Introduction

1.1 This paper examines the way in which the Botswana authorities have handled massive fluctuations in export earnings and in government revenues, due to booms and busts in the international market for the dominant export commodity.

Section 2 briefly defines the commodity and explains why the year-to-year values of export sales are unpredictable and unreliable, even if there is a general upward trend in these values.

Section 3 gives a brief statistical background to show how the commodity has come to dominate both the economy in general and the government finances in particular.

Section 4 records what the Botswana government says is its policy coping with the uncertainties associated with the ups and downs of the market for the commodity.

Section 5 discusses some techniques used in the Ministry of Finance and Development Planning (MFDP) to handle pressures on the Minister for more funds to be allocated to the spending ministries.

Section 6 examines what has actually happened in practice. Section 7 gives the Botswana authorities top marks for setting sensible economic goals and then in fact doing what they said they were going to do.

The notes at the end of the text provide additional information for the interested reader.

1.2 Three other events, beside the fluctuations in export earnings, have had a major impact on the management of the Botswana economy.

The first concerns a severe drought lasting seven years. This not only reduced beef and crop production, it also caused construction to be curtailed so as to save water. At the end of the drought, the Botswana government provided funds to the banks to allow the banks to write off all "drought related" seasonal loans to their customers. In addition, interest was forgiven on drought affected capital loans for breeding stock, fencing, boreholes and the like.

An outbreak of foot and mouth disease among portions of the national cattle herd

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An outbreak of foot and mouth disease among portions of the national cattle herd caused beef exports to Europe to be halted for a few years. Botswana temporarily lost its access to its most lucrative beef market.

The rapid decline in the rand in the 1980's caused Botswana to receive a considerable windfall in its terms of trade. With most of Botswana's exports priced in US dollars or pounds, and most of its imports priced in rand, the fall in the rand against both the dollar and the pound meant that a given volume of exports could buy a bigger volume of imports than it could previously. (Note 1 and Note 12).

**The Commodity and its Market (Note 2)**

2.1 Botswana's economy is very heavily dependent on one export commodity, namely "rough" or uncut diamonds. (Note 3).

2.2 There is only a finite, non-renewable stock of the commodity in Botswana. Exports are therefore sales of assets.

2.3 Botswana is a price taker for this commodity. However, unlike many other primary commodities exported by developing countries, prices for uncut diamonds generally remain firm in real terms. Any weakness of the international market for uncut diamonds is reflected firstly in reduced sales to the diamond cutters by the organiser of the producers' cartel, the Central Selling Organisation (CSO) in London. The CSO, however, has a limit to the size of the buffer stock of uncut diamonds that it is willing to hold, typically around two billion dollars worth of diamonds. Any further weakness of the market then causes the CSO to reduce its purchases from the producers in the cartel. The market for uncut diamonds is controlled more by the volume of transactions, not primarily by price. (This is in sharp contrast to the market for cut diamonds, where the market is heavily influenced by prices.)

2.4 In nominal terms, prices are never reduced. But the effect on Botswana of a restriction on the volume of sales can of course be just as big a shock to the balance of payments as a deep price cut.

2.5 The commodity is a virtually indestructible, non-consumable luxury item. Each new one sold simply adds to the existing stock in the world. The market is particularly sensitive to any recession in the rich countries in North America, Europe and Asia where the bulk of the diamonds are eventually sold.

2.6 A bust in the international market for uncut diamonds would cause an export quota to be applied to all the producers in the cartel. The quota would typically
be well below the producer's ability to produce (i.e. mine) the commodity. If the producer however opted to continue to produce and export at the original rate, then after a short while the imposed annual quota for exports would be exhausted and exportation would have to cease altogether for the remainder of that year, if the quota remained in force. The inability to export any diamonds at all, even for a short period, would then cause the balance of payments to become negative. The level of the foreign exchange reserved would start to fall quite fast.

2.7 The domestic cost of production is low compared to its overseas sales value. Consequently, such sales as do in fact take place are highly profitable. (Note 4).

2.8 The value of the diamonds recovered from each tonne of ore mined varies from mine to mine, and from site to site in each mine.

If all the mining concentrates on rich parts of the kimberlite in the mine's open pit, and if all the production is sold, the Botswana economy experiences a boom. A sudden rise in diamond prices can also produce a boom.

If the mining concentrates on poor parts of the kimberlite and all the production is sold, Botswana experiences a relative weakness in the value of its exports.

If not all the production is sold, because a quota is in force, Botswana goes into a bust period.

If exportation ceases altogether, a balance of payments crisis may begin.

