direct Borrowers	(1,008)	(4,856)	(1,909)	(+901)
P.C. Banks	(12,030)	(15,855)	(6,235)	(-5,795)
(3) Jamaica Dev. Bank	55	24,507	9,637	+9,582
(4) SSFDP	2,133	21,200	8,337	+6,204
(5) Crop Lien	-	9,488	3,731	+3,731
(6) Total	25,320	168,950	65,455	40,136

Source: Same as Table III.2. The Implicit GDP deflator was used to correct for inflation.

Table III.5 adds to our discussion of the national system of credit through measures of the relative importance of agricultural credit as a per cent of total credit and agricultural gross domestic product. Panel A shows that agricultural credit has been increasing as a per cent of total private sector credit and total credit in the financial system in Jamaica. The sharp break after 1974 in panels A and B reflects the classification shift discussed earlier for commercial bank credit to agriculture. Nevertheless, if we look at the three most recent years we can see that total agricultural credit has been increasing more rapidly than non-agricultural credit.

Next, in panel B it can be seen that agricultural credit has been increasing more rapidly than agricultural gross domestic product. If this ratio were 0, it would imply that there was no agricultural credit and agricultural output was able to increase exclusively through the self-financing of farmers themselves. If the ratio approaches .60 to .70, this implies that credit is equivalent to financing practically all the current operating and capital costs and net farm income is used for other purposes. This is because only .60 to .70 of agricultural GDP represents the cost of agricultural production. The remaining .40 to .30 per cent reflects the returns to land, labor and profits. A ratio approaching 1.00 implies that credit is being channelled into the rural sector far in excess of all the current operating expenses and capital costs needed for production. In this case credit is leaking out to non-agricultural uses or consumption by the farmers. If we take the period 1970-74 so as to avoid the shift problem between 1974-75, we see the agricultural credit/agricultural

6/10  
 Capital  
 cost

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Table III.5

Relative Importance of Agricultural Credit to Selected Measures  
of Total Credit and Gross Domestic Product 1970-1977

## A. Credit Ratios

Year	Agric. Credit / Total PVT Sector Credit	Agric. Credit / Total Credit	Agric. / Total GDP
	(1)	(2)	(3)
1977	17.7	9.9	8.9
1976	13.8	8.9	8.4
1975	12.0	9.1	7.7
1974	7.9	6.5	7.2
1973	7.9	6.8	7.4
1972	7.8	6.4	7.4
1971	8.8	7.6	7.8
1970	8.8	7.8	6.7

## B. GDP Ratios

Year	Total Credit / Total GDP	Agric. / Agric. Credit / GDP
	(1)	(2)
1977	61.1	62.6
1976	55.3	60.1
1975	46.7	55.8
1974	41.2	36.9
1973	41.2	38.2
1972	31.5	33.0
1971	30.8	30.7
1970	27.2	32.3

## C. Incremental Change in Agricultural Credit and Agricultural GDP (J \$000)

Year	Annual Increase in Agric. Credit (\$000)	Annual Increase in Agric. GDP (\$000)	Col 1/Col 2
	(1)	(2)	(3)
1976 to 1977	29,730	37,626	79%
1975 to 1976	23,978	25,268	95%

Sources: Statistical Digest (Bank of Jamaica); National Income and Product 1977 (Dept. Statistics).

GDP ratio rising from 32 to 37 per cent. If we ignore the 74-75 shift and merely concentrate on the period 1975 to 1977, we see this ratio continuing to rise under the new reporting system with ratios around .60 in recent years. In the end we can conclude that in aggregate terms agriculture has been receiving credit more rapidly than its own sectoral growth in output. The current ratio of 63 per cent is high by international standards and suggests some substitution and diversion of funds is occurring. ~~Some of~~ this increase in credit is not being applied to agricultural uses or else it is being used very unproductively. Finally, panel C shows that the annual incremental increase in credit for the last two years practically covers all the incremental increase in agricultural GDP. These global ratios should not be interpreted as implying that all individual farmers are receiving sufficient credit to cover their operating expenses. What is happening here is that a misallocation of credit is occurring with some farmers receiving much more than they <sup>can productive use - equivalent</sup> need (and thus diverting it to non-agricultural uses) while many other farmers receive little or no credit.

#### THE SUBSIDY ELEMENT IN AGRICULTURAL CREDIT

Finally, Table III.6 completes this aggregate analysis of rural financial markets by underscoring the hidden subsidy implicit in concessional <sup>real</sup> rates of interest for agricultural credit. Column 1 measures the rate of inflation while Column 2 uses 10 per cent as the average weighted nominal rate of interest for agricultural credit. Ten per cent was considered a reasonable average between the 6% loans in

Table III.6

Estimates of Real Rate of Interest for Agricultural Credit  
and Implicit Credit Subsidy as Percent of Agricultural  
Gross Domestic Product, 1975-78

Year	Rate of Inflation	Av. Interest Rate - Agric. Loans	Real Rate of Interest	Agric. Credit/ Agric. GDP	Credit Subsidy as % <sup>1</sup> Agric. GDP
	(1)	(2)	(3)	(4)	(5)
1975	15.7	10.0	-5.7	55.8	3.2
1976	8.2	10.0	+1.8	60.1	0
1977	14.0	10.0	-4.0	62.6	2.5
1978	35.0 <sup>3</sup>	10.0	-25.0	62.6 <sup>2</sup>	15.6

Sources: Statistical Digest (Bank of Jamaica) various years; National Income and Product 1977 (Department of Statistics).

<sup>1</sup> Subsidy as a % of GDP is estimated by taking the proportion of total outstanding agricultural credit to total agricultural product (column 4) and multiplying this by the negative rate of interest (column 3). This is equivalent to estimating the amount of subsidy by taking the negative rate of interest and multiplying it by the amount of credit outstanding and then placing the amount over Agricultural GDP.

<sup>2</sup> Assuming the proportion of Agricultural Credit to Agricultural GDP remains the same in 1978 as in 1977.

<sup>3</sup> Estimate.

the PC Bank system, 7% in the SSDFP program, 10% in the JDB program and 14 per cent in the commercial banks, If anything, this average rate is overestimated and thus our estimates of the negative rates of interest (in Column 3) are underestimated. What the Table clearly shows is that in recent years the rising rate of inflation (without any comparable rise in the interest rate for agricultural credit) has created negative real rates of interest. This is, in effect, a subsidy to those farmers fortunate enough to have access to these loans if we can assume that the prices for farm products rise roughly in line with the rate of inflation and data on the cost of living for agricultural products suggest they have, thereby suggesting that farmgate prices have risen as well.

Up to 1978, these negative rates of interest have been relatively modest (on the average), though clearly those in the lowest concessional<sup>ny</sup> interest rate programs (the ACB and SSDFP) have enjoyed a greater subsidy than say those with commercial bank loans. In 1978, however, the rapid rise in the rate of inflation has created a large subsidy element for the first time in Jamaica. We can estimate the magnitude of this subsidy by multiplying the agricultural credit/ agricultural GDP ratio (in Column 4) by the negative rate of interest (in Column 3). This gives us the implicit credit subsidy as a per cent of agricultural GDP (see note 1 to Table III.6). As can be seen in the Table, this reached approximately 16 per cent of agricultural GDP in 1978. With the prospects for inflation continuing at relatively high levels for the near future, high levels of credit subsidies are clearly built into the agricultural credit network unless the interest

rates are made more flexible to reduce or eliminate this windfall. This growing subsidy creates a growing demand for agricultural credit, unless money illusion holds indefinitely, and lenders are forced to ration this credit within the credit institutions by some device other than price (i.e., the interest rate). These rationing devices invariably favor old and more established borrowers over new borrowers and larger farmers over smaller farmers. At the same time, incentives are created for borrowers to use this cheap credit for non-agricultural purposes if the rate of return is higher in other areas.

An additional feature of this distortion in the rural financial markets is that the major beneficiaries of this implicit largesse are relatively large farmers since they account for a large proportion of the total amount of loans in the agricultural credit network (see Table III.3). This would argue that both on efficiency and equity grounds the current structure of interest rates should be allowed to reflect the rising rates of inflation. Finally, savers are severely penalized in a climate of negative real rates of interest if their deposit rate of savings are not raised in an inflationary environment. The net effect is a transfer of income from savers to borrowers.

### CONCLUSION

Evidence on the evolution of the national system of agricultural credit in Jamaica during the 1970s shows that aggregate credit increased almost 7 fold in nominal terms, but only 2.5 fold in real terms. The rise in inflation eroded the credit base in some of the institutions servicing agriculture, especially the

older public sector credit sources like the ACB. Newly created credit programs (the SSFDP and the JDB) were largely responsible for the increase in agricultural credit during this period, while older programs stagnated. Furthermore, these programs relied heavily upon foreign sources of funds and, for the first time in Jamaica, longer run development goals were introduced into the agricultural credit portfolio through these foreign funded programs. Domestically financed credit programs concentrated on shorter run production credit. Finally, this emphasis on a longer run investment strategy carried with it an emphasis on medium to large farms. The larger farm bias in the development programs, combined with the large portfolio in the commercial banks, implies that larger farmers received the bulk of the increase in credit during this period.

Finally, these increases in agricultural credit were substantial in relation to the increases in agricultural GDP. In aggregate terms, agricultural credit has reached significant proportions of agricultural output, suggesting there may be credit substitutions and diversions into non-agricultural uses.

As later chapters will demonstrate, this rapid increase in credit within a declining economy has been associated with serious problems of delinquency and arrears. This has compromised future access to foreign sources of funding, as the institutional agencies responsible for the increase in institutional credit in the early to mid 1970s are reluctant to continue financing institutions whose agricultural portfolio is falling deeper into arrears. At the same

time, local sources of funding, such as the recent Crop Lien program, are equally beset with delinquency problems and, furthermore, are not developmental in their objectives. Thus the present scenario is one of a decline in the growth of the credit base for agriculture and a shortening of the term structure as domestic sources grow relative to foreign sources and the growth of arrears compromise the recovery of outstanding loans.

Finally, the disequilibrium in the financial markets has created negative real rates of interest in the rural financial markets in Jamaica, benefitting larger farmers with growing implicit subsidies. When the growing arrears rates are added to this implicit credit subsidy, borrowers are benefitting two fold and efficiency and equity goals increasingly compromised. In addition the vitality, indeed the viability of the rural financial system is seriously undermined. Clearly the maintenance of a viable financial system for credit in general and agricultural credit in particular requires first a tighter discipline to control inflation (which is the major cause of these disequilibria), a more flexible interest rate structure reflecting the true costs of credit and more effective management of the existing portfolio to reduce arrears. The particular problems facing the major rural credit institutions in this distorted economic setting form the basis for our succeeding chapters and lay the groundwork for our recommendations.

CHAPTER IVTHE ROLE OF COMMERCIAL BANKS IN SERVICING  
THE AGRICULTURAL SECTOR

The nine commercial banks in Jamaica clearly play an important role in providing credit to the agricultural sector. [as was made apparent in the previous chapter.] Of these nine banks, two account for roughly 50 to 60 per cent of total commercial bank lending to agriculture in recent years. These two banks have loaned from 10 to 15 per cent of their portfolios to agriculture recently. Another smaller bank, though less significant in total agricultural lending, nevertheless has loaned from 20 to 30 per cent of its total portfolio to agriculture in recent years while the remaining six banks loan from four to eight per cent of their portfolios to agriculture.

VOLUME OF LENDING IN NOMINAL AND REAL TERMS

Table IV.1 presents the expansion of commercial bank credit to this sector in both nominal and real value terms. Column 3 indicates that from 1970 through 1974 this single most important source of credit represented from 39 to 45 per cent of total credit extended to this sector. With the change in the Bank of Jamaica accounting system in 1975, this per cent was raised to a range of 55 to 63 per cent of loans outstanding from 1975 to the present.

A second perspective is to interpret the rate of expansion of this source of funding in Table IV.1. Again, taking the 74/75 year as the break in the time series to maintain consistent reporting practices

Table IV.1

Volume of Commercial Bank Lending to Agriculture  
in Nominal and Real Jamaican Dollars 1970-1977

Year	(J \$000)		Commercial Bank Agric. loans in % of Total loans to Agric.
	Nominal Dollars	Constant Dollars (1970)	
	(1)	(2)	(3)
1970	10,093	10,093	39.9
1971	11,959	11,177	39.1
1972	12,927	11,859	36.8
1973	22,473	16,986	45.8
1974	26,586	15,412	44.2
1975	71,061	35,126	63.0
1976	82,385	36,812	60.3
1977	90,549	35,607	54.4
Ave. Annual Rate of Growth			
1970-74	27.4	11.1	
Ave. Annual Rate of Growth			
1975-77	12.9	0.7	

Source: Bank of Jamaica Records. Column 3 based on data in Table III.2.

on loan data, we see that while nominal credit increased at an average annual rate of 27 per cent from 1970 to 1974, this was only 11 per cent per year in real terms. At the same time, based on computations (not shown in the Table), total bank loans outstanding grew at a rate of only 19.5 per cent in nominal terms and 4.2 per cent in real terms. Thus during the period of the early 1970s commercial bank credit to agriculture was growing more rapidly than bank loans in general.

More recently we can see that from 1975 to 1977 another contrasting profile emerges. Commercial loans to agriculture increased at a nominal rate of 13 per cent per year, however, when we take inflation into account this increase disappears, and we see no growth in real credit (i.e. 0.7 per cent per year). In contrast, again with computations not reported in the Table, total bank loans outstanding actually declined even in nominal terms during this period (-2.7 per cent per year). When this is expressed in real terms, this decline reaches -13.2 per cent per year. Thus during this most recent period of economic decline in the Jamaican economy agriculture has held its own in the sense of not suffering an actual real decline in its access to commercial bank credit while the rest of the banks customers clearly has. As a result, as we shall see shortly, agricultural lending has increased as a proportion of the commercial banks' total loans outstanding. It is important to keep in mind this "relative" profitability of agriculture vis-a-vis other sectors during the current economic recession in Jamaica.

THE ISSUE OF STATISTICAL DISCONTINUITY 1974-75

The inconsistent time series for commercial bank loans to agriculture merit some discussion since this issue has never been explicitly recognized or analyzed in Jamaican policy circles at the Bank of Jamaica or elsewhere. Furthermore, given the importance of commercial bank statistics in dealing with the question of total agricultural credit, we should try to establish the magnitude of this inconsistency and the factors behind it.

Table IV.2 presents in detail the data reported by the commercial banks on their loans outstanding for December 1974 and 1975. The origin of the problem lies in the change in the reporting form for agricultural loans instituted by the Bank of Jamaica in 1975. Up to December 1974, the old reporting form merely listed seven categories for agricultural loans as illustrated with actual data for 1974 in Column 1 of Table IV.2. In 1975 the new reporting form eliminated one former category (mixed farming) and added one new category (other domestic foodcrops) among the production loans to agriculture. At the same time marketing loans for agricultural crops and loans for land acquisition in the agricultural sector were now classified under the agricultural sector whereas, earlier, they had been placed in other sectoral categories. Column 1 shows the amount reported for agricultural loans in 1974; column 2 repeats this reporting for 1975 in which the new categories are included; column 3 shows the net increase in absolute value from 1974 to 1975 while column 4 shows this increase in percentage terms. Finally, column 5 shows the relative contribution .

Table IV.2

Selected Indices of Change in Commercial Bank Loans to Agriculture by Enterprise type from December 1974 to December 1975

Enterprise type and/or Sector	(J \$ 000)			% Increase	Present share of Increase in Agriculture <sup>1</sup>
	1974	1975	Net Change		
	(1)	(2)	(3)		
<b>1. Production Loans to Agriculture</b>					
(a) Sugar cane	12,560	14,619	+2,059	16.4	4.5
(b) Banana	467	12,930	+12,463	2669.0	27.4
(c) Citrus	1,152	2,445	+1,293	112.2	2.8
(d) Mixed farming (1974 category)	4,799	-			
(e) Other Domestic Food crops (1975 category)	-	3,850			
(f) Livestock and Poultry	4,763	7,758	+2,995	62.9	6.6
(g) Fishing	372	932	+560	150.5	1.2
(h) Other	2,472	13,043	+10,571	428.0	23.3
<b>2. Marketing Loans to Agriculture</b>					
(a) Export Crops	-	8,050	-	-	17.7
(b) Other Crops	-	1,292	-	-	2.8
<b>3. Land Acquisition loans to Agriculture</b>	-	6,142	-	-	13.5
<b>4. Total loans to Agriculture</b>	26,586	71,061	44,475	167.3	100.0
<b>5. Total loans for Commercial Banks minus Agriculture</b>	554,486	624,289	69,803	12.6	-

Source: Bank of Jamaica Records.

Note: <sup>1</sup>Present share of Total Increase in Agricultural lending from 1974 to 1975 in column 5 ignores the categories of Mixed Farming (for 1974) and other domestic foodcrops (for 1975) and thus is based on a net positive increase of \$45,425,000 dollars during this period (i.e. the sum of all the net positive increases during this period and the new marketing and land acquisition categories).

of each category to the total increase in agricultural loans from 1974 to 1975.

