



Report Title:
**Botswana's Experience with Monetary and
Exchange Rate Policy – Lessons for Angola**

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ACRONYM LIST

BNA	Banco Nacional de Angola (National Bank of Angola)
BoB	Bank of Botswana
BoBCs	Bank of Botswana Certificates
CPI	Consumer Price Index
GDP	Gross Domestic Product
GoA	Government of Angola
GoB	Government of Botswana
IMF	International Monetary Fund
MPC	Monetary Policy Committee
NEER	Nominal Effective Exchange Rate
REER	Real Effective Exchange Rate
SADC	Southern African Development Community
SDR	Special Drawing Right

1. Introduction – Angola’s Economy

Angola’s economic performance has improved in recent years as a result of the ending of the civil war in 2002 and rising export earnings from oil. Hyper-inflation has been ended, and inflation has been brought down to close to single digits. The exchange rate has stabilized, and public finances have been brought under some control. The mainstay of the economy is the oil sector, which accounts for some around half of Gross Domestic Product (GDP) and over 90% of exports. Rising oil prices and production have helped support the balance of payments and the currency, and provided the government with substantial additional resources to address the country’s economic and social problems. Economic growth is by far the highest in Southern Africa Development Community (SADC), and is estimated at 21% in 2007¹.

Although the oil sector is performing well, it operates as an enclave within the economy, and has few direct linkages with other economic activities. The key challenges facing the government are to diversify the economy, boost employment creation, and address the very high levels of poverty. Besides continuing with stability-oriented macroeconomic policies, it is also necessary to address issues relating to the business environment, so as to support the private sector as an engine of growth. Angola’s business environment is poor: in the World Bank’s Annual “Doing Business” survey, Angola ranked at number 168 out of 181 countries, with poor performance across almost all criteria².

Historically, Angola’s monetary and exchange rate policy has been dominated by the government’s large fiscal deficits, which have been financed by the Angolan Central Bank (the Banco Nacional de Angola, or BNA). The resulting monetary expansion caused chronic high inflation which, combined with exchange controls and attempts to manage the exchange rate of the kwanza, led to a parallel currency market, low foreign exchange reserves and a lack of international competitiveness.

However, recent efforts to reduce inflation have been somewhat successful, supported by improved fiscal discipline and the “hard kwanza” policy of selling US dollars to support the exchange rate and thereby reduce import-led inflation. Nevertheless, there have been problems associated with these recent successes. The dollars used to support the exchange rate have been derived from the proceeds of oil exports, supported by high international oil prices, along with the proceeds of oil-backed external loans and the accumulation of external debt payment arrears; it is not clear if this policy is sustainable, especially if oil prices fall. Furthermore, the stable exchange rate, combined with relatively high inflation, has undermined the competitiveness of the non-oil sector of the economy (a classic Dutch Disease problem). Also, it is not clear if recent inflation achievements are consistent with the continued high growth rate of government spending – most successful stabilization programs in other countries have been underpinned by significant fiscal adjustment.

2. Modernization of the Monetary & Exchange Rate Policy Framework

One of the challenges facing the Angolan authorities is the modernization of the framework of monetary and exchange rate policy to make it suitable for a liberalized, market driven environment. The framework must also take into account the specific characteristics of an oil-driven economy with its potential volatility of foreign exchange earnings and the possible need for stabilization funds, whereby part of the proceeds of oil exports are

¹ See <http://www.imf.org/external/pubs/ft/weo/2008/01/weodata/index.aspx> (accessed October 3, 2008)

² See <http://www.doingbusiness.org/EconomyRankings/> (accessed October 3, 2008)

saved, so as to achieve appropriate savings and investment rates and preserve earnings for the benefit of future generations.

Angola's recent monetary policy environment has been dominated by the fiscal needs of government (high fiscal deficits, funded by direct borrowing, the accumulation of debt payment arrears, or BNA losses) and an implicit exchange rate target ("hard kwanza") policy. Going forward, however, the situation is likely to change, as fiscal discipline improves, and it may also be necessary to review the policy towards intervention in the foreign exchange market. In addition, ongoing measures to reform the financial sector, increase financial depth and develop the capital market will also have monetary policy implications. Any liberalization of exchange controls will also have an impact in terms of defining the range of monetary and exchange rate policy choices available as, in a liberalized environment without capital controls, it is not possible to have both an active monetary policy and an exchange rate target (the so-called "impossible trinity").

The Government of Angola (GoA) therefore needs to make some decisions regarding the monetary and exchange rate policy framework it wishes to adopt going forward, dealing with issues such as:

- (i) How will the liberalization of exchange controls (or the ineffectiveness of existing controls) affect monetary and exchange rate policy, and in particular what are the implications for the choice that will have to be made between targeting the exchange rate (through a fixed/pegged or managed rate) or pursuing a monetary target?
- (ii) How can the objective of a strong exchange rate (for anti-inflation purposes) be balanced with the need to maintain a competitive exchange rate (to avoid Dutch Disease problems); more generally, how can monetary and exchange rate policy contribute to avoiding the Dutch Disease, and supporting the growth of the non-oil tradeables sector of the economy?
- (iii) What sort of policy should be adopted towards building up foreign exchange reserves, in relation to accumulating assets as part of an oil stabilization fund; and how should such a policy interact with exchange rate policy?
- (iv) If foreign exchange reserves are accumulated, how should the liquidity implications (buying foreign exchange to build the reserves boosts domestic liquidity and money supply) be dealt with by the BNA?
- (v) More generally, how should the BNA deal with excess liquidity in the banking sector, and what are the implications of the interest costs of BNA paper issued for liquidity absorption purposes on BNA profits/losses?
- (vi) Given anticipated budget surpluses, government has little need to borrow domestically, and hence the capital market lacks instruments (Treasury bills and bonds) for developing the yield curve; how can this be addressed?
- (vii) How should the BNA influence interest rates and monetary conditions; policies based on the use of a discount window to meet commercial bank financing needs and associated influencing of interest rates may not be effective if the banks are highly liquid and have no need to borrow from the BNA?
- (viii) What are the implications of the high level of dollarization for monetary policy?