The Statistical Background

3.1 The first table shows the contribution of mining to the gross domestic product of Botswana from 1967/68 to 1988/89. Mining has become the engine of growth.

Table 1

<table>
<thead>
<tr>
<th>Mining Proportion</th>
<th>67/68</th>
<th>71/72</th>
<th>76/77</th>
<th>79/80</th>
<th>85/86</th>
<th>88/89</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.6%</td>
<td>11%</td>
<td>13%</td>
<td>30%</td>
<td>42%</td>
<td>51%</td>
</tr>
</tbody>
</table>

Note: The national accounts year runs from July to June. "Mining" includes diamonds, copper-nickel matte and coal. The diamond sector predominates.
3.2 The second table shows the contribution of diamond exports to total exports from 1970 to 1990. Diamonds have become the dominant export commodity.

Table 2

<table>
<thead>
<tr>
<th>Contribution of Diamonds to Total Exports (selected years)</th>
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<tbody>
<tr>
<td>(Pula Million)</td>
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<tr>
<td>Diamonds</td>
</tr>
<tr>
<td>Total Exports</td>
</tr>
<tr>
<td>(Percentage)</td>
</tr>
<tr>
<td>Proportion from Diamonds</td>
</tr>
</tbody>
</table>

3.3 The third table shows the contribution of mineral revenues to the ordinary revenue of the Botswana government, for selected years. There was a bust in 1981/82 and 1982/83, and a quota was applied.

In the two bust years, unsold diamonds were stockpiled. Normal sales of current production resumed in 1983/84, 1984/85 and 1985/86, but the stockpile remained locked away in a safe somewhere in Gaborone.

In 1987/88, the stockpile was sold, along with current production. However, a portion of the sale of the stockpile was used to purchase a long-term foreign asset. (Note 5). So the mineral revenue flow to government in 1987/88 was less than would otherwise have been expected.

Table 3

<table>
<thead>
<tr>
<th>Contribution of Mineral Revenues to Ordinary Government Revenue</th>
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<tbody>
<tr>
<td>71/72</td>
</tr>
<tr>
<td>Mineral Revenues</td>
</tr>
<tr>
<td>Total Revenue</td>
</tr>
<tr>
<td>Proportion from Minerals</td>
</tr>
</tbody>
</table>

Note: The government’s fiscal year runs from April to March. The figures for
1991/92 are estimates.

3.4 The fourth table shows year-to-year fluctuations in the Botswana government's revenue, in real terms. One can see that a period of four or five years of rapidly increasing real revenue may be followed by a short period of declining revenue. It follows that considerable care has to be taken in planning a program of spending in any plan period of six years.

Table 4

Rate of Change of Real Government Revenue from Year to Year, 1972 - 1988

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<tbody>
<tr>
<td></td>
<td>+42</td>
<td>+45</td>
<td>+29</td>
<td>+21</td>
<td>-15</td>
<td>+20</td>
<td>+28</td>
<td>+35</td>
</tr>
<tr>
<td>1980</td>
<td>+9</td>
<td>-10</td>
<td>+10</td>
<td>+27</td>
<td>+31</td>
<td>+30</td>
<td>+27</td>
<td>+11</td>
</tr>
<tr>
<td>1989</td>
<td>+1</td>
<td>+6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td></td>
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</tr>
</tbody>
</table>

Note: "Revenue" is Government’s ordinary revenue plus grants. Real revenue is obtained by deflating nominal revenue by the consumer price index.

Sources: Harvey (1987) and Bank of Botswana’s annual report.

The Stated Policies of the Botswana Government

4.1 A long list of macro-economic policies may be summarised as follows:

(a) **Do not spend all the revenue that Government receives in boom periods;** do not borrow heavily in bust years to retain consumption expenditure at its previous high level; do not hesitate to adjust when moving from boom to bust periods.

(b) **Build up the foreign exchange reserves in boom periods;** let them provide a cushion in bad times, while adjustments start to work.

(c) **Maintain a liberal exchange control regime at all times;** do not tighten exchange controls in bust periods, but make other, more suitable adjustments instead; in particular, do not create "import strangulation" (Note 6).
(d) Do not allow the exchange rate for the currency to become over-valued in real terms.

(e) During boom periods, do not use a high international credit rating to borrow very large sums either for large lumpy projects that cannot easily be stopped during a subsequent bust, or for several smaller projects that do not generate their own foreign exchange.

(f) Do not allow aggregate demand to exceed supply. In particular, macro-spending should not exceed macro capacity in any sector.

(g) When spending a large sum of money on a large development project, make sure that any future recurrent expenditures that are required to maintain the project are properly planned for. For example, if a school is built this year, subsequent years' expenditure must allow for teachers' salaries and school textbooks. In other words development must be sustainable.

