Monetary and Fiscal Policy in Barbados 1970-85

by

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Introduction

> 'It is clear that there are no simple answers to the question of how to achieve the most satisfactory mix of fiscal and monetary policies'[1]

Since 1970, the erratic behaviour of the international economic system has undermined the efforts of developing countries to promote economic growth, price stability and sound external finances. Inflation, shorter periods of economic growth, unusually high interest rates, substantial exchange rate variation in the currencies in which most world trade is conducted, adverse terms of trade movements and massive debt accumulation represent some of the difficulties faced by these countries.

This paper reviews the impact of this troublesome environment on economic performance and policy formation in Barbados, and, seeks to assess where possible the effectiveness of these policies. We contend that due to its size and openness the economy was susceptible to movements in economic activity and prices abroad. With the international outlook uncertain, the policy focus between 1970-85 was on balance of payments management via a mix of monetary and fiscal policies aimed at restraining demand. Political expedience made growth and employment objectives crucial for fiscal policy, occasionally leading to the non-coordination of policy and to the creation of external imbalance. Monetary policy achieved modest success but was limited by the degree of fiscal discipline.

1 Deane (1981)

The plan of the paper is as follows. Section I examines how the key macro-economic variables in the economy are determined. Section II reviews the performance of the economy while in section III the moetary and fiscal policies employed during the period are examined to gauge their consistency vis a vis the stated objectives.

I. Economic Structure

Small and open, the Barbadian economy is driven by its export sectors. Due to the small domestic market and limited resource base, there is heavy reliance on imports, especially for consumer durables, intermediate imports and capital goods. Thus, the export sectors, which account for less than 25% of GDP, provide the foreign exchange earnings needed to sustain the service sectors.

The success of the fiscal incentives programme of the early 1960s (See Cox 1982) enabled the economy to make the transition from heavy dependence on export agriculture to a more diversified base of agriculture, manufacturing and tourism. In addition there was the rapid growth of service industries expanding and catering to the increased level of economic activity.

However, the economy remained vulnerable to erratic terms of trade movements and demand fluctuations. In particular, falling export earnings affect the public and private sectors through a reduction of employment in the export sectors. The demand for domestic goods and services may fall if the decline is sustained, adversely affecting output, employment and the growth

of wages. Import volumes may also decline, impacting on government's fiscal position.

In this situation, fiscal policies can be used to reflate the economy as government uses its expenditure to increase employment. However, unless these expenditures are accompanied by a significant foreign exchange inflow, a reflation of the economy may be harmful to the balance of payments. Likewise, credit policies which translate into higher domestic activity but not to foreign exchange earnings will impair reserve levels.

As with output, price levels are determined mainly by external factors. Downes (1985) notes that theories of inflation based on excess aggregate demand resulting from money expansion are generally inapplicable to small open economies like Barbados. Instead, cost push factors, especially import prices drive inflation. The other major determinants of inflation are interest rates, indirect taxes and wages. No satisfactory measure of the significance of taxation on prices has been carried out for the Barbadian economy, but Downes has found interest rates to play an important role in inflation. Holder and Worrell (1985) also found interest rates to be important in determining the price of non-traded goods. Both of these studies support the contention that prices drive wages rather than the reverse.

Although wages do not generally propel prices there is evidence that where skills are relatively scarce in the construction sector, rising wages push up building costs and add to the inflationary cycle. Empirical studies have not addressed this phenomenon, perhaps reflecting that the economy has generally operated within its available skill levels. When prices drive wages in the export sectors, external competitiveness may be affected by altering relative prices between Barbados and its competitors, or by reducing the profitability of local producers.

Model

We set up a simple five system model adapted from Khan and Knight (1985) to test domestic and external influences on key aggregates in the Barbadian economy for the period 1959-82. Equation (1) states that the demand for imports is positively related to real income but negatively related to the ratio of the price of imports to the domestic price level. This is the conventional formulation found in the literature.

The second equation suggests that the supply of exports will increase with the growth of income in our trading partners[1] and with the profitability of producing and selling exports (measured by the ratio of export prices to domestic

1. The United States is our major trading partner. Its income is used as a proxy for the weighted income of our trading partners.

prices). This relative price variable indicates that for any given export price, the profitability of producing exports falls as factor costs in these industries increase. Here, the retail price index is used as a proxy for factor costs.

The level of income is shown in equation three to be dependent on domestic variables (monetary and fiscal) as well as external variables (income growth in our trading partners). Credit to the private sector is expected to impact positively on income through its effects on private expenditures while a similar analysis is true for government expenditure. The growth of income in our trading partners will affect the domestic economy through its impact on exports and tourism.

The level of prices is explained by the price of imports, the level of wages and the costs of credit. The price of imports represents the external influence on inflation while wages and interest rates reflect the domestic portion. Tests of this equation including a tax rate did not improve the explanatory power.

Two specifications have been examined for the level of employment. The first shows employment to be positively related to the level of exports and employment the period before, but negatively related to last periods wages corrected for inflation. The second, replaces exports by real income. The authors have a preference for the former for the following reasons. The economy

is characterised as an export led economy. Therefore any growth in these sectors will lead to employment gains. Further the survival of the non-export sectors depends on the foreign exchange earned by the export sector. This suggests that growth in the export sector will ultimately lead to growth in the non-export sectors, culminating in added gains in employment. We suggest that gains in employment led by the export process are more likely to be permanent than those arising mainly from growth in the non-export sector.

The empirical results of the model are presented below. The coefficients all carry the correct sign and in most instances are highly significant. The exception being the wage variable in the price equation. The explanatory power for the equations are high, the lowest being 86% for the employment equation.

