



CENTRAL BANK OF BELIZE

**INVESTMENT, SAVINGS AND EXTERNAL FINANCING
IN BELIZE**

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INTRODUCTION

During the last few years the Belizean economy has undergone a number of important developments which are likely to have a profound effect on the future course of the economy. After experiencing serious difficulties in the first half of the 1980s the economy grew very rapidly with a major stimulus provided by large increases in both public and private investment. Real GDP growth averaged nearly 10 percent per annum over the 1987-1989 period with gross fixed investment increasing from 19.1 percent of GDP in 1986 to 31.4 percent in 1989. Moreover economic growth has not occurred at the expense of the external balance; the marked improvement in the balance of payments achieved in the mid 1980s has been maintained with overall surpluses accumulated in each of the last five years.

In many ways it appears that the Belizean economy has been following an almost textbook path for economic development in a small open economy. The private sector has invested in areas of the economy which are in line with the country's comparative advantage on international markets - mainly tropical agriculture and tourism. A high level of public savings has been used to finance public and facilitate private investment, and this has been supplemented by foreign savings - largely in the form of concessional borrowing or direct foreign investment. Apart from the provision of fiscal incentives for investors, the Government has made little attempt to directly influence resource allocation in the private sector but has maintained a stable macroeconomic environment with low inflation and a fixed exchange rate.

This paper examines the recent patterns of investment and savings in Belize and raises a number of issues of potential concern for the future development of the economy. These issues mainly relate to the productivity of the investment, its composition between the different sectors of the economy and to the manner in which it has been financed. Four sets of issues are addressed in this paper.

The first, addressed in Section 2, concerns the level, the composition and the efficiency of public investment. We examine whether the composition of public investment is consistent with the aim of complementing private investment and whether the high level of public investment might have crowded out private investment.

Second, in Section 3, we ask whether the economy, and in particular the public sector, has relied too heavily on external sources to finance investment. We examine the growth and composition of public debt to assess whether future debt servicing problems might arise. We also briefly examine the pattern of external financing of private investment.

The third area of concern, addressed in Section 4, is the imbalance between private sector savings and investment. Private sector savings have displayed little evidence of any increase despite the growth of the economy. We look at the possible constraints that will be placed on future investment and growth unless private savings increase.

The final issue discussed concerns the overall long term development path of the economy. In Section 5, we examine whether investments in export industries have been concentrated too heavily in sectors which rely on preferential access to markets in developed countries, and which might therefore be vulnerable to institutional changes in the world trading system. We also ask whether development based largely on comparative advantage in tropical agriculture may not provide the type of employment and increases in real wages necessary to satisfy the aspirations of a large part of the population, but instead lead to the emergence of low wage export enclaves involving mostly foreign capital and migrant labour. If this is the case a more interventionist approach by the Government to influence the nature of private investment may be desirable.

Before addressing these issues a brief outline of the major macroeconomic developments in Belize during the second half of the 1980s is presented in Section 1.

This paper does not attempt to provide definitive answers to the questions posed above; we do not as yet have sufficiently comprehensive data nor understanding of the economy for that. What we do attempt is a preliminary survey of issues which we consider to be of importance using the limited data which is available, and which hopefully can form the basis of ongoing research in Belize.

1. MACROECONOMIC DEVELOPMENTS

1.1 Economic Growth

After several years of very slow growth, the Belizean economy expanded vigorously over the final three years of the 1980s, with real GDP growth averaging 9.5 percent per annum during the 1987-1989 period as compared to 1.6 percent per annum during the previous six years (See Table 1). The basis for the present phase of economic growth was laid in the mid 1980s with the successful implementation of stabilisation policies, increased inflows of official capital and an improvement in the external terms of trade.

Most of the major sectors of the economy have contributed to the recent expansion. Output of the construction industry rose by an average of 20 percent per annum in real terms during the three years since 1986, boosted by the expansion in hotel and house building and public infrastructural investment. The timber industry increased output by an average of 36 percent per annum in this period, while the trade, restaurants and hotel sector expanded by an average of 16 percent per annum, the public utilities by 15 percent, agriculture by 7 percent and manufacturing by 6 percent.

1.2 Investment

A major reason for the expansion of output in recent years has been the large increase in investment undertaken by the public and private sectors (See Table 2). Gross fixed capital investment increased by more than 150 percent between 1986 and 1989 to BZ\$201 million (31.4 percent of GDP).¹

Public investment rose from BZ\$41 million in 1986 to BZ\$80 million in 1989 and included major expenditures to expand capacity by the utilities and to improve the transport infrastructure. Public investment is examined in more detail in Section 2.

Private investment increased from BZ\$39 million in 1986 to BZ\$121 million in 1989. Unfortunately we do not have a detailed sectoral breakdown, but it appears from the available evidence that investment in the traded goods sectors of the economy accounted for at least 60 percent of the private investment undertaken during 1987-89.

Estimates have been made of investment by companies which are operating under the Government's development concessions program,² most of which are supplying the export

¹ We do not have accurate estimates of capital depreciation and therefore net investment. However it is possible that depreciation rates might be relatively high because of the poor condition of roads and the fact that much of the housing stock is constructed with wood.

² This is a program of fiscal concessions consisting of tax holidays of up to 25 years and duty exemption on imported capital goods and material inputs, for companies which fulfill

(including tourist) markets. Investment by these companies during 1987-89 amounted to an estimated BZ\$120 million (40 percent of total private investment during this period) of which BZ\$55 million was in the agricultural sector (mainly citrus and bananas), BZ\$32 million in tourism and BZ\$34 million in various manufacturing industries.³ Approximately BZ\$72 of this investment was undertaken by foreign companies.

Private investment in the traded goods sectors has been stimulated by the rise in prices of many export crops, by the country's preferential access to the U.S. and EC markets and by increased demand for ecology linked tourism. It appears likely that, because of the nature of the markets for some of Belize's main exports and tourism, early entrants into these markets are able to earn economic rents or oligopolistic profits. Continued entry by firms into some of these markets is however likely to be restricted, either by quotas or (in the case of tourism) by possible land constraints. There are therefore strong incentives for firms to establish themselves quickly in these markets before further opportunities for investment are restricted, and this may partly explain why private investment has risen so rapidly in recent years. The restoration of macroeconomic stability in the mid 1980s is also likely to have provided some encouragement for investment, particularly by foreign companies.

certain criteria with regard to size of investment, exports and employment.

³ These include garments, wood products, soaps, plastics, and sugar, food and drink processing. Total investment in agriculture was likely to have been much higher than the BZ\$55 million estimated to have been undertaken by firms with development concessions. In addition to this figure there were investments by the sugarcane farmers and by most of the smaller citrus farmers who do not have development concessions, and a BZ\$16 million investment by the private sector in a new port facility for the banana industry.

1.3 Public Sector Finances

Since the mid 1980s there has been a considerable improvement in the fiscal position of both the Central Government and the non financial public enterprises (NFPEs). The current account balance of the Central Government moved from a deficit of BZ\$0.4 million in the 1985/86 fiscal year to a BZ\$64.6 million surplus (10.1 percent of GDP) in the 1989/90 fiscal year (See Table 3). Over the same period the current balance of the NFPEs increased from BZ\$14.1 million to BZ\$20.2 million (See Table 4) while the Social Security Board accumulated current surpluses of between BZ\$8 million and BZ\$10 million.

The improvement in public finances was attributable to the fiscal policies implemented as part of the stabilisation program during 1984-86 and the subsequent vigorous growth of the economy. As a result tax revenues (particularly import duties), other Government revenues and the operating revenues of the public enterprises increased rapidly while at the growth of current expenditures was restrained.

The current surpluses generated by the public sector have been used to finance some of the increased public investment, to repay domestic debt and to accumulate deposits in the domestic banking system. Net credit to the public sector from the domestic banking system fell from BZ\$60.5 million at the end of 1986 to negative BZ\$49.1 million at the end of

1989.⁴ This provided a substantial injection of liquidity into the commercial banks allowing them to rapidly increase lending to the private sector over the last three years. Part of the public sector savings have therefore been made available to finance private sector expenditures.

The improvement in the fiscal position during the second half of the 1980s undoubtedly played a vital role in restoring and maintaining macroeconomic stability in Belize. Without the savings achieved by the public sector it is unlikely that the increases in investment and high rates of economic growth could have been sustained without seriously jeopardising the balance of payments position.

1.4 International Trade and the Balance of Payments

Overall balance of payments (BOP) surpluses averaging BZ\$24 million (4.8 percent of GDP) were accumulated in each of the last five years of the 1980s. (See Table 5) The surpluses of 1985 and 1986 mainly reflected the impact of the stabilisation measures on import demand along with inflows of external capital to the public sector. During the following three years however imports grew rapidly, leading to a widening of the merchandise trade deficit, but this was offset by surpluses from the services account, grants and remittances and

⁴ During the same period public sector external debt has increased from BZ\$194.8 million at the end of 1986 to BZ\$261.0 million at the end of 1989, mainly as a result of borrowing to finance the public investment program.

substantial net capital inflows to both the public and private sectors. There has been an improvement in the external terms of trade estimated at 5.6 percent since 1985.

Domestic merchandise exports expanded by an average of 11 percent per annum between 1985 and 1989 to BZ\$190 million, mainly as a result of both higher prices and increased output of two of the major export industries, citrus and bananas. There was also a modest recovery in sugar production in 1989 after a severe decline earlier in the decade. Retained imports rose by an average of 14.8 percent per annum between 1985 and 1989 to BZ\$351 million because of the increase in investment and the strong growth of private consumption. As a result the merchandise trade deficit widened to 25 percent of GDP in 1989.

Earnings from services have been boosted by the rapid growth of tourism - tourist arrivals rose by an average of 15 percent per annum between 1985 and 1989. The current account has also benefitted from remittances from Belizeans living abroad, which are estimated to have amounted to approximately 5 percent of GDP in recent years. However because of the widening merchandise trade deficit, the current account moved into deficit in 1988 and 1989, after recording surpluses in the previous three years. The estimated deficit in 1989 was BZ\$40 million or 6 percent of GDP.