Several principal conclusions are apparent here. First total agricultural loans increased by 44,475 during this period (line 4) which represented<sup>a</sup> remarkably high increase of 167 per cent for one year. Agriculture's share in the total portfolio of bank loans increased from 4.6 per cent in 1974 to 10.2 per cent in 1975. At the same time loans for the rest of the banks portfolio only increased 12.6 per cent (line 5, column 4). Clearly the increase in loans to agriculture was in large part an illusion derived from the new reporting format.

Second, this illusory rise is due to two factors: (1) the creation of new categories; and (2) an unrealistic rise in the loans to previously established categories. In the former case we see in column 5 that the new categories of marketing loans and loans for land acquisitions account for roughly 34 per cent of the net increase. This leaves 66 per cent accounted for by rises in the unchanged loan categories under production loans to agriculture. Within these categories loans to sugar cane, citrus, livestock and fishing activities only increased modestly. These very likely reflect true increases over this period. However, the remarkably high increases for bananas and the "other" category together account for over 50 per cent of the total net increase in agricultural lending. The sharp rise in loans for bananas reflects the shift of Banana Board Loans from the Distributive trades sector prior to 1975 to agriculture from 1975 onwards. The sharp rise in loans to the residual "other" category is more mysterious and clearly

the single most important unexplained factor behind the marked rise in commercial bank credit to agriculture in 1975.

With some effort the Bank of Jamaica with the co-operation of the nine commercial banks (or at the very least with the three largest banks) could retroactively reconstruct a more accurate trend of the expansion of bank credit to agriculture during this period by creating an accounting format pushing the new accounting format back through time or creating an alternative measure of the old format up to the present. The number of loans within the marketing and land acquisition areas are relatively small and could be traced back through time without any major difficulty. Similarly the Banana Board loan history should be easy to reconstruct prior to 1975 to create a consistent record within agriculture. The only troublesome area lies in the "other" category which is a heterogeneous catch-all with a rather substantial number of loans. A close examination of the years 1974 and 1975 within this loan category (for the two largest banks) may offer a clue as to how to convert for the distortions emanating from this area.

Finally, it would be helpful if the Bank of Jamaica would make an effort to disaggregate the "other" category sufficiently to reduce its overall relative weight in total loans to agriculture to more manageable proportions. A residual accounting category should not become so important that it becomes one of the most important loan categories in terms of number of loans and values of loans outstanding. Consultations with Ministry of Agriculture officials and staffs from the JDB and SSFDP program could make an input in terms of advising the BOJ on how to handle this task.

### AGRICULTURAL LOANS BY ENTERPRISE TYPE

Table IV.3 presents a profile of loans outstanding to agriculture by the commercial banks by the type of agricultural enterprise financed. Panel A shows that from 1966 to 1974 sugar cane loans predominated, followed by livestock and mixed farming. Of interest here is that from 1966 to roughly 1972 agricultural loans declined as a proportion of the total portfolio. This is largely explained by the sharp decline in sugar cane financing which was not sufficiently offset by the relative rise in the other categories. From 1972 to 1974 this trend is reversed as sugar cane financing rose along with the total proportion of agricultural loans.

Panel B shows the pattern from 1975 to 1977 under the new reporting system. Several conclusions emerge here. During this period five categories of loans declined in relative importance and only two (sugar cane and "other") rose. Moreover the rise in these two categories was sufficient to offset the decline in the other five areas to generate an increase in the proportion of total bank lending to agriculture (line 8). As discussed in an earlier section, this was a period of sharp decline in overall bank lending activity, reflecting the economic depression in Jamaica. Non-agricultural lending, (in such areas as manufacturing, construction and commerce), declined substantially while agricultural lending remained constant in real terms. The net result is a relative rise of agricultural lending in the shrinking portfolio of total lending activity.

Two additional conclusions stand out here. The commercial banks clearly place an important emphasis on financing the short run credit

Table IV.3

Selected Data on Commercial Bank Lending  
to Agriculture by Enterprise Type 1966-77

A. Share of Agriculture in Total Loans and Share  
within Agriculture by Enterprise Type 1966-74

Enterprise Type	1966	1968	1970	1972	1974
	(1)	(2)	(3)	(4)	(5)
(1) Sugar Cane	59.0	48.0	42.0	36.1	47.2
(2) Banana	6.3	6.4	7.4	3.2	1.8
(3) Citrus	1.0	1.1	2.5	1.7	4.3
(4) Livestock	17.2	20.6	16.0	23.0	17.9
(5) Mixed Farming	12.1	16.2	17.5	17.6	18.0
(6) Fishing	0.3	0.6	1.0	1.0	1.4
(7) Other	4.3	6.9	12.8	17.4	9.3
<b>Total Agriculture</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(8) Share of Agric. Production loans in Total loans	5.5%	4.6%	3.5%	3.1%	4.6%

Table IV.3 contd.,

B. Share of Agriculture in Total Loans and Share within  
Production Loans to Agriculture by Enterprise Type  
1975 - 1977

Enterprise Type	1975	1976	1977
	(1)	(2)	(3)
(1) Sugar Cane	26.3	34.9	41.9
(2) Banana	23.3	14.5	14.4
(3) Citrus	4.4	0.4	0.5
(4) Other Domestic Food Crops	6.9	4.1	3.9
(5) Livestock and Poultry	14.0	12.5	9.6
(6) Fishing	1.7	1.5	0.9
(7) Other	23.5	32.2	28.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(8) Share of Agricultural Production loans in Total loans	8.0%	10.1%	11.0%
(9) Share of Total loans in Agric. (incl. marketing loans and land acquisition) to Total loans	10.2%	11.7%	13.5%

Source: Files in Bank of Jamaica on Commercial Bank Loans.

needs of agricultural exports. Sugar and bananas together received from 49 to 55 per cent of the agricultural production loans from 1975 to 1977 with sugar financing increasing its share rapidly while that for bananas declined in relative terms (Table IV.3, Panel B). At the same time data on the financing for marketing activities (not shown in the Table) shows that export crops received a substantial share of these marketing loans in comparison to other crops. This role of financing export activity appears fairly important and steady through time, if we bear in mind the underreporting for banana loans implicit in the data in panel A for earlier years.

Financing for citrus, other domestic foodcrops, livestock - poultry and fishing have declined in relative weight in recent years (panel B). To some extent this has been offset by a rise in financing for the residual "other" category which very likely has a strong domestic component. It would be most helpful to understand more clearly just what these domestic activities are within this residual category since the banks apparently find them to be more attractive loan possibilities than many other standard categories of financing in recent years. This is another argument for making an effort to disaggregate this category into several additional meaningful sub-groups of single or mixed farming activities.

#### TERM STRUCTURE, LOAN SIZE AND ARREARS

Commercial banks are characteristically short term lenders. Unfortunately the Bank of Jamaica has not collected recent data on the term structure of loans in the commercial banking sector. Nevertheless we can test this hypothesis with data from 1973 which, in

effect, largely confirms this. For this year 55 per cent of all commercial bank loans in number and value were for less than a year, and 88 per cent for less than three years in length. While this was for the total bank portfolio, there is no reason to believe that agricultural loans don't follow the same pattern. In short, in servicing the needs of agriculture, commercial bank credit is largely a short term facility. Longer term investment needs have to be serviced through an official development bank.

Tables IV. 3 and IV.4 offer additional insights into the performance of commercial banks in their agricultural lending activities. These Tables have been constructed from data ~~generously provided by a~~ commercial bank that will remain anonymous in this report. We have reason to believe that this bank's activities in servicing the agricultural sector are sufficiently representative that its profile of loan size and arrears can stand as an acceptable proxy for the behaviour of the commercial banking sector as a whole.

Table IV.4 shows that the loan size distribution for production loans in agriculture is far more equitably distributed than is the distribution of the total loan portfolio. At the high end of the scale for agricultural loans, less than one per cent of the number of loans accounts for roughly 25 per cent of the loans outstanding. For the total loan portfolio this rises to 53 per cent, reflecting a far more concentrated portfolio.

The Table also compares the loan size distribution in agriculture for this commercial bank to that of the commercial loans for developing agriculture in the Jamaica Development Bank. Here we see a greater representation of both the number of loans and, to a lesser extent, the

Table IV.4

Loan Size Distribution of Production Loans in Agriculture and Total Portfolio of Representative Commercial Bank X and Agricultural Loans from Commercial Window - Ja. Development Bank

Loan Size \$	Production Loans in Agric. (Sept. 30 1978) <u>Commercial Bank X</u>		Total Bank Portfolio (Sept. 30, 1978) <u>Commercial Bank X</u>		Commercial Loans for Agric. (New loans 1977) <u>Jamaica Development Bank</u>	
	No. loans %	Amount \$ %	No. loans %	Amount \$ %	No. loans %	Amount \$ %
	(1)	(2)	(3)	(4)	(5)	(6)
Under 5,000	73.5	9.1	81.1	9.0	3.7	0.1
5,000 - 19,999	9.0	7.2	8.1	5.5	22.0	4.6
20,000 - 49,999	8.0	12.2	4.7	6.4	42.7	23.3
50,000 - 99,999	5.8	20.0	3.7	11.1	13.4	15.9
100,000 - 499,999	3.1	27.2	1.7	14.8	18.3	55.9
500,000 +	0.6	24.7	0.7	53.0	-	-
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Sources: Bank files of Commercial Bank X and Jamaica Development Bank.

volume of loans at the lower end of the loan size scale for the commercial bank. The JDB loan size distribution is heavily "bunched" into the three intermediate sized categories. This reflects the development focus of the JDB activity which requires a certain intermediate scale loan size for its investment financing. At the other extreme the commercial bank has a substantial percentage of its loan portfolio in the highest loan size (24.7 per cent) whereas the JDB has none.

A final note of importance here is the large number of small loans in the commercial banks agricultural loan portfolio. Over 73 per cent of the loans are less than \$5,000 and 82 per cent less than \$20,000. Even admitting the likelihood of farmers having more than one loan from the bank, this still suggests a substantial amount of small loan activities to many individuals within the agricultural portfolio of this bank. While it is true that the relative amount of the total value of loans outstanding only reaches nine per cent for this smallest loan size (under \$5,000), this still represents a substantial amount of credit in absolute terms. For example, in the case of this particular bank, the amount of credit in absolute terms for the numerous small borrowers borrowing less than \$5,000 came to a value roughly equal to the entire annual net increase in the public sector Agricultural Credit Board - PC Bank line of credit for 1977. Thus the amount and range of small loan activity for agriculture by the commercial banks is clearly not inconsequential, and should be kept in mind in judging the role of commercial banks in servicing agriculture.

Finally, Table IV.5 portrays the arrears profile for this particular bank. In discussing arrears we should bear in mind that commercial bankers deal with and measure arrears differently than public sector banks or agencies. Public sector development banks, for example, keep tabs on the term structure of arrears for specified periods of time such as 0-30, 30-60, 60-90 days and so forth. In this way they can focus on those arrears that have been in delinquency for larger periods of time and devise appropriate actions. Commercial bankers in Jamaica, however, do not use any term structure format in determining their classified (i.e. bad) debts. A branch manager may classify a debt as potentially bad even if the borrower is only a few weeks late in his payment or perhaps not in formal arrears at all. For example, this could happen say if the borrower has suddenly died and thus have left a difficult estate problem to contend with; or perhaps the borrower has suddenly just sold off most of his assets in an unexpected move that might imply sudden emigration. For these or other similar reasons the branch manager is frequently forced to use considerable subjective judgement in order to protect his and the banks interests. This subjective element is largely absent in public sector credit agencies where more formal (and perhaps less effective) accounting measures are relied upon to measure arrears.

Table IV.5 indicates that the classified debts in the agricultural loan portfolio are quite low in comparison to those for many other sectors such as manufacturing, commerce, construction, tourism, entertainment, professional and personal loans. This speaks well for the performance of agriculture and illustrates once again that agriculture has been less affected by the current economic

Table IV.5

**Ratio of Classified Debts to Total Loans  
Outstanding by Sector for Commercial Bank X  
(End of September 1978)**

<u>Sector or Enterprise Type</u>	<u>Ratio</u>
1. Agriculture	4.4
Production Loans	
(a) Sugar Cane	3.0
(b) Banana	7.7
(c) Citrus	0
(d) Other Domestic Food Crops	4.9
(e) Livestock and Poultry	4.3
(f) Fishing	0.2
(g) Other	29.4
Marketing Loans	
(a) Export Crops	0
(b) Other Crops	31.1
Land Acquisition Loans	0.5
2. Manufacturing	8.7
3. Construction and Land Dev.	39.4
4. Financial Institutions	5.1
5. Transport, Storage and Commun.	0.6
6. Electricity and Gas	0
7. Government	0
8. Distributive Trades (Commerce)	16.2
9. Tourism	11.6
10. Entertainment	33.4
11. Preferential and Other Services	13.9
12. Personal	9.0
13. Overseas Residents	16.4
14. <u>Grand Total</u>	14.0

Source: Files of Commercial Bank X

recession in comparison to other sectors. Another finding here is that within the agricultural sector, the arrears rate for the residual "other" category is considerably higher than for other agricultural loan areas. This is yet again another reason to break out this category into a more disaggregated format to pinpoint the specific activities with the highest bad debt ratios. The arrears rate for domestic agricultural activities are in general higher than that for export activities. Such a finding is not surprising in the light of the current domestic recession. Ceteris paribus the income prospects for agricultural exports appear stronger and more stable than for domestic crops. Yet, with the exception of the residual category (which may be subject to some special and unusual circumstances), domestic agricultural arrears are clearly well below those for other sectors outside of agriculture.

Finally, we should emphasize that, in contrast to public sector development institutions, commercial banks can write off their really bad debts that are beyond recovery. They absorb this in their profit and loss statements and thus it is no longer carried on their books as a classified debt as long term defaults may be in a public credit agency. Even bearing this in mind, the low level of classified debts for agricultural loans in our representative commercial bank is strikingly low in comparison to the arrears rates of public sector credit agencies which we will discuss in the following chapters.

## CONCLUSION

Commercial banks are the single most important source of agricultural credit for the agricultural sector in Jamaica accounting for more than half the volume of total loans outstanding to agriculture in recent years. In the mid-1970s commercial lending has declined relative to the increases in public sector credit to agriculture. This has been, in part, a reflection of the rise in public sector and international institutional support for official credit programs and, in part, due to the slower growth of demand for commercial bank credit in the face of the current recession.

Commercial banks maintain a strong interest in financing agricultural exports and thus complements the domestic agricultural focus of public sector lending. Short term credit predominates in the term structure of the commercial banks' portfolio. While there are clearly large loans and an important large farmer component in the commercial bank sectors' portfolio, there is also a large small loan component. Whether these small loans represent small to medium sized farmers or also consists substantially of small loans to large farmers is impossible to determine, given the nature of the data. This clearly merits further analysis since the volume of credit issued in loans of \$5,000 or less is clearly substantial in comparison to that issued by several official small farmer credit programs. Finally the arrears record for commercial bank agricultural loans is surprisingly low, given the current economic climate. This is true whether in comparison to that of other sectors in the commercial banks portfolio or in comparison to public sector credit agencies as will become apparent in the next two chapters.

CHAPTER VJAMAICA DEVELOPMENT BANK COMMERCIAL WINDOW  
CREDIT TO AGRICULTUREINTRODUCTION

Among the important government policy actions taken in relation to the agricultural sector, credit is an important recurring one. Others include guaranteed prices, guaranteed markets, international bargaining, budgetary subsidies and fiscal incentives, land reform, technical assistance, and State ownership of agricultural enterprises. These however, are not the direct concern of this study. Instead, attention is focussed on governmental and government financed credit facilities. The JDB commercial window features significantly among these.

The Jamaica Development Bank was established in 1969 to assist in the financing of economic development. It was empowered to provide financial assistance in the form of loans, equity participation, loan guarantees, and encouragement of capital market development. The target groups of its activities were statutorily defined to be in the areas of "industry" most broadly defined, tourism and agriculture.

The explicit incorporation of agriculture among the Bank's concerns reflected an important shift in governmental policy. The JDB's predecessor, namely the Development Finance Corporation, was conceived purely as a financial instrument for industrial development. Governmental credit facilities to agriculture prior to the establishment of the JDB were located in the Agricultural Credit Board - a

small scale and largely inefficient organisation catering to small farmers primarily, though with a small number of medium sized clients, and in sundry ad hoc, piecemeal programmes in the Ministry of Agriculture. Provision for an agricultural credit window in the JDB represented a conscious attempt to accelerate the development of agricultural credit facilities and to cater to the long term investment needs of medium to large sized farmers.

A significant development in the history of the JDB was the transfer of responsibility for the Self-Supporting Farmers Development Programme from the Agricultural Credit Board to the JDB in 1974. This programme is specifically designed for medium and small farmers. Its incorporation in the JDB meant that the JDB was establishing a small farmer credit window and thereby broadening the range of its clients with the agricultural sector. It also meant that there were some reservations about the efficiency of the ACB as the agency formerly responsible for processing SSFDP loans.