Results

1. $$\log(M) = \underset{(0.22)}{-0.1382} \; \underset{(-4.08)}{-\;0.9229} \log(Pm/P) \; \underset{(10.24)}{+\;0.9882} \log(YR) \; \underset{(2.80)}{+\;0.4968} \, RHO$$

$R^2 = 0.96$ SSE = 0.08

D-W = 1.84 F = 186.43

2. $$\log(X) = \underset{(-4.21)}{-4.9766} + \underset{(1.84)}{0.3449} \log(Px/P) + \underset{(9.24)}{1.523} \log(USGNP) + \underset{(4.59)}{0.6835}\ RHO$$

$R^2 = 0.96$ SSE = 0.07

D-W = 1.77 F = 217.43

3. $$\log(YR) = \underset{(-3.39)}{-1.8239} + \underset{(2.84)}{0.098} \log\left(\frac{CRP}{P}\right) + \underset{(2.74)}{0.2586} \log(G/P)$$

$$\underset{(6.92)}{0.869} \log(USGNP) - \underset{(-1.24)}{0.246}\ RHO$$

$R^2 = 0.99$ SSE = 0.04

D-W = 1.87 F = 500.01

4. $$\log P = \underset{(-1.68)}{-0.2209} + \underset{(16.80)}{1.0698} \log(Pm) - \underset{(-0.36)}{0.0655} \log(W) + \underset{(2.05)}{0.0271}\ RL + \underset{(0.17)}{0.5442}\ RHO$$

$R^2 = 0.99$ SSE = 0.06

D-W = 1.95 F = 744.11

5a. $$\log(E) = \underset{(3.03)}{1.844} + \underset{(3.30)}{0.1122} \log(X) - \underset{(-1.85)}{0.1149} \log(W/P)_{-1} + \underset{(3.86)}{0.5546} \log(E)_{-1}$$

$R^2 = 0.86$ SSE = 0.02

D-W = 1.99 F = 47.22

5b. $\log(E) = \underset{(1.49)}{0.781} + \underset{(1.78)}{0.0627} \log(YR) - \underset{(-0.84)}{0.0624} \log(W/p)_{-1}$

$+ \underset{(6.34)}{0.8014} \log(E)_{-1}$

$R^2 = 0.81$ SSE $= 0.03$

D-W $= 1.90$ F $= 33.73$

( ) indicates T-statistics

RHO " first order serial correlation

CRP = Domestic credit to the private sector

E = Employment

G = Total Government Expenditure

M = Real Imports

P = Retail Price Index

Pm = Price of Imports

Px = Price of Exports

RL = Loan rate of interest

USGNP = U.S. GDP in 1975$

W = Wage Index

X = Real Exports

YR = GDP in (1975$)

II Economic Performance 1970-85

Living standards in Barbados improved during the period 1970-85. Notwithstanding the recessions of 1973-75 and 1981-83, income grew by almost one percent per annum. Both recessions were marked by increasingly high levels of unemployment and by 1984, the number of unemployed had more than doubled. Inflation, so modest in the preceding decade, accelerated under the influence of external pressures in the mid 70s, but by 1985 it had eased to single digits as inflation abroad abated. Unstable export demand and prices coupled with rising import prices made the balance of payments erratic.

The Barbadian public entered the 1970s with great expectations. The 1960s had been a period of exceptional growth and relatively low inflation. The international economy was experiencing a low inflation boom and as a result Barbados benefitted from substantial foreign investment in its private sector. The manufacturing and tourism sectors responded positively to government's fiscal incentives schemes and even though there was some contraction of the manufacturing sector between 1967-69 the economy appeared to have gained the resilience which had been lacking in the past. Foreign borrowing was extremely modest and the fiscal deficit was kept within acceptable limits.

The first half of the new decade showed that this optimism was exaggerated as spiralling import prices underlined the vulnerability of open economies, however diversified. The

fourfold increase in oil prices adversely affected output, employment and prices (Chart 1) and the balance of payments was only saved by a sharp increase in sugar prices. In addition, the fiscal position, under the strain of sluggish economic activity and inflationary pressures, reached worrying proportions.

The recovery of the international economy led to renewed economic growth in the late 1970s. Domestic inflation which had moderated substantially by 1976[1] picked up under the influence of the second oil shock of 1979 and the rapid expansion of domestic activity. Adequate reserve levels were sustained by the export sectors and increased borrowing by the public and private sectors. The attendant adjustment measures to curb inflation in industrial countries put the brakes on economic expansion and created balance of payments difficulties throughout the first half of the 1980s. Inflation reached single digits but with the weakness of the export sectors stringent measures were implemented to reduce import demand and correct fiscal imbalance.

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1. Downes (1985) attributed this mainly to the near 10% revaluation of the Barbados dollar when its peg was switched from the depreciating sterling to the US dollar.

Throughout the period, the economy was driven by the export sectors of sugar, manufacturing and tourism. However, the sugar industry, which had begun to lose ground by 1970, faltered further under the pressure of unrenumerative prices. The manufacturing sector, encouraged by the potential of the regional export market, grew rapidly but once this outlet was virtually shut off in the 1980s the industry tottered, incurring substantial job losses in the process. The tourism industry rose and fell with the performance of North Atlantic countries but excess capacity kept the industry's financial viability below what might be expected.

Management of the balance of payments was a more dominant concern during this period than it had been during the 1960s. Terms of trade movements (Chart) were volatile and with the general sluggish response of import demand to contracting income, there were at least six balance of payments deficits of varying magnitudes. Stringent measures were taken to keep the current account deficit to GDP ratio within acceptable limits and by 1985, the weakness of the economy had forced such adjustment that a small surplus on the current account, the first on record, was achieved. This was in marked contrast to a deficit in excess of 20% of GDP in the early 1970s when reserves were being run down to satisfy rising consumer demand (Chart2). Reserve levels

were well below historic levels[1] leading to considerable borrowing - long and short term - for balance of payments support. Twice, 1977 and 1982, the authorities sought funding from the International Monetary Fund. On the second occasion this borrowing was enforced by the collapse of the Caricom Multilateral Clearing Facility under which Barbados was owed $130.0 million more than 60% of its reserves.

III. Economic Policy

Macroeconomic policies seek to address the issues of economic growth, lower unemployment, price stability and a sound balance of payments position. These economic objectives often conflict as the long term goal of growth is matched against the shorter term needed to maintain adequate foreign exchange reserves. Indeed, for the small open economy the state of external finance is crucial for sustaining internal balance. As a result, with the world economy less stable than it was during the 1960s this external constraint often led to deflationary adjustment measures in the Barbadian economy between 1970-85.

Heavy reliance was placed on fiscal and monetary policies to achieve the balance between growth and a sound balance of payments. Limited use was made of quantitative

1. Between 1963-69 the import cover ratio ranged from four months to eight months. The large holdings were mainly due to the institutional arrangements governing the operations of the existing monetary authorities.

restrictions since, except for large expensive items, such controls are difficult to administer. The existence of the regional Common External Tariff made tariff protection difficult while the scope for price controls was considerably reduced after initial efforts (1973-76) were undermined by escalating prices abroad and shortages at home. In their absence, a wages and incomes policy, though mooted as a possible adjustment measure, was never explicitly outlined.

