Implications of Belize's Indebtedness for Sustained Economic Growth

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Introduction

One of the greatest problems facing many developing countries is a disproportionately high level of external indebtedness. The problem is linked both to the small size and a generally high degree of openness. Low levels of domestic savings as well as the considerable amount of foreign inputs required for production and consumption puts the focus squarely on the foreign reserves constraint as a primary factor in achieving sustained growth and development. Borrowing adds to the total resources available to an economy over a given period and enables higher expenditure than would otherwise be possible. If properly applied, the resources can contribute to a country's economic growth and poverty reduction.

However, when inefficiently allocated, the cost of borrowed external resources can contribute to macroeconomic management problems in the form of high or even unsustainable levels of external debt-servicing obligations[1]. It is often said that debt accumulation has been brought about by the overambitious attempts of many governments to speed up growth, facilitated by international creditors who were undiscriminating. It is to this end that government must seek to ensure that both the level and rate of growth in public debt is fundamentally sustainable and can be serviced under a wide range of circumstances while meeting cost, risk and development objectives.

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[1] IMF WP/98/72, External Debt Histories of Ten Low-Income Developing Countries: Lessons from Their Experience, May 1998

Some of the factors that influence the rate at which monies are borrowed include the philosophy and growth strategy of governments, performance of export sectors, the size and frequency of economic shocks, the ease with which credit lines can be accessed and so on. As with other countries in a similar position, Belize has often relied on foreign funds to make up the shortfall in domestic savings. External debt has been incurred to finance capital expenditure for the development of infrastructure, for expansions in productive capacity and to close financing gaps in the fiscal accounts, thus stimulating overall economic growth.

This paper discusses the main features of Belize’s external debt, focusing particularly on the size and structure of the debt and its implications for sustained economic growth. The first part of the paper presents a historical review from 1981 to 2000 of Belize’s economic performance and past debt accumulation patterns. The second part of the paper focuses on the magnitude and structure of the external debt and the implications for sustained economic growth. The paper concludes with recommendations on measures that could be taken to manage the external debt so that sustainable economic growth is fostered rather than retarded.

Developments between 1981 – 1985

A useful starting point in looking at Belize's present debt situation is to review its economic performance and past debt accumulation patterns. During the first half of the 1980's the country faced serious economic difficulties, with GDP increasing by a meager 0.5% per annum. By 1982 the total value of domestic exports had declined by 25.8% from its 1980 position. Export earnings dropped significantly as the collapse of sugar prices reduced sugar export receipts at a time when all other major export products with the exception of citrus fared very badly (ELAS, Commonwealth Secretariat 1995, 3). The government's fiscal situation deteriorated with the overall deficit rising to 9.8% of GDP in 1985/86, while the country's foreign exchange reserves declined from US$13.2mn in 1980 to US$0.1mn in 1984.

In 1981, the year in which political independence was attained, long-term outstanding public debt stood at US$56.6mn, which was equivalent to 29.3% of GDP and the debt service to exports of goods and services ratio was below 5%. However, as the economic situation worsened in the later years, (with growing trade and external current account deficits and large budgetary imbalances), the level of debt more than doubled, reaching US$106.3mn in 1986, and raising the debt to GDP ratio and the debt service ratio to 46.6% and 10.3%, respectively.

The financial situation was such that at the end of 1984 Belize was faced with difficulties meeting its debt service obligations, resulting in the accumulation of arrears of about US$6.2mn. These conditions led to the implementation of an IMF stabilization programme in 1985. The primary objectives of the programme were to curb aggregate demand, improve public sector finances and restore the balance of payments to a sustainable position. The IMF standby arrangement along with the USAID stabilization programme framed developments in the economy during the rest of the decade.

1986 – 1990

Between 1986-1990, the economy stabilized, balance of payments and international reserves recovered, government's fiscal operations strengthened, inflation declined and domestic production began to expand with unprecedented rates of growth. The economy witnessed a remarkable turnaround in 1986 with real GDP growth expanding at a rapid pace, (averaging nearly 9% per annum in the five years to 1990). Investments by the private sector primarily into citrus, banana and shrimp farming also rose sharply during the same period. Improvement in the terms of trade resulted in a substantial decline in the trade deficit (from US$41mn in 1985 to US$33.8mn in 1986) reflecting not only an increase in export earnings, but also a fall in the oil import bill. Aided by revenues from privatization, government recorded fiscal surpluses of US$22.0mn and US$16.1mn in 1988 and 1989. Surpluses on the current account of the balance of payments were recorded in 1986 and 1987 as well as in 1990[2].

During this period, the level of debt outstanding increased, albeit at a slow pace, reaching US$132.8mn in 1990. Hence, at the end of 1990, Belize's total external debt outstanding and disbursed was 32.7% of GDP, down from the

[2] Improvements in the terms of trade, privatization inflows as well as foreign inflows from the filming of the Mosquito Coast contributed to the surpluses.