Net capital inflows expanded rapidly since 1987 and are estimated to have amounted to BZ\$54 million (8 percent of GDP) in 1989. Along with continuing disbursements of official borrowing there has been a strong increase in capital inflows as a result of direct foreign investment and private external borrowing.

2. PUBLIC SECTOR INVESTMENT

2.1 The public sector has undertaken a major program of investment projects in recent years. Public fixed investment increased by nearly 100 percent between 1986 and 1989 to BZ\$80 million or 13 percent of GDP (See Table 2). Many of the projects undertaken have been designed to ease some of the serious infrastructural constraints to the growth of two of the economy's priority sectors, agriculture and tourism. In this section we examine public investment in Belize and attempt to assess three issues of potential concern. First, whether the type of projects undertaken by the public sector will complement private sector investment. Second, how productive is the public sector investment likely to be? Third, has the increase in public investment crowded out private investment?

The contribution of public investment to economic growth and development is likely to depend in part upon the nature of the investment and in particular on whether it complements, or competes with, private investment. Although many infrastructural projects would not normally be undertaken directly by the private sector⁵, they can potentially stimulate increased private investment. The provision of infrastructure can lower production and transport costs and thus raise the rate of return to private investment. It may also create new opportunities for private investment and stimulate structural change, as well as

⁵ Or at least not at economically optimal levels for reasons which are well known, eg the inability to directly capture the economic benefits of the project, positive externalities, and the large scale and long gestation periods of many projects combined with deficiencies in financial markets.

boosting demand for private sector output (Blejer and Khan 1984, Wai and Wong 1982). Moreover public infrastructure can make a vital contribution to human resource development in LDCs.

Public investment may however depress private investment, particularly if it competes with the private sector in the output of marketable products or crowds out the private sector from access to scarce labour, capital or foreign exchange (Blejer and Khan 1984). Even where public investment is potentially complementary to private investment, the poor selection, design, implementation and maintenance of public projects may severely reduce its productivity and thus its contribution to growth.

2.2 The Need for Infrastructural Investment in Belize

Infrastructural deficiencies, particularly in the areas of transport and electricity, are arguably the most serious constraints to the continuing expansion of exports and GDP in Belize. Because of the country's comparative advantages in tropical agriculture the most rapidly growing traded goods sectors are in rural areas. The rural areas are however very poorly served by feeder roads and even trunk roads between some of the major population centers are in poor condition. Transport problems are compounded by the country's climate and topography. The tourist industry would also benefit from the improvement of the road system because the major inland tourist attractions are widely dispersed around the country.

Electricity supply and transmission is also inadequate, with uneconomical small scale generation, the lack of a national grid system and the lack of supply to many outlying rural areas. Electricity is very expensive and some of the larger manufacturers have had to install their own generating capacity to reduce costs and to ensure reliability of supply. Other infrastructural deficiencies include insufficient and high cost telecommunication links and an inadequate water supply to some of the rural areas and the country's most popular tourist destination, Ambergris Caye.

2.3 The Composition and Productivity of Public Investment

A breakdown of public sector investment for the last three fiscal years - 1987/88-1989/90 - is given in Table 6. Public investment in this period amounted to BZ\$186 million of which BZ\$118 million was undertaken by the Central Government.⁶

The single largest public investment project in recent years was the recently completed construction of new terminal facilities, a control tower and extension of the runway at the international airport. Airport expenditures amounted to BZ\$28 million or 15 percent of

⁶ This figure includes BZ\$11 million of financial investments by the Central Government, but does not include most of the Central Government fixed investment that was financed directly from external grants because accurate data on the composition of this investment are not available. The latter is estimated to have amounted to approximately BZ\$14 million during this period.

public investment during the last three fiscal years.⁷ With the completion of the airport project, the most serious bottleneck to continued expansion of the tourist industry has been overcome, as the previously existing facilities were incapable of supporting any further increase in airport traffic. The airport may also be of benefit to industries requiring quick access to the North American and regional markets, such as producers of fresh vegetables.

Capital expenditures on roads and bridges amounted to BZ\$33 million or 18 percent of public investment during this period. A large part of this investment was in the rural areas in the southern part of the country and was designed specifically to facilitate the expanding banana and citrus industries in those areas. Investment in public utilities - electricity, telecommunications and water and sanitation facilities - amounted to BZ\$62 million or 33 percent of public investment. A further BZ\$25 million or 13 percent of public investment was invested in areas linked to human resource development such as education, health, housing and various community and social projects.

The overall composition of public investment during the last three fiscal years appears to be consistent with the major objective of facilitating investment and growth in the private sector. Investments in transport and utility infrastructure each account for one third of total public investment and, given the clear demand for these facilities as a result of either

⁷ This includes some relatively minor items of capital expenditure on the municipal and district airports.

already existing or planned private investments, these infrastructural investments have the potential to begin to generate economic returns within a relatively short time frame.

The fact that public investment is potentially complementary to private investment or that it facilitates human resource development is a necessary but not sufficient condition to ensure a high level of productivity or efficiency in terms of its economic rate of return. The ex ante estimated economic rates of return (ERR) are actually quite high for many of the major projects undertaken in recent years. For example, the ERR for the international airport project was estimated at 13 percent.⁸ Ex post rates of return could however be lower for a number of reasons.

First, project capital and maintenance costs could be higher than planned; several major projects (including the airport) have already suffered from cost overruns. Unfortunately project implementation and monitoring has suffered from the serious personnel constraints in the public service, while the underfunding of maintenance work has contributed to the excessive deterioration of the road network. Second, the expected growth in complementary private sector output may not materialise, particularly because of its dependence upon developments in international markets and in some cases upon the continuation of preferential trading arrangements with the EC and U.S.A.

⁸ Cost Benefit Analysis (CBA) was carried out (by outside consultants) on the major externally funded projects. Most of the smaller locally funded projects were not assessed with CBA.

2.4 Public Investment and Crowding Out of The Private Sector

It does not appear likely that the increased levels of public investment in Belize have crowded out private investment through the financial markets. External loans and grants financed approximately 61 percent of the BZ\$176 million of public fixed investment during the calendar years 1987-89. The current surpluses of the non financial public sector during this period amounted to BZ\$207 million, three times the amount needed to cover the domestically financed portion of public fixed investment. As a result public sector net credit from the domestic banking system fell substantially (See Section 1). The build up of excess liquidity in the commercial banks that resulted is evidence that private investment has not been constrained by any shortage of local capital. It is also unlikely, given the relatively modest level of the country's external debt indicators (See Section 3) that public external borrowing has reduced the country's credit worthiness on international markets and therefore raised the external supply schedule of finance to the private sector.

Neither have private sector investors been crowded out of the foreign exchange markets. Given the BOP surpluses accumulated over the last five years it has not been necessary either to restrict access by the private sector to foreign exchange for current account or debt repayment purposes or to devalue the exchange rate.

It is possible however, that the increased levels of public investment have raised wage levels in the construction industry with potential adverse effects on private investment. Central

Government investment, most of which has involved construction projects, has contributed to a very rapid increase in construction activity. Although data on labour supply and costs are unavailable, anecdotal evidence suggests that there have been shortages of local labour and that construction companies on private sector projects have had to employ considerable numbers of migrant workers.

3. EXTERNAL FINANCING

3.1 A substantial part of both the public and private investment in recent years has been financed with external capital. Approximately BZ\$107 million or 61 percent of total public fixed investment during the 1987-89 period was financed directly from external sources - BZ\$80 million from loans and approximately BZ\$27 million from grants. More than a third of the private investment during this period has been financed either through direct equity investment by foreign firms (DFI) or from commercial or semi concessional external loans. In this section we assess whether the public sector has relied too heavily on external sources of finance. We also examine the available data on the external financing of private investment.

3.2 Public Sector External Financing

Developing countries often have to rely on external capital to finance public investment projects, in particular because of shortages of foreign exchange and national savings. Excessive levels of external debt have however created very serious problems in the Caribbean and elsewhere. Instead of promoting growth, the need to utilise a substantial proportion of foreign exchange earnings to service debt has forced many countries to implement economic adjustment policies which have led to severe cutbacks in domestic investment and contributed to prolonged recession.

External debt servicing problems can occur for several reasons. First, the external debt may have been incurred not for investment but to finance public consumption. Second, even if used to finance investment, the productivity of the investment may be low.

Third, although the investment may be productive in terms of generating output, the economy may face difficulties in transforming this output into earnings or savings of foreign exchange. Public investment projects do not normally directly earn or save foreign exchange. At best they will facilitate private investment in the traded goods sector capable of generating sufficient foreign exchange to meet the foreign exchange costs of both types of investment. However this may not be possible for a number of reasons, including structural weaknesses in the economy - in particular the lack of diversification of production common in some Caribbean countries - and an inappropriate structure of price incentives for the traded goods sector.

Fourth, debt servicing requirements may not be synchronised with the increase in foreign exchange availability, a problem which may arise if projects with long gestation periods are financed with short term credits. Finally, problems may occur if adverse external developments significantly raise the level of debt servicing relative to foreign exchange availability. (World Bank 1985)

There is no ideal method for determining whether the level and structure of public debt can be sustained in the long run without the need for undesirable economic adjustments. In

assessing the likelihood of debt servicing problems arising in Belize we adopt three different approaches. First, we examine the uses to which external capital has been put. Second, we examine the interest rate and term structure of the debt. Third, we look at some commonly used indicators such as the debt/exports and debt/GDP ratios and make some tentative forecasts of the future course of these ratios.

3.3 The Uses of Public Sector External Borrowing in Belize

At the end of 1989 the stock of public and publicly guaranteed disbursed and outstanding external debt (PED) stood at BZ\$261.0 million. A breakdown of the PED according to the use to which disbursements have been put is given in Table 7.

More than 80 percent of the PED was used to finance investment, mainly, but not exclusively, in the public sector.⁹ The uses to which this debt has been put closely reflects the composition of public investment examined in the previous section: 32 percent was used to finance investments in the transport infrastructure, 21 percent in the utilities and 12 percent in agriculture. Some of the issues discussed in the previous section are also relevant here. Debt servicing problems will be minimised the higher is the rate of return to investment and the greater is the complementarity with private traded goods investment.

⁹ Balance of payments support, contracted in the mid 1980s as part of a stabilisation program, accounted for 16% of PED at the end of 1989.