The exchange rate, though an important economic variable, did not form an active part of domestic economic policy. After the collapse of the Bretton Woods Arrangement[1] there was general agreement that small open economies like Barbados should align their currencies to that of their major trading partners. Up to 1975, the local currency was linked to the pound sterling, but, in that year the Barbados dollar was pegged to that of the United States at a rate close to the prevailing $US - $BDS rate. This realignment resulted from increasing trade between Barbados and the United States and from the weakening of the sterling in international currency markets.

Since 1975 large fluctuations of floating currencies have taken place rendering unstable the bilateral exchange rates of pegging countries. There is nothing sacrosant about a given

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[1] The Bretton Woods system required countries to establish a par value for their currencies in terms of gold either directly or indirectly through the US dollar, and to maintain the market rate of the currency within narrow margins. As the United States incurred large deficits in the late 1960s the system came under pressure and was reformed. Countries were now free to choose their exchange rate system and several developed countries opted to allow their currencies to float.

exchange rate and several developing countries have changed their pegs. However, conscious of the heavy dependence on tourism and wary that exchange rate changes in that environment may lead to increased hoarding, a loss of confidence in the currency and general instability, the authorities committed themselves to maintaining the exchange rate. In so doing, Barbados appears to have provided its own response to the fundamental questions facing the pegging country of to which currency, at what rates and for how long. In part therefore, monetary and fiscal policies, designed to build up foreign reserves and thereby protect the balance of payments were measures aimed at maintaining the fixed exchange rate.

A. Monetary Policy

Monetary policy is a recent phenomenon in Barbados. Narrowly defined as a set of measures taken with the aim of influencing the money supply, credit and interest rates, monetary policy was precluded before 1972, because of Barbados' membership of the East Caribbean Currency Authority[1]. Since the establishment of the Central Bank of Barbados[2] monetary policy has

1. This organisation like its predecessor, the British Caribbean Currency board functioned as a monetary union without any regulatory powers (McClean (1975), Collyns (1983)). Interest rates could be altered by legislative action but there was no control of commercial banks.

2. Hereinafter referred to as the Bank.

reflected the unstable economic climate as well as the strong interrelationship between fiscal and monetary policy. External balance cannot be preserved with the simultaneous rapid growth of public and private expenditures when export earnings are not rising.

The use of monetary policy depends on how economic influences are transmitted and on the degree of financial sophistication. Ghatak (1981) suggests that developing countries inability to successfully apply monetary policies result from the existence of a large non-monetized sector, the absence of strong capital markets, the high ratio of currency in the money supply, the emergence of financial institutions not subject to monetary control and the high levels of liquidity maintained by commercial banks. Liquidity apart, these criticisms are not generally applicable to Barbados and thus the effectiveness of policies to achieve internal and external balance depends on the authorities' ability to identify the correct objective, respond quickly to disturbances, use the right instruments and coordinate their actions with fiscal policy.

Maintenance of a fixed exchange rate dictates an adequate cushion of reserves. To achieve this, Bank policy focussed on the control of the level, costs and direction of credit via a regime of selective controls, refinancing facilities, interest rates and cash and securities requirements. In the Barbadian case, credit is an easier target variable than the

money supply and the authorities emphasised a selective credit policy reflecting the view that credit is most socially productive when it generates rather than simply uses foreign exchange.

Although the Bank's policies were mainly balance of payments oriented there was an underlying attempt to fight domestic inflationary influences at the same time. Growth led by the non-traded sectors is not sustainable in the long-run. It is however inflationary, a fact which is damaging to external competitiveness and destabilizing as price expectations rise.

(i) Interest Rates

Interest rates form a crucial part of economic policy. Therefore, the tendency of developing countries to set low interest rates rather than allow market forces to determine them has been the source of much controversy. The McKinnon-Shaw thesis, emphasizes the role of monetary policy for channelling resources from savers to investors, positing the view that low interest rates retard savings, investment and growth. In particular, where inflation exceeds the return on deposits, individuals will be inclined to hold goods rather than financial assets, thus reducing the level of investible funds. An alternative approach (Chandavarkar (1971)) puts less stress on positive real rates and more on interest rates as the price of capital, contending that since capital is relatively scarce in

developing countries then interest rates should be higher than those in developed nations[1].

In principle, Bank policy served as a rejection of high or positive interest rate theories. Worrell and Prescod (1983) provide evidence to suggest that real interest rates have little impact on deposit growth. Moreover, with the need to stress the production of exportables, domestic investment suffers more from the lack of markets and producer innovation than from the availability of investible funds. In addition, the financial structure of corporate enterprises remain heavily biased with high debt equity ratios. A high interest rate policy would undermine profitability and would be inflationary. (See Downes (1985), Holder and Worrell (1985)).

As a stabilizing measure, however, the principle of low interest rates has been relaxed occasionally, but mainly to protect the balance of payments. Large differentials between domestic and foreign interest rates tend to induce capital flight. Worrell and Prescod (1983) suggests that to maintain the growth of financial liabilities this differential should not be allowed to exceed three percent. However, even with small interest rate differences the overriding determinant seems to be confidence in the currency.

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[1] Coates and Khatkhate (1980) argue that the price of capital and rate of interest are distinct concepts.

Prior to the Bank's establishment, the only regulation on interest rates were statutory limits of 8% on savings deposits and on loans to farmers. Deposit rates tended to move in line with London Bank rates and in a period of relatively low rates this limit did not act as a constraint on deposit rates. Banks were highly selective in their lending, and interest rates spreads appear to have been relatively stable. There is no evidence to suggest that banks paid any attention to real interest rates during this period.[1]

The evolution of the Bank's interest rate policy emphasised the multiple objectives of economic policy. The emergence of the Bank coincided with a weakening balance of payments, rising inflationary trends, slackening economic growth and growing illiquidity in the banking system itself. Thus the Bank's first intervention in 1973 put upward pressure on interest rates. The interest rate policy was geared principally towards reducing illiquidity and reducing the external imbalance. This was necessary since domestic loan demand was being financed by overseas borrowing at a time when the widening differential between local and foreign rates together with an anticipation of exchange controls was encouraging an outflow of currency and was slowing deposit growth.