46.6% of GDP at the end of 1986.[3] With increased export earnings, the debt service ratio fell from 10.3% in 1986 to 6.4% by the end of 1990, well below levels in other economies of the Central American and Caribbean region.

Table 1. Comparative Debt Service Ratio (%)

	1986	1987	1988	1989	1990
Barbados	10.8	15.0	12.0	11.5	15.2
Belize	10.3	8.2	6.7	6.6	6.4
Guatemala	31.2	28.4	27.8	19.9	12.6
Honduras	29.2	35.4	35.2	13.1	35.3
Jamaica	46.0	44.2	39.8	30.2	20.3
Mexico	45.7	34.1	37.1	32.6	13.4
Trinidad & Tobago	19.8	24.8	19.5	13.2	19.3

1991 -2000

Over the next three years the debt service ratio was held below the 6% level with loan servicing averaging around US$14.5mn per annum while the export sector saw increased inflows from tourism that helped to offset fluctuations in export revenues from domestic commodity exports (particularly from sales of citrus). However, it also began to become very evident that the government, which had taken office in September 1989, was pursuing a more expansionary fiscal policy as compared to the previous administration. In addition to substantial increases in public sector investment, there was an upswing in current outlays to cover increased expenditure on wages as additional staff was hired and salary increases were approved.

[3] During that four-year period debt grew by $26.5mn (24.9%) while GDP grew by US$177.6mn (77.9%).

While the average annual growth in Central Government's investment outlays escalated to 52%, private sector investment declined by 15% annually. Hence, the small fiscal deficit in 1990 (0.8% of GDP) grew rapidly over the next two years to reach US$31.6mn in 1992 (6.5% of GDP). The expansion was facilitated by drawing down deposits derived from the privatisation of BTL in 1988 plus receipts in 1992 from additional sales of BTL shares as well as BEL shares and debentures[4]. Overdraft financing from the Central Bank was also a key factor moving upward from $0 to US$11.3mn at the end of 1992 and even higher to US$21.2mn at the end of 1993. Meanwhile there was a clear shift in the type of foreign loans that were being incurred toward commercial loans at higher interest rates and shorter maturity. This was partly due to the shift in the international climate where concessional loans were concerned following the collapse of the Berlin Wall. Excluding BTL, which was fully privatised in 1992, the share of commercial debt in the total external public debt rose from 4.7% in 1988 to 23.6% in 1993.

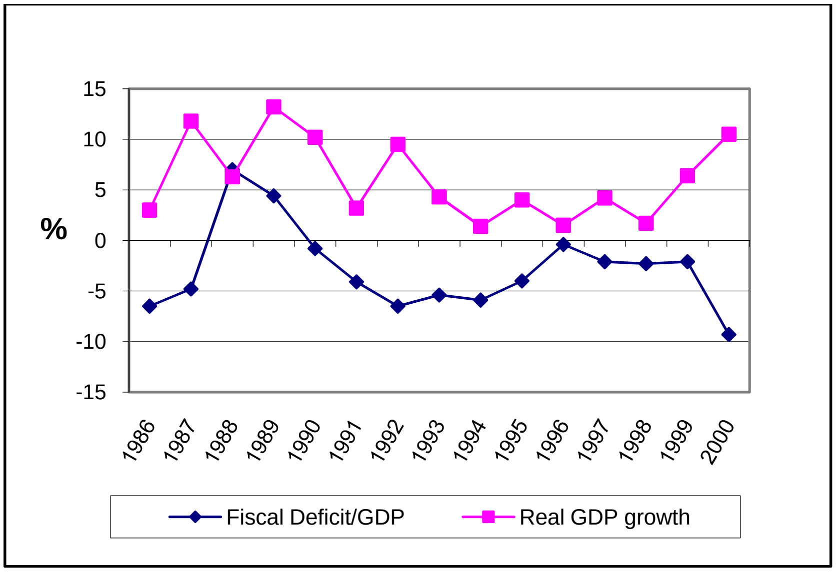
Expansionary fiscal policy, relying as it did on a high degree of domestic financing, not only helped to sustain an average 6.5% increase in real GDP from 1990 to 1993 but also led to a substantial decline in official foreign reserves. With the public sector crowding out the private sector and a foreign exchange constraint becoming increasingly evident, the trend was clearly unsustainable[5]. A conservative strategy was adopted by the succeeding administration in mid 1993, which proceeded to make sharp cuts in the level of government's capital

[4] Receipts from the sale of shares in BTL and the privatization of BEL totalled US$57.5mn in 1992.
[5] Over this 3-year period, net official reserves declined by 50% (including a 56.2% plunge in Central Bank net holdings).

expenditure over the next few years. With staff retrenchments at the end of 1995, imposition of a 15% VAT and increased passport sales in 1996 and US$26.1mn balance of payment support from Taiwan, the government managed to reduce the size of the overall fiscal deficit considerably.