Like the commercial credit window, the SSFDP provides developmental capital primarily. In situations of working capital insufficiency and the non-existence of alternative credit facilities, the non-provision of short-term credit is a major limitation. There are now signs that the next step in the evolution of the JDB as an agricultural credit organisation would be the assumption of some responsibility for short-term finance. It appears that in 1978 the SSFDP will be required to take over the Crop Lien Programme introduced by the Ministry of Agriculture in 1977 as a vehicle for extending short-term production credit to small farmers.

Such a development would also signify a further move towards a gradual, not necessarily conscious, centralisation of governmental agricultural credit facilities. A quiet debate is presently taking place among agricultural and credit specialists (perhaps among politicians as well) about the desirability of centralising the facilities for agricultural credit. The analyses in this study may be helpful in that regard. The remainder of this chapter deals with "commercial window" credit in the JDB. The SSFDP is examined in the following chapter on small farm credit.

#### THE JOB AND THE AVAILABILITY OF CREDIT

This section examines the flow of funds to agriculture through the Jamaica Development Bank with the objective of assessing the impact of its operations on the availability of credit. Loans to agriculture by the JDB expanded rapidly between 1970 and 1977 whether one is dealing with the values of new approvals, the number of new approvals, or with the value of loans outstanding. In 1970, the first full year of its operations, the JDB made a total of 13 loans valued at \$0.7 million, as Table V.1 shows. From this point until 1977, approvals grew at an annual average rate of 52.9 per cent in current values, and at a rate of 33.7 per cent in 1970 prices. The number of loans made each year also increased rapidly, at a rate of approximately 48 per cent per annum. The annual rate of expansion was even more rapid for loans outstanding. Tables III.2 and III.4 in Chapter III show that loans outstanding grew from \$0.5 million in 1970 to \$27.0 million in nominal terms or \$35.6 in real terms, i.e. 1970 dollars.

Table V.1

## Gross Loan Approvals to Agriculture: 1970 - 1977

Year	\$000 (Current Values)	\$000 (1970 \$)	Nos.
1970	723.4	723.4	13
1971	1144.4	1069.5	21
1972	2432.2	2223.2	31
1973	2921.2	2963.9	71
1974	6079.0	3524.1	99
1975	6325.6	3126.8	121
1976	9231.1	4124.7	138
1977	6831.3	2686.3	84
TOTAL	36688.2	18441.9	576
GROWTH RATE 1970-76	52.87	33.66	47.89

Source: JDB Annual Report.

Note : Deflation is by the Implicit GDP deflator (1970=100)

The major spurt in JDB agricultural lending took place after 1972. Since there have been no clear directives to the Bank, one can only surmise about the reasons for this acceleration. Significant explanatory factors no doubt include the increasing emphasis being placed on agricultural development and diversification by the new government which took office in 1972. The new thrust is evidenced by the introduction of schemes such as Project Land Lease and Operation Grow in 1973. Another indication is the commissioning of a study of the agricultural sector by a team headed by the distinguished economists Sir W. Arthur Lewis and Professor Rene Dumont. This study culminated in <sup>a</sup> government policy paper which outlined the general strategy for <sup>^</sup> agricultural development.

The Green Paper set out the following policy objectives and strategies. With regards to objectives, the sector should utilise productive lands fully, produce domestic foodstuffs and raw materials, maximise rural incomes and rural welfare generally, and improve rural savings by increasing farm incomes above subsistence requirements. The strategy involves setting adequate agricultural product prices, improving efficiency of production, encouraging capital formation in agriculture, and utilising or bringing into production underutilised lands. It also involves recognising and exploiting sectoral inter-dependencies between agriculture, and tourism and manufacturing where economically justifiable. The Green Paper recognises the importance of marketing. Within this complex of objectives and approaches, credit related technical assistance is beyond doubt an important facet.

Another reason for the growth in JDB credit was the increasing desire of international funding agencies to finance development by

allocating resources to directly productive enterprises as opposed to government infrastructural expenditures. Foremost among these agencies is the World Bank. A pronounced shift in the World Bank's financial strategy or orientation took place early in the 1960s (Adler 1972, 1977). Until then the Bank concentrated its loanable funds on infrastructural projects in keeping with a model of development financing assistance which held that aid should be directed to areas where private domestic and foreign capital would not be forthcoming and which were nonetheless of the specific project type. By 1960 it was manifestly clear that the <sup>7</sup>cooperant growth in private direct investment was not occurring on the warranted scale. The World Bank therefore began to provide financial support for directly productive activities, inclusive of agriculture, on an increasing scale. In large measure, the World Bank has served as a model or policy leader for other aid donors such as the IADB and CIDA.

By 1970, aid institutions had become at least a little disenchanted with the possibilities for, and the benefits of rapid industrial development. Moreover the limiting effect of low rural incomes and productivity on industrial development was abundantly clear to many scholars. Simultaneously the urgency of the social problems posed by widescale rural poverty was increasing appreciably. As a result, greater stress was placed on rural development by multi-lateral and national funding agencies.

The dependence of the JDB on foreign agencies for its loanable funds meant that the sectoral preferences of those agencies would be reflected in its portfolio structure. The World Bank, the Inter-American

Development Bank, and the Caribbean Development Bank all make agriculture sector-specific loans to the JDB. These sources at all times comprised a major part of the agricultural sector funding. Table V.2 shows that the percentage shares of foreign resources in loan approvals through the commercial window averaged 44.7% between 1970 and 1977. Local resource funds were obtained in the form of share capital subscriptions from the Government and the Bank of Jamaica, and in the form of loans from local commercial banks, other local financial institutions, and governmental agencies such as the Jamaica National Investment Corporation which invests the proceeds of the levy on bauxite production.

In 1977 and 1978, lending for agriculture declined significantly in nominal terms, and even more sharply in real terms. In 1977, only 84 commercial window loans were made compared to 136 in the previous year. These amounted to \$8.6 million in nominal terms and to \$2.7 million in 1970 prices. It is estimated that loans approved between January to July 1978 have not exceeded \$0.5 million in current values. The fall off is attributable to what may be a temporary halt in disbursements by the World Bank and by the CDB caused by their dissatisfaction with the JDB's loan recovery rate and their corresponding insistence on certain organisational improvements being effected.

The cutback from external agencies comes at a time when the domestic sources from which the JDB mobilise funds are contracting under the general budgetary and credit squeeze associated with the economic package agreed upon with International Monetary Fund in May, 1978. The decline in funding underscores the vulnerability of national credit programmes which are dependent on externally provided financial resources. It also underlines the importance of minimising arrears on

Table V.2

Local and Foreign Funds as % of Commercial  
Window Agricultural Loan Approvals

Year	Local	Foreign
1970	33.3	66.7
1971	-	-
1972	53.5	46.5
1973	65.7	34.3
1974	66.9	33.1
1975	64.2	35.8
1976	45.0	55.0
1977	58.0	42.0

Source: Computed from Data in JDB Annual Reports.

principal and interest. As will be shown later, some \$3.8 million were in arrears at December 31, 1977. This inflow if it had materialised would have substantially moderated the depressing effect of shortfalls in foreign funding.

The JDB through its commercial window has undeniably substantially expanded the volume of credit available to agriculture. It can be seen from Table III.3 in Chapter III that JDB commercial window credit has increased rapidly as a proportion of total credit outstanding since 1970 when its share was 0.2% to 1977 when the share rose to 16 per cent. To some extent, the share of the JDB is biased downwards since 1975 as a result of a reclassification of commercial bank loans which resulted in an upward shift in the latter's agricultural loans as recorded and in the total agricultural credit series. Nonetheless, it is clear that much of the expansion in the total credit series can be attributed to the JDB.

It is also useful to note that the Agricultural Credit Board has been diminishing in importance. Its share of total agricultural credit outstanding averaged 40 per cent between 1970 and 1974, but declined to 14 per cent between 1975 and 1977. In actuality, there has been a modest increase in the level of the ACB's operations measured in terms of the nominal values of loans outstanding and of loans made each year. The former series grew at an annual average rate of 6.9 per cent, and the latter at 10.9 per cent. In real terms, both series declined - the former at 6.5 per cent per annum; the latter at 2.9 per cent per annum. It is accurate to conclude, therefore, that the major vehicle for official agricultural credit is the Jamaica Development Bank.

Yet another way of emphasizing the quantitative contribution of the Jamaica Development Bank is to examine its share of incremental credit outstanding. Referring once more to Table III.3, one sees that the JDB through its commercial window was responsible for 10.6 per cent of credit expansion in 1971, 36% in 1974, and 17 per cent in 1977.

#### THE PRICE OF CREDIT AND OTHER LOAN TERMS

Since two objectives of a development financial enterprise operating within the rural financial market are to lower the cost of credit, and to improve the access of potential borrowers to financial resources. It is therefore necessary to examine the operations of the Jamaica Development Bank in these respects to establish whether its credit terms were any less costly and restrictive than those of private financial institutions. Matters pertaining to costs are dealt with first.

The borrowing costs incurred by a customer of the JDB may be regarded as comprised of direct charges imposed by the Bank, and of other costs incurred in negotiating and finalising the loan. To the lending institution, the latter are implicit and might be ignored, but to the borrower they are often quantitatively or psychologically important and are not usually ignored. There are four elements in the direct costs of a JDB agricultural loan. The most obvious is the coupon or quoted interest rate charged on the loan. The actual magnitude of this rate has varied with the source of funding. Loans from the World Bank carry an interest rate of 10% per annum; those from the CDB a rate of not more than 10%; and loans made from local resources on rate of interest not less than eleven per cent per annum. These nominal rates

of interest compare favourably with those imposed by private credit sources. For example, commercial banks prime loan rates of interest ranged between 8 per cent and 11 per cent over the period under study. Actual commercial bank loan rates are much higher. The weighted average loan rate ranged between 13.5% and 14% between 1975 and 1977, that is, 2½% to 3% higher than prime on average.

JDB loan rates of interest, though a marked improvement on commercial bank loan rates, are not generally cheaper than those of other government programmes such as the SSFDP, ACB, and the Crop Lien Programme. Until 1977, the SSFDP charged 6% for loans not including 1 year in maturity, and 4% for medium and long term loans. The SSFDP instituted a fixed charge of 7% in 1977. The ACB charges 6% regardless of the length of the repayment period, and thus compares less favourably with the SSFDP, but more favourably with the commercial window. The Crop Lien Programme imposes an interest charge of 6%. The relatively more expensive charges at the commercial window of the JDB are due to the higher interest rates which it has to pay for loanable funds for agriculture, and the absence of governmental subsidies. The ACB is heavily subsidized out of the central budget, from which it also secures its loanable funds in the form of an annual grant. The SSFDP is funded by a 2% loan from the IADB. In contrast, the JDB commercial window borrows at 7½ per cent from the World Bank, at  $8\frac{3}{4}$  per cent from the CDB, at 7 per cent from the Government of Jamaica, between 7 per cent and 8 per cent from government financial institutions, and generally at prevailing prime loan rates from commercial banks.

Since 1973, the JDB loan rates of interest have been usually less than the rate of price inflation. Assuming that the actual rates

of inflation approximate expected rates of inflation, real rates of interest charged by the JDB have been frequently negative, since the rate of inflation has been within the range 5.8% to 27.3% over the past seven years, as shown in Chapter II. Implicitly, the JDB has been conferring a sizeable credit subsidy on the agricultural sector. JDB loan charges have been relatively rigid, and have not been adjusted sufficiently to take account of the increasing cost of operations in an inflationary environment. It now appears that the inflexibility of these loan rates in the upward direction threatens to undermine the financial viability of the institution. In view of the implicit subsidy conferred by prevailing negative real rates of interest and in the light of rising agricultural product prices there seems to be scope for upward revision in interest rates imposed on commercial window loans.

The second direct cost is the evaluation fee of one-half of 1% imposed on all commercial window borrowers. Third, the JDB sometimes charges a commitment fee of one-half of 1% on the undisbursed amounts of loans. Together, these add 1% to the quoted interest rate on loans. It is the view of at least one commentator within the Bank that the evaluation and commitment fees sometimes prove onerous to borrowers, and results in delays between loan application, loan approval, and acceptance of the loan. Of major significance is the fourth cost element, namely the exchange rate adjustment to the principal in order to maintain the U.S. dollar value of loans made from World Bank resources. Though probabilistic in nature, the adjustment costs have been large within recent years owing to large and frequent devaluations of the Jamaican dollar. Table II.5 contains the information on exchange rate charges

up to 1977. Between January and April 1978, the currency was devalued by 13.9%, and by year-end is expected to have been devalued by 50% in total.

A simple numerical example will serve to illustrate the severity of devaluation costs. Assume a 10 year loan made in 1 year and valued at US\$100,000 = J\$100,000, with simple interest rate of 10 per cent on a reducing balance basis with no grace period. The repayment schedule would then be 15,000 per annum. Assume a once and for all devaluation of 20% at the start of the sixth year of the loan. The outstanding capital value of the loan in J\$ would rise to \$60,000 (vs pre devaluation \$50,000). To fully repay the loan in the remaining five years, the client would now have to pay \$17,500 (i.e. \$2,000 more) per annum if the devaluation costs are spread evenly over the remaining years. These unanticipated costs are not easily absorbed under current conditions of weak export and domestic market performance. It is reported that loan defaults and terminations have resulted. Furthermore, some clients have expressed a preference for CDB and local resources which do not carry foreign exchange risk. The JDB has attempted to ease the burden of the adjustment costs to borrowers by granting them an appropriate extension of the loan repayment period, if they so choose.

The main indirect costs faced by borrowers are those associated with waiting time (or production time lost) while the loan is being negotiated. For commercial window credit, the number of months between application to approval may range between one and five, with four months seeming to be the modal time. Another indirect cost in relation to commercial credit results from the requirement that borrowers purchase

insurance policies on their lives with an insured value sufficient to cover the principal of the loan. The insurance premiums are implicit costs borne by the borrower. In the Jamaican situation where farmers are quite old (50 years on average), insurance coverage must be expensive and difficult to obtain. It is not surprising therefore that the JDB has discovered that the life insurance requirement is a cause for delay between approval and acceptance of loans.

The other credit terms to be discussed in this section are collateral requirements, and counterpart requirements. The JDB for commercial window credit requires borrowers to contribute financially towards the costs of the project. For projects funded by the World Bank, the borrower has to contribute 10% of the costs if the loan is for not more than \$35,000, and 20% if its value exceeds that sum. When financing is from CDB or local funds, the borrower's counterpart contribution is within the range of 10% to 20%. The purpose of counterpart requirements is to ensure that the borrower has a financial stake in the viability of the project. On occasion, counterpart requirements can be onerous, though not so much for the medium to large farmers who borrow from the commercial window.

The JDB accepts first mortgages on lands to be developed, or other real estate, or Bills of Sale on moveable assets where mortgage security is insufficient, as collateral for commercial window loans. In addition, as noted earlier, clients must purchase life insurance. It will be shown in Chapter VI that SSFDP collateral requirements are less stringent. One or several of the following are acceptable as loan security: mortgage on the land to be developed; mortgage on other land or real estate; legal proof of conveyance; evidence of

possession of or ability to secure Common Law Title; Bill of Sale or other legal charge on crops and/or moveable property; assignment of marketable financial assets; insurance policies with adequate surrender values. Several of the governmental departmental credit schemes are much more liberal in their security conditions. The Crop Lien Programme and Project Land Lease provide unsecured loans. There has been perhaps as a result abnormally high arrears rates, leading to fundamental reconsideration of the operations of these programmes. Their credit terms therefore do not serve as a standard for comparison. The commercial window policy approximates that of the commercial banks. However, the latter institutions are generally reluctant to grant investment loans, preferring to confine themselves to short-term credit and working capital. On balance, it does not appear that the loan security practices of the JDB have significantly improved the access of agriculturists to credit. It has in effect allowed farmers with conventional collateral access to longer term finance which was previously obtainable from the financial market. However, it did not draw into the market, borrowers who were not otherwise serviced by commercial banks.

#### TERM TO MATURITY STRUCTURE

The time allowed for full amortization of a loan is one of the most important conditions attached to any credit package. Too short a repayment period places a great burden on the income flow of the borrower, and can lead to arrears and loan default. Short maturities are one of the major difficulties associated with commercial bank credit for developmental purposes. As a corollary, the lengthening

of the repayment period is one of the major tasks of the development bank, though it is possible that too long a repayment period might encourage loan defaults.

The JDB is circumscribed as to the maximum repayment period it can permit. Nonetheless, the Bank has greatly lengthened the term to maturity of agricultural credit in Jamaica. The World Bank sets a maximum period of 10 to 15 years inclusive of grace period. The actual term varies with the type of activity being financed, as does the grace period. The CDB stipulates a maximum of 12 years. Local resource commercial window loans cannot exceed 15 years maturity. Further details on the maturity structure of commercial window loans are available for 1977. Though Table V.3 gives a picture which we hope is representative, it would have been worthwhile to trace any shifts through time. Be that as it may, the data for 1977 suggests that most of the Bank's commercial window loans in numbers and values are extended for periods in excess of five years. In terms of the number of loans, over fifty per cent have maturity between 5 and 10 years; in terms of values, forty-four per cent are in that repayment category and fifty-two per cent in the more than 10 years category. The JDB commercial window has therefore considerably lengthened the term to maturity structure of credit for that subset of borrowers which it serves.

