Central Bank Quasi-fiscal Losses and High Inflation in Zimbabwe: A Note

Sònia Muñoz

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Prepared by Sònia Muñoz¹

Authorized for distribution by Sharmini Coorey

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Abstract

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Zimbabwe's failure to address continuing central bank quasi-fiscal losses has interfered with both monetary management and the independence and credibility of the Reserve Bank of Zimbabwe (RBZ). Realized quasi-fiscal losses are estimated to have amounted to about 75 percent of GDP in 2006. Because they were financed by creating money creation or issuing RBZ securities, they contributed to the four-digit inflation reached in 2006. The remedy for the current situation is clearly to eliminate the causes of losses by implementing measures to improve the cash-flow of the bank and restore its financial position.

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Author's E-Mail Address: smunoz@imf.org

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I. INTRODUCTION

In some developing countries, central banks have undertaken a range of quasi-fiscal activities (QFAs) extraneous to typical central bank functions, that have had a significant impact on their financial position and the economy. Mackenzie and Stella (1996) define a QFA as "an operation or measure carried out by a central bank or other public financial institution with an effect that can, in principle, be duplicated by budgetary measures in the form of an explicit tax, subsidy, or direct expenditure and that has or may have an impact on the financial operations of the central bank, other public financial institutions, or government."

The determinants of profits and losses of central banks, however, have not been an important subject of investigation in the literature. In industrial countries, central banks, carrying out strictly prescribed functions and operating under stable macroeconomic conditions, are financially sound institutions. Central banks are able to operate at a profit with a core level of earnings derived from seigniorage. They have access to zero cost financing (that is, the monetary base) and probably some financing at below market interest costs (e.g., below market remunerated commercial bank's deposits), while they are able to invest these funds at market rates.

QFAs have usually included the intermediation of financial resources to finance favored sectors or activities and the administration of preferential exchange rates. Mackenzie and Stella (1996) point out that apart from strictly quasi-fiscal actions, operations of a less obviously fiscal—and more obviously monetary—character, such as sterilization or open market operations, are commonly referred to as QFAs because of the large losses they can entail sooner or later affect the budget. Teijeiro (1989) shows that quasi-fiscal losses resulting from QFAs are difficult to measure because of inconsistencies between central bank and nonfinancial public sector accounting, central bank treatment of unrealized nominal losses on net foreign assets, and differences in adjusting operating results for the effects of inflation.

QFAs have a number of implications for the government, as fiscal operations which are not included in the national budget, and for the central bank as (i) an allocation of resources at submarket rates and inappropriate pricing (evaluation) at risk; (ii) a negative cash-flow and a deterioration of its financial position; and (iii) a loss of monetary management and control.

The aim of the paper is to identify and quantify the main sources of the QFAs by the Reserve Bank of Zimbabwe (RBZ) since 2004 as well as their macroeconomic and financial impact, to provide solutions on how to eliminate them and restore the financial position of the RBZ. Some sense of the macroeconomic impact of QFAs can be gleaned by reference to the size of central bank losses. While central bank losses in most countries have not exceeded 10 percent of GDP, Zimbabwe's flow of realized central bank quasi-fiscal losses are estimated to have amounted to 75 percent of GDP in 2006. Losses have arisen from a range of activities including monetary operations to mop up liquidity; subsidized credit; foreign exchange losses through subsidized exchange rates for selected government purchases and multiple currency practices; and financial sector restructuring. Quasi-fiscal losses of this sort, rather than conventional monetary or fiscal laxity, have been the mainly responsible for the surge in money supply in Zimbabwe during 2005-7. The power to create money to finance

losses quickly run into conflict with any recognized monetary policy objective with official inflation reaching 1,594 percent as of January 2007.

The paper is structured as follows. Section II defines and quantifies RBZ quasi-fiscal losses. Section III quantifies an adjusted fiscal deficit including RBZ's QFAs and discusses its macroeconomic impact. Section IV analyses solutions to the elimination and treatment of QFAs. Section V concludes.