3.4 Interest Rates and Term Structure

The average interest rate of the PED at the end of 1989 was approximately 4.2 percent (See Table 8) and has displayed no significant tendency to rise as new debts have been contracted. The average interest rate is low because most of the debt has been contracted on concessional terms, with several of the larger loans (some BZ\$55 million of the PED), having been contracted from bilateral sources interest free. Loans contracted at variable interest rates, generally linked to the LIBOR, amounted to 23 percent of the PED at the end of 1989. Because a high proportion of the PED is at fixed interest rates the country's vulnerability to a possible rise in world interest rates is limited.

Most of the PED is long term with over 80 percent having a payback period exceeding 15 years while less than 1 percent has a maturity of less than 5 years.

3.5 External Debt Indicators

PED, debt servicing payments, GDP and exports of goods and services are set out in Table 8. The PED increased by 32 percent between 1985 and 1989 but, because of the more rapid growth of GDP, the debt/GDP ratio has fallen from 50.1 percent in 1985 to 40.8 percent in 1989.

Total debt servicing (TDS) amounted to BZ\$29.5 million in 1989, having risen by only 7 percent since 1986. The low average interest rate and long maturity of most of the debt has served to keep the debt servicing requirements down. As a percentage of total exports of goods and services (XGS), TDS has fallen from 10.5 percent in 1986 to 7.7 percent in 1989 because of the strong growth of XGS. XGS increased at an average annual rate of 13.6 percent between 1986 and 1989.

Although international comparisons can be misleading, the data in Table 9 indicate that, in comparison with other countries in the Central American and Caribbean region, Belize has a relatively low TDS/XGS ratio. Over the 1986-1988 period Belize had the fourth lowest ratio of the 16 regional countries for which data is available.

Based on already committed external liabilities, the stock of debt and debt servicing requirements have been projected up until 1995 (See Table 8). These figures will rise as new debts are contracted. The stock of debt is projected to rise by a further 14 percent before beginning to decline in 1992, while debt servicing requirements will be stable and will average BZ\$29.5 million per annum up until 1995. Tentative projections, based on expected output and price trends in the major export industries, suggest that export earnings will rise at an average annual rate of 11 percent over this period.

The analysis above suggests that public external borrowing has been prudent and that the existing external commitments are not likely to impose any significant burden on the

country's foreign exchange resources over the medium term. Most of the external debt has been used to finance investment with the emphasis being on infrastructural support for private traded goods activity. The interest rate and term structure of the debt is very favourable. Debt servicing requirements are low in relation to foreign exchange earnings and there has been no upward trend in either the PED/GDP ratio or the TDS/XGS ratio since 1985.

The low debt servicing requirements combined with the projected continuation of export growth suggest that there is scope for contracting substantial additional external liabilities if productive investment opportunities can be identified. Moreover, as long as concessional loans are available, external financing of public investment will generally have a lower opportunity cost than domestic financing, both in terms of the government's budget and the country's foreign reserves. Caution in contracting new commitments is however still necessary. A large increase in externally financed investment could reduce the productivity of public investment because of capacity constraints in both the public service and the domestic construction industry. In addition the country's foreign exchange earnings are very vulnerable to adverse developments in the increasingly uncertain world economic environment (See Section 5).

3.6 External Financing of Private Sector Investment

The use by the private sector of external financing for investment is generally less likely to be a cause for concern than heavy public sector external borrowing. First, the foreign exchange payments associated with private sector debt and equity servicing are linked directly to the financial returns generated by the investors and thus are less likely to impose a burden on the wider economy, unless external debt is publicly guaranteed or if substantial externally financed investments are made in the non traded goods sector. Second, investment by foreign firms is sometimes accompanied by the transfer of technology, managerial or marketing expertise not locally available.

Private sector investment (by both local and foreign firms) financed directly from external sources (via foreign bank loans or DFI) is estimated at approximately BZ\$104 million during 1987-1989. This amounts to about 34 percent of private investment in this period. Foreign companies are estimated to have invested approximately BZ\$74 million in fixed capital during the last three years. Agriculture accounted for 44 percent of this investment, tourism for 29 percent and industry for 26 percent.

Foreign loans contracted by local companies during the last three years (and registered with the Central Bank) are estimated at BZ\$30 million, of which 57 percent were for agriculture, 23 percent for industry and 19 percent for tourism. Many of these loans were obtained at

semi-concessional terms from multilateral institutions¹⁰ and are of medium to long term maturity (5 to 15 years).

Local private investors have found foreign borrowing attractive for two reasons. First, some of the local banks have been reluctant to extend medium to long term credits to entrepreneurs unless extensive collateral can be provided. Second, the interest rates charged on foreign loans have been between 2 and 6 percentage points lower than the average of 14.1 percent per annum charged on business loans by the local commercial banks.

¹⁰ The Caribbean Development Bank, Commonwealth Finance Corporation and the Latin American Agrobusiness Development Bank have been the main suppliers of foreign loans to local private investors.

4. NATIONAL SAVINGS

The growth in public savings in recent years has been impressive, but this has not been matched by private savings. In this section we examine the savings performance of the Belizean economy and discuss its implications for the medium term.

4.1 Trends in Public and Private Savings

Gross national savings (GNS) increased by 44 percent between 1986 and 1989 to BZ\$168 million (See Table 10). However, as a percentage of GDP, GNS has declined slightly from 28 percent in 1986 to 26 percent in 1989, while the gap between GNS and gross investment widened to BZ\$40 million or 6 percent of GDP in 1989.¹¹

The growth in GNS was attributable to the large increases in public saving achieved since 1985, particularly by the Central Government (See Section 1.3). Public savings amounted to BZ\$96 million or 15 percent of GDP in 1989 while the public sector's contribution to GNS rose from 30 percent in 1986 to 57 percent in 1989.

Private savings increased rapidly in 1986 and 1987, but fell sharply in the following two years despite the strong growth in private income. Private savings amounted to only BZ\$72 million or 11 percent of GDP in 1989 as compared with 20 percent of GDP in 1986. As a

¹¹ The latter is identical to the current account deficit of the BOP.

percentage of private income, private savings fell from 26 percent in 1986 to 16 percent in 1989.¹²

The fall in private savings together with the continued increase in private investment meant that private savings were only sufficient to cover 56 percent of private investment in 1989 with the deficit of BZ\$56 million being financed from external sources (see Section 3.6) and, to a lesser extent, from public savings.

The reasons behind the fall in the private savings rate (private savings/private income) are unclear. It is possible that the savings rates estimated in 1986 and 1987 were abnormally high - perhaps as a result of the impact of the stabilisation program - and that the long term private savings rate, given the level and distribution of incomes, is only in the region of 15-20 percent.

Private savings may have been constrained by deficiencies in local financial markets. The range of savings instruments available to the public is very narrow, and for many savers is effectively limited to savings deposits in the commercial banks or shares in credit unions. With the exception of shares in the local telecommunications company, long term high

¹² The GNS and private savings estimates must be treated with some caution because of possible data inaccuracies. It is possible that private savings, which are calculated as a residual from estimates of gross investment, the current account of the BOP and public savings - have been underestimated. This could have occurred if either gross investment and/or current account earnings have been underestimated. If the statistics are reasonably accurate private consumption must have increased by over 20% in both 1987 and 1988.

yielding assets are not available.¹³ Moreover, although bank deposits held by the private sector (which account for approximately 85 percent of private sector financial savings) expanded at a faster rate than private incomes between 1986 and 1989, a substantial proportion of these deposits have been used to facilitate private consumption rather than investment and thus have not been translated into real savings. This is partly because the local commercial banks have been reluctant or unable to finance long term capital investments not supported with extensive collateral, preferring instead to finance the retail trade, short term working capital and personal loans.¹⁴

The increase in public savings and the greater availability of external finance may also have contributed to the decline in the private savings rate. Because public savings combined with net external public capital inflows have been more than sufficient to finance public investment, the public sector expanded its deposits in the commercial banks from BZ\$24.6 million at the end of 1986 to BZ\$73.6 million at the end of 1989. This provided the banks with increased liquidity with which to expand lending for private consumption and reduced the pressure on the banks to compete more aggressively for private deposits. On occasions during 1988 and 1989 some of the banks refused to accept large private time deposits because of high levels of excess liquid asset holdings.¹⁵ The private sector may also have

¹³ These shares have on two occasions been offered to the public but the response has been very limited.

¹⁴ Lending to the distributive and personal sectors accounted for 44% of total bank lending to the private sector at the end of 1989.

¹⁵ This problem may have been at least partly avoided if a greater volume of public savings had been sterilised, ie held in the Central Bank instead of the commercial banks.

interpreted the improvement of public finances as an indication that future tax rates would be reduced and therefore increased its own consumption as suggested by the Ricardian equivalence theorem.¹⁶

4.2 Is the Level of Private Savings Too Low?

Because of the high levels of public and foreign savings, the fall in private savings did not (apparently) constrain private investment nor have adverse consequences for the BOP. It is possible however that both public savings and external capital flows will decrease over the next few years placing a much greater burden on private savings if investment levels are to be maintained.

Public savings are likely to, at best, stabilise at current levels and probably decline for two reasons. First, the growth in tax revenues is likely to decelerate as the growth in the economy, and especially imports, slows to more sustainable levels, and because of the reductions in income tax rates enacted in 1989. Second, government consumption is likely to rise more rapidly than in recent years because of pressure for higher wages in the public sector and for an expansion of services. The increased capital expenditures undertaken in 1988 and 1989 will also entail higher future current expenditures.

¹⁶ For a discussion of the relevance of this theorem to developing countries see Haque (1988).

Although future trends in capital account transactions are very difficult to forecast, it is possible that the availability of external finance may decline over the medium term and that the cost of external capital will rise. Concessional official capital inflows are likely to be reduced, in particular because some international donors are starting to take the view that Belize has now developed to a position where it ought to be able to access greater volumes of commercial credit to finance public investment. Direct foreign investment might decline as opportunities for profitable investment are exhausted. Net private capital inflows may also be reduced because of the need to service existing external liabilities.