While some aspects of Angola's situation are unique (notably the particular combination of post-conflict adjustment, transition from planned to market economy, in an environment of high and rising oil exports), there is much international experience to learn from that could be relevant to Angola. Other oil exporters have had good and bad experiences of managing revenues in a sustainable manner (Norway, Nigeria, Gabon, and the Gulf States etc.). Within the region, the experience of other mineral exporters (Botswana and Zambia) is also relevant. Finally, many African countries have been through stabilization and adjustment processes, with varying degrees of success (within the region, Uganda, Tanzania and Zambia all provide useful lessons).

3. The Relevance of Botswana's Experiences

Botswana has had to address many issues similar to those currently facing Angola, as a result of its long period of diamond-led economic growth. In particular:

- (i) Like Angola, Botswana has earned the majority of its foreign exchange from a single commodity (with diamonds at times accounting for over 80% of export earnings).
- (ii) Rapid increases in export earnings and government revenues have been managed by accumulating foreign exchange reserves and government savings, as a quasi-stabilization fund, and attempts have been made to avoid coming up against absorption constraints that may result from increasing government spending too rapidly;
- (iii) The country faced significant challenges in the need to provide economic and social infrastructure (as a result of colonial neglect rather than conflict);
- (iv) Botswana has attempted to manage the exchange rate to balance both anti-inflation and competitiveness objectives;
- (v) The accumulation of foreign exchange reserves has yielded substantial stabilization benefits but has also resulted in domestic liquidity growth, which has had to be addressed by the central bank through the issue of its own paper, but this has been at substantial financial cost;
- (vi) Exchange controls have been progressively liberalized over the years and were completely abolished in 1999;
- (vii) Botswana has attempted to balance monetary and exchange rate policy objectives in an environment of exchange control liberalization;
- (viii) Fiscal surpluses have precluded the need for the government to issue debt to finance deficits, but this has constrained capital market development; nevertheless government bonds have been issued purely to develop the capital market and establish a yield curve;

There are some key differences: Botswana is not a post-conflict country, it has no significant foreign debt, and diamond prices are more stable than oil prices). However, the similarities are important and can as a result Botswana can potentially provide useful lessons for Angola as the policy environment is reformed going forward. The purpose of this paper is to explore these lessons and similarities and to draw relevant conclusions for Angola.

4. Botswana's Challenges and Policy Responses: Fiscal, Monetary and Exchange Rate Policies and the Scaling-up Diamond Production

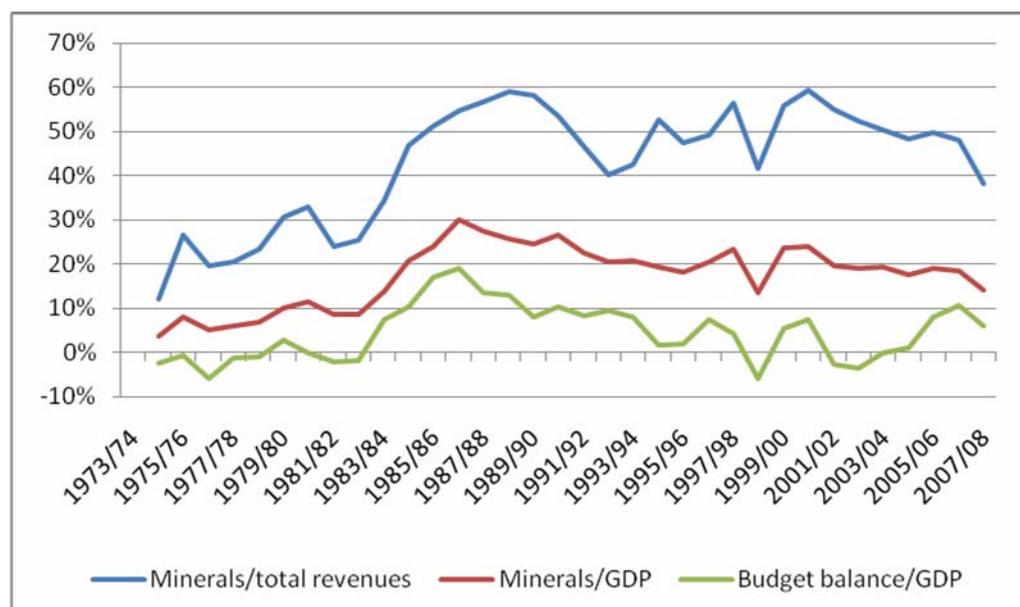
Botswana's economy has undergone significant transformation over the past 40 years. At independence in 1966 the economy was dominated by agriculture, primarily cattle rearing and subsistence arable production, with minimal manufacturing or mining activities. Since then, however, agriculture has declined in relative terms and mining has come to dominate the economy, following the discovery of firstly copper/nickel deposits and subsequently diamonds. Over 20 years from the early 1970s diamond production rose rapidly and Botswana came to be the largest producer of diamonds in the world (by value), and diamonds grew from zero to 35%-40% of GDP and around 80% of exports. The rapid increase in diamond production and the sector's dominant economic position raised important fiscal, exchange rate and monetary policy challenges, which are discussed in more detail below.

4.1 Fiscal Policy

The diamond sector has transformed Botswana's fiscal position, and revenues raised from the sector comprise the largest single source of government revenues. Revenues are derived from the diamond sector from three main sources: a royalty imposed on the gross value of diamond production; corporate (profits) taxes; and the government's share in the industry's post-tax profits due to its 50% ownership stake in the main diamond producing company, Debswana³.

As Figure 1 shows, mineral revenues rose very rapidly during the 1980s, from around 10% of GDP in 1979/80 to a peak of 30% of GDP in 1986/87. This increase in revenues was used partially to finance an increase in spending, but as importantly was used initially to balance the budget and, over time, to accumulate significant budget surpluses.