4.2 The Botswana government has been aided in drawing up its list of policies by observing the effects in other countries of failing to stick to the above principles. In the case of Zambia, for example, which depends heavily on its copper exports, the Zambian government was faced with a choice of strategies when the price of copper fell dramatically in 1975. The Zambians decided not to reduce their standard of living but to borrow abroad. They then continued to do so for the next eight years, so as to maintain the standard of living of the Zambian people in the face of falling domestic income. Eventually, the Zambian economy suffered a massive dislocation when foreign confidence in the country's borrowing capacity collapsed and the country had to choose between a variety of equally distasteful large scale adjustments.

4.3 The Botswana government sees itself as a facilitator of the private sector's development efforts. It is clear that the government will not succeed in this role unless it gets its own house in order first. The next section discusses how the government controls itself.

Some Techniques Used in MFDP for Controlling Government Spending

5.1 A helpful tool used by the Botswana government is manpower planning. Botswana has a large surplus of unskilled labour, but it also has a most unfortunate shortage of skilled labour. For example, out of a total demand for some 110 qualified accountants' jobs in the whole country only some six or seven are filled by Botswana citizens. Similarly, the inability to come anywhere near filling all the jobs for high school teachers with citizens has caused the
government to enter into long-term contracts with the US Peace Corps and many other foreign governments for the supply of expatriate teachers.

So when the Minister of Finance and Development Planning is faced with a barrage of requests from his fellow Cabinet Ministers for expansions of either the Ministries themselves or for the projects they are keen to develop, the Finance Ministry's planners set to work and calculate the requirements for skilled manpower relating to these requests. Since the "budget" of skilled citizen manpower is quickly exhausted, including allowances for future graduates joining the system, and since most ministers are reluctant to increase their already heavy reliance on expatriates, the constraint of the skilled labour shortage has a noticeable dampening effect on the spending requests.

5.2 A second tool in use is the "Macro-economic model of Botswana" or "MEMBOT". This P.C. based model of the Botswana economy provides 10 year forecasts of various economic indicators including gross domestic product, broken down by sectors; employment statistics broken down by broad skill categories; input/output tables; government revenue and expenditure; the inflation rates; monetary aggregates and the balance of payments.

Like any other computerised model, MEMBOT requires a number of exogenous variables to be chosen by the user and put into the model. Since the Botswana government genuinely does not know the likely price increases that the C.S.O. in London will announce for uncut diamonds over the next ten years, the planners can play safe by inputting a fairly modest forecast of future diamond price increases. For example, one may assume that diamond prices will increase in line with the rate of inflation in the USA, i.e. no price increase in real terms. This will lead to the forecasting of only moderate increases in future government revenues, which in turn also acts as a brake on the enthusiasms of the spending Ministries. (Note 7).

Another important exogenous variable is the rand per pula exchange rate. This is input as a constant real rate.

5.3 A third technique has been to ask the Botswana cabinet to agree on one national development priority. Since education has been chosen to have the highest priority, it follows that other ministries have to accept lower priority.

5.4 The results of the "budget" for skilled manpower (which of course has to be shared with the parastatal and private sectors), the MEMBOT forecasts of government revenue, and the inter-Ministerial priority rankings, all feed into the main technique for controlling government spending, namely the "Ceiling System".

Using projections of government revenue and the availability of skilled manpower,
a ceiling is set for the level to which government’s recurrent expenditure can grow by the end of the Plan period. This, together with estimates of the future recurrent implications of development expenditure, allows the determination of a mutually consistent development ceiling.

These global ceilings are then translated into Ministerial ceilings, which have to be approved by Cabinet prior to the preparation of each National Development Plan. During the subsequent six year period covered by the Plan, some flexibility is allowed. Each year, Ministries can bring forward or postpone some of their projects, provided they stick to their long-term path as defined by the point to be reached in the last year of the Plan. (Note 8).

5.5 During NDP 6, the large increase in government revenue over and above what had been forecast, permitted the spending ceilings to be raised. The large revenue increase came about primarily because the sale of the diamond stockpile had not been included in the MEMBOT model. (In effect, the Ministry of Mineral Resources and Water Affairs had taken the view, in 1985, that the diamond stockpile would not be sold during the Plan period, i.e. not before March 1991. So it is not only the Ministry of Finance and Development Planning that is conservative in its forecasting).

5.6 Care should have been taken not to conflict with the supply and demand rules at 4.1(f) above. Similarly, questions should have been asked about the size of the operating deficits of the two national carriers, Air Botswana and Botswana Railways. The normal planning rules about internal rates of return should have been applied to major capital works such as the construction of new airports.