Private saving might, to some extent, increase automatically over the medium term because of the rise in incomes and, particularly, in corporate profits, which should occur as a result of the recent investment boom.¹⁷ A decline in public saving and/or foreign saving may also stimulate greater private saving through a reduction of bank liquidity. The banks might then have to make greater efforts to attract private deposits and curtail consumer lending, although tighter liquidity might also constrain bank lending for private investment.

Policy measures to promote higher levels of private saving will have to address the deficiencies in the financial system and in particular the lack of diversity of savings instruments available to the public.¹⁸ It may however prove to be difficult to bring about

¹⁷ The marginal propensity to save (mps) out of corporate profits appears to be much greater than the mps out of personal incomes in some Caribbean countries (Bourne 1986).

¹⁸ Both the Central Bank and the Ministry of Finance have commissioned research into capital market development.

a significant increase in private savings in the medium term. Fiscal policy should therefore be directed towards at least maintaining the current level of public saving. Because there is limited scope for further constraints on current expenditure increases, it is particularly important to extend and reinforce the tax and revenue base in order to prevent the growth rate of revenues from declining.

5. THE COMPOSITION OF PRIVATE INVESTMENT

The course of economic development in Belize during the 1990s will be influenced to a large extent by the nature of the investment undertaken in the last few years. This investment has been determined mainly by the country's natural resources - particularly abundant agricultural land and the various tourist attractions - and by preferential access to exports markets in the U.S. and EC. Government policy has sought to facilitate private investment in the export sectors by providing the necessary infrastructural improvements and fiscal incentives but has not sought to more actively direct investment towards specific industries.

The pattern of private investment, and in particular the importance of investment in export agriculture, raises two issues which are of potential concern for the future development of the economy. First, has the sectoral composition of investment been too narrow and, in particular, has the private sector invested too heavily in industries which rely on preferential export marketing arrangements. Second, will the growth in low wage export agriculture accord with the future employment requirements of the labour force.

That the emphasis of private investment has been in export industries is undoubtedly of great importance if future economic growth is to be sustainable. Private investment has however been concentrated to a considerable extent in three industries - citrus, bananas and tourism. Some investment has taken place in other export industries, notably garment

assembly, wood products and shrimp farming, but the overall impact on the diversification of the merchandise export base has so far been limited and will probably remain so at least in the medium term.¹⁹

Both the citrus and banana industries receive preferential treatment in their respective export markets. Citrus concentrate exports enter the U.S.A. duty free under the Caribbean Basin Initiative (CBI) while banana exports are sold on the protected U.K. market. Continued protection for bananas in the U.K. market is threatened by the elimination of trade barriers between EC countries scheduled for implementation in 1992. The preferential access of citrus exports to the U.S.A., while not at risk in the foreseeable future, could possibly be jeopardised by proposals to create a free trade area in the Western Hemisphere or by moves towards agricultural trade liberalisation as part of the ongoing Uruguay Round of GATT. Because production costs in both the citrus and banana industries are significantly higher than in major potential competitors there is considerable uncertainty as to how viable these industries would be without the benefit of preferential trading arrangements. The export base has been diversified to some extent by the expansion of tourism, but further strong growth in this industry might be constrained by inadequate infrastructure, land shortages on the major coastal sites and by labour shortages.

¹⁹ Earnings from sugar, citrus and bananas accounted for 66% of merchandise exports in 1989.

The concentration of private investment in relatively labour intensive low wage industries, especially in rural areas, is likely to increase the existing disparity between the labour requirements of the economy and the employment and wage aspirations of the workforce. Belize does not correspond to the traditional paradigm of a labour surplus developing country in which a large part of the population, working in a subsistence sector where marginal productivity is constrained by lack of capital and low technology, can be easily transferred into the formal or modern sector of the economy. The major constraint to development in Belize is not only a shortage of capital but a shortage of the necessary skills in the workforce.

Unemployment rates are high in the urban areas but the urban unemployed are not attracted to agricultural labour. Moreover unskilled wage rates in both urban and rural areas (between BZ\$60 and BZ\$120 per week), although higher than in neighbouring Central American countries, are unattractive in the context of the prevailing living standards and aspirations of the local workforce. As a consequence many companies, especially in the agricultural sector but also in tourism and construction, are unable to recruit sufficient Belizean staff and therefore rely heavily on migrant labour instead.

Urban unemployment is not likely to be reduced unless wage rates rise and more attractive job opportunities become available, but this requires an increase in labour productivity

which is impeded by the inadequate levels of education and training of the workforce.²⁰ There is a growing body of evidence that human resource development in general and primary and secondary education in particular is one of the most important determinants of long term growth in developing countries (Otani and Villanueva, 1988). The social rate of return to primary and secondary education in developing countries has been estimated to be generally at least as high and probably much higher than the rate of return to most physical investments (Psacharopoulos, 1988).

Unfortunately the need to restrain public sector current expenditures for macroeconomic reasons combined with the need to finance major infrastructural projects has constrained the resources available for education and training. Moreover, because much of the private investment has been in industries which require mainly unskilled or semi skilled labour, private employers have had only limited incentives to provide vocational training for their own workforce. Unless public policy in the 1990s can effectively tackle the educational and training deficiencies there is a serious danger that further economic growth will have only a limited impact on living standards for the bulk of the population, and that income inequalities will increase.

The problems highlighted above indicate that a shift in the emphasis of development policies in Belize might now be appropriate. A more interventionist approach may be

²⁰ A recent report by UNICEF claims that only 60% of pupils entering the education system complete primary school and only 50% of primary school graduates proceed to secondary school (UNICEF 1989).

required to encourage the private sector to increase investment in non traditional exports and in industries which require a more skilled and productive labour force, particularly in the urban areas. Allied to this would be fiscal incentives for the private sector to provide vocational training. Unfortunately because of inadequate knowledge as to the determinants of private investment in different sectors and because of the personnel constraints in the public sector, designing and implementing effective policies will be difficult. The public sector will also need to devote greater resources to human resource development and especially to raising educational participation and attainment. Given the fiscal constraints, this will probably entail placing less emphasis than in recent years on infrastructural expenditures.

CONCLUSIONS

We do not provide a comprehensive summary of the paper in this conclusion but instead briefly outline some of the medium term policy issues which we think should be addressed and indicate topics in which further research would be valuable.

The maintenance of a stable macroeconomic environment, particularly in regard to the external balance, is essential if real GDP growth is to be sustained over the medium term. If persistent BOP deficits were to occur, not only would growth reducing adjustment policies be necessary, but the confidence of private investors might be seriously undermined. The latter might lead to a reversal of the private capital inflows of recent years, thus exacerbating BOP problems.

In practice macroeconomic stability in Belize, as elsewhere in the Caribbean, depends crucially on avoiding significant fiscal deficits (Worrell, 1987). Private sector savings (both local and foreign) are insufficient to finance both private investment and public sector deficits, and the efficacy of monetary policy to influence private savings and expenditures is limited by the lack of adequate monetary tools and instruments. The medium term fiscal policy emphasis should be on expanding and strengthening the revenue base because excessive restrictions on the growth of current expenditures are unlikely to be desirable in view of the need to devote greater public expenditure to human resource development. The

latter is important because the shortage of educational and vocational skills in the labour force is a serious constraint to further development.

Although some of the infrastructural bottlenecks have now been overcome, further development of the public infrastructure is required, especially the improvement of the road system and electricity supply. There is a danger however that the overall productivity of public investment might be reduced because of public or political pressure to implement projects with low or highly uncertain rates of return. Greater attention paid to the routine maintenance of the road system would reduce the excessive rate of road deterioration and thus the need for future capital expenditures.

The completion of the largest investment project in recent years (the international airport) should provide some scope for reducing government investment as a percentage of GDP. This would both release financial resources for necessary current expenditures and reduce the possibility of capacity constraints in the construction industry impeding private investment.

The public sector should continue to utilise concessional external finance where possible. The cost of concessional external borrowing is significantly less than the opportunity cost of domestic funds. Moreover public external liabilities and debt service commitments are relatively modest in comparison with the size of the economy and the value of export earnings.

Public policy may need to address two aspects of private sector economic behaviour which might be regarded as suboptimal in the context of the development needs of the country. The first is the low level of private savings, an increase in which is likely to be necessary in order to reduce the private savings/investment gap that is currently financed through foreign and public savings. The second is the rather limited diversity of private investment between export industries and the inadequate level of investment in industries which would enhance labour productivity and therefore earnings, particularly in urban areas where there is substantial unemployment.

The topics discussed in this paper have indicated several areas of the economy which merit further research because of the lack of both adequate statistical data and an understanding of the key relationships between economic variables. Three areas of research would appear to be of particular importance.

First, estimates of private investment on a sectoral basis are required. Private investment statistics are deficient throughout the Caribbean and this makes any proper assessment of the effectiveness of policy measures very difficult (Ellis, 1990). In addition a clearer understanding of the main determinants of, and constraints to, private investment in the different sectors is needed in order to facilitate the planning of public investment, the fiscal incentive framework, trade policy and the development of capital markets.

Second, the performance of public investment should be evaluated. In particular it is important to determine whether the rate of return to capital is actually as high as was planned, and if not, what are the main factors retarding productivity. Research of this nature will facilitate the selection, planning and implementation of future public investment projects.

Third, our understanding of the motives for private saving should be enhanced, and attempts made to establish the type of asset most attractive to the household and corporate sectors. It would also be valuable to examine the impact, if any, of fiscal policy on private savings. Research in this field is necessary not only to inform policy initiatives designed to raise the level of private savings but also as a guide for capital market development.