Figure 1 – Mineral Revenues & Government Budget

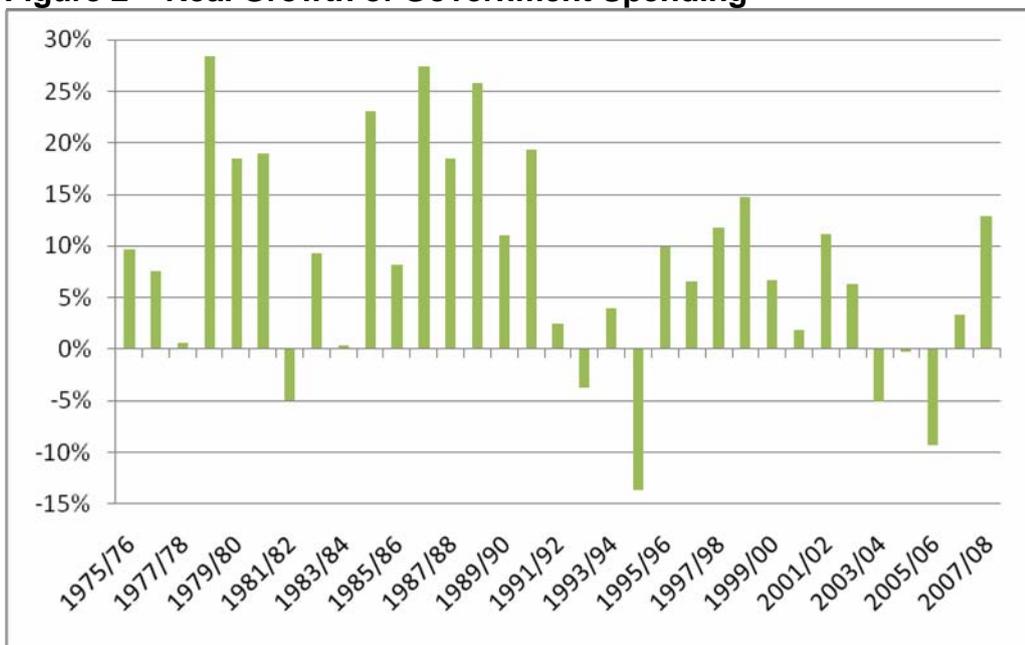


Source: Calculated from Botswana Financial Statistics (www.bankofbotswana.bw)

³ Debswana is a 50-50 joint venture between the Government of Botswana (GoB) and De Beers; in addition, the GoB owns a further 15% of De Beers.

The expenditure demands facing the government as mineral revenues rose were substantial: years of colonial neglect had left Botswana with very limited social and economic infrastructure, and there was a need to provide schools, health services, roads, water supplies etc. throughout much of the country. Diamond revenues provided an opportunity to finance such infrastructure spending without incurring significant debt. Expenditure increased rapidly during the 1980s, although not excessively so: in several years in the mid-1980s the real growth rate of government spending was in the range 20%-25%, but generally real spending increases have been lower than this. The binding constraint was not financial: rapid spending increases were accompanied by budget surpluses and the accumulation of government savings. Rather the constraint was one of absorptive capacity, and policy attempted to keep spending growth (and hence aggregate demand growth) to levels that could be accommodated without leading to macroeconomic imbalances in the form of excessive inflation or fiscal or balance of payments problems.

Figure 2 – Real Growth of Government Spending



Source: calculated from Botswana Financial Statistics (www.bankofbotswana.bw)

The government also employed a rule governing mineral revenues as follows: given that mineral revenues were derived from the sale of a non-renewable asset (minerals in the ground), they had to be applied to investment spending and the accumulation of assets in the form of physical, human or financial capital. Therefore, mineral revenues could be used to finance investment in infrastructure, health, education or financial assets, but not to finance recurrent spending; the corollary to this is that recurrent spending had to be financed by non-mineral revenues. Hence mineral revenues could not be used to expand government employment (apart from in the health and education sectors). Furthermore, absorptive capacity constraints were addressed by ensuring that the recurrent budget implications of investment spending could be accommodated within the projections of non-mineral revenues, and that the staffing implications could be met through a balanced and realistic mixture of citizen staff (given the projected output of the education and training system) and expatriate employment.

Throughout this period expenditure growth was financed almost entirely from revenues, and the government undertook no domestic borrowing and limited foreign borrowing⁴. The

⁴ Foreign borrowing was largely limited to concessional sources; there was no borrowing on commercial terms.

fiscal budget was in surplus for most of the 1980s and 1990s, leading the government to accumulate substantial savings balances at the central bank, and the economy to accumulate substantial foreign exchange reserves. In the early 2000s, part of these balances was used to finance the establishment of a funded pension scheme for public sector employees.

In recent years the contribution of mineral revenues to total revenues has begun to decline, marking the maturity of the industry and a likely turning point in its economic significance. This has led to new challenges. Political demands for continued or increased government spending on investment projects and government employment and wages remain intense, and government has found it difficult to contain its budgets to levels that are sustainable in the long term in the face of declining mineral revenues⁵. At the same time, as government has grown, it has found it difficult to spend all of the budgeted amounts due to implementation capacity constraints, and government spending has arguably become less efficient. Despite the fiscal rule applied to the use of mineral revenues, government employment has grown rapidly, so that public sector employment accounts for some 40% of total formal sector employment, and the government wage and salary bill accounts for over 10% of GDP; both figures are likely to be unsustainable in the longer term.

Although government has generally run budget surpluses, its net contribution to domestic demand has been considerable. This is because most government revenues are derived from external (foreign) sources rather than from domestic taxation, while the bulk of expenditure is applied domestically; hence the domestic budget balance (domestic revenues less domestic spending) has been consistently and heavily negative, with government therefore contributing significantly to domestic demand.

4.2 Exchange Rate and Reserve Management Policy

4.2.1 Development of Exchange Rate Policy & Objectives

Botswana has faced the challenges of formulating and implementing exchange rate policy since leaving the Rand Monetary Area in 1976. Prior to this time the South African rand circulated in Botswana, and the country had no independent monetary or exchange rate policy. In 1976 the pula was introduced as Botswana's own currency, and the Bank of Botswana established as an independent central bank.

The most important decision that Botswana has made since that time has been to have a pegged/managed exchange rate, rather than allowing the pula to float. Initially this reflected a continuation of the pre-pula situation: the rand was at that time pegged to the US dollar, and the new currency was therefore pegged to both the rand and the dollar at a fixed rate. Shortly afterwards, however, the rand was floated, and Botswana had to choose what exchange rate policy to follow in this new environment. The decision was taken to maintain a fixed exchange rate, but with the pula pegged to a basket of currencies rather than solely the rand or the dollar. Issues in the choice of basket weights are discussed further below. Like all economies with a managed exchange rate, Botswana was attempting to balance two sometimes competing objectives – the maintenance of international competitiveness (requiring a relatively low or weak exchange rate) and containing inflation, specifically imported inflation (requiring a relatively strong exchange rate).