It should be noted that the commercial window does not provide loans for working capital. Its loan contracts with funding agencies explicitly forbid working capital loans. The restriction of the JDB to investment financing reduces its scope for short-term lending.

Table V.3

Term to Maturity Structure of JDB Commercial Window Loan Approvals :1977

Term	% Of Number of Loans	% Of Values of Loans
0 - 1 year	1.2	0.1
1 < 3 years	3.7	0.9
3 < 5 years	8.7	2.9
5 < 10 years	67.5	43.7
10 + years	18.7	52.5

Source: JDB Files

Underlying such restrictions is the notion that investment capital needs are the most pressing ones, and are those which the private financial system is least likely to satisfy. There may also be an implicit assumption that working capital requirements can or should be met out of own internal cash flows, and or private sector credit. These assumptions are debatable. Most farmers seem to be faced by serious liquidity problems, arising out of their crop cycles and out of the small scale of their operations which do not generate a sufficiently large margin between revenue and expenditures. Furthermore, private financial institutions, notably, commercial banks are reluctant to finance small to medium scale farms and activities other than export crops, poultry, pigs and cattle which have well organised marketing outlets and reasonably stable prices. A policy against the financing of working capital can be debilitating to agricultural development policy, since it deprives farms of working capital when needed and may thus prevent the successful implementation of a farm development plan. By the same token, the non-availability of working capital might contribute to the difficulties in repaying investment loans.

#### CHARACTERISTICS OF DIRECT BENEFICIARIES

Another step in assessing the performance of the JDB is to enquire into the socio-economic characteristics of the direct beneficiaries of the loan programmes, i.e. loan recipients. Information on the size distribution of loans provides some insight into the question. The commercial window has a lower limit of \$15,000, but has no upper limit. Data on the size distribution of commercial loans presented in

Table V.4

**Loan Size Distribution of Numbers of Loan Approvals  
Through the JDB Commercial Window**

Loan Size Category	Percentage Distributions					
	1972	1973	1974	1975	1976	1977
Under \$50,000	39	52	57	62	64	69
\$50,000 - \$74,999	29	27	17	18	12	12
\$75,000 - \$99,999	10	14	10	7	10	1
\$100,000 - \$199,999	19	7	12	11	12	15
\$200,000 +	3	0	4	2	2	4

Source: JDB Annual Reports

Note : The 1977 data include a single large block loan of \$2.5 m for onlending to several individual farmers. This distorts the distribution slightly.

Table V.4 reveals the most of the number of agricultural loans approved in 1977 were within the under \$50,000 category, the other significant concentrations being in the \$50,000 - \$74,999 and the \$100,000 - \$200,000 categories. This pattern differs somewhat from those of previous years, notably by the rising share of the lower class interval and the diminishing share of those loans within the \$75,000 - \$100,000 bracket. Some further insights are possible with respect to the smallest size category. On the basis of a 1977 frequency distribution not detailed here, it is concluded that 62% of the number of these loans were within the \$20,000 - \$50,000 size category, while 20% were within the \$10,000 - \$20,000 category. The loans for less than \$15,000 were most likely supplementary loans.

In contrast to the frequency distributions of the numbers of loans, the distribution of amounts is more concentrated among the above \$75,000 size categories since 1974. (See Table V.5). During 1972 and 1973 the distribution was more favourable to the lower-valued categories. It is noticeable too that in 1976 and 1977, loans of \$200,000 or more loomed large in the portfolio. One possible reason for the trend might be impact of domestic and import price inflation from 1974 onwards on the realistic values of expenditure plans. But inflation would tend to shift the distributions of both numbers and values in the same direction, not in opposite directions. Inflation therefore does not seem to be an acceptable explanation. It is more likely that the JDB was simply increasing the average size of loans in the higher categories.

The sizes of loans is related to the scale of operations and to the net worth of borrowers. The commercial window programme aims at reaching farmers within the 40 to 200 acres size category. In 1977,

Table V.5

**Loan Size Distribution of Values of Loan Approvals  
Through the JDB Commercial Window**

Loan Size Category	Percentage Distributions					
	1972	1973	1974	1975	1976	1977
Under \$50,000	20	30	25	29	21	19
\$50,000 - \$74,999	22	30	17	21	11	10
\$75,000 - \$99,999	11	22	14	11	12	1
\$100,000 - \$199,999	38	19	26	27	25	29
\$200,000 +	8	0	18	12	31	41

Source and Note: Same as Table V.4

Information on the actual distribution of loans by farm size is not readily available for commercial window credit. However, a frequency distribution was compiled for 1977. The details are contained in Table V.6. It can be seen that whether in terms of numbers or of values of loans, the distribution is skewed in favour of medium and large sized farms. It will be shown in Chapter VI that 55% of SSFDP loans are to farm holdings less than 10 acres large, and a further 32 per cent to farms between 11 and 25 acres large. Together with the information on the size distribution of loans, the evidence on farm size distribution indicates that the JDB has by virtue of the two programmes effectively achieved a distribution of credit that conforms to the size distribution pattern of the farm population as a whole. This is a marked change from the situation prior to the introduction of the JDB and even prior to its adoption of the Self-Supporting Farmers Development Programme.

The JDB lends directly to private individuals and companies as well as to statutory bodies, for example the Banana Board, which onlend to their constituents. The private customers of the Bank can be classified into part-time and full-time farmers. Part-time farmers are a sizeable proportion: 51 per cent of the 136 commercial window loans granted in 1976 were to part-time farmers. If these statistics are representative of other years, it would appear that slightly more than one-half of JDB loans are to part-time operators. Furthermore, thirty-seven per cent of commercial window loan recipients in 1976 were professionals and an equal percentage businessmen. Though no hard information on the amounts extended to part-time farmers is available, it would be surprising if at least the business and pro-

Table V.6

**Farm Size Distribution of Commercial  
Window Loans Outstanding: 1977**

Farm Sizes	Percent of	
	Number	Value
0 < 5 acres	13	6
5 < 10 acres	6	3
10 < 20 acres	11	3
20 < 30 acres	13	6
30 < 40 acres	2	.1
40 < 50 acres	6	6
50 < 100 acres	8	5
100 < 500 acres	32	47
500 < 1000 acres	5	13
1000 +	5	11

Source: JDB Files

professional clients are not strongly represented in the higher size categories.

The substantial proportions allocated to part-time farmers of professional and business backgrounds, imply that the Bank's resources are not fully satisfying the objective of assisting those whose livelihood is mainly dependent on farming. Moreover, it is possible that global output might be less than if the funds are deployed entirely to full-time operators. Efficiency levels might be lower among part-timers if they are new and inexperienced in farming; if their levels of commitment to agriculture is lower; if their absence from the farm results in weaker management control and greater exposure to praedial larceny, and to work avoidance by hired labour. The incentive to efficiency might also be lower if losses incurred in agriculture could be written off against tax liabilities on incomes accruing from off-farm activities. Against these negative conjectures must be set the positive one that new farming recruits from the business and professional classes have higher educational levels than the norm for the farm population, might be more prone to experiment with new techniques of production and new products, and can subsidize or augment their investment in agriculture by utilising funds derived from their non-agricultural activities. A study of arrears relative to the status of farmers in terms of part-time/full-time and occupation could help to judge whether the negative or positive factors predominate.

#### AGRICULTURAL DIVERSIFICATION

It was shown in Chapter II that in 1970 the agricultural sector was primarily export oriented. It is worthwhile to investigate any

tendencies towards product diversification imparted by the JDB loan activities. In this connection, one should recall the emphasis attached to domestic food production and higher rural incomes in the Policy Paper on Agriculture referred to earlier in this chapter.

Table V.7 contains information on the distribution of loan values to various types of agricultural enterprises on an annual basis since 1970. In the early years of its operations, the JDB allocated most of its agricultural loans for beef and dairy cattle rearing, and for the cultivation of citrus and coconuts. From 1973, the range of commercial window loans widened considerably. Small livestock, bananas, food crops and vegetables, and other tree crops became important parts of the portfolio. From 1975, the Bank has lent sizeable amounts for agro-industrial purposes, which include marketing, processing, transportation of crops, and servicing facilities for agricultural vehicles and equipment. There is a fairly close correspondence between the distribution of numbers and that of values of loans through the commercial window. It is noticeable that the "other" category is very large. Presumably this category consists essentially of mixed farming of domestic food crops and export agricultural commodities excluding sugar. However, given its large share of total funds, a finer classification is desirable.

The structure of enterprise type over time reflects the source of funding. Initially World Bank funding dominated the resources available for agriculture. The World Bank in its first loan programme restricted the use of its funds to the production of beef and dairy cattle, coconuts and citrus. The second World Bank loan finalised in 1974 was less restrictive in that it permitted the financing of the

Table V.7

## Jamaica Development Bank Loans to Agriculture

Year	<u>Beef &amp; Dairy Cattle</u>		<u>Citrus &amp; Coconuts</u>		<u>Small Livestock</u>		<u>Agro-Industry</u>		<u>Other</u>		Total
	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	
1970	419.0	57.9	304.4	42.1	-	-	-	-	-	-	723.4
1971	880.2	76.9	235.1	20.5	-	-	-	-	29.0	2.5	1144.4
1972	1068.4	43.9	722.3	29.7	-	-	-	-	641.5	26.4	2432.2
1973	1685.3	43.0	756.9	19.3	-	-	-	-	1479.0	37.7	3921.2
1974	2013.0	33.1	1594.9	26.2	-	-	-	-	2471.1	40.6	6079.0
1975	1388.8	21.9	1132.0	17.9	1282.4	20.3	847.9	13.4	1674.5	26.5	6325.6
1976	1866.8	20.2	617.3	6.7	1872.3	20.3	748.7	8.1	4126.0	44.7	9231.1

106.

Source: Jamaica Development Bank Annual Reports

production of goats, mangoes, avocados, and agro-industry. The JDB has also tried to broaden its portfolio by utilising local resources and CDB funds for the financing of activities not specified by the agreement with the World Bank.

These extensions to other types of enterprises are important in at least five respects. First, they brought the JDB more closely in conformity with the desired output structure of agriculture as enunciated in government agricultural plans and policy statements. Second, short-term crops are frequently cultivated by farmers in an attempt to smooth out income flows and to boost farm incomes which are typically low in the early stages of long gestation projects such as coconuts and cattle. Furthermore, since most farms are multi-activity enterprises, non-provision of credit for the wider range of commodities would have forced potential JDB clients to resort to less accessible and more costly alternative sources of credit for at least part of their financial package.

Fourth, the very fact of long production cycles and gestation periods implies that the term structure of the loans portfolio would have been longer if activities with shorter production lags were not included. Fifth, agro-industry has the potential for deepening the market for farm products and for moderating seasonal fluctuations in excess supply and prices.

FINANCIAL VIABILITY

The continued viability of the JDB as well as its ability to secure further injections of foreign capital depends upon the repayment performance of its clients. From Table V.8, it can be seen that commercial window arrears have been increasing rapidly over time. In 1974, arrears on principal and interest payments by commercial borrowers amounted to \$163.1 thousand. In 1975, arrears were \$1.6 million, and more than doubled to \$3.8 million in 1976. No time series information on the number of loans in arrears is currently available. Since some of the loans might be technically in arrears, but only overdue by a few days or weeks, it is desirable to examine the term structure of arrears. This was done for commercial window loans on which data could more readily be obtained. From the information presented in Table V.8, it can be concluded that, except for 1976 a large proportion of the loans in arrears were generally so for more than sixty days. As many as 60 per cent of the loans in arrears were more than 3 months overdue.

Though informative about the absolute values of payments overdue, the time series on arrears has to be related to some other variable to shed any meaningful light on the severity of the problem. Since data were not available on payments due on commercial window loans as a whole, arrears as a percentage of loans outstanding was used as a rough index of the behaviour of the arrears ratio over time. This measure of the arrears ratio will be misleading if payments due are growing less rapidly than loans outstanding. The percentages so computed are contained in Table V.8. These estimates indicate that

Table V.8

Arrears on Principal and Interest:  
JDB Commercial Window

Number of Days in Arrears	1974		1975		1976		1977	
	\$000	%	\$000	%	\$000	%	\$000	%
30 - 60 days	20.5	12	53.8	11	369.2	36	220.2	6
60 - 90 days	40.9	25	90.9	19	263.8	26	406.1	12
Over 90 days	94.6	58	276.5	59	385.8	38	2868.5	82
Rescheduled loans	7.1	5	47.4	10	-	-	-	-
Total	163.1	100	468.7	100	1602.7	100	3846.5	100
Arrears as % of loans outstanding	2.2		3.9		8.2		14.2	

Source: JDB Files

the severity of the problem has indeed been increasing greatly over the recent past. Nonetheless, the ratio of arrears to loans outstanding seriously understates the magnitude of the bad debt problem. Data on one of the foreign source lines of credit through the commercial window, reveal that between December 31, 1976 and June 30, 1978 arrears were approximately 82 per cent of payments due. In Table V.9 some additional information on the distribution of arrears by type of agricultural activity is presented for commercial window borrowers. The categories local, JDB/CDB, and CDB are representative of types of activities not separately funded under the World Bank Programme and identified separately in the Table. The distribution approximately corresponds to the shares of those types of activity in the JDB's loan portfolio. In the absence of more detailed knowledge, there is no basis for thinking that any particular type of activity is more prone than others to loan delinquency. The arrears problem is a generalised phenomenon within the JDB commercial window loan agricultural loan portfolio.

#### OVERALL ASSESSMENT

The JDB through its credit programme has substantially improved the quantity and quality of credit provided to the agricultural sector. The initial narrowness of the range of activities has been deliberately relaxed as the Bank obtained funds which were not circumscribed in the types of agricultural enterprises they could finance. Given differences in the differential contributions of various types of agricultural activities to farm incomes, employment, and foreign exchange use and earnings, the time perhaps has come for the Bank to introduce a greater degree of selectivity in its allocation policies.

Table V.9

**Percentage Distribution of Commercial Window  
Arrears by Type of Activity and Source**

	1974	1975	1976	1977
Dairy Cattle	11.6	13.3	9.9	10.3
Beef Cattle	37.1	20.1	13.5	12.6
Citrus/Coconuts	23.1	15.4	14.1	10.9
Sheep/Goats	N11	1.4	1.5	2.0
Mango/Avocado	N11	0.3	0.2	0.3
Agro/Industry Other	0.3	2.6	7.3	8.6
Local*	27.9	46.9	41.9	47.9
JDB/CDB*	N11	N11	0.2	0.5
CDB*	N11	N11	11.2	7.0
Total	100.0	100.0	100.0	100.0

Source: JDB Files

\*These could not be disaggregated by enterprise type, but would be essentially for activities other than those separately identified.

Credit costs to JDB customers have not been expensive in nominal terms. In real terms, the JDB has been subsidizing agricultural development through its de facto negative-interest rate policy. The loan pricing policy by virtue of its rigidity in the upward direction is resulting in a deterioration of the Bank's net cash flow and operating margins under current situations of rapid domestic inflation. With agricultural product prices on the upswing, a case can be made for higher real rates of interest.

The JDB, and especially its funding agencies, need to reconsider the policy of financing only fixed investment. Though its efforts in this area have been directed towards an important bottleneck, some broadening of its activities to attempt to relieve the additional bottleneck of insufficient working capital seems warranted both from the point of view of social development as well as from the point of view of enlightened self-interest by the Bank.

Credit resources have been concentrated on larger farmers, a large proportion of whom are part-timers with primary occupations in professional and business fields. This feature of its operations is subject to the criticism that it tends to concentrate rural wealth even further and to be contrary to the objective of improving the well-being of full-time farmers. However, without solid evidence on the comparative productivities of small and large, full-time and part-time farmers, and on the differential effects of the structure of JDB credit on farm incomes, net worth and employment, no overall judgement can be made on the distribution characteristics of the loan portfolio.

The arrears problem has been shown to be very serious, even when one accounts for the massive and repeated devaluations, and drastic cut-

backs on foreign exchange allocations all of which have seriously affected the viability of many of the JDB's customers and might have pushed arrears above the norm. The gravity of the arrears situation has disturbing implications not only for the Bank's cash flows and operating margins. Its capital structure might also be impaired since the economic depression has reduced the market values of collateral and therefore the amounts of principal that could possibly be recovered through default procedures. In development banking, one should anticipate some costs arising through loan delinquency and administrative requirements, since the credit system is being deliberately widened to cater for new forms of credit, longer maturities, and producers with little or no previous credit experience. An important objective of the Bank's operation would be to inculcate the proper attitudes towards credit and farm management and thereby improve the credit rating of small, medium and large farmers. This "credit-teaching" role would take time to pay off, and is undoubtedly expensive. It is also useful to realise when evaluating the operational efficiency of the credit programme that the benefits of this role are in part externalities to the Bank, but are important internalities to the credit system. Nonetheless, the arrears ratio need not continue to be as high as it has been so far. Considerable improvement can be effected by better <sup>administration.</sup> The JDB, to its credit, ~~is aware~~ <sup>is aware</sup> that it needs to upgrade its procedures and practices, and already seems to have started doing so.