TABLE 1**Real Annual GDP Growth Rates**

Sector	wt in GDP (1988)	Average Annual Growth %		
		81-83	84-86	87-89
GDP	100.0	0.5	2.6	9.5
Primary	21.0	-0.6	-1.1	9.6
Agriculture	16.3	-0.6	-0.4	6.7
Forestry	2.2	-5.2	-2.1	35.7
Fishing	2.5	6.2	-3.8	9.9
Secondary	21.4	-0.9	1.2	12.0
Manufacturing	11.3	0.6	-1.7	6.1
Electricity & Water	3.3	6.7	4.6	14.9
Construction	6.8	-7.5	8.2	20.4
Services	57.6	1.3	4.5	8.5
Trade, Restaurants & Hotels	17.5	-6.2	7.5	16.0
Transport & Communication	10.5	11.7	7.0	6.3
Finance & Insurance	5.0	-3.2	3.3	10.2
Real Estate & Business Services	4.9	-0.4	1.6	5.7
Public Administration	11.6	10.5	2.0	3.4
Other Services	8.1	2.7	2.6	3.3

Sources: Central Statistical Office, Central Bank

TABLE 2**Gross Fixed Capital Formation****(BZ\$ millions)**

	1985	1986	1987	1988	1989
Gross Fixed Capital Formation	71.6	80.0	119.2	158.6	200.8
Central Government	26.2	27.4	23.8	28.8	57.5
Non Financial Public Enterprises	10.4	13.7	18.4	24.1	20.1
Total Public	36.8	41.1	42.3	54.0	79.8
Private	34.8	38.9	76.9	104.6	121.0
GDP	392.3	418.3	503.6	577.9	640.0
Public GFCF/GDP (%)	9.4	9.8	8.4	9.3	12.5
Private GFCF/GDP (%)	8.9	9.3	15.3	18.1	18.9
GFCF/GDP (%)	18.3	19.1	23.7	27.4	31.4

Sources: Central Statistical Office,
Ministry of Finance,
Central Bank, IMF

TABLE 3

Fiscal Operations Of The Central Government

(BZ\$ million)

	1985/86	1986/87	1987/88	1988/89	1989/90
Total Revenue & Grants	100.1	115.9	142.9	198.7	214.8
Current Revenue	98.6	111.7	132.8	160.2	196.5
Tax Revenue	83.1	97.1	119.9	143.9	171.6
Taxes on Income & Profits	19.3	21.3	28.3	33.0	35.8
Taxes on Property	1.0	1.7	1.4	1.6	1.5
Taxes on Goods & Services	11.0	13.1	14.4	16.3	29.2
Taxes on International Transactions	50.3	59.0	72.6	90.1	100.0
Other Taxes	1.5	2.0	3.2	2.9	5.1
Non Tax Revenue	15.5	14.6	12.9	16.3	24.9
Capital Revenue	0.1	1.7	3.7	36.6	12.7
Grants	1.4	2.5	6.4	1.9	5.6
Total Expenditure	139.2	136.6	142.7	155.6	207.7
Current Expenditure	99.0	102.8	112.0	115.9	131.9
Wages & Salaries	43.7	50.3	56.8	62.6	70.2
Pensions	4.5	4.8	5.8	6.3	7.4
Goods & Services	21.7	22.1	22.8	24.3	29.2
Interest Payments	13.9	14.1	14.1	13.1	12.1
Subsidies & Current Transfers	15.2	11.5	12.5	9.6	13.0
Capital Expenditure & net lending	40.2	33.8	30.7	39.7	75.8
Development Expenditure	27.0	27.5	23.2	36.2	71.4
Capital 11 (Locally Funded)	7.9	8.8	9.3	27.4	43.6
Capital 111 (Externally Funded)	19.3	18.7	13.9	8.8	27.8
Transfers to NFPEs	11.9	6.3	7.5	3.1	4.4
Net Lending	1.3	0.0	0.0	0.4	0.0
Current Surplus	-0.4	8.9	20.8	44.3	64.6
Overall Surplus	-39.1	-20.7	0.2	43.1	7.1
Financing	39.1	20.7	- 0.2	-43.1	-7.1
External	28.6	16.6	7.8	3.1	16.5
Domestic	10.5	4.1	-8.0	-46.2	-23.6
Banking System	11.4	-0.4	-15.1	-53.8	-20.4
Other	-0.9	4.5	7.1	7.6	3.2

Sources: Ministry of Finance, Central Bank, IMF

TABLE 4

Fiscal Operations Of The Non Financial Public Enterprises

(BZ\$ million)

	1985/86	1986/87	1987/88	1988/89	1989/90
Total revenue	84.6	86.2	95.3	103.6	115.3
Current Revenue	66.0	68.6	79.2	98.4	113.2
Operating Revenue	54.4	61.1	75.6	95.6	110.8
Current transfers & other non operating revenue	11.7	7.5	3.6	2.8	2.4
Capital transfers	11.8	6.3	7.5	2.8	1.8
Grants	6.8	11.3	8.6	2.4	0.3
Total Expenditure	61.8	65.1	81.6	97.7	111.3
Current Expenditure	51.9	50.2	62.0	72.1	93.0
Operating Expenditure	43.3	44.8	57.6	62.9	70.9
Interest & Dividend Payments	4.4	3.6	2.8	6.0	14.6
Transfers to Central Government	4.2	1.8	1.6	3.0	7.3
Capital Expenditure	9.9	14.9	19.6	25.6	18.3
Current Balance	14.1	18.4	17.2	26.3	20.2
Operating Balance	11.1	16.3	18.0	32.7	39.9
Overall Balance	22.8	21.1	13.7	5.9	4.0

Sources: IMF, Belize Telecommunications Limited,
Belize Electricity Board,
Water and Sewerage Authority

TABLE 5**International Trade And The Balance Of Payments****(BZ\$ Millions)**

	1985	1986	1987	1988	1989
Domestic Exports	128.9	148.9	173.8	190.3	190.0
Retained Imports	215.9	220.4	256.6	318.4	351.3
Services (net)	24.2	42.5	51.1	64.7	76.9
of which Tourism	25.4	36.6	38.5	44.2	57.0
Balance of Trade in Goods & Non Factor Services	-21.7	5.0	-7.9	-47.3	-66.7
Unrequited Transfers (net)	56.8	49.4	47.9	46.9	51.6
Current Account Balance	4.7	32.9	18.8	-18.6	-40.0
Public Capital (net)	29.8	3.7	1.1	19.4	36.1
Private Capital (net)	8.0	-3.0	4.2	33.1	17.5
Capital Account Balance	37.8	0.7	5.3	52.5	53.6
Change in reserves	20.0	21.6	19.6	37.6	22.7

Source: Central Bank

TABLE 6

Composition Of Public Investment 1987/88-1989/90

	BZ\$m 87/88	BZ\$m 88/89	BZ\$m 89/89	BZ\$m 87/88-89/90	% 87/88-89/90
Central Government	16.8	34.3	67.0	118.1	63.6
Airport	4.9	5.8	17.1	27.7	14.9
Rural Roads & Bridges	5.0	5.4	16.3	26.7	14.4
Urban Roads & Bridges	0.5	2.1	3.3	5.9	3.2
Other Infrastructure	0.0	0.3	0.7	1.1	0.6
Water & Sanitation	0.6	0.8	1.1	2.5	1.3
Housing	0.2	2.3	1.7	4.2	2.2
Land Development	0.8	0.8	2.1	3.8	2.0
Agriculture	1.7	0.5	2.4	4.6	2.5
Health	0.8	0.8	1.0	2.6	1.4
Education & Training	0.5	1.8	2.5	4.8	2.6
Community & Social	0.4	5.9	7.2	13.4	7.2
Other Building & Equipment	0.3	0.4	1.3	2.0	1.1
Financial Investments	0.7	5.3	5.1	11.0	6.0
Miscellaneous	0.4	2.1	5.4	7.9	4.3
Public Enterprises	19.7	26.3	19.5	65.5	35.3
BEB (electricity)	3.0	9.7	10.8	23.5	12.7
BTL (telecoms)	7.3	13.7	3.5	24.5	13.2
WASA (water/sewerage)	9.1	1.2	0.8	11.1	6.0
Other (port, Social Security Board)	0.3	1.7	4.4	6.4	3.4
Other Public	0.1	0.7	1.2	2.0	1.1
Total Public Sector	36.6	61.3	87.7	185.6	100.0

Sources: Ministry of Finance, Central Bank, IMF

TABLE 7

Uses Of Public And Publicly Guaranteed External Loans

Use of loan	Amount Outstanding 30/12/90 (BZ\$m)	Percent of Total
Airport	13.7	5.2
Roads & Bridges	55.6	21.3
Electricity	18.5	7.1
Telecommunications	24.2	9.3
Water & Sanitation	12.0	4.6
Agriculture	32.6	12.5
Housing	7.8	3.0
Port	13.7	5.2
BOP Support	41.9	16.1
Miscellaneous	41.0	15.7
Total	261.0	100.0

Source: Central Bank

TABLE 8

External Public And Publicly Guaranteed Debt And Debt Ratios

(BZ\$ millions)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Exports of Goods and Services	205.1	262.6	297.7	354.7	383.8	425.8	461.8	510.0	563.2	623.8	689.8
Principal Repayments	18.6	18.4	17.4	21.2	18.9	22.4	18.7	18.3	19.4	20.9	20.6
Interest Payments	12.4	9.2	8.6	8.5	10.6	10.5	10.2	10.1	9.5	8.6	7.8
Debt Servicing	31.0	27.6	26.0	29.7	29.5	32.9	28.9	28.4	28.9	29.5	28.4
Debt Service/Exports (%)	15.1	10.5	8.7	8.4	7.7	7.7	6.3	5.6	5.1	4.7	4.1
Interest/Exports (%)	6.0	3.5	2.9	2.4	2.8	2.5	2.2	2.0	1.7	1.4	1.1
Growth Rate of Exports (%)	-10.6	28.0	13.4	19.1	8.2	10.9	8.5	10.4	10.4	10.8	10.6
Average Interest Rate (%)	7.2	4.5	3.8	3.5	4.2	3.9	3.5	3.5	3.4	3.3	3.2
Disbursed and Outstanding Debt	196.6	212.6	237.8	246.4	261.0	280.0	294.8	286.7	273.4	255.6	237.9
GDP	392.3	418.3	503.6	577.9	639.9	704.0	754.0	807.6	868.8	935.0	010.0
Debt/GDP (%)	50.1	50.8	47.2	42.6	40.8	39.8	39.1	35.5	31.5	27.3	23.6

Debt and debt servicing projections for 1990-1995 are based on already existing commitments only; source Central Bank