II. CENTRAL BANK QUASI-FISCAL LOSSES

Some quasi-fiscal losses are more difficult to quantify than others. The combination of a high inflationary environment and a financial market distorted through regulation makes quantifying the economic value of the RBZ's quasi-fiscal losses very difficult. Interest rate subsidies further compound negative "market" real interest rates. In this high inflation environment the failure to apply inflation accounting standards, the absence of a credible basis for fair value calculations, and the RBZ's continued use of historic cost accounting restrict financial statement data to nominal values that misstate the economic position. In the absence of any alternative, this paper retains the balance sheet data for the quantification of quasi-fiscal losses but recognizes that this does not accurately reflect the size of the quasi-fiscal economic losses.

Starting in 2004, large and escalating quasi-fiscal losses have contributed to a shift in the structure of RBZ's liabilities towards RBZ securities and required reserves. In Zimbabwe QFAs have demanded financial resources in amounts that exceed the central bank's capacity to collect seigniorage. They have, in conjunction with high operating expenses,² generated large losses. Those losses are the main determinant of the large movements in "other items net" in the RBZ balance sheet and can be classified as nonearning assets.³ Table 1 illustrates the main categories of the RBZ balance sheet.

² The RBZ's operational expenses from January to October 2006 amounted to 4 percent of annual GDP.

³ The RBZ accounting treatment does not conform to International Financial Reporting Standards which require, with limited exceptions, that losses resulting from operations or from diminution in financial asset values below cost be recognized in the income statement of the central bank. That is, these standards do not allow losses to be capitalized as assets on the balance sheet, because such losses do not meet the recognition criteria for assets. While the RBZ made positive moves to recognize impairment losses on some financial assets in its 2005 Annual Report, the absence of a recognized accounting framework resulted in a largely meaningless income statement. Consequently, this paper relies on estimates of flows from balance sheet data.

Table 1. Selected RBZ's Balance Sheet Items

	2003	2004	2005	2006 October	
		(Percent)			
Liabilities					
Foreign liabilities Currency Gross required bank reserves RBZ Securities Government deposits Capital/Reserves	32.5 50.2 10.9 0.0 0.0	24.0 12.9 23.8 35.1 2.7 0.0	42.9 11.1 13.8 28.6 3.0 0.0	12.8 18.2 23.0 43.3 0.7 0.0	
Assets					
Foreign assets Loans to government Government securities Claims on public enterprises Claims on banks Nonearning assets	9.1 0.2 24.3 0.0 35.6 22.0	13.0 0.7 7.4 2.1 23.1 46.5	9.8 0.5 0.8 1.0 4.5 70.3	1.9 0.7 0.1 0.3 2.6 83.3	

Source: Reserve Bank of Zimbabwe; IMF staff estimates.

The following are noteworthy features of the balance sheet:

- Nonearning assets are substantial; they amounted to 83 percent of total assets as of October 31, 2006.
- RBZ securities, introduced as a sterilization tool at the beginning of 2004, became the largest liability by the end of that year, overtaking currency in circulation, previously the largest liability.
- Starting in 2004 sharp increases in statutory reserves to finance the concessional credit to favored sectors, such as agriculture, led to a steep climb in required reserves, which are not remunerated.
- Foreign liabilities, largely represented by credits from international financial institutions, have for some time been much larger than foreign assets. In this situation any currency depreciation produces losses.
- The smallest liability is capital and reserves which has been kept constant at a very low level. A central bank increases its capital through seigniorage and reduces it by operating expenses and distribution of profits to the government. Figure 1 shows the evolution of

seigniorage since 2001 in Zimbabwe. For the RBZ, seigniorage⁴ has fallen from over 5 percent of GDP in 2001 to about 0.1 percent of GDP in 2005 because, given very high rates of inflation, real base money has declined drastically in relation to nominal GDP and the RBZ has invested in assets, including QFAs, with large negative real interest rates. Only the failure to apply a recognized accounting framework keeps the RBZ capital and reserve from being negative.