The contractionary policy resulted in a gradual improvement in import cover[6] while causing a slowdown in the annual real growth of the economy to an average of 2.6% over the five years to 1998. During this period the external public debt grew moderately, but with growth stagnating, the debt to GDP ratio rose from 31.6% at the end of 1993 to 41.4% at the end of 1998. The loans incurred in this period were still largely of a concessionary nature with commercial loans maintaining an approximate 20% share of disbursements throughout the period.

Chart 1. Growth Trends (1986-2000)



[6] Import cover stood at 2.7 months and 2.5 months in 1996 and 1997, respectively.

Elections in August 1998 ushered in a new administration, which had manifesto commitments to increase investment and economic growth and reduce poverty. Sharp increases in Central Government capital expenditure occurred (76.6% in 1999 and 51.5% in 2000). Notwithstanding substantial increases in capital revenues as a result of privatization and property sales to statutory bodies, the fiscal deficit quadrupled from 2.3% of GDP in 1998 to 9.3% of GDP in 2000[7]. A relaxed monetary policy and changes in reserve requirement rules to encourage commercial bank lending for productive sector activities and housing construction, expansion in Social Security Board housing loans, Central Bank loans to DFC, all combined to push real GDP growth higher while exacerbating trade and current account deficits on the balance of payments. Meanwhile external loan disbursements gained momentum in 1999 and peaked at an unprecedented US$193.8mn in 2000 with Central Government and the financial public sector (Central Bank and DFC) accounting for 70% and 26.6%, respectively, of the total amount disbursed in that year.

[7] Some reconstruction work undertaken in the last quarter of 2000 after Hurricane Keith's arrival helped to increase the size of the fiscal deficit.

Structure of Public Sector External Debt[8]

During the past decade the structure of Belize's external debt has changed considerably with respect to the sources of funds, maturity structure and borrowing terms. Chart 2 shows the composition of external debt outstanding from 1991 to 2000 while Chart 3 on page 11 further disaggregates official sources into multilateral and bilateral categories.

Chart 2. Public Sector External Debt by Source

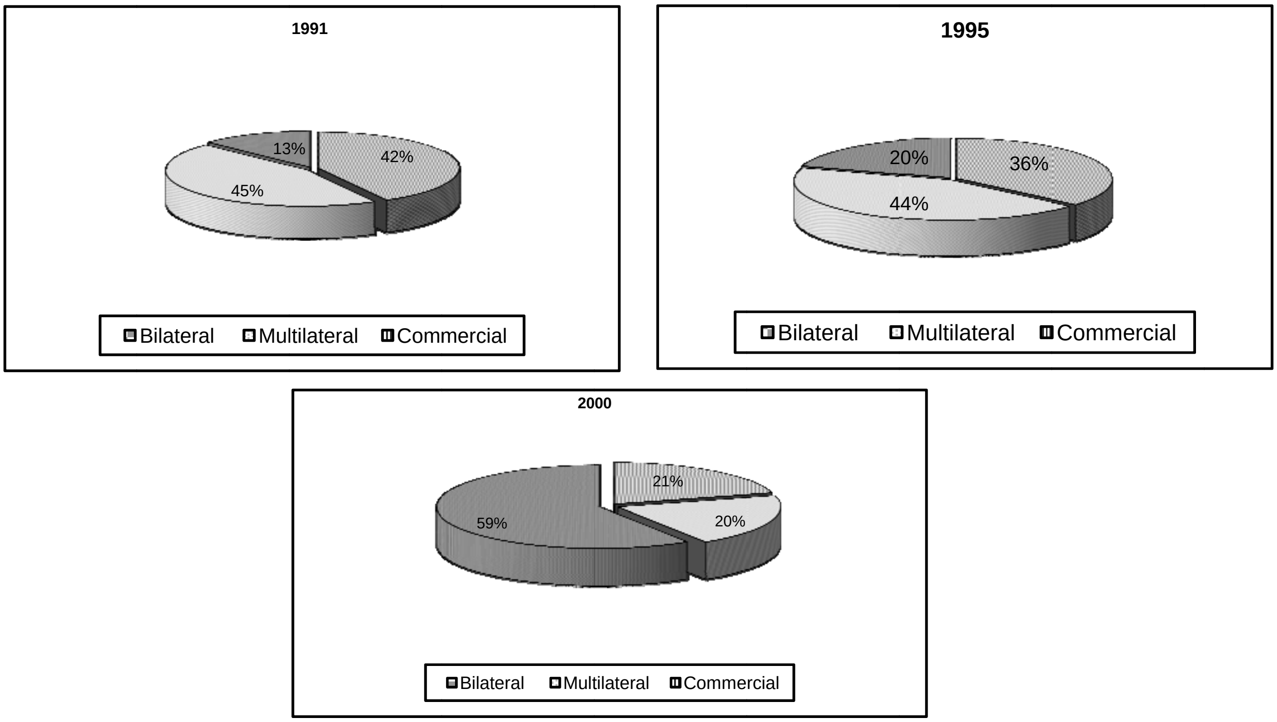
In 1991, 87.3% of the external debt was contracted from official sources as opposed to 12.7% from private or commercial sources. By 1993, the share of debt from commercial sources had risen by 10.9 percentage points to 23.6% due to increased disbursements of suppliers credits and loan funds from an Italian commercial bank that were used to finance construction of public buildings, and other infrastructure. This was partly due to the fact that the turn-around time required to access funds from multi-lateral institutions that specialized in project lending was considered excessive as compared to dealing