GDP and export projections for 1990-1995 are IMF forecasts

Sources: Central Bank

TABLE 9**Country Comparisons Of External Debt And Debt Service**

	PED/GNP % (88)	TDS/XGS % (86-88)
Bahamas	7.4	3.2
Barbados	47.7	12.6
Belize	44.0	9.2
Costa Rica	100.0	28.1
Dominican Rep	96.1	20.2
El Salvador	32.2	23.5
Grenada	51.7	9.4
Guatemala	33.2	31.3
Guyana	521.8	14.3
Haiti	37.5	17.8
Honduras	81.9	33.7
Jamaica	154.1	42.1
Nicaragua	247.5 (87)	24.8
Panama	126.0	6.4
St Vincent	34.3	3.8
Trinidad & Tobago	50.1	21.1
Unweighted Average	104.6	19.1

Sources: World Debt Tables Vol 2 1989-90
Central Bank

TABLE 10**National Savings**

	1985	1986	1987	1988	1989
GDP (BZ\$ m)	392.3	418.3	503.6	577.9	640.0
Gross National Savings (GNS) (BZ\$ m)	84.3	116.9	144.0	146.0	167.8
GNS/GDP (%)	21.5	27.9	28.6	25.3	26.2
Public Savings (BZ\$m)	20.9	34.8	49.7	74.7	95.9
Central Govt (BZ\$m)	1.6	8.8	23.3	41.4	64.2
Non Financial Public Enterprises (BZ\$m)	10.9	17.2	17.3	23.7	21.7
Social Security Board (BZ\$m)	8.5	8.8	9.1	9.6	10.0
Public Savings/GDP (%)	5.3	8.3	9.9	12.9	15.0
Private Savings (BZ\$m)	63.4	82.1	94.3	71.3	71.9
Private Disposable Income (BZ\$m)	306.4	320.7	381.2	430.6	454.3
Private Savings/Private Income (%)	20.7	25.6	24.7	16.6	15.8
Private Savings/GDP (%)	16.2	19.6	18.7	12.3	11.2

Gross national saving (GNS) is defined as GNP at market prices plus net foreign transfers minus consumption; ie gross investment plus the current account surplus

Public saving is defined as the public sector's current balance plus grants to Government

Private saving is defined as GNS minus public saving

Private disposable income is derived by adding private saving to private consumption

Sources: Central Bank, Central Statistical Office,
Ministry of Finance, IMF

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IMPROVING FINANCIAL MANAGEMENT OF HEALTH CARE IN THE CARIBBEAN: CONCEPTUAL AND EMPIRICAL ISSUES

by S. Lalta, I.S.E.R

INTRODUCTION

Faced with the urgency of doing something about escalating health care expenditure and the infeasibility of doing anything which is centralised and burdensome on the public purse, policy makers are giving serious attention to cost containment, cost recovery and cost sharing measures to cope with present and projected demand pressures on the health care system. Once more issues of equity, allocative efficiency, sustainability and effectiveness are brought into question as financial management becomes a real constraint and objective of health care provision. Additionally and perhaps inevitably concern over and attempts at improved financial management are forced to grapple with critical societal values such as ideological commitment (health care as universal right available to all according to need as against ability to pay) and clinical freedom (doctors paramount concern being the welfare of the patients).

This paper examines the context and content of improved financial management measures by focussing on the major theoretical and empirical issues which initiated and result(ed) from the implementation of such measures.

Section I identifies the critical aspects, dimensions and reforms (proposed) with respect to financial resources in the health sector while Section II explores the equity and efficiency considerations in the imposition of user charges. In Section III the paper discusses the implications of health insurance schemes and remuneration methods in health care. Section IV draws out a number of policy lessons from the overall discussion and suggests some ways of addressing the range of issues identified as Governments seek to improve financial management of health care in the region.

I. ASPECTS OF THE FINANCIAL MANAGEMENT PROBLEM IN HEALTH CARE

a) Costs, Resource Availability and Quality of Care

Finance for the health sector comes from three (3) main sources - collective or public (general taxes, earmarked taxes/levies and compulsory social insurance); individual or private (out of pocket expenses and private voluntary insurance) and the donor community (foreign aid, local charities and Trust Funds). The possibilities of tapping resources from each source are not indefinite while at the same time resource requirements of health care provision are more indefinite.

Accelerating health care costs can be explained by two competing but circumstantially reinforcing models (Luft,9). The first is the PRICE of PROGRESS model which looks at

externalities

inevitably rising expenditure as emanating from the higher costs of treating new and affluent diseases, technological breakthroughs, constant upgrading of work conditions, physical plant and staff remuneration, the treatment of growing elderly populations as well as increased health care demands arising from urbanisation, environmental degradation, rising personal incomes and educational levels.

The second model - PROFLIGATE PROVIDER/PURCHASER MODEL - points to consumers who are morally hazardous, too demanding irrational and uninformed; to doctors who are income maximisers, defensive, enamored of technological breakthroughs, averse to competition and perpetrators of supplier-induced demand; to hospitals which are badly managed, mindlessly acquisitive of technology and physician-controlled; to third party payers (insurance companies) which are insulated from market forces, oligopolistic and timid in accosting physicians on the need for certain procedures; and to governments which are paternalistic, tradition-bound and extravagant in the short term.

While inapplicable in totality, elements of both models can be found in varying degrees in the region. There are other specific cost factors which have to be considered in the Caribbean context:-

- a) the comprehensive nature of public health care coverage (at minimal direct cost to users) ranging from Primary Health Care to sophisticated, tertiary treatment as the Region grapples with "diseases of

poverty" (typhoid, polio, diarrhoea, gastroenteritis and other waterborne and infectious, parasitic diseases) as well as "diseases of affluence" (cardiovascular, cancer, arthritis and other chronic, degenerative and life-style related diseases). The breadth and size of costs associated with having to cope with diseases at both ends of the "epidemiological transition" are extensive.

b) the impact of inflation and devaluation on supplies most of which have to be imported; and

c) the inadequacy of past policies with respect to incentives for cost containment, performance monitoring and managing cost effective care.

Economic difficulties and particularly public sector revenue constraints in most Caribbean countries have led to public expenditure cutbacks (or less rapid increases) in capital and some current items in the health sector. Taylor (13) traces the transmission mechanism as follows:

Adjustment policies → changes in size and composition of government revenue and expenditure → changes in size and composition of health budget

He also observed that "total demand for health care in a crisis (economic) increases rather than remain unchanged and the burden on Government increases faster especially for high cost services such as hospital and physician care". The combination of highly subsidised primary and tertiary

health care, rising health care demands and costs and macro economic difficulties affected the quantity and quality of health care provision in most countries and some much more than others (Guyana, Jamaica, Trinidad and Tobago).

Generally the symptoms of the decline of the public health care system are manifested in the shortage of staff, equipment and supplies; poor maintenance; and delays in paying bills (WHO, 15). The impact can be seen in reduced efficiency and confidence in public health facilities; low morale and high turnover of staff; overcrowding and long waiting lines at main hospitals while health centres are underutilised (Cumper, 5). It should be noted that donor policy with respect to tied aid and insistence on capital rather than recurrent cost funding is not altogether blameless in the financial difficulties of the health sector.

b) Ideology and ~~Nature~~ of Financial Reforms

Financial reforms which have been undertaken (and are being proposed) centre on three main approaches:

(i) Cost recovery - the imposition of user charges for publicly provided health care (differentiated where possible according to income levels of consumers)

(ii) Cost containment - decentralisation of services; and privatisation of some services on a "public tender" basis. In the case of insurance-based financing, the tendency towards profligacy can be contained by using more

co-payments, deductibles and limits on value of some coverage

(iii) Cost sharing - greater reliance on private insurance for sharing the burden of curative, private health care requirements. The World Bank (8) puts much emphasis on this approach to "reduce Governments' responsibility for paying for the kinds of health care services that provide few benefits to society as a whole (as opposed to direct benefits to the users of the service). More Government (or public) resources will then be available to pay for the services that provide many benefits to society as a whole. By relieving Government of the burden of spending public resources on health care of the rich, this approach would free resources so that more could be spent on the poor".

The quest for efficiency and financial sustainability reflects a fundamental shift in the ideology and philosophy of health care provision. (Williams 17) (Brazier, Hutton, Jeavons, 2). There is clear recognition that the prevailing egalitarian or 'mainstream public sector' school is inadequate. This school emphasises:

(i) finance of health services through progressive taxation,

(ii) little consumer choice since an individual's 'need, is a poor judge of his welfare and as such health needs can be defined by health professionals on supposedly objective grounds. This is especially the case of children, the aged and mentally ill,

(iii) professional ethics peer group pressure and dedication to ensure the proper mix and efficiency of health care services,

(iv) equality of access to services .

The competing 'libertarian' or individualistic school of thought places the burden of health care on the individual and private provision. In this school the key features are:

(i) finance of health services to be met by the individual as he consumes the service,

(ii) consumer choice is widespread as the individual is the best judge of his own welfare, can define his health requirements and considers the physician as an agent/provider rather than provider only. Direct payments also provide an incentive for adopting more healthy lifestyles,

(iii) Competition among agents/providers brings optimal mix and efficiency

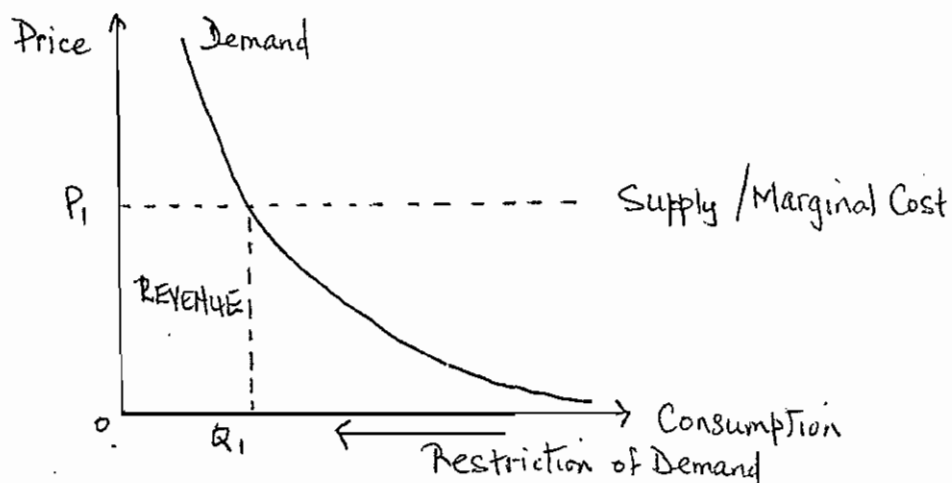
(iv) equity is achieved in paying for what you consume i.e. direct beneficiaries pay, others do not.