(Percent of GDP)

7
6
5
4
3
2
1
0
2001 2002 2003 2004 2005

Figure 1. Seigniorage

Most of the RBZ's quasi-fiscal losses were incurred in connection with activities that go far beyond conventional central banking functions. There were four main sources of the losses:

- 1. Subsidies in terms of free foreign exchange to public enterprises; price supports to exporters to partially compensate them for an overvalued exchange rate; and subsidized credit to troubled banks, farmers, and public enterprises.⁵
- 2. Realized exchange losses stemming mainly from the purchase of foreign exchange from exporters and the public at higher prices than sales of foreign exchange to importers (mainly government and public enterprises); and recognition of previously unrealized exchange losses upon repayment of external debt, including to the Fund.

$$SE_{t} = \frac{\left[\frac{M_{t} - M_{t-1}}{M_{t}}\right] \left(\frac{M_{t}}{P_{t}}\right)}{Y_{t}} \text{ where } M \text{ is the nominal monetary base, } P \text{ is the price level, and } Y \text{ is the nominal GDP.}$$

⁴ Seigniorage is the revenue that a central bank collects from printing money and is expressed as

⁵ Because these credits are provided at a trivial nominal interest rate (despite high inflation) and the prospect of repayment is low, the entire credit is treated as a subsidy.

- 3. Interest payments associated with open market operations to mop up liquidity.
- 4. Unrealized exchange losses reflecting official devaluations because foreign liabilities exceeded foreign assets.

90 90 Unrealized 80 exchange losses 70 70 60 60 50 Interest cost of 50 open market operations 40 40 30 Realized exchange losses 20 20 Subsidies 10 10 O 2003 2004 2005 2006 Proj.

Figure 2. Central Bank Quasi-fiscal Losses
(Flows, percent of GDP)

Following Vaez-Zadeh (1991), we distinguish central bank current losses from central bank capital losses in the RBZ balance sheet. Current losses comprise subsidies, realized exchange losses, and interest cost of open market operations; capital losses are unrealized exchange losses resulting from exchange rate movements on foreign currency assets and liabilities. The unrealized exchange losses are part of the RBZ's quasi-fiscal losses, but do not require financing. They would be reflected as a fiscal cost when the central bank is eventually recapitalized.

A. Subsidies

Subsidies in the form of free foreign exchange to the parastatal sector are a direct loss for the RBZ. The RBZ buys the foreign exchange given to parastatals, especially to import fuel, grain, and electricity, on behalf of government; it is currently accounted for as a zero interest receivable from government on the RBZ balance sheet under "other assets."

The RBZ also subsidizes private sector exporters and producers to compensate for the overvalued exchange rate. Tobacco producers receive a fixed direct subsidy for each kilogram sold regardless of the prices producers received at the auction. Gold producers receive a support price per gram that has been increased several times since 2003. A per kilogram subsidy for cotton producers was introduced on July 1, 2005.

Table 2. Contributions to Changes in Reserve Money

(Percent of GDP)

	Dec-03	Dec-04	Dec-05	Oct-06 ¹
Reserve money	10.6	6.7	13.8	20.2
NFA	-4.1	-7.1	-43.2	-1.4
Claims on banks	4.2	2.3	0.6	1.8
Net claims on government		-0.1	-3.3	-0.2
RBZ securities	0.0	-21.5	-32.2	-32.4
Other items net		33.1	91.9	52.4
of which: Subsidies		13.9	20.3	15.4
of which: PSF and ASPEF		0.0	1.2	-0.1
TBF	2.4	7.7	0.3	0.1
Free forex to public enterprises	1.0	2.4	13.7	11.7
GMB	0.0	1.1	1.0	0.1
PLARP	0.0	0.0	0.0	0.0
Other loans to government	0.0	1.3	0.3	0.5
Private sector	0.6	1.4	3.9	3.1
Realized exchange losses		11.4	0.6	7.7
of which: Forex mobilization costs	0.0	0.0	0.0	5.7
Interest cost of RBZ bills	0.0	5.1	40.4	41.0

¹ Change since end of previous year; as a percent of annual GDP.

Rescuing failed financial institutions during the banking crisis of 2004 entailed a cost for the RBZ. The RBZ provided support to insolvent banks in the form of access to the Troubled Bank Fund (TBF).⁶ Table 2 shows that the TBF was the major contributor to reserve money growth in 2004 after exchange losses. TBF loans were provided for periods not exceeding 3 months. Maturing loans were rolled over, however, contingent upon the progress made by the institutions in addressing their liquidity challenges. Most institutions that borrowed funds under the TBF had been placed under either provisional liquidation or curatorship.