What Has Actually Happened in Practice

6.1 Care needs to be taken to compare the actual outcomes of the key macroeconomic variables with the forecasts made in the previous plan. The forecasts are in constant prices, using the first year of the plan period as the base year, while the actuals are in current prices.

6.2 As a sample exercise, a rough comparison of the forecasts of the government’s cash inflow with the actuals, is given below for the period covered by NDP 6. The forecasts were made in 1985.

<table>
<thead>
<tr>
<th>Table 5</th>
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<tbody>
<tr>
<td>1985 Forecasts of Government’s Yearly Cash In-Flows and Subsequent Actuals</td>
</tr>
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<td>85/6</td>
</tr>
</tbody>
</table>

54
(Pula Million)

(a) Forecasts, in Constant Prices

<table>
<thead>
<tr>
<th></th>
<th>735</th>
<th>719</th>
<th>753</th>
<th>752</th>
<th>753</th>
<th>725</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary Revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants</td>
<td>18</td>
<td>23</td>
<td>26</td>
<td>29</td>
<td>32</td>
<td>35</td>
</tr>
<tr>
<td>Net External Borrowing</td>
<td>44</td>
<td>47</td>
<td>48</td>
<td>45</td>
<td>41</td>
<td>40</td>
</tr>
<tr>
<td>Total Real Revenue and</td>
<td>797</td>
<td>789</td>
<td>827</td>
<td>826</td>
<td>826</td>
<td>800</td>
</tr>
<tr>
<td>Financing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.01 Index</td>
<td>100</td>
<td>108,9</td>
<td>119,6</td>
<td>130,5</td>
<td>145,1</td>
<td>160,9</td>
</tr>
</tbody>
</table>

(b) Forecasts, in Current Prices

<table>
<thead>
<tr>
<th>Forecast Cash</th>
<th>797</th>
<th>859</th>
<th>989</th>
<th>1078</th>
<th>1198</th>
<th>1287</th>
</tr>
</thead>
</table>

(c) Actuals, in Current Prices

| Ordinary Revenue       | 1029 | 1480 | 1719 | 2446 | 2711 | 3269 |
| Grants                 | 41   | 68   | 106  | 110  | 40   | 107  |
| External Borrowings    | 58   | 99   | 105  | 136  | 102  | 151  |
| Less Amortization      | -45  | -26  | -30  | -35  | -46  | -60  |
| Actual Cash            | 1146 | 1621 | 1901 | 2657 | 2807 | 3467 |
| Forecast Cash          | 797  | 859  | 989  | 1078 | 1198 | 1287 |

Note: The modest net inflow of borrowed funds, around US$ 45 million in 1990/91, is consistent with the stated policy at 4.1(e) above. It is less than Botswana could have borrowed abroad, given its high international credit rating.

It is clear that the government’s forecasts were far too conservative. As an exercise in forecasting by means of a model, the exercise was a complete failure, because of the incorrect exogenous variables that were fed into the mode. In particular, it was not possible in 1985 to predict when the stockpile of mined but not exported diamonds would be sold, if ever. The eventual actual sale of the stockpile in 1987 was preceded by lengthy negotiations between De Beers and the Botswana government. But the failure in 1985 of the mining economists to predict that the stockpile would be sold during the Plan period meant that mineral revenue was badly under-forecast. This led to a host of other errors. As a device for supporting conservative government spending, however, the modelling exercise was a great success.

6.3 Some underestimates were also made for government expenditures, but the net
effect was that the increase in government's deposits at the Bank of Botswana far exceeded expectations. This is illustrated in the table below.

Table 6

1985 Forecasts of Yearly Increases in Government’s Deposits at the Bank of Botswana, and Actuals

<table>
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<tbody>
<tr>
<td>(a)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>126</td>
<td>95</td>
<td>100</td>
<td>67</td>
<td>27</td>
<td>-45</td>
</tr>
<tr>
<td>(b)</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>126</td>
<td>103</td>
<td>119</td>
<td>87</td>
<td>40</td>
<td>-73</td>
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<tr>
<td>(c)</td>
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<td></td>
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<tr>
<td></td>
<td>428</td>
<td>620</td>
<td>592</td>
<td>874</td>
<td>637</td>
<td>681 (*)</td>
</tr>
</tbody>
</table>

Note: (*) The figure for March 1991 is a preliminary estimate.