⁵ These issues are discussed further in the IMF 2006 Report on Selected Issues in Botswana

For most of the past thirty years competitiveness objectives have dominated, and indeed one of the main reasons for choosing a pegged exchange rate rather than a float was the desire to avoid “Dutch Disease” problems as diamond production and exports increased. As is well known, Dutch Disease problems can arise when rising mineral exports and the resulting inflows of foreign exchange cause the nominal exchange rate to appreciate⁶; this in turn causes the real exchange rate to appreciate and competitiveness to decline, thereby undermining non-mineral exports (and the production of non-mineral tradeable commodities more generally)⁷. As a result, the economy may become less diversified as the non-mineral tradeables sector fails to grow.

Botswana attempted to avoid the Dutch Disease problem by pegging the pula and not allowing rapidly rising export earnings, and the resulting balance of payments surpluses, to cause the currency to appreciate. Instead, the surpluses were accumulated in the form of foreign exchange reserves, which rose to very high levels (over three years of import cover at their peak). The exchange rate was therefore maintained below the level that would have resulted from a free float⁸.

4.2.2 Foreign Exchange Reserve Accumulation

Reserve accumulation served several purposes: besides being the inevitable response to the policy of exchange rate management, the reserves (and their counterpart of government balances at the central bank) provided a cushion or buffer to exogenous shocks. Like all mineral exporters, Botswana has been vulnerable to market instability causing changes in prices or demand for its major export commodity, which would in turn feed through to export earnings, the balance of payments, fiscal revenues and the government budget. The accumulated savings enabled Botswana to adjust to such changes in a gradual manner, rather than being forced to make sudden and drastic changes that might have destabilized the economy.

The reserves have also acted as a long-term “minerals fund” analogous to the type of stabilization fund that many mineral exporting countries are now being urged to establish. A significant proportion of the reserves is segregated (although still classified as part of the overall foreign exchange reserves) and managed as a longer-term investment fund with the objective of generating higher returns; the “liquidity” portion of the reserves is maintained at a level equivalent to six months of import cover⁹.

4.2.3 Composition of Exchange Rate Basket Peg

Since 1979 the pula has been pegged to a basket of currencies centered on the South African rand and the IMF’s Special Drawing Right (SDR), which is itself a basket comprising the US dollar, the euro, the Japanese yen and the British pound; the pula is

⁶ The analysis has also been applied to countries with surges of foreign exchange inflows for other reasons, such as debt relief or rapidly scaled up donor funding.

⁷ Even if the nominal exchange rate does not appreciate, there may be other channels through which the real exchange rate may appreciate, such as higher inflation.

⁸ The fixed exchange rate policy is implemented by the Bank of Botswana quoting bid and offer rates to authorised dealers (the commercial banks) at which it will buy or sell unlimited quantities of the four trading currencies (rand, dollar, euro and pound). The rates are calculated through the pula basket formula and change on a real time basis as the cross exchange rates of the basket currencies (rand, dollar, euro, yen and pound) themselves change.

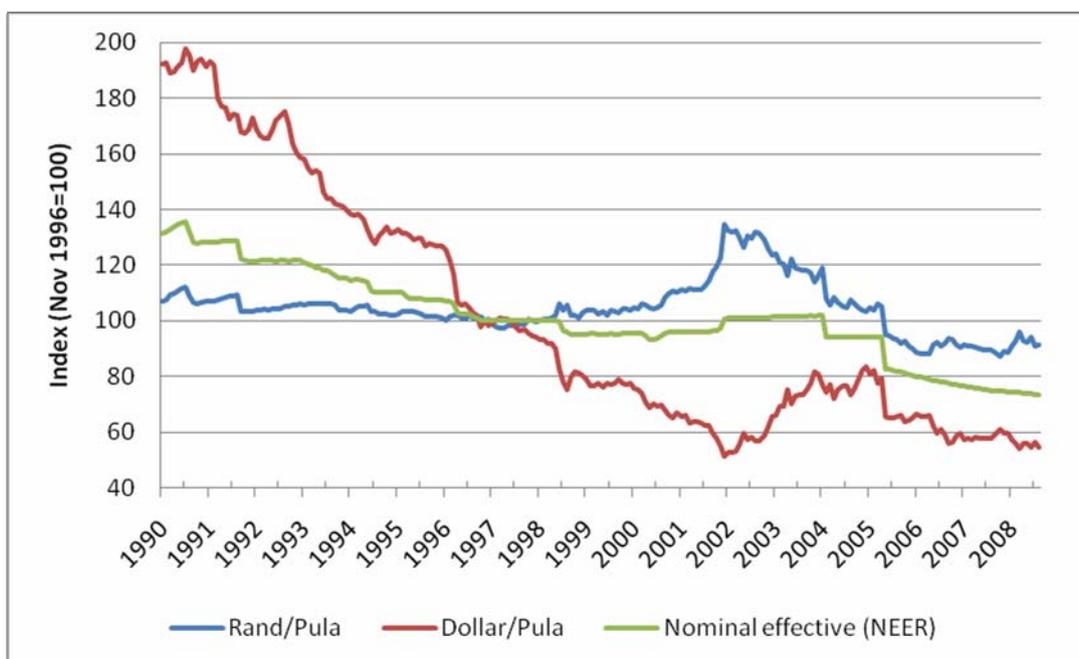
⁹ The investment portion of the reserves (termed the “Pula Fund”) has a significant portion invested in equities for long-term returns; around half of the reserves (mostly the fixed income portion) is managed in-house by the Bank of Botswana while the remaining half is managed by a panel of international fund managers.

therefore effectively pegged to a basket of five currencies. The composition of the basket has varied over time, but the rand has always had the largest weight¹⁰. Because the five currencies in the basket float against each other, the bilateral exchange rate of the pula against the basket currencies varies constantly, even though the pula's exchange rate against the basket is fixed.

The weights of the currencies in the basket, which are not publicly disclosed, are also varied from time to time¹¹. The weights are broadly calculated to reflect Botswana's trade patterns, with the important proviso that exports of diamonds are excluded from the calculation. This is because the level of diamond exports is considered to be insensitive to exchange rate changes (as they are priced in dollars and the price is not dependent upon exchange rates), but also because exchange rate policy is focused on supporting economic diversification and thus reflects non-diamond trade.