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[1] In presenting models of interest rate determination in the Caribbean Thomas (1965) McClean (1975) and Howard (1976) all point to the influence of external factors.

By the end of 1974, the loan-deposit ratio had fallen almost seventeen percentage points from its high of 108.3, fifteen months earlier. The increase in deposit rates did narrow the interest rate differential and deposits did pick up but, with the economy contracting and inflation spiralling, there was no increase in real terms. However, it appears as if the improved liquidity position was due more to the combined impact of other policy measures viz. the designation of the sterling area as foreign[1], the imposition of reserve requirements and the discouragement of Eurodollar borrowing to finance domestic operations.

In 1975-76 interest rate policy shifted towards the restimulation of the economy. The Bank cut its discount rate three points in 1975 so as to persuade banks to bring down their rates. Deposit growth was strengthening, enabling banks to reduce their rates especially on fixed maturity deposits. Lending rates however, were slow to decline and banks increased their holdings of excess cash and government paper to 16½% of their deposits by the end of July. In 1976, the Bank cut its discount rate by a further one and a half points and stipulated prime and average lending rates to stimulate loan demand. Although the return on savings fell to 2½%, the spread between local and foreign rates was very small. Liquidity fell as deposit growth was slow

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[1] This made all foreign exchange transactions subject to exchange control.

relative to the increase in credit. Much of the increased lending was concentrated in the personal sector as fiscal stimulus encouraged activity in the non-traded sectors.

The decline in interest rates may have helped in the economic expansion of 1976, unsupported by an adequate rise in export earnings. As a result, there was a $28.7 million reserve loss that year. Thereafter, while the Bank maintained a low interest rate policy to encouage borrowing by the export sectors it was more active in its pursuit of restrictive credit policies towards the personal sector. Apart from the introduction of a floor on savings deposits of 3%, interest rates were kept stable between 1976-80.

This period was marked by negative real interest rates yet strong deposit and economic growth. In addition, widening interest rate differentials between foreign and domestic rates did not prevent sustained increases in the level of reserves. The resurgence of tourism, the growth of the export manufacturing sector and moderate fiscal stimulus led to economic growth over 4½% p.a. Income rather than real interest rates affected deposit growth. Credit, especially for tourism and manufacturing picked up because of the favourable external conditions. In spite of Worrell and Prescod's assertion of a critical three percentage point differential there is no evidence until 1980 of a destabilizing influence of the interest rate differential. With the difference between local and foreign rates climbing from 8½

1979 to eleven points a year later, there was an unidentified outflow of foreign exchange in 1980, the first time on record.

It was this widening differential in particular, coupled with the weakening of foreign exchange sectors and the strong growth of personal income which led to a revision of policy after 1980. Between May 1980 and October 1981, regulated savings and lending rates increased by five percentage points but interest differentials still remained in excess of four points on six month deposits. The dichotomy presented by the need to protect the balance of payments and encourage the productive sectors was clear. Foreign firms were unwilling to keep funds idle in Barbados when a much higher return could be obtained abroad. Firms facing falling demand for their product, found higher interest rates an inescapable burden. The fact that much of their borrowing tended to be short term served to worsen the problem.

As foreign rates tended downwards after 1982, the Bank tried to restimulate the economy gradually by lowering interest rates. As the impact of the recession on the foreign exchange sectors dragged on, loan demand remained weak. Several companies collapsed and banks remained cautious in their lending. In the absence of financial data, it is difficult to assess to what extent the high interest rates may have contributed to their demise. Low inflation meant positive real rates but this was no spur for lending. Throughout 1985, banks maintained high levels of liquidity.

(ii) Credit Policy

Credit influences economic activity, providing finance for consumption, working capital and fixed investment for future expansion of output. In an open economy with a fixed exchange rate and high consumption of foreign goods balance of payments considerations makes credit policy critical. To achieve the objectives of diversifying and expanding the eonomic base while maintaining adequate reserves, this policy must of necessity seek to restrict the level of credit within the system and to alter the direction of the available credit.

In Barbados, the principal components of this strategy were a cash reserve ratio, a government securities ratio, selective credit controls and the provision of cheap funds for the export sectors. In general, these policies were confined to commercial banks, reflecting their dominance in the financial system. In 1972 banks accounted for 85% of overall credit; mortgage lending companies were in an embroyonic stage and insurance companies apart, the remainder of the financial system was dominated by public sector development-oriented institutions. By 1985 the commercial banks' share had declined to less than 60% of overall credit, due mainly to the growth of lending by these public sector agencies.

In situations of tight liquidity, the cash reserve ratio can be an effective tool of demand management as it enables the authorities to restrict the level of lending by commercial banks.

Given the high loan demand and its consequential impact on the balance of payments, the imposition of the cash reserve ratio was necessary in 1973. That it was as low as 2%[1] initially reflected the excess illiquidity of the system but as deposit growth picked up the Bank moved to increase its potential flexibility. In 1977, amid great liquidity the ratio was raised by two percentage points to 8%, but banks simply reduced their holdings of government paper and transferred the burden of financing the public sector deficit to the Central Bank.

Initial efforts were made to alter the direction of credit, with respect to the mix of private sector credit as well as public versus private sector. To ensure lending by commercial banks to the public sector, stipulated securities ratios were imposed in 1973. This was especially crucial at this time since banks had sold off their holdings of treasury bills at a time when the fiscal deficit was on the increase. As the bank increased the ratios after 1973, banks were willing to hold excess securities (8.9% in July 1977) even though the return on government's short turn paper had fallen drastically. After the initial phase when banks had to lower their loan deposit ratio to satisfy their liquidity requirements, it appears that Bank policy through the combined cash reserve and stipulated securities ratios was having little impact on the overall level of credit.

[1] The exclusion of till cash as a reserve asset price to September 1974 make the effective ratio somewhat higher than the stipulated rate.

The conversion of the Barbados Savings Bank into a full scale banking institution and the maintenance of existing ratios led to a build up of excess liquidity between 1977-81. The economy was growing rapidly and while selective credit controls were imposed to protect the balance of payments, the reserve ratios were kept stable as part of the stimulus for the private sector. In 1981-82 as the balance of payments and fiscal position deteriorated, the securities ratio rose to 17% and then 19%, wiping out much excess liquidity. The effectiveness of this change is due to the guarantee of funds it provided for government and the reduced potential for private credit expansion.