The much larger than expected increases in the government’s deposits are the main source of the unexpectedly large increase in Botswana’s foreign exchange reserves. The extra income earned by the Bank of Botswana on the larger than expected foreign exchange reserves meant that the Bank’s profits were increased. In turn, the government’s share of the Bank’s profits was also larger than expected. (The amount paid to government by the Bank in March 1991, with respect to the government’s share of the Bank’s profits for 1990, was P566 million).

6.4 Another device used by the Botswana government to control excess spending in boom years, has been the longstanding tactic of transferring funds out of the Consolidated Fund and into three special funds. Transfers to the Domestic Development Fund (DDF) are Botswana’s own contributions to the government’s capital projects budget, as opposed to funds received from aid donors. The Revenue Stabilisation Fund (RSF) absorbs short term revenue increases and is used mainly for short term lending to parastatal bodies and local governments. The Public Debt Service Fund (PDSF) is used for long term lending to parastatals and local governments for capital projects. Allocations to the three funds can be
higher in boom years, thus reducing the published surplus of the ordinary government budget.

The combined total of outstanding RSF and PDSF loans currently exceeds the combined total of all the lending by the commercial banks. (The government is the biggest "bank" in the country).

The table below shows the balances outstanding as at March 31, 1990 for selected borrowers.

Loans from the government's Development Fund are also included in the amounts.

Table 7

| Government Lending to Selected Parastatals: Balances Outstanding at March 1990 |
|----------------------------------|---------------------|
| Botswana Housing Corporation     | 208 |
| Botswana Power Corporation       | 195 |
| Air Botswana                     | 80  |
| Water Utilities Corporation      | 80  |
| National Development Bank        | 65  |
| Botswana Development Corporation | 42  |
| Botswana Railways                | 36  |
| Botswana Agricultural Marketing Board | 27  |
| Botswana Telecommunications Corporation | 24  |
| Others, including city and town councils | 157 |
| **TOTAL**                        | **914** |

The government has had mixed success with these loans, from a credit worthiness point of view. From a development point of view, however, they have been a great success. Furthermore, the interest paid on the loans represents at least some return to government from its investments in parastatals, in case the parastatal is unable to pay a dividend. Finally, in some cases the Botswana government borrowed abroad with the intention of on-lending the funds (in Pula) to a parastatal through the PDSF mechanism, for a specific development project. In such cases, the subsequent return flow from the parastatal to government (interest and repayments of principal) would in many cases approximately supply...
the government with the cash flow to amortize the original external loan.

The current forecast, that the 1991/92 government budget will no longer be in surplus, implies that appropriations to the PDSF will be lower in future. The parastatals may have to seek alternative funding.

6.5 The real test of the government's stated determination to make necessary macroeconomic adjustments during bust periods, came in 1981 and 1982. There was initially a brief crisis when diamond exports ceased altogether for three months. This was followed by a bust period lasting nearly two years, in which an export quota was applied by the CSO and only some 75% of production was sold. The CSO's own annual sales in 1982 were only half of its sales in 1979.

6.6 A great deal of thought went into the shape of a suitable adjustment program in Botswana, and a rough draft was available before the annual IMF mission arrived in Botswana. The program was then finalised with the help of the IMF mission. It contained the following elements:

(a) The annual cost of living increase for civil servants' salaries, due on April, 1st 1982, was cancelled. The parastatal and private sectors voluntarily copied the government's example. (Note 9).

(b) The Bank of Botswana increased the prime lending rate at the commercial banks and imposed a credit ceiling for each bank. Liquidity requirements were increased slightly.

(c) The government imposed certain mild spending cuts on its current budget. Development spending, however, went ahead as planned, partly because it was largely financed by external borrowing. (The resulting increase in recurrent spending, due to the completion of the various development projects, was not considered an obstacle).

(d) The pula was devalued by 10 percent.

(e) The government decided to draw down US Dollars 30 million out of a US Dollar 45 million line of credit that it had negotiated previously. (Note 10).

At the same time, in the non-government areas:

(f) The local copper-nickel mine, in which the government has a minority interest, decided to switch some US Dollars 15 million worth of borrowing from pula borrowing at Botswana banks to dollar borrowing in London. This switch created a short-term capital inflow.
The new diamond mine at Jwaneng, in which the government has a 50 percent interest, came into production in July 1982. According to the CSO’s quota rules, some 75 percent of this additional new production could be exported. (See Note 4 for the impact of the opening of the Jwaneng mine on the formula for sharing Debswana’s profits between the two partners, De Beers and the Botswana government).