Subsidized lending to both the agriculture sector and public enterprises is another source of loss for the RBZ. The RBZ has created a subsidized lending program to support priority sectors like agriculture named Productive Sector Facility (PSF) and Agricultural Sector Enhancement Facility (ASPEF). These lines are available through the commercial banking system at a subsidized rate of 20 percent per annum. The RBZ has effectively directed commercial bank credit by increasing reserve requirements (Table 3) and then allowing banks to net out lending on PSF/ASPEF against required reserves. Statutory reserves usually

⁶ The TBF was established in December 2003 and was designed to serve as a contingent pool from which banks faced with liquidity challenges could access funds in order to stabilize their operations. The debt under this fund was supposed to be extinguished by March 31, 2004. The debt however was extended due to the inability of some of the banks to repay.

cover the loans so that the RBZ does not bear the cost of these loans. However, from January to July 2004 and from September to December 2005, because lending under the PSF/ASPEF was larger than the statutory reserves, the RBZ printed money for the difference, increasing the money base (see Table 2). The RBZ also finances the Parastatals and Local Authorities Re-orientation Programme (PLARP) to direct subsidized loans to public enterprises at interest rates of 50 percent per annum, but this lending has been entirely netted out from statutory reserves, so that no financing has so far been needed. When lending is larger than the statutory reserves, the total cost of these activities is not immediately recognized on the profit-and-loss account of the central bank. Instead, the composition of the RBZ assets and liabilities changes and base money is increased or more RBZ securities are issued. Two other sources of subsidized lending are loans to the Grain Marketing Board (GMB) and additional loans given to the government with interest rates ranging from 0 to 50 percent per annum. Description of the securities are assets and percent per annum.

Table 3. Statutory Reserve Requirements

(Percent)

	Dec-03	Jan-04	Aug-04	Oct-05	Mar-06	Jul-06
Commercial banks						
Demand deposits	30	50	60	45	60	40
Time deposits	20	30	37.5	30	45	30
Savings deposits	20	30	37.5	30	45	30
Merchant banks						
Demand deposits	30	50	60	45	60	40
Savings deposits	20	30	37.5	30	45	30
Finance houses						
Time deposits	5	15	15	15	30	15
Building societies ¹						
Savings + time deposits	0	30	30	30	45	30
Discount houses						
Call deposits	0	30	30	30	45	30

¹Levied on 75 percent of Building Societies deposits not supporting mortgage lending. From May 2005, levied on 35 percent of total liabilities not supporting mortgage lending.

⁷ This part of the PSF/ASPEF credits is not included in the estimate of the RBZ's QFAs.

⁸ The flow of lending above the statutory reserves during these periods is included as QFAs.

⁹ The additional loans to government are those in excess of the statutory limit on "net credit to government".

¹⁰ Recently, the RBZ has been transferring funds to its fully owned subsidiary, Fidelity, for onlending to miners through the Gold Development Fund. The amounts are not available.

B. Realized Exchange Losses

A major source of the RBZ quasi-fiscal losses is its foreign exchange trading. In Zimbabwe, exchange control regulations give the central bank a virtual monopoly on foreign exchange operations. In 2004 Zimbabwe introduced a heavily managed foreign exchange "auction" run by the RBZ and continued foreign exchange controls on current international transactions (and hence an active parallel exchange market). The retention scheme introduced contained a requirement to surrender to the RBZ 25 percent of export proceeds at the official rate of Z\$824/US\$ (for the public sector to buy inputs) and the rest was provided to the "auction" at the managed "auction" rate. The authorities also maintained a secondary diaspora rate starting at Z\$5,200/US\$ for inward remittances. Thus exporters had to surrender their foreign exchange receipts to the central bank, and the public could buy foreign exchange from the RBZ only through a highly managed rationed "auction" system.