The governmental and political system can be of some help. It is widely believed that legal supports are required, especially in terms of those rules which in their present form make it difficult, costly, and cumbersome for the Bank to take legal action against defaulters. It is also widely believed that a "grants mentality" is fostered by the

political system in its approach to financial assistance whether for agriculture or industry. It needs to be emphasized that if a "grants" attitude towards government money pervades society, whether on the side of government or borrower, public development banking as an instrument of policy is not viable.

CHAPTER VISMALL FARMER CREDIT PROGRAMMES IN JAMAICA:  
HISTORY, PERFORMANCE AND EVALUATION

This chapter deals with the three main sources of formal agricultural credit for small farmers in Jamaica. These sources are the various lines of credit channelled through the People's Co-operative Banks (PCB), the Self Supporting Farmers Development Programme (SSFDP) of the JDB, and the Crop Lien Programme of the Ministry of Agriculture.\* Before examining the role and performance of these institutions in providing credit to small farms, it is useful to review the historical background of the establishment of these institutions.

HISTORICAL BACKGROUND

As a result of the abolition of slavery in 1838, small subsistence farmers emerged in the Jamaican agriculture scene. As time went on, the plantation system, which dominated the agricultural sector, began to decline. This gave rise to an increase in the number of small farmers. These farms were small, uneconomical units with low productivity. There were no institutions established to provide the resources needed to increase the productivity of these farms. The existing commercial banks, which financed the large farms, were not prepared to finance small

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\* The PCB's are affiliates of the Agricultural Credit Board (ACB) and are supervised by the latter. The exact nature of the relationship between the two will be discussed in the latter part of this chapter. The SSFDP is administered by the Jamaican Development Bank whereas the Crop Lien Programme was launched in 1977 by the Ministry of Agriculture in co-operation with the People's Co-operative Banks.

subsistence farms. The only sources of credit available at the time were informal sources which included produce dealers, marketing agents and shopkeepers. As the need for small-farm financing was severely felt, the People's Co-operative Banks were established in 1905. The PCB's were set up to cater to the special needs of the growing class of small farmers. In 1912 the Agricultural Loan Societies Board was established to perform the following functions:

- (1) to make loans to farmers directly, through People's Co-operative Banks and Approved organizations;\*
- (2) to supervise and control the activities of the PCB's; and
- (3) to act as an agent for the disbursement of Government Funds in instances of natural disasters, etc.

In 1960 a campaign was launched to promote agricultural development with credit as the major input. The Agricultural Loan Societies (ALS) Board was reconstituted into the Agricultural Credit Board (ACB), and the Agricultural Development Programme came into being.

During the pre-independence period, the demand for credit kept rising as a result of the shift in the control of land from plantation owners to small and medium farmers. This demand for credit increased after independence (1962), as a result of the growing need for develop-

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\* Approved Organization is any organization other than an Agricultural Loan Society (e.g. PCB), carrying on, encouraging or promoting agricultural activities and certified by the Minister of Agriculture. For example, approved organizations include the Agricultural Development Corporation, Banana Board, Coffee Industry Board, Sugar Industry Board, All Island Jamaica Cane Farmers' Association, Citrus Growers Association and several Co-operative Societies - all extending credit to foster their respective crops.

ment credit by large scale farmers. In 1969 the Jamaica Development Bank (JDB) was established to provide development capital for industry, tourism and large scale farming. In the same year Self Supporting Farmers development Programme (SSFDP) was created to provide medium to long-term development loans to smaller farmers in the five to twenty-five acre category.

With the establishment of the JDB and the SSFDP programmes, medium to long-term capital requirements were provided for many large and medium sized farms. Nevertheless, one major farm group continued unserved within the formal credit system to Jamaica. Farms less than 5 acres generally did not have access to formal institutional credit except through the People's Co-operative Banks, and the PCB's did not have the financial, technical and administrative resources to serve these farms. According to the 1968 Agricultural census, this group of farms made up about 78 per cent of all farms, but accounted for only 15 per cent of all farmland. There is no reason to believe that the number of these farms has decreased since then. In fact with various government programs such as Project Land Lease, and the Land Settlement Programme, the number of such farms and amount of area in this small category is very likely higher than the figures given above.\*

In 1977, against the background of the acute foreign exchange problem, exacerbated by the growing importation of foodstuffs, the Government announced a short-run Emergency Production Plan to increase domestic foodstuff production.

Under the Emergency Production Plan, a Crop Lien Loan Programme was instituted in 1977 to provide short-term credit for small farmers to increase the production of selected food crops. These were farmers who had no loans from traditional formal credit sources, and who operated with less than five acres of land.

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\* The 1978 Agricultural Census which is being implemented is expected to provide up to date data with respect to the distribution of acreage land and number of farmers by farm size groups.

As will be seen shortly, many difficulties arose in administering this program with arrears reaching over 90 per cent on the seasonal loans issued in 1977/78. This raises serious questions about the feasibility of servicing these very small farmers through conventional formal credit arrangements.. This issue will be addressed later in the chapter.

#### PEOPLE'S CO-OPERATIVE BANKS

The PCB's were established in 1905 to encourage thrift among the rural poor and to provide credit (agricultural or otherwise) for the needs of the members.

At the moment there are 115 People's Co-operative Banks scattered throughout the island with about 130,000 members. These banks are owned by the local people through small individual shareholdings. The members are mainly small and medium sized farmers who subscribe to shares of J\$2.00 each to build up the share capital of the bank. This paid-up share capital of PCB's is then utilized to provide small, generally consumption oriented loans for the members at an interest rate of about 10 per cent. In addition to this share capital line of credit, the PCB's also augment their loanable funds by borrowing from the Agricultural Credit Board. The PCB's also act as agents of the government in the disbursement and collection of funds for various government programmes designed to reach small farmers. The most recent being the Crop Lien Programme designed withing the context of the Emergency/<sup>Production</sup>Plan. In short, three lines of credit are currently channelled to small farmers through the PCB's each reflecting a different loan source. They are:

- 1) Share-capital loans
- 2) ACB Revolving Fund
- 3) Crop Lien Fund

The difference in the terms and conditions of these different lines of credit will be discussed in the latter part of this chapter.

#### PCB's: ORGANIZATION AND MANAGEMENT

The membership of the 115 PCB's is approximately 130,000. Generally the members of a PCB manage and control the operations of the bank through a Committee of Management whose members are elected by the shareholders of the PCB. The committee is directly responsible to the shareholders and evaluates all loan applications. An ACB agricultural credit officer advises this committee and generally supervises their operations. However, about 30 of these banks are currently under the direct management of the Agricultural Credit Board, since it has been deemed by the ACB that their management Committees are deficient. In these instances, the banks are managed directly by the agricultural credit officers employed by the ACB. In these banks, an Advisory Committee is chosen from among the members of the bank by the ACB credit officer to advise him on the loan applications. However, the loan approval is made by the ACB credit officer.

OPERATIONAL FEATURES AND LENDING PERFORMANCE(1) LOAN PROCEDURES

The procedures employed to approve or reject loans from share capital and ACB funds are quite simple. An applicant,\* completes and presents an application form with the necessary documents pertaining to his land holdings or that of his guarantors. These documents are presented at the monthly meeting of the Management Committee for approval. For those banks managed by the ACB, the manager in cooperation with the Advisory Committee, evaluates the applications and makes the decision. The criteria for approval or rejection of a loan are the following:

- (a) honesty and ability of borrower
- (b) financial position and progress
- (c) repayment capacity of borrower
- (d) loan purpose; and
- (e) available security

Whether these criteria are used effectively by the Management Committees to evaluate loan applications is open to serious question. Past evaluation of PCB's, the direct management of 30 of these banks by the ACB, (Fulton ~~was~~ Report USAID) and their high arrears performance strongly imply that these criteria are not applied effectively. The impression the team obtained from visits to some PCB's is that the banks make loans on the basis of sympathetic understanding of the needs of the borrower rather than the criteria listed above. Secondly, to implement the above criteria, a more highly trained staff is needed and more information is required than that provided through the application form and related documents. Given these human and institutional

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\* To borrow from PCB's one has to be a member, unless a borrower applies for a loan from funds which a PCB disburses as an agent (e.g. Crop Lien) of a government program.

limitations within the PC Banks, only a cursory appraisal is made of loan applications.

Both the PCB's share capital line of credit and the ACB revolving fund can be used to make loans to members to meet their current financial needs. These loans are used for either productive or consumption activities. The purposes of the loans include farming, but also school fees, medical expenses and other family needs. This implies that the PCB's are not operated primarily as agricultural credit institutions emphasizing agricultural development. There is no explicit size limit on loans made out of share capital. However, the ACB line of credit can only be used by the PC Bank management committees or the ACB appointed manager to make loans up to the maximum loan size of J\$3,000 to the members. Beyond his ceiling, the application must be sent to the ACB Head Office for approval. The third line of credit (the Crop Lien Programme) is restricted in principle to loans for domestic food crop production. The maximum amount of loan extended under the Crop Lien programme is J\$6,000.

(ii) VOLUME OF LENDING

Even though data are not available to show the overall lending performance of PCB's considering the three lines of credit, the following Table provides some information regarding total loans outstanding to agriculture at end of year from the ACB line of credit.

As Table VI.1 indicates, the increase in nominal terms in loans outstanding to agriculture from this line of credit is not substantial from 1970 to 1977 loans outstanding increased in current value dollars only by 4.5 per cent per year. This is remarkably small increase. If we take inflation into account, we can see that real credit administered through this ACB channel declined from \$12 million in 1970 to \$6.2 million in 1977 when measured in

Table VI.1

PCB's Loans Outstanding to Agriculture at End of Year  
in current Jamaican Dollars (ACB Line of Credit)  
(J\$ 000)

Year	Loans Outstanding	Percentage Increase
1977	15,855	5.78
1976	14,989	4.96
1975	14,281	3.60
1974	13,791	5.90
1973	13,027	0.32
1972	12,986	3.80
1971	12,506	4.00
1970	12,030	-

Source: Monetary Statistics, various years.

1970 dollars (Chapter 111, Table 111. 4).

(iii) LOAN CONDITIONS

PCB's provide short, medium and long term loans from share capital as well as from the ACB line of credit. Loans up to three years are considered to be short term; over 3 to 7 years as medium and over 7 years as long term. Data are not readily available to show the distribution of loans by the term structure (short, medium and long-term). However, evaluation of the performance of the PCB's in the late 1960's and personal interview of the relevant officials indicate that a major portion of the loans is short-term. All categories of loans from the ACB line of credit, and Crop Lien Programme are charged a fixed rate of interest, which is 6 per cent. Loans made from share capital fund is charged a higher rate of interest, 10 per cent in the case of PCB's visited by the author. The forms of security accepted by the PCB's include land, charges on crops and/or movable property, and personal guarantees. None of the loan conditions are demanding, and the likelihood of foreclosing on any of the collateral described above is slim. This might possibly explain the high rate of arrears which is discussed next.

(v) FINANCIAL VIABILITY

Slim operating margins and high arrears both combine to suggest that the PC Banks are barely viable, if viable at all. The lending costs of these banks is the sum of the cost of funds and administrative expenses. The PC Banks acquire ACB revolving funds and Crop Lien funds at 3% and are required to onlend at 6%. The relatively minor share capital line of credit has a larger spread, since these funds are interest free and are currently being

loaned out at 10 per cent. The overall spread is narrow, given the preponderant weight of the other two lines of credit in the lending activities of the PC Banks. It is doubtful whether this spread is sufficient to cover the administrative cost of the banks without the current inflationary environment. The implications of the precarious financial state of the banks is that they do not have the resources to implement effective loan appraisal and collection procedures with a well-trained staff. This leads to inadequate loan appraisals, insufficient monitoring and collection of outstanding loans with a consequent high level of loan delinquencies.

Even though historical ~~data~~ are not available to establish a consistent historical arrears record for the PCB's, Table VI.2 provides the current picture of the arrears problem. As shown in Table VI.2, the arrears rate in the eleven parishes from the ACB line of credit, is about 40 per cent of loans outstanding. In the parishes of Hanover, Portland, and St. Thomas, the arrears rate goes as high as 76 per cent, 61 per cent and 62 per cent respectively. The lowest arrears rate, which is 27 per cent, is in the parish of Clarendon. However, this measure of the arrears rate understates the seriousness of the problem since the arrear ratio is based on loans outstanding rather than on amounts due.

The previous discussion strongly suggests that the main factors contributing to this high rate of arrears are the poor administration of the loan programmes by the PC Banks' staff, and the attitude of many borrowers that they do not have to repay government source funds. This attitude is encouraged by the lax administration which do not properly manage and supervise the loans in the first place.

Table VI.2

Cumulative Loans Outstanding, Principal and Interest Arrears  
of PCB's by Parish as at March, 1978 from ACB Line of Credit  
(J\$)

Parish	Loans outstanding	Arrears		Total Arrears	Arrears (Col.4+Col.1) percent
		Principal	Interest		
	(1)	(2)	(3)	(4)	(5)
Clarendon	1,906,823	495,114	14,074	509,188	27
Manchester	2,341,939	822,534	43,967	866,501	37
St.Elizabeth	1,134,624	574,120	10,302	584,422	52
Westmoreland	893,748	195,804	6,880	202,684	23
Hanover	227,057	154,089	19,361	173,450	76
St.James	709,343	147,530	5,175	152,705	22
St.Mary	904,732	302,078	17,031	319,109	35
Portland	285,359	168,605	6,366	174,971	61
St.Thomas	367,192	222,495	3,704	226,199	62
St.Andrew	454,763	135,691	5,052	140,743	31
St.Catherine	1,763,153	492,795	16,974	509,769	29
<b>Total</b>	<b>11,658,119</b>	<b>4,339,167</b>	<b>164,361</b>	<b>5,503,528</b>	<b>39</b>

Source: ACB files

THE SELF SUPPORTING FARMERS' DEVELOPMENT  
PROGRAMME

The Self Supporting Farmers' Development Programme (SSFDP) was launched in 1969 to improve the productivity of small scale farming in Jamaica. The programme provides a combination of short, medium, and long-term development credit as well as extension services. The project has at least two major objectives.

- (1) To improve the economic and social standard of living of small farm-families (5-25 acres in size) by raising the net income to at least US\$1400 per year.
- (2) To increase domestic food production (import substitution).

SOURCES OF FUNDING:

The SSFDP is a joint undertaking between the Government of Jamaica (GOJ) and the Inter-American Development Bank (IDB). The project is now in its fourth phase, each phase representing a loan contract signed between the GOJ and the IDB. Table VI.3 shows the proportion of resources contributed by each source to the project. More recently, a new source has emerged in the form of interest and principal repayments. It is not at all unusual that foreign lending plays such an important role as a source of funding for SSFDP. International Agencies are specifically designed to support these longrun development initiatives whereas domestic resources are much less readily available for riskier longrun investments. However, this raises the question as to whether it would not be in the longrun interest of the SSFDP to develop additional sources of domestic funding for the time when foreign funds may be less available.

**Table VI.3**  
**SSFDP Sources of Funding**

<b>Contract No.</b>	<b>Contract Date</b>	<b>IDB Loan US\$ m</b>	<b>GOJ Contribution US\$ m</b>	<b>Total US\$</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
269	Dec. 18, 1970	6.20	3.70	9.90
317	March 9, 1972	3.00	1.80	4.80
359	Sept. 1, 1973	7.90	7.85	15.75
516	Dec. 1977	6.00	3.00	9.00
<b>Total</b>		<b>23.10</b>	<b>16.35</b>	<b>39.45</b>

Source: SSFDP files

ADMINISTRATION AND ORGANIZATION:

The SSFDP has been administered by three different government agencies in the last nine years. From 1969 to 1972 it was directed by the Ministry of Rural Land Development which provided the extension service, and by the ACB which ran the credit aspect of the programme. In 1974, the JDB and the Ministry of Agriculture (which was formerly the Ministry of Rural Land Development) shared the responsibilities of administering the SSFDP. The former assumed the financial responsibilities of loan approvals, disbursements, and collection while the latter provided the extension service to the farmers in the programme. However, because of the lack of co-ordination and weakness discovered in this two agency arrangement, the JDB took over the responsibility of extension service in 1975, and became fully responsible for running the programme. The JDB is paid a management fee about 1 per cent of loans outstanding for coordinating the activities of the SSFDP.