[8] For the purposes of this paper the External Debt total refers to the public sector debt and includes publicly guaranteed debt and mortgage securitizations.

with commercial banks and suppliers. In the years immediately following, there were marginal changes in the debt portfolio. A change in creditor share in 1995 -1996 was mainly due to the disbursement of the Taiwan concessional loan to Government for balance of payments support of some US$26.0mn and repayments on some commercial loans. These were only partly offset by issuance of Central Bank Building Bonds on the regional market that raised US$12.0mn. Hence, by the end of 1996, the share of official debt had risen by 3.6% to 80.3%. While disbursements during that year were mainly long-term in nature (61.4% would mature in over 15 years), the Central Bank Building Bonds resulted in a sharp rise to 21.8% in short-term disbursements.

During the next two years, the share of commercial debt rose as Central Government, following the path taken by the Central Bank in 1996, began to issue bonds for the first time in the international market. In April 1998 some US$12.0mn was raised in this manner. Over the three-year period from 1997 to 1999, commercial debt accounted for an average of 21.7% of total debt contracted. However the largest shift in the composition of the debt occurred in 2000 when the commercial debt share rose to nearly 60%. The momentum in commercial borrowing had begun to increase from the year before when the first tranch of mortgages had been packaged and sold to the Royal Merchant Bank of Trinidad. In 1999 and 2000 commercial borrowing rose by a total of US$251.4mn including US$109.8mn from mortgage securitization, US$86.0mn from new US dollar bond issues and US$55.6mn in direct loans from commercial banks. Housing construction was the centrepiece of the government's investment strategy and as a result, the country's capacity to transfer the increased output into hard currency for debt servicing was not increased while demands for hard currency rose given the high import content of the construction industry.

Chart 3. Public Sector External Debt by Creditor Category



Commercial debts by nature have short maturity periods and normally carry higher interest rates than bilateral and/or multilateral debt. Although there are no hard and fast rules concerning an appropriate level of short-term debt, general guidelines are useful, such as ensuring that short-term debt does not exceed three months of imports. In principle, loan maturities should, as far as possible, be matched with the payoff period of investments that are financed. However, if the government is laying the foundation for investment on the part of the private sector, then it has to weigh the benefits of the increased private investment against the cost of using short-term borrowing, particularly if other funds are too difficult to procure in a timely manner. The problem is that in many cases, a concentration of high levels of short-term external debt makes countries particularly vulnerable to unexpected downturns. Table 2 shows the maturity structure of contracted loans for specific years. In 2000, US$55.5mn or 25.3% of all loans contracted during that year had a maturity of between 1-5 years, reflecting the shift towards international bond issues and loans from commercial banks. In comparison, from 1995 to 1998 an average of only 7.9% of loans contracted had a short maturity period. Over the 4-year period, this totaled US$16.2mn. With respect to the total debt stock, payments have become skewed with shorter maturity debt payments now dominating. By the end of 2001, 17.7% of the stock of debt, or US$75mn, will be maturing in 1-5 years. One third of this will fall due four years from now with a single bullet payment for the whole amount[9]. Payments are now bunched up to the point where 58.1% of amounts now owed will be due and payable over the next 10 years.

Table 2. Maturity Structure of Contracted Loans*

(percentage of loans)

Maturity Period	1995	1996	1997	1998	1999	2000
1 - 5 Years	6.1	21.8	0.0	4.0	7.2	25.3
6 - 10 Years	0.0	4.0	33.2	63.6	18.6	40.5
11 - 15 Years	93.9	12.8	36.8	26.8	42.3	11.3
>15 Years	0.0	61.4	29.9	5.6	31.8	22.9

*Excludes the mortgage securitizations and publicly guaranteed debt

Table 3. Debt Outstanding by Remaining Maturities

as at 2001/12/31

	US$mn	%
1 - 5 years	74.9	17.7
6 - 10 years	171.2	40.4
11 - 15 years	58.6	13.8
> 15 years	118.7	28.0

[9] The Salomon Smith Barney bond issue of US$29mn for which there is no sinking fund matures in 2005, with the full amount being payable at that time.

Another important development relates to the rising share of debt that is being contracted at variable rates. The proportion of the outstanding debt subject to variable interest rates has been gradually increasing from 3.1% in 1997 to 4.9% in 1999 and 5.5% in 2000. Although floating interest rate debt may not always be a cause of concern, (especially if it has been contracted at a time where base rates are expected to decline) there is always the risk that such rates may sharply go up, which has implications for resource use and hence for growth.