With the basket comprising the rand and the SDR, and a long term tendency for the rand to depreciate against the SDR currencies (especially the US dollar), the working of the basket mechanism has tended to cause the pula to appreciate against the rand and depreciate against the US dollar.

Figure 3 – Exchange Rates: Pula vs Rand, US Dollar, Nominal Effective



Source: Calculated from Botswana Financial Statistics (www.bankofbotswana.bw)

One of the unavoidable problems that exchange rate policy has had to face has been a polarized trade structure, with the majority of imports coming from South Africa and priced in rand and the majority of exports going to international markets and priced in US dollars. The volatility in the rand-dollar exchange rate thus caused significant shifts in the terms of trade. The choice of weights in the exchange rate basket cannot reduce this overall volatility (which reflects exogenous exchange rate changes) but can determine how that volatility is distributed across bilateral exchange rates (i.e. the basket weights determine the extent to which rand-dollar volatility is transmitted to rand-pula or pula-dollar volatility), and hence which economic agents or sectors are most affected.

¹⁰ The initial basket comprised the rand and the US dollar, and for a time the Zimbabwe dollar was included.

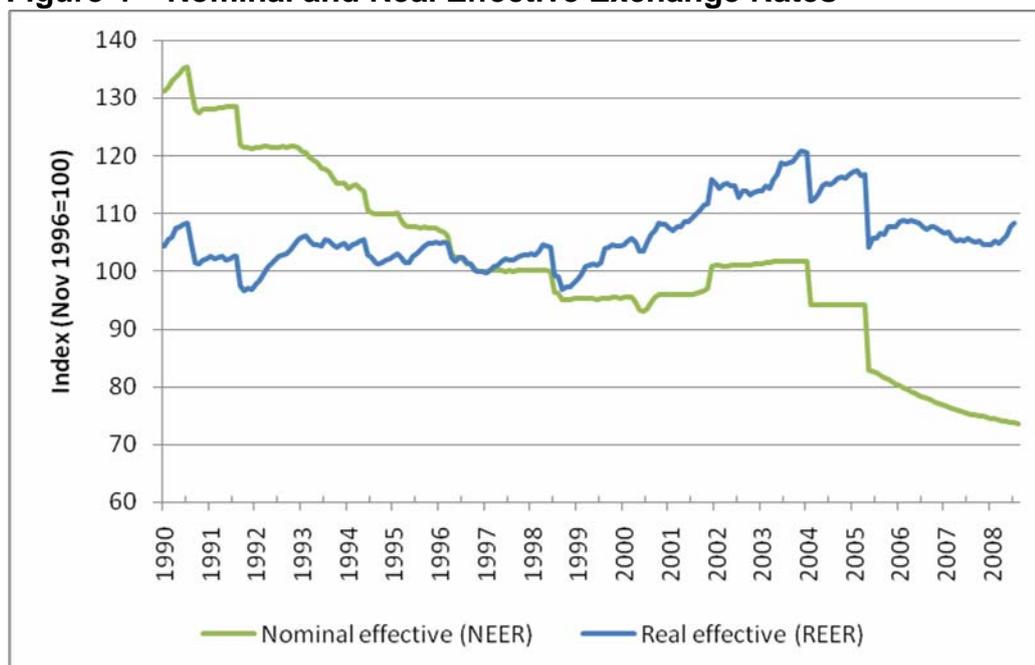
¹¹ Although the weights are not disclosed, they can be calculated from a simple regression analysis.

4.2.4 Exchange Rate Adjustments

The twin objectives of export competitiveness and providing an anchor for inflation have led to a number of adjustments in the value of the pula against the basket over the years. During the 1980s these largely took the form of discrete devaluations (when the main concern was competitiveness) and revaluations (when the concern was inflation), with the former somewhat larger over the decade as a whole. During the 1990s the mechanism was changed and included the introduction of an exchange rate band around the value of the bilateral pula-rand exchange rate; given the tendency of the rand to depreciate against the SDR currencies this tended to cause the pula to hit the upper limit of the band, resulting in an automatic downward adjustment (devaluation) of the pula against the basket. Towards the end of the 1990s the band was abandoned and the basket mechanism was allowed to operate unfettered. Although the exchange rate of the pula against the basket (and hence the nominal effective exchange rate) remained fixed, the extreme volatility of the rand-dollar exchange rate over this period caused significant volatility in both rand-pula and pula-dollar exchange rates.

One of the policy objectives over this period was to strengthen the role of the exchange rate in acting as a nominal anchor for inflation. With a fixed nominal effective exchange rate, imported inflation should have been passed through to domestic inflation with no additional exchange rate influences, and this in turn should have influenced domestic inflation expectations. With imported tradeables making up nearly half of the Consumer Price Index basket, and domestic tradeables almost quarter, imported inflation should therefore have been the dominant influence on domestic inflation, with monetary policy keeping non-tradeables inflation in line. In the event this objective was not achieved, and Botswana's inflation rate was consistently higher than the average inflation of the country's trading partners. With a fixed nominal exchange rate, this led the real effective exchange rate to appreciate and competitiveness to decline.

Figure 4 – Nominal and Real Effective Exchange Rates



Source: Calculated from Botswana Financial Statistics (www.bankofbotswana.bw)

In response to real exchange rate appreciation and emerging competitiveness problems, the pula was devalued twice against the basket, in 2004 and 2005, by a total of 20%. In

addition, a new exchange rate system was introduced, based around a crawling peg against the basket. The devaluations were intended to restore the real exchange rate to a level that was considered to be more consistent with long-term needs, while the crawl was intended to prevent future real exchange rate appreciation. While the rate of crawl is not publicly disclosed, it is related to the expected difference between Botswana and international (trading partner) inflation, and appears to have been in the range of 2%-5% annually. In the period since the crawl was introduced in July 2005, the objective of stabilizing the Real Effective Exchange Rate (REER) appears to have been achieved.