The foreign exchange monopoly position could have been profitable for the central bank, but instead it generated large losses. Throughout 2004 and most of 2005 the RBZ bought foreign exchange from exporters at the auction exchange rate or the diaspora rate, whichever was higher, and sold it to importers at the auction rate and to the public sector at the official rate. The task of managing the foreign exchange became even very costly when the diaspora rate was above the auction rate, because the RBZ was buying foreign exchange from exporters at higher prices than it sold it to importers. In October 2005 the RBZ replaced its action system with an interbank foreign exchange market, made the inward remittances subject to the interbank exchange rate, and increased the official rate—but it continued to sell foreign exchange to the public sector at the official rate, which was well below the auction/interbank rate. The losses resulting from this activity were not only substantial, they had an immediate monetary impact. The RBZ excludes realized exchange losses from its profit and loss accounts and accumulates them in a separate asset account, overstating net annual profits and capital; this is a practice the IMF does not recommend.¹²

C. Interest Cost of Sterilization Operations

To contain money growth, the RBZ sterilized the impact of the direct injection of liquidity into the economy that the QFAs represented. In January 2004 the RBZ started to issue its own bills at effective interest rates of over 900 percent per annum. These RBZ Financial treasury bills were naturally attractive to the market but too costly to the RBZ, so they were soon abandoned and replaced by Open Market Operation (OMO) bills, introduced in May 2004, and Special RBZ bills, introduced in June 2004. The OMO bills had the same interest rates as the existing government treasury bills but the accounting for them was clearly separated from holdings of government treasury bills since the interest cost was charged to

¹¹ Three zeros were removed from all banknotes on August 1, 2006, to help the processing of banknotes as inflation soared. Therefore, the equivalent exchange rate in the new currency denomination is Z\$0.8/US\$ for the official rate and Z\$5.2/US\$ for the diaspora rate.

¹² See Sullivan (2003) for details.

the RBZ. The issuance of these bills escalated beginning in September 2004 after the large-scale financial or "liquidity" support to troubled commercial banks. The Special RBZ bills were introduced to absorb excess bank liquidity at the end of the day. They had a maturity of two years and carried an interest rate that was sharply negative in real terms.¹³ The long maturities deferred the monetizing consequences of the high nominal interest rates.

The RBZ has accumulated substantial domestic interest-bearing liabilities through open market operations to absorb liquidity. The vicious circle of rising losses and rising remunerated liabilities has resulted in inflation and increases in the interest rates of the bills, further accelerating the interest cost for the central bank. By 2005 the net interest cost of sterilization equaled 40 percent of GDP. In 2006 the interest cost grew further but its liquidity impact was partly alleviated as the authorities lengthened the maturity of treasury bills, thus deferring interest payments.

D. Unrealized Losses on Foreign Exchange Holdings

The RBZ's quasi-fiscal losses also arise from official devaluations of the domestic currency as foreign liabilities exceed foreign assets. Movements in the interbank exchange rate represent a change in the domestic currency counterpart of net foreign assets, resulting in an unrealized loss. When the RBZ makes periodic revaluations, the counterpart of these changes in the value of foreign assets and liabilities, which is an unrealized loss of significant magnitude, is posted to a revaluation account as a noninterest-earning asset. Though these unrealized revaluations have no monetary impact, they represent a significant capital loss that the RBZ misrepresents in its balance sheet. He are represented and realized valuation losses from its profit and loss accounts and accumulating them in separate accounts, the RBZ overstates net annual profits and capital; this is a practice the IMF does not recommend. He

III. MACROECONOMIC IMPACT OF QUASI-FISCAL LOSSES

How do QFAs affect the economy? The macroeconomic effects of the losses of a central bank arise directly through the effects of the losses on monetary expansion and indirectly through their impact on the efficiency of monetary management. The perception that the central bank is not sound could damage its authority to supervise the banking system and to use moral suasion as an instrument of monetary policy.

From a macroeconomic point of view, the losses of the central bank are a problem if they endanger the control of the monetary targets. Because losses either lead to an injection of money or entail future cash injections if they are unrealized, they have either an immediate

¹³ In June 2006 a 270-day nonnegotiable CD at zero interest rate replaced 2-year Special bills. In October 2006 the RBZ introduced 5-year financial stabilization bonds.