The variable portion of interest payments constituted about 6.2% in 1999 and 19.8% of total interest payments in 2000, but the impact of these variable loans is still potentially significant. For example, if interest rates on loans subject to variable interest rates were raised by 1%, total interest payments would have been increased by 1.4% in 1999 and 1.6% in 2000, and total debt servicing by 0.6% in both years. On the other hand, the reverse effect occurs when interest rates decline as has been the case this year. Efforts to avert economic recession in the United States and Europe have facilitated declines in LIBOR of nearly 2% in 2001, which bodes well for interest payments on this portion of the debt in the immediate future.

The Magnitude of Belize's Public Sector External Debt

Table 4 shows the trend in Belize's public sector external indebtedness from 1986 to 2000[10]. The years 1993, 1996, 1999 and 2000 stand out as periods in which the percentage growth rates in the external debt are significantly higher. The annual rate of increase ranges from a low of 3.0% in 1989 to the current high of 64.6% in 2000. An average increase in disbursements of 5.8% from 1986 to 1990 is followed by a slight decline to an average of 5.4% in the three years of 1990, 1991 and 1992, the result mainly of Central Government's reliance on privatization receipts and financing from the domestic banking system.

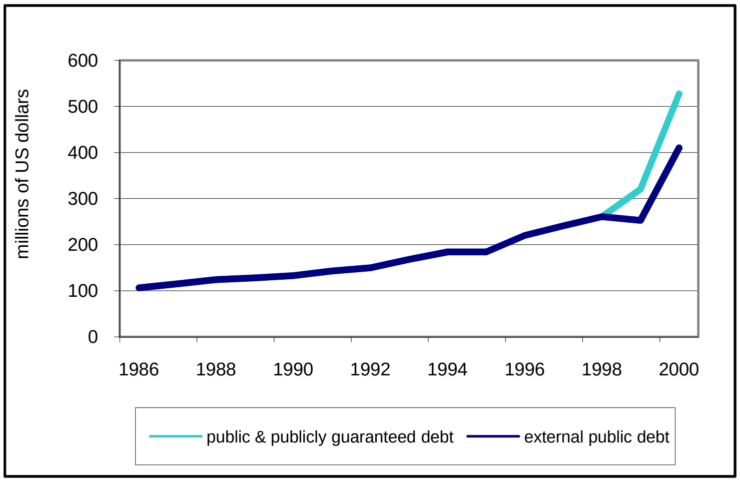
Table 4: Total External Public Sector and Publicly Guaranteed Debt
(Including mortgage securitizations)

In millions of US $

Year	external debt	% change	$ change
1986	106.3	0.0	0.0
1987	115.0	8.2	*8.7*
1988	124.2	8.0	*9.2*
1989	127.9	3.0	*3.7*
1990	132.8	3.8	*4.9*
1991	142.8	7.5	*10.0*
1992	149.8	4.9	*7.0*
1993	167.9	12.1	*18.1*
1994	184.0	9.6	*16.1*
1995	184.3	0.2	*0.3*
1996	219.9	19.3	*35.6*
1997	240.7	9.5	*20.8*
1998	260.7	8.3	*20.0*
1999	320.2	22.8	*59.5*
2000	527.1	64.6	*206.9*

[10] Included in the total are the publicly guaranteed debt, which are contingent liabilities of the Central Government as well as mortgage securitization liabilities of the financial public sector.

Chart 4. External Public Debt & Publicly Guaranteed Debt (including mortgage securitizations)



Beginning in 1993, the rate of growth began to accelerate as balance of payments difficulties stemming from the widening fiscal deficit, caused an increased reliance on external financing. The marked deceleration in 1995 reflected the predominant effect of cuts[11] in fiscal spending undertaken in that year. While the cuts contributed to a reduction in the overall deficit, the foreign exchange constraint was still very evident. However the Government chose not to enter into a programme with the IMF, relying instead on Taiwan government assistance, which came in the form of a US$26.1mn loan in 1996 for fiscal and "balance of payments support"[12]. Not much change occurred in the debt accumulation pattern after this until in 1999 and 2000 when external borrowing rose sharply to finance substantial increases in public sector investment, a significant portion of which consisted of numerous housing projects aimed at poverty alleviation and fulfillment of campaign promises of the new regime.

[11] These cuts included a two-year wage freeze and retrenchment of 860 public officers as well as reduced capital outlays. The reduction in staff reduced Government's wage bill by US$3.9mn in 1996 and US$5.0 in 1998.

[12] Between 1994 -1996, about 24% of total tax revenues were spent on debt servicing. The fiscal deficit was at its highest during the 1992-1995 period, recording deficits as large as US$32.6mn.

A notable component of the new external liabilities are the future flows from mortgages sold by the Development Finance Corporation (DFC) and the Belize Social Security Board (BSSB) to a foreign bank in 1999 and 2000, which raised a total of US$109.8mn. The arrangement calls for the domestic income stream from the particular mortgages to be converted to hard currency and paid to the purchaser as they become due. The government has provided a subsidiary guarantee and the Central Bank has also guaranteed the convertibility of the repayments into US dollars. As a result, the public sector maintains the credit, liquidity and exchange risks inherent in the securitization operations.