With a relatively open economy (the total of imports and exports amounts to 90% of GDP), the pass through of exchange rate changes to prices is relatively high. This limits the ability of changes in the nominal exchange rate to achieve changes in the real exchange rate; however, experience shows that the pass through is less than 100 percent, so exchange rate changes do not fully impact on prices. Therefore, while the depreciations of 2004 and 2005 caused inflation to rise, the increase in domestic prices was less than the amount of the change in the exchange rate, and hence some depreciation in the real exchange rate was achieved, as policy had intended.

4.2.5 Fixed or Floating Exchange Rate?

Botswana's exchange rate policy has been centered on a pegged (but adjustable) exchange rate since the introduction of the pula in 1976, but the issue of whether to continue with this or move towards a floating exchange rate always has to be considered. In the past, Dutch Disease arguments have predominated, with concerns that a freely or partially floating pula would appreciate excessively and cause competitiveness problems. In addition, there are concerns that the nature of the foreign exchange market could make a floating exchange rate highly volatile. The majority of export earnings (80% on average in recent years) are derived from diamonds, and due to the nature of the global diamond industry, revenues from diamond sales – and hence the supply of foreign exchange - tend to be received in a few very large transactions¹². By contrast, demand for foreign exchange (for imports) occurs on a fairly steady basis. As a result, the foreign exchange market is either very long on dollars (on "diamond days", which are one or two days a month) or very short (on all other days). A floating, market determined exchange rate in this environment is likely to be quite volatile. Furthermore, the overhang of dollars in the market from diamond receipts is far bigger than can be absorbed by the commercial banks, and hence has to be sold to the central bank, which then supplies foreign exchange to the market to meet subsequent demand. Therefore, the central bank is the dominant buyer and seller of foreign exchange, and even with a more market-determined exchange rate, would play a major role in determining the price at which foreign exchange is traded. These practical issues have supported the decision to maintain a pegged exchange rate. On a policy level, the issue is also closely related to monetary policy choices, which are discussed further below.

It should be noted that the nature of the exchange rate regime has had one disadvantage, in that the foreign exchange market has remained underdeveloped. Most of the foreign exchange trading takes place between the commercial banks and the central bank, with little inter-bank trading. The Bank of Botswana (BoB) has tried to encourage the interbank market by imposing minimum deal sizes on trades with the banks, and by widening its bid-offer spread, thus creating more scope for profitable interbank trades. There is little sign that this has been successful.

¹² Approximately 15-20 transactions a year, each averaging around 5% of total annual export earnings

5. Monetary Policy

Botswana's monetary policy has evolved considerably over the thirty years since the pula was introduced and the BoB established. From the mid-1970s until the mid-1980s, interest rate policy was directed at keeping interest rates low in order to encourage investment. Changes in the key benchmark interest rate – the Bank Rate - had to be approved by Government (specifically the Ministry of Finance and Development Planning), while the BoB regulated the savings and lending rates of the commercial banks through the imposition of floors and ceilings respectively, as well as retaining powers – albeit rarely used - to regulate the allocation of credit by the banks.

By the mid-1980s it was recognized that this policy was creating a range of problems. Liquidity was building up in the banking system, and had to be absorbed through (low yielding) deposits at the central bank. This in turn was leading to disintermediation as banks were turning away some deposits which could not be profitably lent out. At the same time, negative real lending rates were encouraging speculative borrowing and investment in low-return projects, and there were emerging concerns about low levels of household savings. These problems were compounded by a banking oligopoly and restrictions on the entry of new banks. The combination of low or negative real interest rates with rapid increases in government spending led to a sharp rise in inflation.

From the mid-1980s through to the early 1990s the financial sector and monetary policy went through considerable reforms. These included relaxing controls on the entry of new banks, ending the BoB's direct controls on credit allocation and bank interest rates, enhancing the BoB's independence by transferring authority for setting benchmark interest rates from the Ministry of Finance to the Bank, and introducing market based instruments (central bank paper, or Bank of Botswana Certificates (BoBCs)) for absorbing excess liquidity. Furthermore, the general level of interest rates was raised with the objective of achieving positive real savings and lending rates.

6. Choice of Monetary Policy Instruments

Since the early 1990s, the Bank of Botswana has implemented monetary policy through the control over two key short-term interest rates:

1. the Bank Rate (the rate at which the Bank of Botswana makes overnight loans to commercial banks); and
2. the interest rate on Bank of Botswana Certificates (BoBCs).

BoBCs are used to absorb liquidity from the market, and hence these two interest rates represent the prices at which the Bank provides or absorbs liquidity. Given that the market is generally long on liquidity, the BoBC rate is of more direct relevance to the pricing (interest rate) decisions of the banks. Commercial bank borrowing from the BoB is infrequent, and hence the Bank Rate is more important for signaling purposes than in determining the banks' cost of funds.

The use of BoBCs as a monetary policy instrument has two main purposes. First, to absorb liquidity from the market – the function which, prior to the introduction of BoBCs in 1991, was carried out by call accounts at the Bank of Botswana. The intention is that BoBCs provide an instrument that the commercial banks can use to absorb their excess liquid assets and earn a reasonable return, thus reducing the incentive for banks to earn

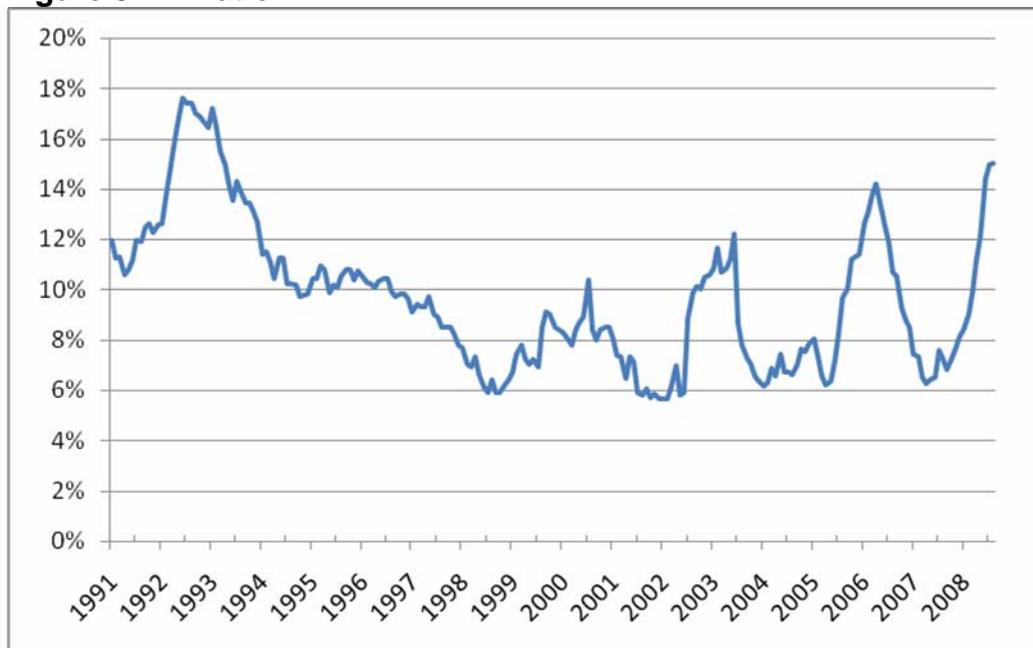
profits by excessively expanding credit and contributing further to inflationary pressures. The rate of interest paid on BoBCs is obviously of great importance in this regard, and this leads to the second function of BoBCs, which is to influence the general level of interest rates in the market. Essentially the rate of interest on BoBCs represents the return on a risk-free asset for the banks, and hence anchors the risk structure of bank interest rates.