Under the current JDB administration of the programme, the country is divided into six regions which are, in turn, subdivided into 13 areas. Each region is headed by a Regional Project Officer (RPO) assisted by Assistant Project Officers (APO), Development Officers (DO), Area Recovery Officers (ARO), and secretarial staff. The duties of the staff at regional offices include loan processing, preparation of farm plans, extension service, loan collections, financial supervision of farms financed by SSFDP, and the gathering of data required for loan approval. The regional officers are authorized to approve loans up to <sup>a</sup> certain amount. At present this figure is J\$5,000. The regional officers are linked with the SSFDP head office (Kingston), through the Agriculture Department headed by an Agricultural Officer (AO) who directs and supervises the activities of the former. The SSFDP also maintains a Technical Support Unit, an

**Internal** . . . Audit Department, a Legal Department, a Finance Support Department, an Economics and Statistics and Administrative Department at the Head Office. The overall activities of the SSFDP are directed by a Co-ordinator who is an employee of the JDB.

Several conclusions emerge from the above description of operational features buttressed by several field trips by this project team. First the SSFDP is strongly decentralized into key regional areas in the interior with considerable flow of personnel between the field officers and the head office in Kingston. The 3 to 4 man teams in the area offices hold weekly meetings on loan applications and evaluations of on-going loans. The head men in the area offices (the Assistant Project Officers) also meet once a week in their respective regional offices while the regional project officers meet in the Kingston head office once a month. At the same time officers from the head office are also engaged in several trips to regional and area offices each week. In short the line of communication and information flow are very fluid and up to date.

Second, this project team on personal field trips was surprised by the refreshing candor and outspokenness that occurred in the weekly meetings we attended in the field.

Staff personnel ranked below the Area Assistant Project Officer or the Regional Project Officer would speak up forcefully in the round-table discussions defending their analysis and position on the loan issues under discussion. This lack of formal hierarchy and unusual collegial spirit characterized the entire proceedings.

On the whole, the field staff within the SSFDP impressed us as having acquired valuable on-the-job training which is frequently reinforced through field training programmes administered through the central office

in such areas as record keeping and financial accounting. The collegial spirit of healthy give and take, combined with frequent programs for on-the-job training works to improve the operational efficiency of the program.

Finally this program separates the extension function from the loan recovery or collection role with a different way for each job. There is a loan recovery officer in each area. The result here is a full time staffman directed towards avoiding serious loan delinquency. This explicit allocation of trained manpower to the function of collecting loan repayment through frequent visits to the farmer speaks well for the program. As we shall see shortly this helps to explain the considerably lower arrears rates compared to the other two small farmer programs.

#### PERFORMANCE OF THE SSFDP

##### (1) Volume of Lending:

Table VI.4 summarizes the performance of the SSFDP with respect to number and amount of loans approved, disbursement and recoveries since the inception of the project.

As shown in Table VI.4 by June 1978, the SSFDP had injected about \$29 million into the Jamaican agriculture (5 - 25 acres category). The number of farms in the 5 to 25 acres (target population) is about 40,000. Even if we assume that each loan is equivalent to a farm in this category, only 21 per cent of the target group has so far been reached. There is therefore still considerable scope for the expansion of credit facilities for small to medium scale farmers. Yet, loans outstanding to agriculture has increased at a remarkably high rate from 1970 to 1976 particularly in comparison with the PCB's / This increase is still considerable even when

Table VI.4

Cumulative Approvals, Disbursements and Recoveries  
SSFDP 1969-1978

Year	Approvals		Disbursement J\$	Principal Recoveries (J\$)
	No.	Amount (J\$)		
	(1)	(2)	(3)	(4)
Dec. 1969	6	19,480	Nil	-
Dec. 1970	1617	5,142,013	2,133,326	-
March 1971	1785	5,729,042	2,888,215	N.A.
March 1974	3970	14,021,422	10,673,872	949,117
Dec. 1974	4134	15,200,000	11,200,000	1,410,000
Dec. 1975	5344	20,388,731	13,880,296	2,115,715
Dec. 1976	6766	23,943,481	18,713,494	2,923,469
June 1977	7668	27,956,355	21,672,039	3,453,142
June 1978	8575	32,276,895	28,852,549	N.A.

Source: SSFDP files

Table VI.5

SSFDP Loans Outstanding to Agriculture at  
End of Year in Current Values 1970 - 1977

(J\$ 000)

Year	Loans Out- standing	Percentage increase over previous year
	(1)	(2)
1977	21,200*	34
1976	15,788	34
1975	11,765	21
1974	9,730	24
1973	7,833**	32
1972	5,933**	47
1971	4,033**	89
1970	2,133	-

Source: Table II.2

\* provisional

\*\* interpolated values between 1970 and 1974

corrected for inflation and expressed in real terms, as we saw earlier in Chapter III, Table III.4. In the most recent years, the SSFDP has become one of the most important sources of agricultural credit in the country.

#### ELIGIBILITY CONDITIONS

Before actual loan processing starts, borrowers must meet the following eligibility requirements:

- (1) The farmer must personally administer his farm and earn the major portion of his income from farming;
- (2) The farmer must be the titled owner of the land or hold a proper lease which does not expire before repayment of the loan;
- (3) Farm size should be between 5 and 25 acres though farms less than 5 acres of good land or up to 100 acres of poor land also qualify;
- (4) Current gross value of assets should not exceed US\$40,000 for livestock and UD\$30,000 for crop enterprises;
- (5) Farm must be able to generate an annual net income of at least US\$1,400;
- (6) The loan size must be within US\$800 to US\$24,000\* and
- (7) A co-operative society may be eligible provided that -
  - (a) at least 80 per cent of its members qualify individually;
  - (b) and at least 60 per cent of the co-ops. production comes from the 80 per cent referred to in (a).\*\*

Conditions (1), (3) and (4) underscore the fact that the SSFDP is aimed at primarily full time, small to medium size farmers.

\* These figures are for the loan 516. Corresponding figures for loans 269, 317 and 359 are US\$6,000 to 12,000, US\$600 to 12,000 and US\$1100 to 16,500 respectively.

\*\* The seventh requirement is added in the fourth stage of the programme in 1977.

(ii) Term Structure and Purposes of Loans:

SSFDP provides three types of loans - short, medium, and long term. Short term credit is defined as not more than a year. The purpose of such a loan is to finance the direct cost of production of seasonal food crops and/or the working capital needs of medium to long term enterprises. Medium term is defined as over a year, but less than five years. Medium term loans are intended to finance semi-permanent crops and livestock where income from these enterprises will enable the borrower to repay the loan within a 5 year period. The long term loans are for more than 5 years. This type of loan is used for financing investment in such areas as farm construction and installations, purchase of machinery and equipment, planting of permanent tree crops, and for livestock development. Table VI.6 shows the distribution of loans outstanding by term structure.

As can be seen from Table VI.6, the short term loans are an insignificant proportion of the total. Loans 2 years or less account for less than one per cent of both the total value of loans outstanding and of the number of loans. Medium term loans comprise 15 per cent of the number of loans, and about 15 per cent of loans outstanding. The major proportion of the loan portfolio of SSFDP is in the long-term category, with 85% of the loans and the amount outstanding.

From this we can conclude that the SSFDP exercises its energies on the longer term credit needs of its clients. The short term working capital requirements are less adequately used.

(iii) Size and Distribution of Loans

Most of the SSFDP loans are less than \$5,000 as shown in Table VI.7. Loans under \$5,000 make up about 74 per cent of the total number of loans and about 44 per cent of the value of loans outstanding. Loans between

Table VI.6

Term Structure of Loans Outstanding (SSFDP)  
End of January, 1977

Length of Loan	No. of Loans	Percent	Loans Outstanding	Percent
Less than 2 years	14	0.21	11,844	0.07
2 to < 5 years	1006	15.24	2,474,211	15.27
5 to < 7 years	1902	28.81	4,259,545	26.30
7 to < 9 years	1301	19.71	3,236,246	20.00
9 to < 11 years	1543	23.38	3,768,605	23.27
11 to < 16 years	726	11.00	2,008,888	12.40
16 and over	109	1.65	435,346	2.69
<b>Total</b>	<b>6601</b>	<b>100.00</b>	<b>16,194,685</b>	<b>100.00</b>

Source: SSFDP files

Table VI.7

Size Distribution of Loans Outstanding - SSFDP  
 at End of January, 1977  
 (J\$)

Loan Size	No. of Loans Outstanding	Percent	Amount Loan Outstanding	Percent
Under 2,000	1,751	26.53	1,315,106	8.12
2,000 and Under 3,000	1,537	23.28	2,244,378	13.86
3,000 " " 5,000	1,596	24.18	3,562,841	22.00
5,000 " " 8,000	935	14.16	3,593,911	22.19
8,000 " " 11,000	527	7.98	3,159,266	19.51
11,000 " " 13,000	79	1.20	559,234	3.45
13,000 and Over	176	2.67	1,759,951	10.87
<b>Total</b>	<b>6,601</b>	<b>100.00</b>	<b>16,194,687</b>	<b>100.00</b>

Source: SSFDP files

\$5,000 and \$11,000 comprise about 22 per cent of the total number of loans and 42 per cent of the total value of loans outstanding. Approximately 4 per cent of the total number of loans and 14 per cent of the values are for loans \$11,000 or more. The average size of short term loans is roughly \$4,100, whereas the average size for the medium term category is \$7,000. The size distribution of loans indicated that the SSFDP makes loans of relatively small sizes compared to commercial bank loans or JDB loans. This distribution is consistent with a portfolio for small to medium sized farmers in the 2 to 25 acres category. To elaborate on this point further, Table VI.8 portrays the distribution of loans by farm size for a sample of borrowers. About 57 per cent of loans are to farms less than 10 acres in size, and about 43 per cent to farms over 11 acres. The conclusion to be drawn from Tables VI.7 and VI.8 is that relatively speaking the SSFDP caters mainly to small sized farms.

(iv) Loan Charges

Borrowers are charged a fixed interest rate of 7% since 1977. Before the 7 per cent interest charge was instituted, development loans were charged a fixed interest rate of 4%, and loans for refinancing or for recurrent cost were obtained at 6% charge. Borrowers are exempted from all other fees such as commitment fees, legal fees, stamp duties, etc.; and the government absorbs these costs as part of the SSFDP overhead covered in budgetary allocations.

(v) Collateral Requirements and Arrears Record:

The borrower is expected to provide the SSFDP with acceptable security. The types of security commonly accepted are mortgage on land; legal proof of conveyance; evidence of possession of or of ability to secure

Table VI.8

Percentage Distribution of Number of Loans Outstanding by Farm Size  
SFFDP - 1977

Farm Size	Percent No. of Loans
0 to 5 acres	22.0
6 to 10 acres	34.8
11 to 15 acres	18.7
16 to 25 acres	13.0
Over 25 acres	11.4
	100.0

Source: SSFDP Socio-Economic Evaluation Report 1977

Commonlaw title; bill of sale (or charge) on movable assets; assignment of stocks; bonds and shares, assignment of life insurance policies, and sometimes crop lien depending on the situation. The SSFDP's requirements on loan security are similar to that of the ACB, but probably more rigorously enforced. They are clearly less restrictive than those imposed by the JDB commercial window and the commercial banks.

Table V4.9 summarises the arrears situation. The last two columns provide two different arrears rates. Column 5 presents an arrears rate with total arrears as a ratio of total arrears to the sum of total repayments and total arrears. The denominator approximates the amount due. This measure gives arrears rate of about 39 per cent. The second arrears rate measured by the ratio of total arrears to total loans outstanding, is a less satisfactory measure as explained earlier. As can be seen from the Table, the arrears rate by the second measure ranges between 16 and 18 per cent, a low estimate when compared to the ratio based on our proxy for amount in arrears over amount due. The arrears rate on the SSFDP compares favourably with those for other small farmer credit programmes. This reflects a more efficient loan administration than that characteristic of the other programmes.

#### Operational Efficiency

The SSFDP necessarily has to incur high overhead cost since it is mandated to develop long term farm plans for relatively small farmers not usually accustomed to this exercise. The earlier detailed description of the organizational features and operational procedures of the SSFDP underscores the crucial role of these overhead costs in the program. Furthermore,

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\* SSFDP Files

Table VI.9

The Self Supporting Farmers' Development Programme,  
Cumulative Summary of Loans Approved, Repayments,  
Loans Outstanding and Arrears rates at End of Year

Year	No. Loans Approved	Total Repayments Principal + Interest	Total Arrears Interest + Principal	Loans Out- standing	Arrears Rate (percent)	
					Col.3 + Col.2+3	Col.3 + Col.4
	(1)	(2)	(3)	(4)	(5)	(6)
1974	4134	2,256,400	1,520,000	9,730,000	40	16
1975	5344	3,355,904	2,096,898	11,764,581	38	18
1976	6766	4,607,317	2,827,816	15,788,025	38	18
1977*	7668	5,404,049	3,250,425	18,218,897	38	18

Source: SSFDP files

\*The figures for 1977 are as at 30th June, 1977

the SSFDP may also face a higher risk of potential delinquency than say commercial banks, in lending to small farmers. In the light of these features we can interpret the data on operational expenses and interest recoveries presented in Table VI.10. Comparing column 4 with column 3 in panel <sup>A</sup> we can see that the annual operating expenses are not covered by the annual interest collected. Therefore, the programme needs to be subsidised. Column 5, presents the net subsidy allocated to the program by the government. (Total operational expenses minus interest recoveries on outstanding loans). Panel B column 3 indicates that the subsidy component per loan approved accounts for two-thirds to three-fourths of the total costs per loan in recent years.

At first glance this suggests relatively low operational efficiency. However this data should be interpreted in the development context of the program. Even if there were no arrears in the program (i.e. a larger interest recovery) there would still be a need for a substantial subsidy though less than that actually shown here. In short there is a high overhead component built into the program to guarantee relatively successful development of new and more expensive technology and modern farm practices. These resources costs cannot be expected to be covered with an interest rate spread of only 4 per cent (i.e. 7% loan rate to farmers from QDB funds which are lent to the SSFDP at 3%). If this program were expected to break even, this interest rate probably would have to be doubled. However, this would be contrary to the development goals of the program. Some subsidy element is justified as a result of its development mandate (in contrast to the short term seasonal loans of the Crop Lien program). Furthermore, we are confident that the SSFDP loans are not diverted into non-agricultural uses as have been some of the funds disbursed through the Crop Lien program and through the PCB/ACB loan programmes.

Very high -  
cost of loan  
program

Table VI.10

Selected Data on Operational Expenses and  
Operational Indicators - SSFDP, 1974-1977  
(J\$)

*Handwritten note:*  
1974/1975  
1975/1976  
1976/1977

A. Operational Expenses and Related Data

Financial* Year	No. of Loans Approved	Loans Disbursed	Annual Interest Collected	Annual Operation- al Expense	Net Annual Subsidy
	(1)	(2)	(3)	(4)	(5)
1974/1975	388	868,882	358,626	983,796	625,170
1975/1976	483	3,547,680	399,180	1,489,723	1,090,543
1976/1977	1,957	5,202,446	484,121	2,108,200	1,624,079

B. Operational Indicators

Year (Financial)	Total operational expense per loan	Net Annual Subsi- dies per Loan	Percent of Subsidy per loan Col. 2 + Col. 1
	(1)	(2)	(3)
1974/1975	2,535	1,611	64
1975/1976	3,084	2,258	73
1976/1977	1,077	830	77

Source: SSFDP files and SSFDP Annual Reports

\* Financial Year ends on March 31.

There has been a substantial increase in operational expenses in recent years precisely to analyse, prepare and monitor a growing number of loans whose interest recoveries are spread out into a feature stream of long term earnings. Since the costs come first and the repayments later, we would expect the net subsidy element to be high in the initial stages of long term development programmes, as Table VI.<sup>10</sup> shows. In any event, the data in this Table do highlight the high overload costs involved in a developmental-oriented supervised credit program designed to change farming practices and agricultural production technology. In this context, if a relatively high subsidy element is associated with a reasonable recovery rate, the program can still be judged successful as long as the long run developmental goals of increased farm income and changed practises and technology are achieved for the client group of farmers.

#### Crop Lien Programme

The Crop Line Programme was introduced in June 1977 within the framework of the 1977 Emergency Production Plan which had as one of its main objectives a rapid expansion of domestic food production to meet shortfalls in food supplies resulting from severe foreign exchange rationing. The Programme was intended to stimulate crop production by extending credit to farmers who could not obtain loans from traditional institutional sources. The programme was funded by a budgetary allocation to the Ministry of Agriculture.

#### Administration and Organization

The programme was administered by each of the three regional divisions of the Ministry of Agriculture in collaboration with the PCB's which are

responsible for disbursement and collections of Crop Lien Programme loans in each region. The three regions are headed by Regional Directors. Each region consists of several parishes, and each parish is run by a Parish Manager. Within each parish there are Area Extension Officers who have direct contact with farmers.

The Crop Lien Programme, as a part of the Emergency Plan, was publicized through various means which included newspapers, radio, posters, Jamaica Agricultural Society and direct information from the extension officers.