While debt can be used to spur economic growth, it can also become a constraint on growth when it is not utilized properly. The burden of principal and interest payments, for example, curtails the amount of resources available for expenditure on other productive ventures. This gives rise to three macroeconomic considerations for the economy and the borrowing entities: (a) increasing the foreign exchange earning capacity, (b) finding extra budgetary resources for debt service and (c) adjusting to the resulting reduction in expendable resources.

A number of macroeconomic aggregates and debt data may be used to assess the external debt burden. Due to data limitations, the present analysis focuses mainly on the following four ratios.

- Total debt service to exports of goods and services
- Central Government's external debt service to tax revenue

- Central Government's total debt service to tax revenue
- Total external debt to gross domestic product

Table 5 shows the trend in these variables for the period 1986-2000.

Table 5. Debt Indicators

Year	TDS/XGS	EDS/REV	TDS/REV	EDT/GDP
1986	10.3	n.a.	n.a.	46.6
1987	8.2	12.3	23.1	41.6
1988	6.7	10.3	17.7	39.4
1989	6.6	9.9	16.7	35.2
1990	6.4	10.2	15.6	32.7
1991	5.9	6.5	9.3	33.0
1992	5.7	6.3	8.7	30.9
1993	5.9	7.8	10.1	31.6
1994	8.8	14.3	18.1	33.3
1995	10.2	19.2	23.6	31.4
1996	9.8	17.9	23.1	34.6
1997	9.0	18.3	25.7	37.0
1998	9.8	18.4	24.3	39.4
1999	9.7	17.8	22.4	44.4
2000	13.7	19.9	27.7	66.9

TDS/XGS – Total debt service to export of goods & services
EDS/REV – Central Government debt service to tax revenue
TDS/REV – Central Government external & domestic debt service to tax revenue
EDT/GDP – total external debt to gross domestic product
n.a. – not available

The debt service to exports of goods and services ratio indicates how much of a country's export revenue will be used up in servicing its debt and, thus also how vulnerable the flow of debt service obligations is to an unexpected fall in export proceeds. Several rules of thumb have been suggested for managing the level of external indebtedness and one of these is that countries should limit the total debt service ratio to an upper ceiling of say, 15 percent. Such a ceiling on the debt service ratio may provide a margin of safety, however, it is noted that the country's ability to sustain any particular level of debt servicing depends on a number of factors including the outlook for its exports, import requirements, reserve level, future terms of trade and interest rate developments. Although desirable, it is difficult to accurately measure the *risks* of a sharp fall in foreign exchange inflows and rise in import needs in relation to the country's *ability* to offset such risks[13] through changes in fiscal and monetary policy and accessing adequate compensatory financing from abroad. Risks need to be examined on the basis of whether they are external or domestically driven. Acts of nature and changes in the terms of trade fall into the first category and Belize has experienced the effects of both in recent years in the form of 2 hurricanes, sharp increases in world oil prices, falling prices for major exports such as

Chart 5. Percentage Change in Debt Servicing & Exports of Goods & Services

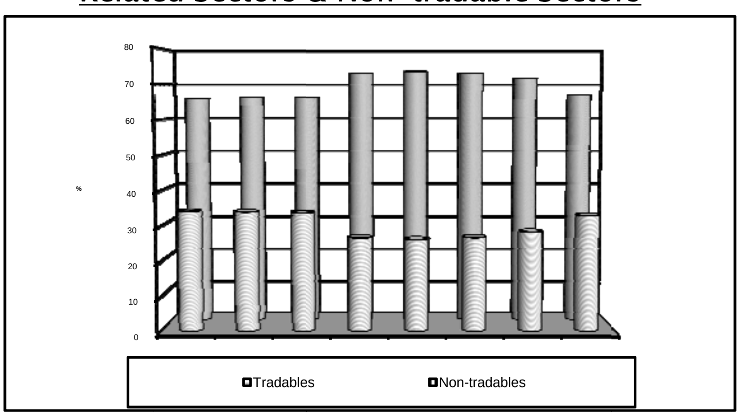
sugar and citrus with the additional pressure of larger amounts of borrowing on commercial terms. When this is combined with large amounts of investment in domestic non-tradable sectors, the debt service ratio will tend to rise.

[13] Leading Issues in Economic Development, 4th edition, Page 311

Over the 1990 to 1993 period, Belize maintained an average debt service ratio of approximately 6.0%. Since then, the average ratio has risen by 4.6 percentage points to 10.6%. In 2000, debt service ratio increased to 13.7%, driven mainly by increased payments on supplier's credit and other commercial debt. Debt service payments rose by 45.6% while exports of goods and services increased by only 2.6%, a clearly unsustainable trend. Contributing to the wide disparity in the debt service growth vis a vis exports has been the direction of loans into the non-tradable sector and difficulty in raising the national capacity to generate more hard currency earnings in the short-term.