6.7 The adjustment measures were highly successful, partly because the high level of foreign exchange reserves (Pula 286 million in April 1981) at the beginning of the bust period gave Botswana a cushion, and partly because Botswana did not delay too long before starting to take the necessary adjustment measures. In the event, the letter of intent (to borrow from the IMF for balance of payments support) which had been drafted by the IMF mission and which referred to the agreed adjustment measures, was not signed. Botswana remains one of a small group of IMF members which has de facto undertaken an IMF-approved adjustment program during a period of difficulty, but has voluntarily never in fact borrowed from the IMF.

6.8 The above list of adjustments did not include any tightening of Botswana’s liberal exchange controls. The reduction that followed in the volume of imports was due to the impact of the other adjustment measures.

6.9 Botswana’s exchange rate policy has evolved over the years, with various tactics and various currency baskets for the pula being used from time to time. One may however observe that over the past few years, the exchange rate of the pula has been nearly constant against the rand in real terms. This protects both import substituting manufacturers and those non-traditional exporters who export to South Africa. (Note 11). The current exchange rate is P1 = R1,38; this correlates well with the excess of South African inflation over Botswana’s inflation, accumulated over 5 years.

6.10 This policy has worked well with regard to Botswana’s tradeables, and inflation in Botswana has largely been of the imported variety. However the policy has not been able to prevent inflationary effects inside Botswana with regard to two closely related non-tradeables. High house construction costs and high house rentals are both caused by the chronic shortage of housing in urban areas, interspersed with bursts of construction as plots are released. Apart from the drought period referred to in para. 1.2 above when construction was deliberately curtailed, the Botswana government has consistently and puzzlingly dragged its feet over the supply of serviced urban land on which low, middle and upper income housing can be built. The error has been repeated year after year since Independence in 1966. When ceilings were lifted in NDP 6 (see para. 5.5 above), construction costs went up.
6.11 Monetary policy in Botswana has been assisted in boom periods by two kinds of sterilisation of the domestic deposits that arise from increases in the foreign exchange reserves.

As indicated above, the Botswana government's share of the diamond mining profits are deposited at the Bank of Botswana, and are then not used for any kind of domestic lending by the Bank. Similarly, the diamond mining company itself has access to the Bank of Botswana's call account facilities and can store surplus funds at the Bank until they are needed.

The Bank's unusual looking balance sheet is given in Table 8 below. The strong relationship between the Botswana government's total interest in the Bank and the level of the foreign exchange reserves, is typical of the Bank's balance sheet. (Note 12).

Table 8

Balance Sheet of the Bank of Botswana as at December 31, 1990

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>(P bn)</th>
<th>LIABILITIES</th>
<th>(P bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Exchange Reserves</td>
<td>6.23</td>
<td>Paid up Capital and General Reserve</td>
<td>0.11</td>
</tr>
<tr>
<td>Loans to Government, including</td>
<td></td>
<td>Revaluation Reserve</td>
<td>0.74</td>
</tr>
<tr>
<td>holdings of treasury bills</td>
<td>nil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loans to city, town and district</td>
<td>nil</td>
<td>Shareholder's &quot;equity&quot; interest</td>
<td>0.85</td>
</tr>
<tr>
<td>councils</td>
<td></td>
<td>Government deposits</td>
<td>3.97</td>
</tr>
<tr>
<td>Loans to parastatals</td>
<td>nil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loans to banks</td>
<td>nil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other assets</td>
<td>0.02</td>
<td>Currency in circulation</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deposits from Banks</td>
<td>0.26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deposits from non-bank customers</td>
<td>0.36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other liabilities</td>
<td>0.62</td>
</tr>
<tr>
<td>Total Assets</td>
<td>6.25</td>
<td>Total Liabilities</td>
<td>6.25</td>
</tr>
</tbody>
</table>

Notes: "Foreign exchange reserves" includes the Reserve Tranche at the IMF and Botswana's holdings of SDR. "Other assets" include fixed assets, staff loans, etc. "Other liabilities" include the liability to the IMF on account of the IMF's allocation of SDRs to Botswana.
The "nil" items on the asset side of the balance sheet are omitted whenever the Bank's balance sheet is published elsewhere. They have been included here for purposes of emphasis only.

6.12 To conclude the discussion, one may note that the 1990 and 1991 period of weakness in diamond sales has been accompanied in Botswana by considerable increases in interest rates. The price of economic stability is eternal vigilance!

Table 9 below shows the recent history of the key interest rate in the Botswana economy.