As noted earlier, credit stimulates economic activity but it may have a detrimental effect on the balance of payments. Our simulation results suggests that a 10% increase in credit to the private sector will lead to a 1% increase in income and imports. The Bank introduced selective credit controls to divert credit away from the import using personal and distributive sectors, thus making more funds available for the export sectors. To encourage this export thrust, rediscount schemes were set up to provide credit to manufacturing and tourism at lower costs.

This attempt to alter the mix of credit to the private sector met with mixed results. With banks maintaining excess liquidity, they showed little willingness to use the rediscount schemes. Firms suffered in terms of costs rather than availability. However, the selective controls did have some

impact on the distribution of credit, emphasising the fact that it is easier to prevent banks from following undesired paths than it is to guide them along the desired path.

In 1972, 44.7% of the banking system's credit went to consumption sectors, 36.3% to the producing sectors and 19% to the ancillary sectors[1]. The Bank attempted to persuade banks to alter their lending policies in view of the balance of payments position at the time and the long term development of the economy. Other policies and the weakness of the economy itself restricted credit growth to 2.9% and 7.9% in 1974 and 1975 even though inflation exceeded 20% each year. However, credit to the personal sectors increased by 11.6% in 1974, 17.3% in 1975 and a further 18.5% in 1976. Initially, there was some movement away from consumer durables towards borrowing for home improvement, but economic growth and a freer import system in the latter half of 1976 induced a resurgence of imported consumer durables.

The failure of moral suasion to achieve the desired results led to a more active credit policy after 1976. Holder (1986) has identified changes in consumer credit and hire-purchase arrangements as important determinants of expenditure on durable goods and it is on these factors that policy was focussed. In addition, ceilings were also placed on

[1] Consumption sectors are defined to include personal and distributive sectors. Agriculture, tourism and construction are included in productive sectors while all other lending areas are deemed as ancillary.

lending to the distributive sectors. These stringent measures were a direct result of the sharp deterioration of the balance of payments in the latter part of 1976 and included a 25% reduction on selected categories of installment credit and the implementation of the hire-purchase credit sale and Hire Control Act, 1975. This Act enabled the Bank to establish minimum down-payment and maximum repayment periods of items sold under hire-purchase contracts.

The immediate impact was that the controlled segment of installment credit and overall personal sector credit fell within the limit set. However, consumer durables went up slightly and, a decrease in reserves was avoided by substantial borrowing abroad. As the economy improved in 1978-79, the Bank exempted from its limits some aspects of personal lending for home improvement and long term mortgage loans. Banks continued to operate within the prescribed limits but consumer durables shot up in 1979 after a small decline the year before. The rapid growth of durable imports continued into 1980-81 inspite of quotas on motor cars and further tightening of credit to the distribution and personal sectors. Strong income growth and the emergence of a few unregulated finance operators picked up the slack.

After 1981 the consumer durable imports were erratic. The abandonment of quotas on motor cars in 1982 led to an upsurge in imports the following year. Banks continued to operate within the limits but individuals were willing to dissave and use alternative institutions to support their immediate needs. The

selective policies did have some impact on the credit sectoral shares with the ancillary sectors increasing their share at the expense of the consuming sectors (Chart 4).

B. Fiscal Policy

As a stabilization tool, fiscal policy assumes more importance in the open economy than monetary policy. We have alluded to its potential to stimulate economic activity and generate employment opportunities. Its role in balance of payments management is crucial since in the absence of external borrowings, monetization of fiscal deficit can impair reserve levels. These considerations guided fiscal policy after 1970 and led to quasi-tight policies, supportive of the direction of monetary policy. Coordination of policy was not always achievable for as Lindbeck [1976] argues "governments in several instances may be more interested in stabilizing votes in the short-run than the economy in the somewhat longer perspective".

The implication of fiscal policy was enhanced by a relatively strong administrative sytem. The features of policy during the sixties had been redistribution of resources via taxation and the improvement of social services and the infrastructure to promote economic development. Fiscal incentives spurred increased activity in tourism and manufacturing, encouraging rapid growth throughout the economy. Although there was a committment to a policy of deficit budgeting, deficits were not unduly large. This partly reflects the limited market for government securities and the absence of a

central bank which could freely dispense credit to the public sector. In addition, limited use was made of external borrowings. After the Bank was set up, however, the size of deficit and its source of financing became critical determinants of fiscal policy stance.

(i) Fiscal Imbalance and Financing

There was a marked change in the strategy of deficit budgeting and financing during the period. Government continued to budget for small surpluses on their current operations and to finance part of their capital expenditure by borrowing. However, in an environment of high unemployment, deficits rose sharply and increasing reliance was placed on borrowings from the domestic banking system and from external sources.

The stance of fiscal policy between 1970-73 was largely a continuation of that of the preceding decade. A slowdown in economic activity was not matched by undue stimulative policy and the deficit - GDP ratio was kept to about four percent. Government showed little willingness to borrow abroad except for 1973 when the deficit rose sharply, coinciding with acute illiquidity in the banking system. The Bank was still in its infancy and had not yet imposed its securities ratio. The major source of domestic finance remained long term debentures held by non-bank financial institutions.

The outturn of the fiscal balance for the period 1974-77 partly reflects direct policy actions and partly the prevailing economic conditions. The deficit - GDP ratio exceeded five

percent each year except in 1975 when fiscal drag in the income tax system and dampening tax measures buoyed tax receipts and contained the deficit. These measures were a direct response to a weak balance of payments and the large deficit which had emerged in 1974 as the economy stagnated under the pressure of the first oil shock. The improved fiscal and balance of payments position in 1975 enabled the authorities to pursue more expansionary policies in 1976-77. High unemployment provided a basis for stimulating the economy, as the deficit-GDP ratio reached 9% in 1977. There was an immediate deterioration of the balance of payments as strict monetary policies to offset the expansionary fiscal policy were only partially successful.

As in previous years no reliance was placed on external borrowings. Instead, the Central Bank increased its visibility, financing government's operations directly and diverting commerical bank's funds to government. During the four year period 1974-77, government's gross domestic debt more than trebled, rising from $77.8 M to 279.5 M.