Chart 6 provides a picture of the distribution of loans by economic sector over the period 1993 to 2000. It is noted that the share of loans to the tradable and related sectors averaged only 30.5% of loan disbursements over this period. The year 2000 saw a slight increase in disbursements of 4.6% to the tradable sector as the government invested in tourism development projects. With an average

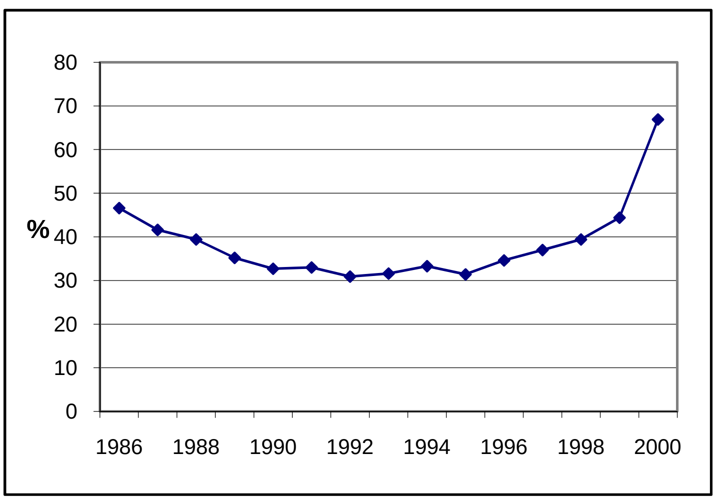
<u>Chart 6. Percentage of Total External Debt Allocated to the Tradable /Tradable Related Sectors & Non-tradable Sectors</u>



of 70% of loans disbursements being consistently targeted to the non-tradable sectors the economy began to face difficulty in transforming the output into earnings or savings of foreign exchange.

The debt to GDP ratio is another useful indicator that relates debt to the resource base. An increasing debt to GDP ratio is a sign that total debt is growing faster than the economy's growth rate, and that the country may have trouble honoring its debt obligations in the future, particularly if growth in the tradable sector is stagnating. After averaging 33.9% over the previous 10 years, Belize's debt/GDP ratio rose significantly in 1999 and 2000 as the government ventured into international US dollar bond issues and other extensive borrowing on commercial terms. Funds from these sources were obtained with relative ease and quickness as compared to the more time consuming process of arranging project loans from bilateral and multilateral sources[14]. In 2000, the debt to GDP ratio almost doubled to 66.9% with loan disbursements escalating

Chart 7. Public Sector External Debt to GDP



from US$36.5mn in 1999 to US$193.8mn in 2000. Extensive borrowing from abroad fueled a 10.5% rise in real GDP that was largely driven by public sector investment in housing and other infrastructure.

[14] Borrowing on commercial terms was made easier due to the fact that Belize was given a Ba2 rating by Moody's Investors Service.

In addition to the foreign exchange constraint, the sharp increase in short-term debt obligations also raises the issue of fiscal sustainability. The proportion of debt service payments to tax revenue was on a generally upward trend throughout the 1990's. In 2000, approximately 35.4% of Central Government's tax revenues had to be allocated for servicing the external and domestic debt with the external debt servicing alone accounting for 27.6% of Government's tax revenues. It is generally accepted that fiscal policy is not sustainable if there is a persistent and rapid increase in the ratio of Government debt to GDP. If the interest rate on the Government debt exceeds the growth rate of the economy, the debt ratio can be expected to rise as interest payments add more to public debt than growth adds to GDP and vice versa. Agenor and Montiel[15] point out that "when the rate of interest exceeds the rate of growth of real GDP, the proceeds from the sale of new debt at a constant debt/GDP ratio are not sufficient to service the old debt and the public sector must service the debt using its own resources, that is, by generating sufficiently large primary surpluses and seigniorage revenue". The measure of the sustainability of fiscal policy is given in an equation that links the change in the debt/GDP ratio to the primary deficit, seigniorage and the built-in positive or negative momentum of the debt/GDP ratio.

$$\Delta d_t = pd_t + (r_t - g_t) * d_{t-1} - s_t$$

Where,

d_t : debt to GDP ratio in period t,

pd_t : primary fiscal deficit as a fraction of GDP,

[15] Development Macroeconomics, page 445

r_t : real interest rate on government debt expressed as a fraction,

g_t : rate of growth of real GDP expressed as a fraction, and

s_t : seigniorage as a fraction of GDP.

This equation was fitted using the government's debt data in Table 6, where seigniorage was calculated as the growth in base money less the cost of printing money. The results are featured in Table 7.