### Loan Processing

In principle, to obtain a loan, a farmer was expected to first approach an extension officer and submit a loan application form. An Extension Officer would then visit the farm, check whether the farmer met the minimum requirements for the loan, and gather information with respect to acreage of land to be farmed, tenure of occupancy, previous loans, and crops to be planted, among other matters. From this information, extension officer would estimate the cost of production for the crops to be planted and thus the amount of loan required by the farmer. The Extension Officer would either reject or recommend the loan for approval. If the loan application was recommended, it was sent to the PCB's for evaluation of the credit worthiness of the applicant, essentially whether the applicant has been a bad ~~offer~~ within their lines of credit. Based on the recommendation of the extension officer and the evaluation of the credit worthiness of the applicant, the Parish Manager would finally approve or reject the loan. If the loan were approved, the PCB's were authorized to make the disbursement of the first instalment. To obtain subsequent instalments, the extension officer would later check to see if the previous instalment had been used properly before release of subsequent

instalments. Even though the farmers were encouraged to pay through the PCB's, extension officers could also receive payments.

As will be made clear shortly, the remarkably high arrears rate in this programme strongly suggests that much of the detailed procedure outlined above was rarely carried out on practice with any rigor. The immense size of the programme clearly overwhelmed the limited number of extension agents and, furthermore, the pressure to approve so many loans so quickly compromises any possibility for rigorous analysis of the farmers farm plans or ability to repay. Two other features merit comment. Many of these farmers had little if any loan experience with an established credit institution and secondly, the Ministry's extension officers had never handled loan responsibilities before. This combination suggests that the farmers needed a kind of supervision and loan monitoring that the extension officers were ill-equipped to offer. Finally, having the extension agent act both as advisory (his usual role), and loan collector (his new role) compromises his special relationship with the farmer. In summary, the probability of a high rate of delinquency was built into the program from the beginning.

Performance of Crop Lien Programme:

(1) Volume of Lending

By March 1978, about 48,550 applications were received of which 30,328 were approved. The total value of loans approved was J\$9,488,178.80, as shown in Table VI.11.

Loans disbursed represent about 43 per cent of loans approved. A number of explanations have been given for this discrepancy.\* First, the farmer may

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\* These explanations were obtained from some Parish Managers through interview

Table VI.11

Lending Operations of the Crop Lien Programme  
As at End of March, 1978

(J\$)

No. of Applications Received	48,550
No. of Applications Approved	30,328
Amount Approved	21,954,614.68
Amount Disbursed	9,488,178.80
Acreage Approved	40,593
No. of Farmers in the Programme	29,774

Source: Ministry of Agriculture, National Production/  
Extension Report 1978.

have borrowed less than he requested if delays in loan processing push the disbursement beyond the date when farmer needed the loan to plant a certain crop. Shifting to alternative crops might also have resulted in lower costs of production than those originally estimated in the loan request. Secondly, the extension officer may have discovered that the farmer made improper use of the first instalment and thus refused to disburse successive instalments as planned in the loan approval. Third, estimated costs of production might have been less than actual costs if family labor was used in place of hired labour or if various inputs planned for in the loan approval were unavailable. In the latter case the farmer may not have taken any of the approved loan for a particular crop. Finally, there may have been an overestimation of the cost of production in the loan application. This might have resulted in the farmer not applying for all his loan instalments.

(ii) Eligibility Requirements and Other Loan Conditions

To obtain Crop Lien loan farmers had to meet the following conditions:

- (1) Farmer must have no more than 5 acres of arable land;
- (2) Farmer must not have a bad debt with any credit institution;
- (3) Borrower must be a full time farmer;
- (4) Farmer must not be an established commercial farmer, and must be willing to produce food crops.
- (5) Borrower must provide information on land cultivated, that is, whether it is owned or rented, and its suitability for specified crops;

Crop Lien loans are all short term crop season loans. They must be repaid within a year or within the life of a crop. Borrowers are charged a

concessional rate of interest of only 6 per cent of which 3 per cent is earned by PC Banks for disbursing and collecting the loan and 3 per cent is collected for the Ministry of Agriculture. It is unlikely, given the administrative organisation of the programme, that the loan rate of interest could cover the cost of lending and the opportunity cost of the resources. Since this programme is intended for small farmers with less than 5 acres, who are in general, unable to secure loans from other financial institutions, borrowers are not required to provide any tangible security. Extension Officers' assessment of the ability of the borrowers to pay is taken in lieu of security. The upper limit of loan to any borrower is J\$6,000.

The Crop Lien loan was intended for the production of specified food crops. Crops actually produced under the Programme included corn, peas, yams, cassava, rice, sweet potatoes, onions, peanuts, coco, dasheen, tomatoes, beans and plantains.

(iii) Arrears:

The arrears situation of the Crop Lien Programme is strikingly worse than that of the AC-PCB's and the SSFDP. Out of J\$9.5 million disbursed, only J\$335 thousand was collected by 31 March, 1978. This gives an arrears rate of 96.5 per cent. Several explanations have been offered for this high rate of arrears.\* It has been suggested that crops might have been failed in some areas due to bad weather conditions, and poor varietal responses of imported seeds. Second, it has been argued that some farmers are strongly resistant to the idea of loan repayments, particularly loans from government agencies. Third, some extension officers lack the ability or interest to monitor the collection system, and collect repayments. Fourth, the emergency situation in which the programme was launched led to a large overload and

\* Interview with some Parish Managers and from Parish Reports of the MOA.

probably to hasty and lax loan approval. For example, in the Parish of Clarendon there are 47 extension officers. As many as 4703 loan applications were investigated and 4672 were approved. This gives a ratio of 100 loan applications to one extension officer. The real situation is worse than this ratio reveals if one considers the other activities the extension officers participate in and also the distribution of loan applicants by different areas within the parish. Some extension officers had to accommodate more than 100 loan applications while others had to deal with less. The situation in Manchester was worse than that in Clarendon. The ratio of loan applications to the number of extension officers was 188 to 1. These two parishes accounted for more than half of the total amount of money disbursed under the Crop Lien Programme. (See Table VI.12). Lastly, some argue that the majority of crops financed by the programme are tubers and these were not reaped during the period for which the above figures are given.

This last reason implies that the arrears situation will improve. However, up to date data for the Southern Region (Table VI.12) reveals that the anticipated improvement is not substantial. On March 31, 1978 the arrears ratio for Southern Region was 98.1 per cent. By August 31, 1978, the arrears ratio decreased to 94.6 per cent, which is still very high by any standard. There is also no evidence of unusually bad weather conditions. Indeed last year experienced good rainfall and the output of domestic food-stuff did increase more than it had for many years. Furthermore, if crop failure due to bad weather were the principal reason for the high rate of arrears for the entire programme of this size, these conditions would have affected other agricultural credit programmes and produced rising arrears there as well. We have no evidence of this. Thus we come to the conclusion that the predominant factors behind the high arrears rate is due to farmer

Table VI.12

Summary showing Loans Approved, Issued and Collected under the Crop  
Lien Programme in the Southern Region, April 1977 - August 1978  
(J\$)

Parish	Amount Approved	Amount Issued	Collections up to August 1978	Collection Rate (percent)	Arrears Rate (percent)
	(1)	(2)	(3)	(4)	(5)
St. Thomas	744,055	398,229	16,143.48	4.1	95.9
St. Andrew & Kingston	430,626	251,988	6,885.00	2.7	97.3
St. Catherine	1,697,296	1,099,627	38,077.09	3.5	96.5
Clarendon	4,636,837	2,155,639	139,168.55	6.5	93.5
Manchester	3,343,837	2,078,019	125,168.00	6.0	94.0
<b>Total</b>	<b>10,852,651</b>	<b>5,983,502</b>	<b>325,442.12</b>	<b>5.4</b>	<b>94.6</b>

Source: Ministry of Agriculture, Southern Regional Office Loan Files.

resistance to repayment, to lax and hasty loan appraisals, and ineffective collection procedures. Before the programme is revived again, it is essential to deal with those negative elements.

#### SUMMARY AND CONCLUSIONS

Table VI.13 summarizes the characteristics and the performance of these three programmes that provide credit to small and medium sized farmers. The three programmes (ACB -PCB, SSFDP and Crop Lien) basically cater to small farmers. The ACB-PCB and the Crop Lien Programme provided mainly short term credit whereas the SSFDP is engaged in medium to long term financing. The Crop Lien Programme has the widest coverage with approximately 30,000 seasonal loans issued last year with an average loan size well below 1,000. The SSFDP, in contrast, processed approximately 1350 new development loans last year and services 8,600 loans outstanding with an average loan size between \$5,000 to \$6,000. This higher average loan size is consistent with the more expensive longer term development loans of the SSFDP. Comparable loan data on numbers do not exist for the ACB revolving fund retailed through the PC Banks, however oral impressions offered<sup>by</sup> ACB officials place the number of new loans issued in recent years around 4000 to 5000 per year with an average loan size around \$1,000.

The farm size target group for the Crop Lien Programme are farmers with less than 5 arable acres while the SSFDP deals with farmers in the 5 to 25 acres category (more than half their loans are for holdings less than 10 acres). The ACB-PCB programme has no acreage limitation, but their target group would very likely fall into both the Crop Lien and SSFDP acreage categories.

Table VI.13

Summary Table of Similarities and Contrasts of PCB's, SSFDP  
and Crop Lien Programme by Farm and Loan Characteristics

Term Structure	Size (acreage category)	Size of loans	Enterprise financed	Source of funds	Lending costs	Interest rate	Collateral	Arrears	Admin. Organization
Short, medium and long term; short term predominant	Predominantly small to medium farms (acreage not specified)	No limits but predominantly loans less than \$3000	<u>PEOPLE'S COOPERATIVE BANKS</u>		Relative-ly low; no expensive administrative staff	Govt. fund lent at 6% and share capital at higher rate (8-10%)	Land and other assets and guarantor	Bad	Relatively worse, inadequately staffed, poorly trained staff
			Farm and family needs including non-productive purposes	Share capital and Government fund through ACB					
Short, medium and long term. Medium to long term predominant	5-25 acre category	US\$ \$800 to US\$ \$24,000	<u>SELF-SUPPORTING FARMERS DEVELOPMENT PROGRAMME</u>		Quite high	7 percent	Land, other assets, stocks & bonds, life insurance policies	Relatively better	Relatively better organized, more man power and better trained
			Productive purposes financed (crop and livestock enterprises)	Loan from Inter-Amer. Dev't Bank, Govt. contribution and loan recovery					
Short term	Less than 5 acres of cultivable land	Less than \$6,000	<u>CROP LIEN PROGRAMME</u>		Low; no expensive administration for loan evaluation or collection	6 percent	None	Remarkably high	Not equipped with trained personnel to evaluate and collect loans
			Food crop enterprises (productive purpose only)	Government fund					

With respect to loan administration, the SSFDP is well organized with relatively more competent loan administration staff than that associated with the other two programmes. The administrative organization and the quality of staff have implications for the performance of any lending institution. Comparison of the loan processing and monitoring practices of the three programmes shows that the SSFDP has a much more intensive administration and supervisory input per loan serviced than the others. Thus the clients of SSFDP are more carefully selected and serviced. This partly explains why the arrears problem of the SSFDP is less serious than for the others. Even though data are not available to compute the exact amount of lending cost per loan for the ACB-PCB and the Crop Lien Programme ~~one can~~ derive tentative conclusions with respect to lending costs from the organizational structure and other data in the Tables in this chapter. This evidence suggests that the SSFDP clearly has a relatively higher administrative cost per loan than the other two credit facilities.

All three are highly subsidized. The subsidies are both explicit and implicit (intended or unintended) and consist of three elements. The explicit element is the allocation from the central government budget to cover most of the administrative overload in all these programmes. This would cover part of the salary cost of the Ministry of Agriculture extension agents in terms of their man hours spent in servicing the Crop Lien Programme, and most of the administrative cost within the ACB and SSFDP. The implicit subsidy element contains two parts:

- (1) the negative rate of interest (i.e. the difference between the concessional rate of interest of 6 to 7 per cent in these programmes and the rate of inflation in the economy); and

- (2) arrears and outright defaults. With respect to this latter element the SSFDP entails a much smaller subsidy cost to society than the other two programmes in that it has a much smaller arrears rate.

The long run viability of any financial institution extending credit depends crucially on its ability to collect on its loans. The arrears problem is serious in the small farm credit system. A simple arrears rate (measured as the ratio of total arrears to total loans outstanding) shows that arrears for the PCB's, Crop Lien and the SSFDP programmes are 40 per cent, 95 per cent and 18 per cent respectively. A more rigorous and precise measure - the ratio of total arrears to total amount due - gives an arrears rate of 38 per cent for the SSFDP. If a similarly rigorous arrears measure could be computed for ACB-PCB's programme, it would clearly be considerably greater than the 40 per cent shown with the arrears/loan outstanding index. Regardless of the measure used, the SSFDP has a considerably lower arrears rate. However, the arrears rate of this programme should not be taken lightly in that more and more of its outstanding portfolio will become due in the future as its term structure of loans age to maturity.

CHAPTER VII

PUBLIC FINANCIAL POLICY AND THE RURAL  
FINANCIAL MARKET

This chapter attempts to describe and to assess the nature of public sector financial policies which impinge upon the rural financial market within the current decade. These policies can be divided into three main categories, namely subsidies which were intended to improve the net income of agriculture and thus its ability to absorb and repay credit; direct governmental loans; and central banking regulations and schemes aimed at improving the flow of credit extended by private financial institutions to the agricultural sector.

SUBSIDIES AND DIRECT GOVT. LOANS

The agricultural sector has been the beneficiary of subsidies and other budgetary grants throughout the period under review. Subsidy programmes have been typically based on inputs. For instance, at various times since 1967, the government has subsidized the cost of livestock and poultry feeds, fertilizers for cane farmers, and transportation equipment. Subsidies on imported inputs have occasionally been achieved through waiver on import duties. Though these forms of input subsidies must have increased the net incomes of farmers, it appears on the basis of the continuing difficulties experienced by the recipients that the financial viability of farming has not been achieved in the long run. On the contrary, the insistence of these farm enterprises on the continuation of subsidy

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schemes and/or substantially higher product prices indicates that the subsidy programme has failed to transform the recipients farming practices and technology sufficiently to enable them viable and creditworthy enterprises.

Some subsidies have also been aimed at improving the capital position of agriculture. The government in December, 1971, enacted legislation retroactive to April, 1968 which conferred a 40 per cent investment allowance on capital expenditure for the sugar industry. Permissible types of capital expenditures included buildings, structures, machinery and plant for upgrading and increasing the capacity for sugar production. The discussion of agricultural investment expenditures in Chapter II revealed that these subsidies did not result in accelerated capital formation in agriculture. Current information makes it clear that, despite the lack of success so far, the government intends to persist with its subsidy/grant assistance to the sugar industry. The Ministry of Agriculture has stated on 27th September, 1978 that a grant of \$5 million per ton of milled cane will be paid to sugar manufacturers in an effort to improve productivity and efficiency. Cane growers are to receive a grant of \$10.5 million, \$3.5 million of which was first extended as a loan in 1977.

The government has periodically extended direct credit to farmers. Among the loan facilities provided are production loans to cane farmers, replanting loans also to cane farmers and to sugar estates,

and what can only be described as solvency loans to particular sugar estates in times of crisis. Loan conditions have been quite generous. For instance, the replanting loans in 1972 have had a maturity of 10 years, inclusive of 2 years grace, and bear interest rates of 6%. In general the total amounts provided for replanting have been small relative to the number of cane farmers and estates. But the absolute values are not insignificant. Between 1970 and 1972, a total of \$7.8 million was lent. This compares well with the volume of commercial bank loans outstanding to agriculture during those three years, and is probably more than <sup>what</sup> cane farmers received from any other credit source. Recently the government has been financing its loan facilities by borrowing from the commercial banking system. Between 1975 and 1976, \$20 million was borrowed from the banks for relending to agriculture, mainly to the sugar co-operatives established by the government in 1974. The government has also guaranteed loans to particular enterprises, usually in the sugar industry; and has occasionally acquired equity in the sugar industry as a means of capital infusion.

#### BANK OF JAMAICA POLICIES

The main objective of policies adopted by the central bank towards the rural financial market has been to induce and encourage the commercial banking system into allocating a greater proportion of its loans portfolio to agriculture.

Apart from moral suasion, the instruments adopted have been selective credit controls. Since October, 1969, the Bank of Jamaica has maintained ceilings on the proportion of the loans portfolio that might be allocated to the distributive trades, personal borrowers, and non-resident corporation. It was hoped that the supply of credit would be diverted from those areas into more productive and national ones. However, it is clear that the central bank was not explicitly concerned with the agricultural sector. Direct quotas on agriculture were not specifically utilized. The rediscounting facilities introduced in 1970 as a further step in encouraging bank credit along desirable lines applied only to construction activities, public utilities, and exporting enterprises. No scheme explicitly geared to agricultural borrowers was introduced until 1973.

In 1973, the central bank established a scheme by which agricultural loans of not less than 5 years maturity could be treated as part of the statutory liquidity of the commercial banks. A maximum of 2½% of commercial bank deposit liabilities was set, but was increased to 5% in 1974. The facility could also include industry, tourism and land development, and therefore was not specifically intended for agriculture alone. The scheme was designed on the principle that the banks could obtain a potentially greater return by substituting the higher interest, longer maturity agricultural loans for relatively low interest rate, short maturity assets in their asset portfolios while still satisfying the legal reserve requirements.