Over the next three years, government's expansionary fiscal policies continued. However, strong expenditure growth (15.6% p.a.) together with a mildly stimulative tax policy did not result in large deficits. The favourable external economic environment led to strong economic growth and increased employment, buoying revenues by 22.8% per annum. To protect the balance of payments and to finance the large capital works program, government borrowed abroad. The external debt rose from $55.2 M to $163.9 M. In addition, commercial banks were willing

to hold large amounts of government paper in excess of their requirements, enabling the Central Bank to reduce its lending.

Following the strong growth of the preceding five years government embarked on an extremely expansionist fiscal policy in 1981. Substantial income tax reform in the 1980 budget led to a slowdown in revenues. At the same time, expenditures ballooned (33.4%), pushing the fiscal imbalance to 10.6 % of GDP. Despite heavy external borrrowings, reserves declined as the tourism and sugar sectors weakened. In addition the demand for skills in the construction sector was putting pressure on prices in that sector.

After the difficulties of 1981, fiscal policy was less expansionary. An IMF adjustment program in 1982-84 encouraged greater fiscal discipline while the persistent weakness of the export earning sectors and concern about the rising debt service in the private and public sector led to greater fiscal restraint. As a result the unemployment situation worsened as deficits were kept to about 5% of GDP. The illiquidity of about 60% of reserves, tied up under the CMCF, prevented any stimulation of the economy even though small balance of payments surpluses were recorded.

(ii) Tax Policy

Tax policy addressed with varying intensity the issues of distribution, stabilization and allocation during the period. The tax measures sought to raise revenue to finance expenditures,

alter the income distribution and curb expenditure on imported goods. The tax-GDP ratio averaged about 28% of GDP for the entire period with small year to year changes. However, as Table 1 shows the tax-GDP ratio has declined by about five percentage points since 1970. Holder (1979) notes that tax revenues responded more vigorously to income changes before 1972 than after, a fact attributable to the constant tax reforms of the late seventies. Although the composition of taxes between direct and indirect was about the same at the beginning and end of the period there were significant changes during the period reflecting the interaction of inflation, growth and discretionary action.

The thrust of tax policy between 1970-76 was revenue raising and demand management. After the income tax reform of 1971 government made no further changes to income taxes during a period of high inflation. Direct tax receipts rose sharply, averaging over 45% of total revenue in the period 1974-76 in comparison to about 36% in 1970. Howard (1979) notes that in spite of the openness of the economy, even in the 1960s indirect taxes were losing their dominance in the tax structure. Haynes (1985) suggests that the slow changes in tax reform in the pre 1976 period was due to burgeoning expenditures which made it inexpedient to forego revenue resulting from tax reform. The failure to adjust allowances and tax rates pushed up the effective tax rate by 2½ percentage points.

Indirect taxes grew at a slower pace than direct taxes even though tax policy focussed on raising indirect taxes. A sales tax was introduced in 1974 to raise revenues and depress demand at a time when the balance of payments was weakening but this proved inflationary and unpopular and was abandoned in 1976. The implementation of the Common External Tariff did not appear to have any major impact on revenues.

After 1976, tax policy was more stimulative. There was gradual income tax reform, culminating in the major reforms of 1980. The direct tax burden on individuals was reduced as tax credits were introduced for low income earners, removing significant numbers from the tax net (see Haynes 1985). According to Holder and Prescod (1986) these measures improved the after tax income distribution. The rise in disposable incomes created by a general rise in economic activity and by the ease in direct taxation encouraged increased spending. To boost employment a refundable employment levy was introduced for a three year period in 1978. Employment did increase but it is difficult, in the absence of empirical testing to disentangle the effects of the levy from the favourable economic environment.

Simultaneous with the income tax reform of 1980 there was a major switch towards indirect taxation to maintain revenue stability. The consumption tax was extensively revised and its coverage widened. A changing import structure (consumer goods share fell by eight percentage points between 1970-80) and the substantial growth in low duty Caricom goods necessitated this

revenue raising measure at a time when external borrowings were insufficient to finance growing capital expenditure.

After 1981, tax policy was more restrictive in keeping with the tighter economic policies. Income tax concessions were maintained at lower income levels but a series of earmarked levies were introduced. These levies helped to finance public expenditures directly or indirectly as government increased its borrowing from the National Insurance Scheme. These levies dampened private expenditure while adding to the payroll cost of corporations at a time of economic difficulties. Several firms became delinquent in their payments of these levies. To support revenues as unemployment increased, further indirect taxes via stamp duties were introduced, adding to the cost of consumption and production. Fiscal incentives to producers met with little success because of the absence of markets.

(iii) Expenditure

As indicated in our model government expenditure impacts directly on the rate of change of domestic activity. Simulations show that a ten percent increase in expenditure increased output and imports by 2½%. In the absence of export growth or foreign capital flows, this stimulus to output may impair the balance of payments. Political pressures often led to demands to raise expenditures but as we have indicated expenditure led fiscal deficits in 1973-74, 1976-77 and 1981 contributed to a deterioration of balance of payments.

Expenditure was not always able to keep pace with inflation, partly reflecting the volatility of capital expenditures as government tried to stimulate activity or enforce adjustment. Strong growth in current expenditures was maintained with large wages accounting for about 40% of expenditures. Social services e.g. education and health accounted for almost 60% of all current expenditure.

Conclusion

It is evident that the short-term management of small open economies like Barbados is extremely difficult and that there are no simple answers to the most satisfactory mix of policies. We suggest that it is prudent for policymakers to accept the external constraint and design medium to long-term policies to promote growth and development.

The changing international environment led to a shift in policy priorities focussing mainly on the protection of the balance of payments rather than on the expansion of economic activity. In these circumstances, monetary and fiscal policies tended to be restrictive except for 1978-80. Expansionary fiscal policies put pressure on the balance of payments, suggesting that the ultimate success of monetary policies depends critically on the degree of fiscal discipline. Monetary policies act as a signal but do not appear to be decisive in determining economic variables. The securities ratio did not act as a binding constraint on private sector credit as evidenced by the general

level of excess liquidity in the system. Credit limits did alter the distribution of credit but banks did not alter their share of lending to the productive sectors. In addition, despite the presence of restraint on consumer lending, durable food imports continued to rise as new financial institutions developed.