**Table 9**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overnight Call Rate at the Bank of Botswana</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Percent Per Annum)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td>Interest is credited monthly, so the effective interest rate is slightly higher than the nominal rate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6.13</strong></td>
<td>With the rate of inflation around 12 percent during the above period, most interest rates were until recently heavily negative in real terms. The resulting cheap lending policy was successful in stimulating investment but also fuelled the overheated construction sector. (Note 13). It also encouraged the &quot;Mercedes Benz&quot; type of consumption borrowing. The primary goals in 1991 are to attack domestically generated inflation, and to stimulate savings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **6.14**      | As hinted at in paragraphs 5.5 and 6.10 above, the raising of each ministerial ceiling in the middle of NDP 6 caused each ministry separately to increase its construction budget. The MFDP overlooked the possibility that the resulting overall increase in construction could exceed the total capacity of the then existing pool of contractors. The subsequent overheating of the construction industry caused construction costs to escalate at between 24% and 30% per year, compared to cost of living increases for households of only 12% to 15% per year. The escalation of construction costs in turn caused the Botswana government to spend more cash on its own development program than it would have done if the surge in construction projects had been spread out over a longer period. Being wise after the event, one can see now that the Botswana government should have added a construction volume constraint to its system of manpower
budgets and financial ceilings, right at the beginning of NDP 6. They would have then been in a position to control the enthusiasm of the spending ministries for construction projects when the financial ceilings were raised halfway through the Plan period. As it happens, it appears that the authorities were somewhat surprised by the extra good results in the middle of NDP 7.

6.15 More recently, the Botswana government and the Bank of Botswana have jointly agreed that the Bank modernize the local money market by issuing its own 91-day paper. This will fill the void caused by the absence of treasury bills. The first central bank paper was successfully issued in April 1991, at a rate of interest slightly higher than the Bank's own call rate.

Summary

7.1 The Botswana Government should be congratulated for getting nearly everything right. Some things that could perhaps have been done better are the supply of serviced urban land, the management of the National Development Bank, and the use of economic tools in determining policy on the construction of airports. One also needs to watch out that the two national carriers, Air Botswana and Botswana Railways, do not produce unreasonably large drains on government revenue. The construction boom that resulted from increased ceilings gave rise to massive extra costs.

Some people may quibble about the opportunity cost of large government savings. But on the whole, the Botswana government deserves full marks for setting sensible economic goals and then doing what it said it was going to do, often under difficult circumstances.

Acknowledgements

The author wishes to acknowledge helpful conversations with senior officials Dwight Brothers, Nelson Mokgethi and Jay Salkin in the Ministry of Finance & Development Planning, and Peter Freeman in the Ministry of Mineral Resources and Water Affairs; and with Charles Harvey at the Institute for Development Studies at the University of Sussex. The opinions expressed herein, however, are solely the author's responsibility.

Notes

1. Some 75% to 80% of Botswana's imports come from South Africa and are invoiced in rand. However, these South African exports themselves contain imported components, or they may even be re-exports of goods previously...
imported into South Africa. On a value-added scale, Botswana only obtains around 50% of its imports from the South African economy.

2. Historically, Botswana has always been heavily dependant on one or two export "commodities". In colonial times, it was mineworkers sent to South African gold and coal mines, and beef (sent as cattle on the hoof) to the Johannesburg meat market. For a short period in the 1970's the copper-nickel matte which was sent to a refinery in Louisiana, USA, earned a large proportion of Botswana's foreign exchange, but this proportion was overwhelmed by diamonds after the 1978 start-up of diamond production.

3. For purposes of this paper, the more than 5 000 categories of rough or uncut diamonds produced in Botswana are treated as one homogeneous commodity. In fact, however, the highest priced gem diamonds have an export value per carat of more than 1 000 times the price per carat of the lowest quality industrial diamonds.

In times of weakness of the international market for diamonds, it is the highest priced gemstones which are the most difficult to sell. A more detailed analysis of the market for Botswana's main export commodity could in principle divide up the 5 000 categories of diamonds into a small number of subgroups, but the necessary data are difficult to obtain because of the secrecy associated with diamond marketing.

4. The profits from the export sales from Orapa and Lethakane mines are split approximately in the ratio of 75% for the Botswana government and 25% for the De Beers Centenary holding company in Geneva, Switzerland. (See Note 5 below). The profits from the Jwaneng mine are split in a way that is more favourable to the government. So the impact of the opening of the Jwaneng mine was to slightly increase the government's share of the overall profit of Debswana.

5. The diamonds that were stockpiled in 1981/82 and 1982/83 were eventually sold in 1987/88. One portion of the sale proceeds was received in US dollars. This went straight into Botswana's foreign exchange reserves. The other portion was used by the De Beers Botswana Mining Company (Debswana) to purchase a 5,3% holding in De Beers.