The implications of the financial reforms are examined in further detail in Sections 11 and 11'. It should be borne in mind however that the ideological debate is less about exchanging one monolithic system for another, than about changing the relative balance of finance and provision methods.

11 USER FEES AND THE TRADE OFF BETWEEN COST AND EQUITY

The imposition of user fees for publicly provided health care services is not new. What is new is the range and scale of the charges which are being contemplated (or implemented). User charges have two main objectives:

- (i) the generation of revenue,
- (ii) the restriction and rationing of demand in view of over demand (moral hazard) when charges are absent or minimal. Figure 1 shows the likely effects of user charges (or their absence).



There are several factors which have to be considered in the setting of user charges:- will over demand e.g. for drugs, treatment, visits for unnecessary or trivial cases, longer hospital stay etc. be reduced,

- will efficiency, quality and quantity of care be improved
- should marginal or average costs be used
- what services/items should be targeted (issues of merit goods, essential services, elastic or inelastic demand)

- will administrative costs of collection rise faster or slower than the sums collected and will revenue generated be reflected in increased remuneration of health personnel or improved health facilities
- what will be the impact on equity?

The issue of equity in user charges is perhaps the most critical challenge to be faced. (Gilson,7; Pereira, 12). Free or minimal cost health services can be abused by those for whom the value of the service is zero or slightly greater and fees distinguish between those truly in need and those who do not. Fees also ration services on the basis of ability to pay posing questions of horizontal (direct payment by beneficiaries) versus vertical (costs met on basis of ability to pay) equity. Where the proportion of the poor, unemployed and indigent in the population is large or increasing (e.g. in Jamaica and Guyana this is about 30%) there are several fundamental considerations which would arise:

- . increasing health costs may lead to the consumption of less care, thus affecting the augmentation of health status from an individual and social perspective. Fees also lead to a regressive situation where those least able to pay have higher costs. This institutionalises interpersonal inequity and reduces social welfare
- . as health costs rise, many may not seek care or do so at a very late stage

- . as health costs increase, less resources are available for purchasing other basic consumption items including nutritional foods etc. This exacerbates ill health
- . good health is the only asset of the poor and unemployed. Its absence increases their own vulnerability and reduces the chances of getting out of poverty.

Beyond individual welfare and equity, the issue of user charges probes the core of social policy - is equity in the sense of fair and just distribution (or of equality of basic capabilities and entitlements) being sacrificed for efficiency in the sense of cost recovery? And should social policy aim for the Rawlsian theory of maximin i.e. seek to maximise the position of the least well-off rather than maximising the benefits in society as a whole? Clearly, the need for user fees is well established; however the mechanisms and measures for protecting the vulnerable groups such as Trust Funds, exemptions, differentiated fees according to income etc. are not so well developed. This calls for more rigorous analysis of the implications of user charges if cost recovery is not to serve as a barrier to improved health for all.

HEALTH INSURANCE AND DENUMERATION METHODS

(I) Potential and Problems of Health Insurance^{a/}

Health insurance, whether private and voluntary or social and compulsory, are relatively undeveloped in the Caribbean (Taylor,13). Its significance, however, is well-established given the unusual, irregular and unpredictable demand and costs of health care as well as its ability to spread the costs of services over time and among categories of the insured (internal cross-subsidy and risk sharing). Expanding the role of health insurance is one of the pillars of the financial reform program in health care as Governments seek to mobilize private resources and reduce the burden on the public purse. This is not as straightforward as it appears - the potential is obvious (for example in Jamaica only 15% of the population is covered by private health insurance) but the tendency to profligacy is perhaps the greatest drawback (again in the Jamaica case 32% of health care expenditure came from private insurance despite its low population coverage).

There are several major concerns which one has to contend with in relation to health insurance:

(i) The extent of coverage - Generally health insurance schemes cover salaried employees or high wage

^{a/} I am indebted to officials from Blue Cross and Life of Jamaica Insurance Companies in Jamaica for several of the insights in this sub-section.

earners and their independents in the formal sector while ignoring the self-employed, unemployed, aged and indigent^{b/}. In the Caribbean the proportion of persons in the excluded categories could be as high as 60%. One reason for the low population coverage and the lack of popular appeal of health insurance could well be the easy availability (so far) of inexpensive publicly provided health care. A second reason is the role of adverse selection i.e. excluding persons who can be considered as high risk cases.

(ii) the extent of coverage of health risks - Rigorous and extensive actuarial studies on health insurance in the Caribbean are not as advanced as in other types of insurance. This has led either to the avoidance of this facility by most insurance companies or the fixing of fairly high premium charges. The range of risk coverage is fairly limited and the list of exclusions is quite long. As occupational and life-style related hazards increase health insurance providers will be forced to respond with expanded and appropriate policies if they are to play a key role in health care financing.

(iii) profit or non-profit making institutions - the profit objectives of the insurance providers have implications for the range and costs of the policies which are offered. In addition the larger the percentage of

b/ Medicaid (for the poor) and Medicare (for the elderly) are arrangements geared particularly for these groups in the U.S. In other countries subsidised social insurance performs this role.

individual as against group policies in the portfolio the more complex the premium scale and higher the administrative costs. In such a case, the burden of costs can be passed on to the consumer while the providers profit margin can remain intact. There are several influences which can weaken or enhance the profitability of the health schemes - perhaps the most important is the level of competition in the provider market for health insurance. In the case of social insurance, since the possibility of (substantial) State subsidy is remote, health insurance coverage can either be broad-based in terms of population covered or selective in terms of risk coverage. This however should not preclude a profit-making operation of the Social Insurance Company.

(iv) the funding arrangements for risk cover - Insurance cover raises the demand for health care services and with supply remaining fairly stable e.g. medical personnel, hospital facilities etc. costs generally rise quite rapidly. In addition despite the extensive use of co-payments (sharing of direct cost by beneficiaries) and deductibles (initial direct payments by beneficiaries) the opportunities for abuse and excess demand are quite open. Providers also are tempted to over treat and over prescribe since payments are handled by the third party payers. As such neither consumers, providers nor the insurance companies are sufficiently restrained where costs are concerned - the consumer may seek to get his money's worth of insurance cover and over demand or pay less attention to

healthy lifestyles; the providers do not have to tailor costs to meet the ability of the purchaser to pay and the insurance companies can increase premiums (though not indefinitely) to absorb growing cost.

Health insurance, despite its potential and value, has generally tended to promote high cost hospital-based, doctor-centred, curative health care - this is a charge which the providers should seek to address as "health maintenance" and "wellness" i.e. preventive care become the new watchwords in health care.

(ii) Remuneration Methods and Health Costs

Theoretically, health care suppliers i.e. doctors should not affect the quantity of health care demanded. In reality they have a considerable impact and the occurrence of supplier - induced demand is well known. Remuneration methods as well as the utility function of the doctors i.e. income, status, number of patients, leisure etc. affect the quantity and quality of health services provided. Table 1 provides a comparative analysis of the different remuneration methods - fee for service (direct payments for services by individuals or third parties), capitation (payment by a third party e.g. Government or private Company) and salary - using six criteria.

The analysis shows that there is no ideal remuneration method which can optimise quality and economy of care, even distribution (accessibility) and promotion of preventive

TABLE 1: REMUNERATION METHODS

CRITERIA	FEE FOR SERVICE	CAPITATION	SALARY
1. Utilisation and Cost of Services	<ul style="list-style-type: none"> - Most common .. bias to high activity - escalation of costs especially when combined with third party payments - May be moderated by Co-insurance - Leads to overtreatment 	<ul style="list-style-type: none"> - biased to lower activity consistent with retention of patients - no incentive to update knowledge and techniques 	<ul style="list-style-type: none"> - biased to lower activity consistent with retention of position and promotability - affects alternativeness and productivity
2. Geographical Distribution	<ul style="list-style-type: none"> - Weak incentives for even spread because of physician induced demand - highest fees in over-doctored areas 	<ul style="list-style-type: none"> - good incentives for even spread especially where - maximum list size is limited 	<ul style="list-style-type: none"> - encourages spread especially when tied to fringe benefits and promotion
3. Continuity of Care	<ul style="list-style-type: none"> - No strong bonds of patient/doctor relation between illness episodes but may provide continuity of care within episode 	<ul style="list-style-type: none"> - creates long term patient/doctor relation through registration for ambulatory care. Care within episode may be shared with hospital and specialists 	<ul style="list-style-type: none"> - few opportunities for continuity of care

- | | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 4. Referral Behavior | <ul style="list-style-type: none"> - Creates incentives not to refer and for excessive activity by physician of first contact - excessive self referral by patients to specialists | <ul style="list-style-type: none"> incentives for excessive referral to hospital and specialists to deal with "troublesome" patients - G.P. may only be "sign post" | <ul style="list-style-type: none"> - no incentives for referral if hospital-based |
| 5. Encouragement of Preventive Measures | <ul style="list-style-type: none"> - Weak incentives for health education of patients and of preventive procedures | <ul style="list-style-type: none"> - Some incentives for education since it pre-empts future demand for curative care | <ul style="list-style-type: none"> - neutral ...depend on objectives of employers |
| 6. Surveillance | <ul style="list-style-type: none"> - Limited to Medical Code - Common in cases where strong third party payers are involved - much paper-work for claims, inspection of reported claims etc. | <ul style="list-style-type: none"> - greater clinical freedom | <ul style="list-style-type: none"> - interference and Surveillance quite common |

measures. For example an income maximising doctor will choose to provide services in particular localities or to concentrate on certain services which bring the highest yields. In such a case he will opt for fee-for-service remuneration as against fixed salary or capitation. The point is that doctors respond to certain incentives in the remuneration system. The lack of countervailing power either by consumers or third party payers provide a fairly unconstrained market for their operations (subject only to the professional ethics of the group).

Cost sharing as one of key elements in the financial reform program depends almost exclusively on the behavior and objectives of health insurance companies and doctors. As this Section indicates, the level of sympathy and support for restraining from these actors is not altogether guaranteed.