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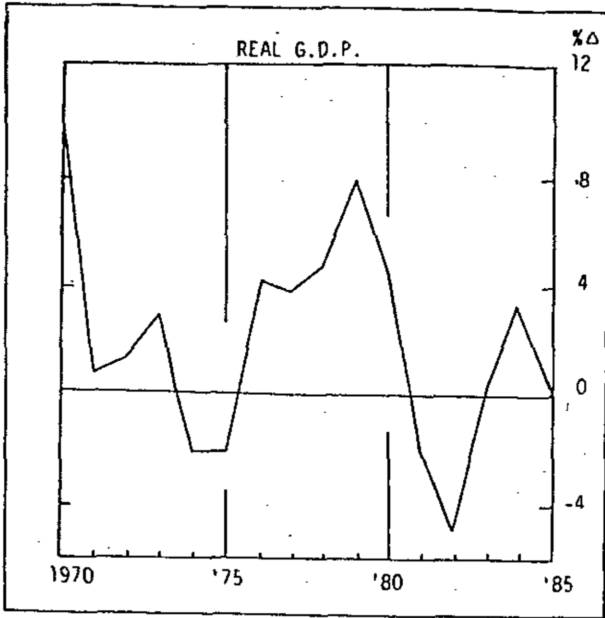
Table 1

Government Operations

($M and % of GDP)

	Revenue					Expenditure							Deficit/ Surplus	
	Direct Taxes	Indirect Taxes	Other	Total	% of GDP	Current Exp.	Economic	Social	Other	Capital	Total	% of GDP	$M	% of GDP
1970	32.8	42.9	14.6	90.3	33.0	78.6	12.1	45.4	21.1	20.9	99.5	36.4	-12.0	4.4
1971	39.9	47.1	13.8	100.8	31.4	87.9	13.5	50.8	23.6	22.6	110.5	34.4	-10.0	3.1
1972	38.8	53.2	15.0	107.0	30.0	96.8	14.9	56.0	25.9	25.0	121.8	34.1	-15.5	4.1
1973	47.2	60.6	17.3	125.1	27.7	126.8	19.5	73.2		40.7	167.5	37.1	-22.4	4.9
1974	70.4	67.3	2.9	140.6	22.0	153.1	22.6	85.9	44.6	33.8	186.9	29.2	-46.3	7.2
1975	82.7	93.6	14.3	190.6	27.2	167.2	25.1	96.8	45.3	45.4	212.6	30.3	-22.0	3.1
1976	93.3	96.5	12.5	202.3	25.7	205.0	37.1	118.4	49.5	52.4	257.4	32.7	-55.1	7.0
1977	106.0	112.6	8.6	227.2	25.5	229.3	39.2	135.0	55.1	77.4	306.7	34.5	-79.5	8.9
1978	132.7	139.1	14.4	286.2	29.1	255.6	41.3	150.0	64.3	69.4	325.0	33.0	-38.8	3.9
1979	139.7	178.6	21.8	340.1	28.4	302.6	45.0	176.7	80.9	90.8	393.4	32.9	-53.3	4.5
1980	161.6	225.9	33.4	420.9	27.4	371.6	67.2	210.9	93.5	102.6	474.2	30.9	-53.3	3.5
1981	177.3	238.7	30.6	446.6	26.0	442.0	78.8	244.4	118.8	186.0	628.4	36.8	-181.8	10.6
1982	193.7	243.1	49.3	486.1	27.0	461.5	71.6	234.6	155.3	124.2	585.7	32.8	-99.6	5.5
1983	223.6	255.4	66.9	545.9	28.6	486.2	72.5	261.3	152.4	121.4	607.6	32.0	-87.4	4.6
1984	212.9	277.1	70.6	560.6	27.3	532.6	77.6	290.1	164.9	122.9	659.2	31.8	-111.9	5.1
1985	242.0	326.9	53.2	622.1	27.7	609.5	69.8	355.1	184.6	137.2	746.7	33.3	-119.6	5.3

(a)



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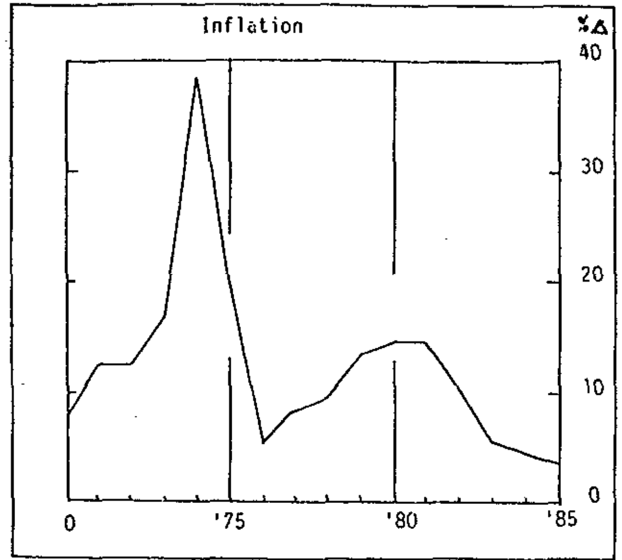

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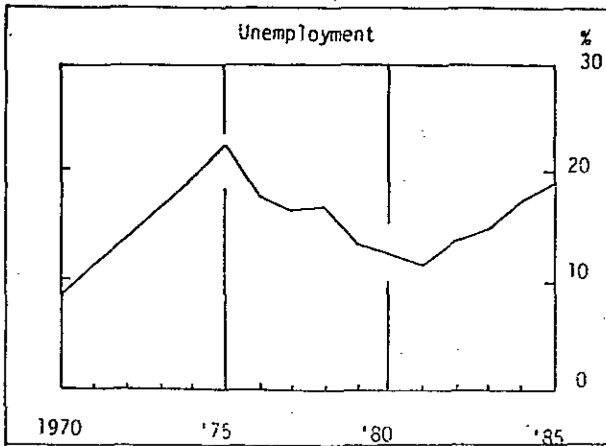