In 1990, when De Beers was split into De Beers Centenary in Geneva, holding non-South African assets, and De Beers Consolidated Mines, holding only South African assets, Debswana had its 5,3% shareholding in De Beers converted into 5,3% of De Beers Centenary and 5,3% of De Beers Consolidated. De Beers Centenary took over the previous De Beers 50% shareholding in Debswana.
Debswana's annual income of course now includes the dividends payable from
the two sets of foreign shares.

6. Botswana maintains an exchange control regime which is virtually free of
restrictions concerning current account transactions. In particular, there are no
exchange control restrictions on payments for imports. Foreign investors may
send up to 100% of their after tax profits out of Botswana. Ironically, many
foreign investors have chosen to re-invest their profits in their businesses in
Botswana, on an entirely voluntary basis; in other countries, foreign investors
tend to send out the maximum that they are allowed. Botswana has made a
small number of liberalisations of its controls on capital account transactions.
For example, a non-resident controlled company in Botswana may borrow
liberally from local commercial banks, for working capital in Botswana. This
may suit some foreign investors, if they prefer to have their pula assets in
Botswana financed by liabilities in pula. The bulk of their exchange risk is
thereby eliminated, at least as far as their capital investments are concerned.
Of course they still have to bear an exchange rate risk as far as the stream of
future dividends is concerned. This risk is small for South African investors.

7. Senior officials of the Ministry of Finance and Development Planning have
used the word "conservative" so often in their presentations to Cabinet
Ministers that the Ministry has had to be asked to use the word "prudent"
instead, from time to time, to avoid giving the impression that the Ministry's
tactics are over-conservative.

8. A by-product of the ceiling system is the excuse it gives the Minister of Finance
to deflect certain village level parliamentary questions (P.Q.). Once the
relevant Ministry has calculated how many primary schools/clinics/boreholes/bridges/dams/telephone exchanges/police stations, etc., it
may construct each year under its ceiling, the Ministry can construct a priority
list of which villages will get the particular facility and in which year of the
Plan. If a back-bench Member of Parliament (M.P.) then asks the Minister of
Finance a P.Q. on when a village in his constituency will get the funds that are
needed to build a much needed facility, the Minister of Finance can simply
refer the P.Q. to the relevant Minister and ask the back-bench M.P. to check
where that village stands on the other Minister's priority list for that type of
facility.

9. The decision to cancel the annual increase in civil servants' salaries in April
1982, was not simply imposed on the civil service by the government.
Consultations were held with the Botswana Civil Service Association and with
the trade unions representing manual and industrial workers employed by the
government. Consultations within the framework of the National Employment,
Manpower and Incomes Council, which included all the interested parties,
recommended a wage freeze to the government. The cooperation of the
unions involved was most enlightened.

10. The syndicated Eurodollar loan, led by the First National Bank of Boston, was
a very expensive facility. The front end costs, including commitment fees, air
fares, management fees and legal fees, came to something like Pula 1.7 million.
This does not include the time of the very senior Botswana officials who were
involved in the lengthy negotiations.

11. Both the import-substituting manufacturers and the non-traditional exporters
do not hesitate to pick up the phone and complain to the Minister of Finance
and Development Planning, if Botswana's index of competitiveness vis-a-vis
South Africa ever exceeds 102.5 percent. Any value above 100 percent
represents an over-valuation of the pula, as far as trading with South Africa is
concerned.

12. In most developing countries, a devaluation of the country's currency will result
in a loss of buying power for the private sector's financial savings, and thus
represents an implicit "tax" on such savings in favour of the central bank. (The
local currency value of the foreign exchange reserves increases and this
increase is captured by the central bank). In Botswana's case, some three-
quarters of the forex reserves implicitly "belong" to the government, so the
main "taxation" effect is borne by the government itself and the effect on the
private sector's stock of savings is less severe.

The pula has moved down against the US Dollar from Dollar 1.35 in 1981 to
Dollar 0.49 in 1991, in response to similar moves by the rand. In recent years,
however, the rand has steadied somewhat against the dollar. With a high rate
of inflation in South Africa not being fully compensated by enough
depreciation of the rand, Botswana's previous terms of trade improvement has
been reduced slightly.

13. To handle the construction boom in housing, flats, hotels, hospitals, shops,
factory shells, schools, dams, etc., the Botswana government has made it easier
for foreign contractors to start operating in Botswana. Recently, foreign
contractors from China, France, Germany, Italy, South Africa, South Korea,
United Kingdom and Yugoslavia have been active in Botswana. Some of the
contractors have hired skilled artisans from Zimbabwe, to make up for the
shortfall in Botswana.
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