The interest rate on BoBCs results from the interaction of demand for BoBCs from the market and the supply of BoBCs by the Bank. BoBCs are sold at auction, with bids submitted by approved primary counterparties¹³. Once the bids are submitted, the Bank decides the value of BoBCs that it will supply to the market (the amount of liquidity that it will absorb). This in turn determines the cut-off price, and hence the interest rate. In practice, the decision as to the amount of BoBCs to issue is made with reference to the targeted BoBC interest rate rather than a targeted quantum of liquidity absorption – effectively making the BoBC interest rate a policy instrument. BoBCs have turned out to be extremely important as a tool of monetary management, with a total outstanding of around P17 800 million as at mid-2008, equivalent to 50 percent of the broad money supply (M3).

6.1 Monetary Policy and Inflation

Concerns about rising inflation in the late 1980s and early 1990s led to a gradual tightening of monetary policy and the maintenance of higher real interest rates than had previously been the case. Although there was some success in bringing inflation down during the 1990s, inflation remained a problem, as noted above, as it remained above international levels and in particular remained higher than the average inflation rate of Botswana's trading partners.

Figure 5 – Inflation



Source: Central Statistics Office

¹³ Counterparties now include all the clearing banks, although they previously included certain other financial institutions and large corporations.

Figure 6 – Real Interest Rates (Prime Bank Lending)



Source: Calculated from Botswana Financial Statistics (www.bankofbotswana.bw)

These inflation concerns were one reason for the change in exchange rate policy around 2000 which focused on maintaining a fixed peg against the basket – the expectation was that without exchange rate adjustments, inflation would be brought down. However, this policy put more pressure on monetary policy to control domestic inflation, and keep it level with that of trading partners, as exchange rate adjustments were no longer being used to contain the real exchange rate. Ultimately this was not successful, however, and although domestic inflation was moderate, it was still higher than that of trading partners, leading to real exchange rate appreciation.

Since 2002 much more effort has been put into making monetary policy transparent and influencing inflation expectations. The Bank of Botswana has been issuing annual Monetary Policy Statements, along with a mid-year review, since that time. In addition, it has been setting an annual inflation objective. This is less formal and strict than an inflation target but is nevertheless intended to shape inflation expectations. The inflation objective is supported by secondary objectives for the growth rates of bank credit and government spending, as proxies for aggregate demand growth. The Bank's Monetary Policy Committee (MPC) meets six times a year. In contrast to many other central banks, the timetable for MPC meetings is not publicized.

The main tool of monetary policy is control of short-term interest rates – the Bank Rate and the BoBC rate – to achieve the credit growth target and ultimately the inflation objective. Monetary aggregates have never played a significant role in the monetary policy framework, due to problems in identifying stable relationships between the monetary base, other monetary aggregates and prices.

6.2 Has Monetary Policy Worked?

Monetary policy has been successful in that it has generally kept inflation at moderate levels, but has not succeeded in bringing inflation down to the levels of neighboring South Africa (Botswana's largest trading partner) or of larger economies. Monetary policy has not succeeded in containing domestic inflationary pressures sufficiently and hence has not succeeded in maintaining a competitive real effective exchange rate. The implementation

of monetary policy has also been undermined by exchange rate devaluations, which have raised inflation and made the publicized inflation objectives impossible to meet, which has in turn reduced the credibility of those objectives. At the same time real interest rates have been high, which has restrained investment and made economic growth objectives difficult to meet.

A number of problems have been emerging with respect to the monetary policy framework in recent years. First, the costs – which are ultimately fiscal costs - of liquidity absorption have been rising. With rising excess liquidity and high real interest rates, the interest costs of BoBCs have been increasing steadily, consuming a substantial proportion of the BoB's income and reducing the income available for distribution to Government; ultimately, therefore, the costs of BoBCs are a fiscal cost.

Second, the combination of relatively high real interest rates and no exchange controls¹⁴ tends to attract capital inflows which contribute further to excess liquidity and absorption costs. Although capital inflows do not appear to have been excessive, it is likely that they are one reason for the rising quantity of BoBCs in issue and increasing interest costs facing the BoB. However, the major issue facing the monetary policy framework is the relationship between monetary policy and exchange rate policy. This is discussed further below.

6.3 Issues around Inflation Targeting

Inflation targeting has become a widely used monetary policy framework, with apparent success in many countries. The prerequisites for successful implementation are considerable, however, and to date it has not been widely adopted in sub-Saharan Africa, where monetary policy frameworks remain focused on control of monetary aggregates. Botswana has moved some way in this direction, with the adoption of an “inflation objective”, which is looser than a formal inflation target. It has also adopted some other attributes of an inflation targeting regime, including central bank independence (in the setting of interest rates and the implementation of monetary policy) and transparency (the publication of semi-annual monetary policy statements and improved explanation of monetary policy decisions). The Bank of Botswana has also been conducting intensive research into the monetary transmission mechanism and has begun building a suite of inflation forecasting models¹⁵. Since early 2008, the BoB has been placing much greater emphasis on inflation forecasts, and the deviation of those forecasts from the inflation objective, in its implementation of monetary policy. However, a number of concerns remain about this monetary policy framework. These include the quality of inflation forecasts, the fact that the forecasts are not (yet) published, and the extent of the understanding of the causal relationships in the monetary transmission mechanism. There are also concerns regarding the extent of “fiscal dominance”, whereby the control of inflation may be undermined by government budgetary policy which lies outside of central bank control. In an environment where government consumption accounts for over 25 percent of gross domestic expenditure, this is clearly very important, and getting government “on-side” with respect to the adoption of inflation targeting is even more important than it is in other monetary policy frameworks.