Table 6 Data Set Using External and Domestic Debt for Central Government

Year	d_t	pd_t	r_t	g_t	s_t
1981	0.264	(0.024)	4.85	1.02	0.014
1982	0.325	(0.076)	5.26	0.99	0.015
1983	0.409	(0.054)	4.88	0.98	(0.007)
1984	0.387	(0.038)	4.31	1.02	0.018
1985	0.442	(0.057)	7.63	1.00	(0.001)
1986	0.495	(0.014)	6.11	1.03	0.012
1987	0.432	0.023	5.50	1.12	0.008
1988	0.373	0.104	4.31	1.06	0.015
1989	0.317	0.018	4.21	1.13	0.025
1990	0.292	0.018	4.70	1.10	(0.005)
1991	0.297	(0.034)	3.39	1.03	0.002
1992	0.317	(0.041)	3.44	1.10	0.018
1993	0.356	(0.048)	3.21	1.04	(0.005)
1994	0.395	(0.045)	3.52	1.01	(0.004)
1995	0.387	(0.019)	3.80	1.04	0.013
1996	0.404	0.016	3.35	1.02	0.002
1997	0.394	0.001	3.54	1.04	0.006
1998	0.410	0.001	3.92	1.02	0.009
1999	0.398	0.001	3.63	1.06	0.003
2000	0.489	(0.065)	2.95	1.10	0.032
2001	0.523	(0.043)	2.67	1.05	(0.001)

Table 7: Coefficients and Statistics of Fitted Equation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
pd_t	-0.849425	0.151015	-5.624761	0.0000
$(r_t - g_t) * d_{t-1}$	0.000981	0.005984	0.163929	0.8716
s_t	-0.298223	0.572333	-0.521065	0.6087
	R-squared 0.623946		Mean dependent var 0.0139	
	Adjusted R-squared 0.58216		S.D. dependent var 0.04434	
	S.E. of regression 0.028663		F-statistic 14.93276	
	Durbin-Watson stat 2.9489		Log likelihood 46.41590	

With real interest rates on the outstanding debt consistently higher than the rate of growth of GDP, interest payments are now making it increasingly difficult to find sufficient resources to service the debt. The above data shows that the Government has been relying to a large extent on seigniorage revenues to neutralize the increased debt-servicing burden on Government finances. The negative side effects of this include a less than optimum increase in money supply, a higher level of domestic absorption and worsening of the current account of the balance of payments as well as a rise in black-market operations as increased import demand encountered financing delays from the limited pool of foreign exchange.

Another factor to be considered is the impact contingent liabilities may have on the government's financial position, including its overall liquidity. Contingent liabilities represent potential claims against the government which have not yet materialized, but which could trigger a firm financial obligation or liability under certain circumstances. They may be explicit (such as government's guarantees on foreign exchange borrowing by WASA now BWSL[16], BEL and DFC's mortgage securitization) or implicit, where the government does not have a contractual obligation to provide assistance, but decides to do so because it believes the cost of not intervening is unacceptable. In recent years, these liabilities have seen substantial growth, as in the case of the mortgage securitizations of the Development Finance Corporation (DFC) and the Belize Social Security Board (BSSB). If the DFC is unable to meet its repayments (amortization and interest), the government, as guarantor of the debt, would find its debt servicing burden increased by US$12.7mn each year.

[16] Water & Sewage Authority (WASA) was privatized in 2000 – Belize Water Services Limited (BWSL). However, some of the former loans contracted prior to privatization are still government guaranteed, so government has a contractual obligation to make payments on BWSL's CDB loans in the event that they default.

Conclusion

Rapid growth in the external debt in a short space of time has resulted in a sharp deterioration in basic indicators of fiscal and debt sustainability in Belize. We have seen an increasing share of commercial debt, higher interest payments and shorter maturity periods, all of which presents a serious challenge to the authorities who need to establish and execute a debt management strategy aimed at raising capital for development while minimizing economic dislocations that can occur when the debt servicing burden becomes too great.

As it now stands, the debt portfolio would need to be re-structured to lengthen its maturity thereby reducing pressures on the fiscal balance and the country's official reserve holdings. The country is now nearing the stage of being a "mature borrower" whereby outflows in the form of interest and amortization exceed the level of new loan inflows. Although Belize no longer qualifies for multi-lateral loans that have a high degree of concessionality, great care should be exercised in negotiating or entering into further substantial commercial borrowing. Whenever feasible, public projects in infrastructure and social sectors, which normally are non-revenue generating, should be funded with concessionary financing or with grants. In the longer term, commercial loans should only be considered, as a last resort, for public projects with high returns (Commonwealth Secretariat ELAS, 1995).

Overly ambitious investment programmes, whether financed domestically or through commercial loans, have been shown to generate boom/bust economic cycles in Belize. However, the level of growth that has been considered sustainable in the past may not be sufficient to adequately address the social and economic problems that now exist. The present debt situation has increased the country’s vulnerability to exogenous shocks and will require the exercise of very prudent fiscal and monetary policies for sustaining economic growth. Further, a new growth strategy now has to be devised that would generate adequate growth while addressing the inertia in expansion and diversification of tradable sectors to substantially raise foreign exchange generation.

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