On this basis, it was expected that the banks would extend relatively more loans to agriculture. This expectation was not borne out by experience. Agricultural loans as a proportion of total loans increased from 4.4% in 1973 to 4.6% in 1974, or in absolute terms by only \$4.1 million compared to increases of \$20.5 million for construction, \$8.5 million for government services, \$10.9 million for professional and other services, and \$15.5 million for personal loans.

Another central banking measure adopted was the provision in 1974 of a rediscounting facility whereby commercial banks could rediscount with the Bank of Jamaica loans extended 'for the financing of industrial and agricultural projects which provide significant employment' (Bank of Jamaica Annual Report, 1974). A maximum limit of \$6 million was set on such rediscounting. The scheme was shortlived. Within a year, the Bank of Jamaica had converted the facility into a central bank line of credit provided directly to productive sector borrowers through the Jamaica Development Bank and the Small Businessmen's Loan Board. The central bank has also experimented with a credit guarantee scheme for agricultural loans. The Bank of Jamaica undertakes to guarantee 50 per cent of any commercial bank loan extended to agriculture. By so doing, the Bank reduced the risk and potential loss on agricultural loans. It was hoped that the reduced riskiness of such loans would result in a greater willingness by the commercial banks to lend to agriculture. The scheme has been unsuccessful.

The procedures for recovering the guaranteed portion of the loan are protracted and involve long, expensive legal proceedings by the commercial banks prior to the submission of a claim for indemnity. Consequently, the bank regard the loan guarantee as of little substance, de facto , and behave accordingly.

### CONCLUSION

Three main conclusions can be drawn from the preceding discussion of public financial policies in relation to the rural financial sector. First, direct governmental assistance to agriculture whether in the form of subsidies, grants, or direct loans has been irregular. Second, only a narrow range of industries have been the direct beneficiaries. Of these, the sugar and small livestock industries have been the predominant recipients of governmental financial assistance. Third, central banking policies have been largely unsuccessful in achieving a large, steady, and efficient flow of private sector credit to agriculture.

CHAPTER VIII

CONCLUSIONS AND RECOMMENDATIONS

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In this concluding chapter, we will not repeat all the various issues dealt with and conclusions arrived at in the earlier chapters on the current state of the rural financial markets in Jamaica and of the performance and problems of the key institutions servicing these markets. Rather we shall concentrate on what we consider the overriding questions and problems that need to be addressed in any attempt to improve the functioning of these markets to maintain the viability of the credit facilities servicing the agricultural sector.

FINANCIAL MARKET DISTORTIONS AND INEQUITIES

One of the most important economic parameters to keep in mind at the outset is the current state of the economy. In large part this conditions the prospects for change since rural financial markets are a part of the overall financial sector which in turn is affected by policies dealing with economic growth and inflation. The government has recently made efforts to control the upward drift in the rate of inflation. It is essential that this effort continues and succeeds before many of the distortions in the financial markets can be properly dealt with.

Foremost among these are the misallocation of resources and inequities introduced into the rural financial system through growing negative real rates of interest. Most agricultural credit is lent at concessional rates of interest ranging between 6 and 10 percent. With inflation continuing at levels well above 20 and perhaps 30 percent, this creates a credit subsidy of growing magnitudes for those fortunate enough to gain access to the formal channels of credit. Established borrowers gain over potential new borrowers as banks ration the supply of credit by non-price criteria. Larger farmers gain over smaller farmers and, in the end, the uncertainties introduced by this financial disequilibria foster a misallocation of the use of these resources into shorter pay off projects, diversion into non-agricultural uses or capital flight.

If the economic measures needed to reduce inflation will only succeed in the long run, or if these measures introduce a strong dose of corrective inflation to the current and future price structure (as in the case of frequent devaluations), then interest rates on loans and savings deposits must become more flexible to reflect the true cost of the scarce resources used in the credit system. The present system is currently penalizing savers (who are only receiving 6 to 7 per cent on their savings and time deposits) and benefiting those borrowers with access to the system.

If the economy were experiencing substantial economic recovery and recording positive rates of growth, one could recommend without hesitation that interest rates be raised sufficiently to introduce positive rates of interest. However, given the present sluggish state of economic activity, this strategy should follow a two step stage of implementation. At the present time the important step is to introduce flexibility by raising interest rates slowly to gradually reduce the level of real negative rates of interest. However, as economic recovery takes hold, these rates should be raised further (if inflation remains high) until positive rates emerge. Such action should resurrect the currently depressed rate of savings which is currently being penalized heavily through the negative rate structure. It should also lead to a more viable financial system in which the financial costs of intermediation are covered. And for public credit facilities it should also lead to a more efficient and equitable allocation of public resources, greater loan recoveries and less reliance on the

public treasury for constant infusion of new funds. Any support that can contribute to the rapid recovery of financial equilibrium in the Jamaican economy can also make a contribution to the specific project or institutional reforms suggested below. Without some semblance of growth in the economy and a financial system free of debilitating distortions of inflation, specific efforts to reform or rationalize the various credit facilities within this system will be severely compromised.

#### THE CREDIT REQUIREMENTS ISSUE

Another issue to be addressed is whether there is too much or too little credit going to agriculture. Are the credit needs of agriculture being satisfied? How much more credit is needed to guarantee planned increases in agricultural output? The ratio of agricultural credit to agricultural GDP set forth in Chapter III indicates that, in the aggregate, there is a more than adequate amount of agricultural credit in the system to cover the current operating expenses of the agricultural sector. Moreover it is important to remember that our estimate of global credit is an underestimate, in that we were not able to include data on commodity board credit, non-banking financial intermediaries and informal credit sources. Now clearly this does not mean that every farmer's credit needs are being satisfied. What is relatively high ratio does imply is that there is very likely considerable misallocation of credit resources within the system with some farmers receiving too much and others receiving too little or none at all.

The efficiency of credit use is low and the diversion of agricultural loans into satisfying pressing consumption needs or non-agricultural uses is quite likely.

A second index suggesting inefficient credit use are the high arrears rates in all the public sector agricultural credit agencies. This will be discussed further shortly. The high agricultural credit/agricultural GDP ratio, in combination with high arrears rates strongly suggests that, if anything, there is too much credit in the system as currently structured. Put differently, if there were any substantial increases in the present levels of agricultural credit (particularly through public credit facilities) in the current system, there is no reason to believe this would lead to any significant increase in agricultural output much beyond that which would occur without this increase. In all likelihood a large amount would be diverted off to non-productive or non-agricultural uses, given the lax loan administration in many of these programs and the lack of serious consequences for borrowers who choose not to repay.

Associated with this question of credit needs and the efficient use of credit is the issue of the opportunity cost of the use of public sector funds allocated to expand the current levels of agricultural credit. Clearly these are not zero. Any attempt to increase the current level of credit comes at a high cost in terms of more productive use of these funds in alternative uses within the agricultural sector such as input subsidies in-kind, soil conservation, better transportation infrastructure and marketing arrangements.

All of these efforts could presumably lead to a more productive use of the existing level of credit by increasing the economic rate of return of agricultural activities. The important task at hand is not to increase the current levels of agricultural credit but rather to reform the existing operational procedures of the institutions within the credit system to more efficiently use the resources already at their disposal.

#### THE LARGE FARMER ARREARS ISSUE

The most important problem contributing to the distortions and inequities of credit use and jeopardizing the viability of the rural financial system as a whole are the high arrears in the public sector credit facilities servicing the agricultural sector. This adds an additional subsidy element for borrowers above and beyond that gained through negative real rates of interest. This problem can be discussed in the context of arrears by large farmers associated with the JDB commercial window agricultural loan portfolio and arrears by small farmers associated with the three major small farmer credit programs. This section addresses the JDB problems.

Evidence from our study of the JDB commercial window credit facility indicates a serious arrears rate that is rising rapidly. The financial viability of this institution can be in jeopardy unless this arrears rate is lowered and there is a rise in loan recoveries.

Otherwise international financial agencies, the major source of funds for the JDB, will find it difficult to continue their funding of this institution.

Arrears can grow out of economic difficulties affecting the farmers income stream, onerous loan conditions, lax loan appraisal procedures granting loans to non-viable enterprises, ineffective loan collection procedures and outright farmers resistance to repay. All five factors probably play a role in the case here. Economic difficulties have affected some farmers adversely, compromising their ability to repay. However, it is felt that this has not been the major factor. While the economy has suffered stagnant growth in recent years, the agricultural sector has been the least hard hit sector. Similarly some farmers may complain that the new loan conditions passing through the devaluation costs to the farmers' US Dollar based loan has compromised their ability to repay. No doubt this has added considerably to their costs, but if they sell their farm products close to the on-going levels of inflation they can cover <sup>most</sup> some of their costs with the government perhaps absorbing another part. In any event the high arrears rates in the JDB program substantially pre-dates the recent emergence of the increased cost of foreign funds to farmers.

The arrears rate in the JDB, when expressed as a ratio of arrears to amounts due (and not to loans outstanding) has been consistently high from the inception of their various loan source lines of credit (IBRD, CDB, etc.).

This fact strongly suggests that this arrears rate has very little to do with the state of the economy and a great deal to do with their loan administration. In particular, lax and ineffective loan administration, in particular loan appraisals and loan collection procedures have seriously undermined their loan recoveries. It would appear that their appraisals of their borrowers assets and initial net worth depended too heavily on the farmers own estimates rather than exercising a vigorous audit on their own or through independent firms. Once approved, very little monitoring of the loan occurred and, as a result, information on the farmers on-going activity either unrecorded or out of date. Loan collections were handled rather casually with the expectation that the farmer would undertake the initiative to meet his payments. In effect, insufficient pressure was brought to bear on the farmer early on in the repayment cycle.

The current administration of the JDB is much more aware of these shortcomings than before and they are making some progress in improving their loan management practices. In this light several suggestions come to mind. The portfolio of the JDB agricultural loans is small enough (between 500 to 600) that extensive analysis of this portfolio is feasible. Correlating the degree of arrears by type of crop enterprise financed, farmer characteristics, full or part-time, large or small, etc. can begin to pinpoint the proximate causes in these areas in most serious delinquency. Frequent visits to selected farms and monitoring of the farm enterprises ongoing activities can

establish a presence and pressure for loan recovery which former administrative methods failed to accomplish. The retraining of the ample research staff to create a market intelligence unit is also advisable to determine the behaviour of the produce prices and the costs of production for those agricultural products most commonly financed by their portfolio. In this way the justification of economic difficulties affecting repayment can be evaluated. Finally, government support to permit some foreclosures could put additional teeth into the loan recovery efforts.

USAID can make a contribution by offering technical assistance to train loan recovery officers, re-organize collection procedures and improve internal management procedures generally. Such an effort could make a substantial difference. Though the numbers may be small, the size of this loan portfolio is significant. Its role in the agricultural sector substantial. Failure to turn around this arrears problem in the JDB could have serious negative repercussions for the development banking approach to agricultural development in Jamaica. Once arrears are brought down to respectable levels, international agencies will return with adequate new sources of funding.

#### THE ISSUE OF THE VIABILITY OF SMALL FARMER CREDIT PROGRAMS

The unusually high delinquency rates associated with two of the governmental small farmer programs also argues that measures should be undertaken to restructure these programs to minimize this burden.

Lax loan administration is endemic in the ACB-PCB and Crop Lien programs as was discussed in detail in Chapter VI. The likelihood of achieving significant administrative reforms in loan appraisals, loan monitoring and loan collection procedures is very slim, given the ill-equipped human resource base to work with. The Crop Lien program cannot remain in its present format unless the government is prepared to accept it as an explicit grants program. If it should so wish then it should make this explicit and not mislead all parties concerned by labelling it a credit program. If, however, the government wishes to salvage the credit features of this program, reduce the drain on its budgetary resources, some portion of this program should be absorbed by the only effective small farmer credit program functioning on the island, namely the SSFDP.

Having said this, however, we must bear in mind that the SSFDP neither has the resources nor, very likely, the wish to inherit this program in its entirety. Yet it could make a substantial contribution towards improving the efficiency of this operation by absorbing the more viable portfolio within the program and, at the same time, the more viable P.C. Banks currently administering the program. The current decentralized field officers<sup>s</sup> of the SSFDP offer a base which could be extended into a larger network of sub-area offices through the inclusion of some 30 to 40 of the current roster of 115 P.C. Banks. These would only consist of those P.C. Banks that have established a good managerial record in the regions in question. At the same time the government should cover the cost of increasing substantially the current staff of the SSFDP so that this institution can effectively train and upgrade the personnel in

the P.C. Banks within the program to supervise and monitor the reduced crop lien portfolio under their responsibility. Final responsibility for loan appraisals and loan recoveries should be given to the SSFDP rather than structured into any hybrid program of divided responsibility.

It should be recognised that initially this new loan component would probably have a minimal development thrust. We are talking about salvaging the management of a loan programme that is, up to the present time, short term and seasonal. Nevertheless, in time, this loan component could include some medium term loans with a development focus improving farm practices and technology. This shift would improve the quality of this credit to the farmer and very likely induce a more responsible repayment record in order to maintain this line of credit. If the farmer feels he is getting meaningful technical help with his loan, he will be less likely to default.

At the same time one should consider raising the interest rates on loans managed by this new hybrid program, and all other programs as well. With rates of inflation reaching 20 to 30 percent a year, the implicit subsidy element associated with the negative real rates of interest reaches substantial proportions. The government, in effect, is drastically underpricing its scarce loan resources below their true opportunity costs. Considering the fact that there are still a substantial number of farmers who are unable to secure any access to formal channels of credit (and thus are left to self-financing or the high cost of money in the informal credit market), it is inequitable to allow those who have gained access to this system to enjoy a substantial subsidy in their privileged use of this credit.

Finally, the question remains of how to handle the current situation of the ACB-PCB line of small farmer credit. There is serious question as to whether this network can ever become an effective channel to service the credit needs of agriculture. Given its weak loan administration, high delinquency record, credit diversion to non-agricultural uses, limited developmental impact and the substantial and continuous budgetary cost, the government, with one qualification to be noted shortly, might consider reallocating those annual subsidies into improved public services, <sup>and</sup> marketing and extension services through the Ministry of Agriculture's programs or more support for the overhead cost of the SSFDP (or a combination of the two). Either shift would bring more social benefits per unit of resource cost than the current use of those funds within the ACB program. The P.C. Banks can and should be allowed to continue managing the loan portfolio built on their own share capital, but not the line of credit issued through the ACB.

Having said this one important qualification is in order. The new Farmer Saving Program developed between the National Savings Committee and the ACB-PCB network promises a new direction to this hitherto moribund line of credit. This program, emphasizing the mobilization of small rural savings, is designed to build up the farmers savings as a collateral to gain access to future loans. This initiative merits support because it has a grass roots basis and, in time, could generate a source of funds for rural credit that does not rely on the government budget.

Thus the remaining ACB-PCB operation should be directed towards emphasizing and concentrating upon this initiative and minimize or eliminate the loan activities that are not linked to the farmer savings program.

Increased support for public services, input subsidies, and extension services of the Ministry of Agriculture is appropriate and called for. Also measures to reduce the spoilage, uncertainty and costs associated with marketing farmer produce are essential if the efficiency of credit use is to increase in Jamaica. Credit alone can do very little to help the farmer overcome these obstacles. Only when it is combined with relatively inexpensive and timely inputs and effective marketing channels can credit become effective as a tool for improving agricultural output and productivity. And these support services are more lacking in the Jamaican rural setting than credit.

In summary USAID should consider support for technical assistance for the JDB, on the one hand, and the SSFDP on the other. In the former case technical assistance could make a contribution towards helping this institution reform their loan management procedures which, in the end, could ensure the financial viability of development banking in agriculture. In the latter case, technical assistance support could make a contribution to the upgrading of new staff coming into the SSFDP expanded network of credit service through the absorption of a substantial part of the Crop Lien Program.

In addition USAID should consider a contribution of additional loan resources to this institution to explicitly service the credit needs in those regional settings receiving USAID infrastructure support in the Integrated Rural Development Programs. This is the only small farmer credit program in Jamaica with sufficient extension and loan management skills to effectively service the developmental needs of the small farmer clientel within the USAID programs.

Continued support for farm household surveys to determine the farmers experience with and use of credit (both formal and informal) could generate additional insights into the arrears issue, the impact of credit at the farm level and the effectiveness of various sources of finance in meeting the farmers' needs.

Finally, continued support should be given to areas servicing the input side of farming and new support allocated towards building up the marketing channels for farm output. Once the input and marketing ends of the farming spectrum are functioning well, the recent levels of credit along with an additional contribution to the SSFDP, will be sufficient to service agriculture.

R E F E R E N C E S

This study has drawn heavily upon official and confidential sources not ordinarily available through published channels. This is particularly true with respect to the quantitative data used to create the performance indicators of loan activity for all the major credit institutions and programs analyzed in this report. The remaining references are listed below :-

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