However, perhaps the most important constraint with regard to the adoption of inflation targeting is the nature of the exchange rate regime; it is well known that for inflation targeting to be successful, all other monetary targets must be secondary to the

¹⁴ Botswana's exchange controls were completely abolished in 1999

¹⁵ These include a short-term momentum-driven model and a longer-term structural/behavioural model.

achievements, which rules out the parallel adoption of an exchange rate target that is implicit in a pegged exchange rate regime. This is one aspect of the need to have a clear relationship between monetary and exchange rate policy, which is discussed further below.

7. Monetary and Exchange Rates Policy

The major issue facing the monetary policy framework is the relationship between monetary policy and exchange rate policy. In principle, the combination of an active monetary policy and a pegged exchange rate, in an environment of free capital mobility, is unsustainable and may give rise to various imbalances in the financial sector or the economy more generally. Rising liquidity (and the associated fiscal costs) is one aspect of this.

Within the current exchange rate and monetary policy framework it is not clear what the ultimate nominal anchor is for prices, and whether multiple targets can be pursued. With a pegged exchange rate, that would generally be seen as the nominal anchor. However, exchange rate policy (through the crawling peg) appears to be targeting a given level of the *real* exchange rate, which does not provide a nominal anchor. At the same time, monetary policy is focused on an interest rate target. Using monetary policy to achieve a given inflation rate in an open economy with a high proportion of imported and domestic tradeables in the Consumer Price Index (CPI) basket (whose prices are set internationally) can only work through the impact on non-tradeables prices. When combined with a crawling exchange rate peg, this implies a very aggressive monetary policy with much higher real interest rates than have been implemented to date. But this in turn would increase capital inflows and the costs of liquidity absorption, leading possibly to central bank losses and fiscal problems.

The uncertain relationship between exchange rate and monetary policy has been highlighted by the IMF in the 2007 Article IV report on Botswana (pp.12-13):

[12] In the view of the staff, the authorities' views on the appropriate nominal anchor and the use of the exchange rate policy to target a real effective exchange rate objective imply considerable tension between the authorities' objectives. The staff take the view that it is not possible to independently set the nominal exchange rate path, the inflation rate, and the REER path for a sustained period. This is particularly true in a country like Botswana, which is small, highly integrated with the South African and world economies, and has open current and capital account regimes. In particular, given that the authorities are adhering to a crawling peg regime for the nominal exchange rate, they can target the inflation rate or the real exchange rate, but not both. If they are targeting the real exchange rate, then the inflation rate is no longer constrained by a nominal anchor and may destabilize the price level. Alternatively, if they are targeting the inflation rate, then the real effective exchange rate must necessarily be allowed to vary.

[14] More generally, the staff took the view that an exchange rate anchor is appropriate for Botswana, given that the high levels of banking system liquidity and the associated looseness of the relationship among monetary and credit aggregates and interest rates would complicate the operation of a money-based anchor. In this context, the staff urge the authorities to commit to using their crawling peg exchange rate regime to target the inflation rate rather than the real exchange rate. However, given partner country inflation targets and projections (i.e., a 3–6 percent target range for

South Africa and projections for inflation for industrial countries of about 2–3 percent), the implied rate of crawl consistent with achieving Botswana’s inflation objective would be two percent a year or less.

This is helpful in identifying the policy choices that will eventually have to be made, and useful in making clear that in the International Monetary Fund’s (IMF) view the pursuit of a fixed or pegged exchange rate is likely to provide a more effective anchor for inflation than a policy based on an active monetary policy.

8. Conclusions and Lessons for Angola

There are a number of lessons from Botswana’s experiences with exchange rate and monetary policy that may be of relevance to Angola. These include:

- having an economy based on mineral production and exports poses particular challenges, in particular the potential problems of Dutch Disease / real exchange rate appreciation as exports grow rapidly;
- this is compounded by potential absorptive capacity problems as government spending scales up rapidly, which can also push up non-tradeables prices and contribute to real exchange rate appreciation and competitiveness problems;
- there is merit in having measures in place to limit the increase in government spending in line with the economy’s ability to increase aggregate supply, in order to minimise excess demand and inflationary pressures; however, even with such measures in place, it is likely that government spending will be a significant source of aggregate demand growth and price pressures;
- nevertheless it is important to get government “on-side” with respect to limiting expenditure growth and containing inflationary pressures, whatever the monetary policy framework;
- a managed exchange rate can play a useful role in moderating real exchange rate appreciation (Dutch Disease) and can at the same time provide an effective nominal anchor for inflation;
- a pegged exchange rate (at a lower level than would result from a floating rate) can also assist in building up foreign exchange reserves which can in turn provide a buffer to assist in coping with / adjusting to exogenous shocks, as well as adjusting to long-term changes as mineral reserves decline;
- a monetary policy based on targeting of monetary aggregates is unlikely to be successful when the relationship between monetary instruments, monetary aggregates and prices is uncertain and volatile; this is likely to be even more of an issue in Angola due to its high level of dollarization than it has been in Botswana;
- while a pegged exchange rate can play a useful role in containing Dutch Disease pressures and providing a nominal anchor, it cannot pursue both objectives indefinitely;
- similarly, it is not possible to pursue both an exchange rate target (a fixed or managed exchange rate) and a monetary target (with active monetary policy) indefinitely, as imbalances will arise, and ultimately a decision will have to be made to prioritise one or the other;

- while monetary and exchange rate policy can help to address real exchange rate and competitiveness issues, they cannot prevent real exchange rate appreciation if this represents a move towards a new (higher) equilibrium level of the REER;
- in addressing REER appreciation, other economic reforms (fiscal balance, improving market efficiency, higher productivity etc.) are necessary to address competitiveness issues.