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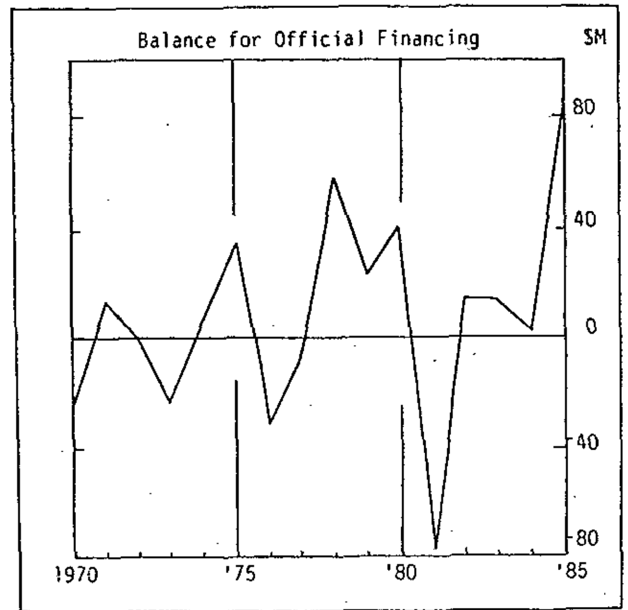


Chart 2

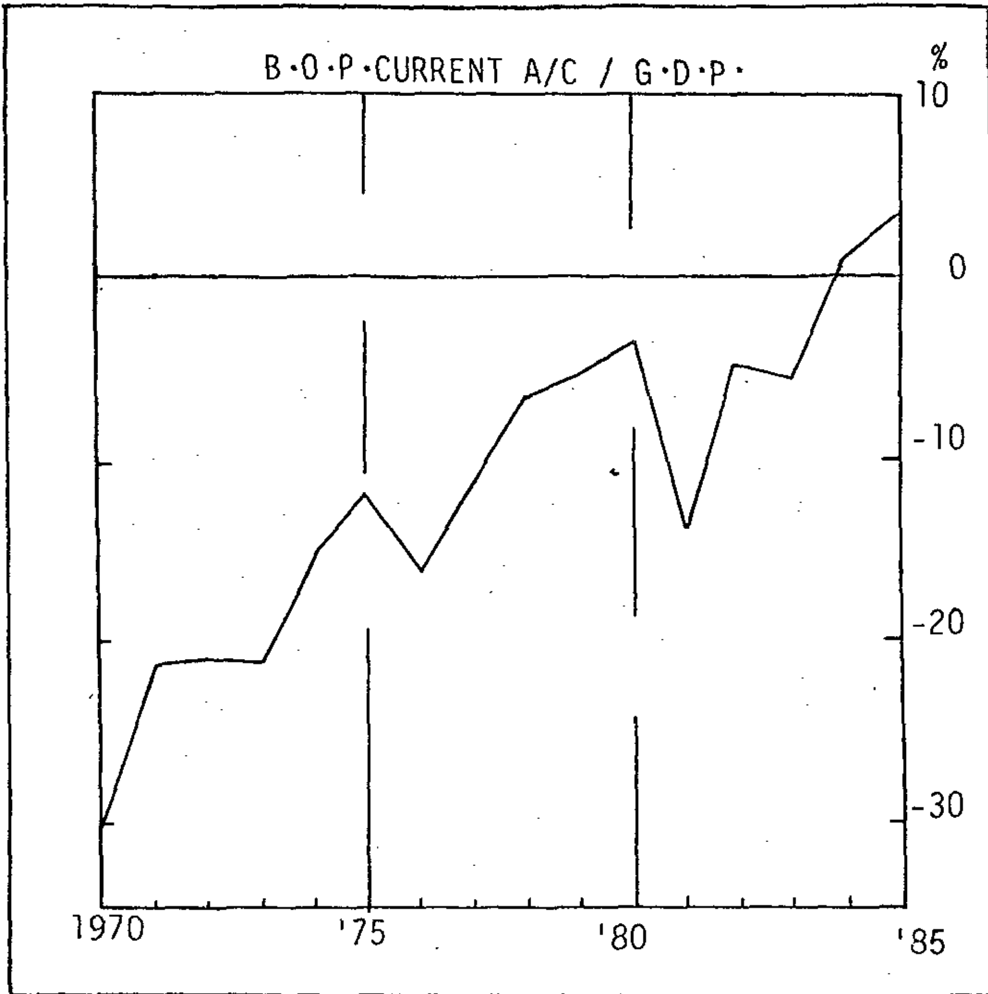
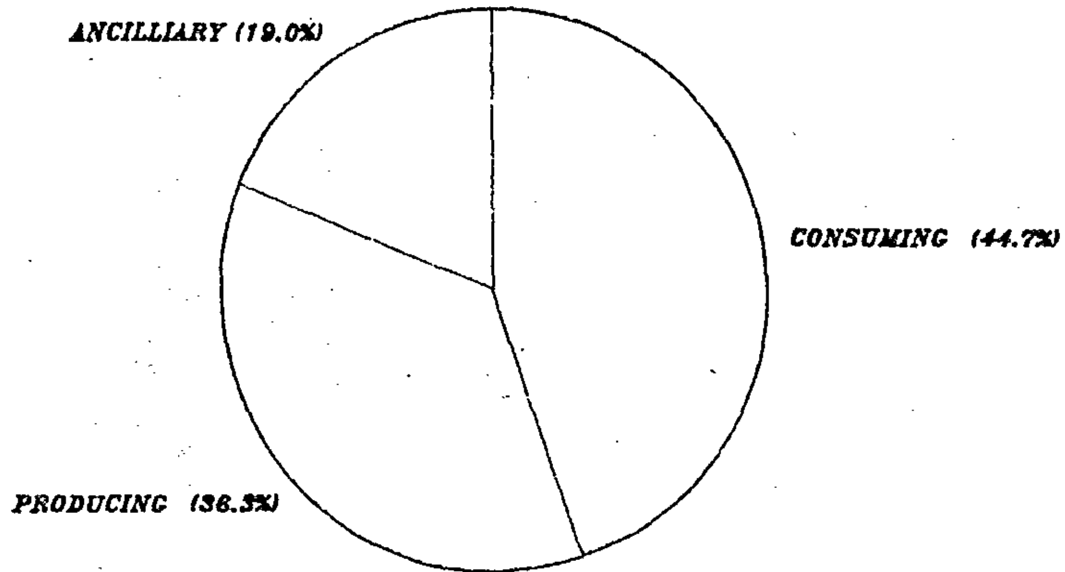


Chart 4

Sectoral Shares of Commercial Bank
Credit (1972)



Sectoral Shares of Commercial Bank
Credit (1984)