(IV) POLICY LESSONS AND SUGGESTIONS

There are four (4) main conclusions which can be drawn from the foregoing discussion:

- a) the broad approaches to financial reform in health care provision-cost recovery, cost containment and cost sharing - will not automatically reduce the burden of publicly provided health care nor will they stem the escalating costs of such care,
- b) user fees may restrict demand and raise some revenue but these effects can be nullified by high

administrative costs and reduced welfare among the most vulnerable groups of the population,

c) third party payment (insurance coverage) in the private health care market where fee for service is dominant insulates neither consumers nor providers from cost concerns and biases health care provision to the high cost curative services rather than preventive measures,

d) in times of macro-economic difficulties (crisis) the burden of health care provision by the State increases rather than decreases.

While there is much in the broad thrust of the financial reforms to commend them, many gaps still exist in terms of achieving a balance of economy, efficiency and equity in the health care system. The following proposals are being suggested to deal with some of the deficiencies in the reform measures:

1. The establishment of Health Maintenance Organization (HMO's).
2. The greater use of Diagnosis - Related Groups (DRGS) in prepaid Health Care Schemes.
3. The use of cost-benefit and cost effective analyses in health care programs and procedures.
4. The Implementation of a Health Card Scheme for low income, self employed, and vulnerable groups.
5. Sensitisation of Physicians to Cost Concerns.

1. HEALTH MAINTENANCE ORGANISATIONS (HMO's)

The generic term HMO allows for a range of organisational forms in terms of administrative structures, size and coverage of risks. Functionally, the HMO covers the health care needs of its members (enrollees) through the integration of insurance (prepayment) and provider functions within a single organisation. (Some HMO's contract provider functions to clinics, hospitals and group practices). There are three (3) main features of the HMO which account for its usefulness in delivering health care in a cost effective manner.

- the contractual responsibility for delivering a range of services including ambulatory care and in patient treatment.
- voluntary enrollment so the HMO can estimate demand for and plan services based on enrollee information. In this way there should be fewer excess or under-utilized resources at any point in time.
- fixed annual or monthly payments from enrollees giving the HMO a fixed budget. This provides an incentive to use the most cost efficient methods, and to minimise excessive medical care inputs and procedures (which are of questionable necessity). since adding services or providing more expensive care will not produce additional revenue in any given year. Physicians also are paid on a capitation

basis (if contracted) or salary (if directly employed) so there are other incentives to provide preventive care thus reducing illness and the cost of providing future curative care.

With an emphasis on health maintenance rather than sickness care, HMO's can achieve economies in the cost of care through the control or avoidance of moral hazard. Additionally by introducing competition in the private health care market, it can generate a certain amount of competition among health insurance companies and other HMO's thus offering more choices to the consumer.

The main drawbacks to HMO development (and the case of the HMO in Jamaica is pertinent in this regard) are:

- ambitious risk coverage schemes based on inadequate data.
- the heavy costs of information gathering and processing,
- the lack of cooperation of doctors in operating with capitation as against their traditional fee for service arrangements,
- the proportion of the population covered is limited to wage earners, some self-employed and their dependents.

Some of these drawbacks are not altogether insurmountable as the use of DRGS and the greater role for physicians as health "managers" can serve to translate the potential usefulness of HMOS to practical benefits.

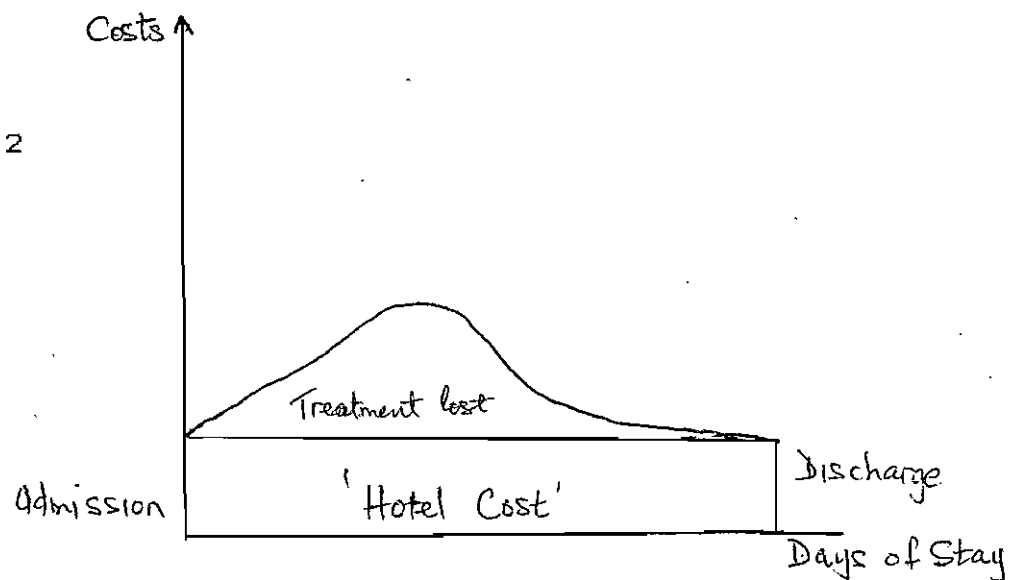
2. Use of Diagnosis - Related Groups (DRGS)

DRG'S estimate the average cost of treating a particular health condition eg appendicitis per episode of care rather than per item of service billing.

Theoretically, the time and costs involved in the treatment are fairly standardized -

Figure shows the typical pattern of costs for in-patient care.

Figure 2



In reality however the cost of treatment shows significant variance - this seems to be influenced more by the location and procedures of the physician than by actual differences in the health condition of individuals. Under the third-party fee for service system of remuneration, such variance in costs are accepted without rigorous checking.

The use of DRG'S could facilitate the health insurance claims adjusters in making more informed checks on the bill received from physicians. If used frequently and in

collaboration with physicians, DRG'S can serve as a useful mechanism to stem the unpredictability of particular health care costs and lead to improve financial management in the health system as a whole.

While DRCG'S can reduce the use of unnecessary procedures and ancillary services, the danger is that the profit-maximising physician could get around this 'constraint' on his clinical freedom by either shifting costs to the family of the individual or by treating a more profitable case mix of health conditions. As such the key factor in the successful implementation of DRG'S is the response of physicians.

3. Use of Cost Benefit and Cost Effectiveness Analyses in Health Care Programs and Procedures

One of the principal problems in health care provision is the budgetary and organisational separation of costs and benefits. Financial managers seek to minimise costs while physicians seek to maximise benefits in any particular health program. For efficiency in health care provision, costs and benefits must be evaluated at the margin and in total. The general feeling that economic appraisal e.g. cost benefit and cost effectiveness analyses have no place in health care provision is totally misleading. In fact such appraisals alongside medical evaluations of any particular health care program provide the unique opportunity of identifying the range of costs and benefits, quantifiable and non-quantifiable, comparing them with

alternative programs and procedures and deciding on the best program to pursue i.e. the one which maximises benefits at least cost quantified in money terms (COST BENEFIT) or that which achieves the most benefits given a fixed cost when such benefits cannot be quantified adequately (COST EFFECTIVENESS).

Such analyses can be conducted before programs are implemented or to evaluate the impact of programs and procedures e.g. the treatment of renal failure by transplantation or hospital dialysis or home dialysis. Other areas which could be evaluated using these tools are surgery versus drug therapy, sterilisation versus disposable syringes or using community health workers versus erecting a health clinic in an urban area.

4. Health Card Scheme for Low Income and Vulnerable Groups

Low income (self-employed) rural and vulnerable groups are ignored by private health insurance schemes (high risk, high administrative costs, financial losses rather than profit) and social insurance (which generally covers employed persons in the formal sectors only). The impact of user fees on these groups is generally negative (Section II). Many of these persons however are willing and able to pay modest sums for health care and a health card scheme can be developed on a prepayment basis to encourage proper utilisation of health services while generating revenue for the sector.

The cards can be sold at modest prices (based on average household expenditure on health per year) to cover treatment of a fixed number of illness episodes during the period of the card's validity. When tied in with a referral system i.e. one must visit the local health centre first before going to the hospital for curative services (where a "green channel" could elicit prompt attention) the card system can achieve several objectives:

- a) encourage use of preventive services (which could be made free to a cardholder)
- b) increase use of health centres and the referral system
- c) reduce congestion and waiting time at hospitals
- d) raise revenue for the health care system
- e) improve financial planning with respect to allocation of scarce resources by cardholders.

Developed first in Thailand (Wheeler 14; World Bank, 18) the scheme will have to contend with two major limitations in the Caribbean:

- a) the poor referral system (Cumper 5; LeFranc 8; WHO 15)
- b) the acceptability of the card in the private health market.

These operational problems however are not beyond solution.

5. Sensitisation of Physicians to Cost Concerns

Improved financial management in health care provision can only be successful if developed and implemented in collaboration with physicians. The rising cost of new procedures, technologies and facilities alongside the financial limits of economies which expand much slower than health care demand have imposed severe constraints on public health care services especially in the public hospitals. Salaried doctors in these facilities are only too painfully aware of these deficiencies. On the other hand the growing private health care market is prone to profligacy as a result of third party payments, fee for service remuneration methods and supplier induced demand. In both cases the escalation of costs require a cost conscious mind set among health planners (which restrains their anxiety to generate projects) and physicians (which necessarily impinges on the principles of clinical freedom). But for the health care system as a whole, as Williams (17) emphasises, efficiency in terms of costs, use of resources and delivery of services must be viewed as a moral obligation by all rather than a managerial imperative by a few.

There are many other aspects of improving financial management in health care in the Caribbean which need to be considered in the overall program of financial reform. For

example, the procurement and management systems for drugs and supplies; the conduct of medical audits on health and hospital outputs in view of resources utilised; the absence of control over financial resources in health-related activities outside the Ministry of Health such as sanitation, nutrition, water and sewerage provisions etc. and the central issue of foreign exchange in health care provision. These are specifics which require detailed analyses outside the scope of this paper. The central point is that improving financial management should now become a necessary part of health care planning and provision and that issues of equity, efficiency and economy can only be successful handled if physicians, policy makers and managers are in accord.

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