¹⁴ The size of the loss is understated by the difference between the official exchange rate and the equilibrium economic exchange rate times the size of the RBZ's net foreign currency liability position.

¹⁵ See Sullivan (2003) for details.

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impact on domestic liquidity or influence expectations about future monetary growth. 16 The central bank may postpone this expansionary monetary effect by incurring debt (issuing central bank bills) but at the cost of future interest payments. Debt issuance combined with valuation losses leads to a deterioration in the central bank's financial position and in turn contributes to future losses. Thus, eventually central bank losses contribute to money creation and inflation.

Figure 3 illustrates that the escalation of inflation in Zimbabwe in the last three years was fuelled by rapid money growth arising from the RBZ's QFAs. 17 In Zimbabwe soaring inflation is due more to the RBZ's substantial quasi-fiscal activity than to conventional government budget deficits. The average central government fiscal deficit for 2003–2005 has been below 3 percent of GDP and since 2001 the primary balance has been in surplus in all years except 2004. However, as shown above, massive OFAs have been carried out outside the budget without adequate provisions for their financing. Therefore, a truer fiscal picture would include both the activity of the government and the QFAs of the RBZ in the fiscal balance.

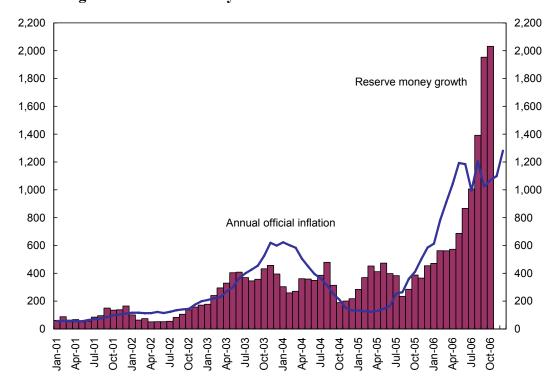


Figure 3. Reserve Money Growth and Annual Official Inflation

¹⁶ See Sargent and Wallace (1981).

¹⁷ For evidence on the close relationship between money and inflation until 2004, see Muñoz (2006). The empirical results indicate that, except for 2004, a stable demand for money as a function of the parallel market exchange rate, inflation, and real output can be found in Zimbabwe.

The consolidation of the central government and central bank deficits is not trivial but is essential to assess the true fiscal picture (Robinson and Stella (1993)). While the central government operations are measured on a modified cash basis, ¹⁸ central banks will typically use accrual-based accounting. Therefore, to derive a consolidated deficit detailed adjustments have to be made to the fiscal and central bank accounts. Moreover, in Zimbabwe's central bank data realized exchange losses are not sufficiently disaggregated to separate realized exchange losses associated with debt repayment from subsidies arising from multiple currency practices. Vaez-Zadeh (1991) points out that only losses that lead to a financing need should be included in the budgetary deficit. Stella (1997) notes that different accounting presentations are appropriate for addressing different questions, therefore no one solution can satisfy all requirements.

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Consequently, we define an adjusted central bank and government deficit as the financing requirement of the central bank and central government, comprising (i) the central government's primary balance; (ii) subsidies provided by the RBZ; (iii) the RBZ's realized exchange losses; and (iv) the net interest payments of both the central government and the RBZ. The financing requirement reflects the borrowing requirement of the government, with current quasi-fiscal operations treated as if they were undertaken by the government and financed by credit from the RBZ.

0 Fiscal component -10 -10 -20 -20 -30 -30 -40 -50 -50 Quasi-fiscal component -60 -70 -70 -80 -80 -90 -90 2003 2005 2006 Proj. 2004

Figure 4. Adjusted Financing Requirement
(Percent of GDP)

Quasi-fiscal losses are the major contributor to the adjusted financing requirement (Figure 4). QFAs have limited the RBZ's abilities to control money effectively and distracted it from its

¹⁸ Taxes and other revenues are recorded as collected, and expenditures when they are paid, with interest recorded when due, and sometimes with an adjustment for changes in arrears.

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responsibility to promote the internal and external stability of the currency. The RBZ's limitations in controlling monetary growth have become evident in the costly sterilization that has been needed to mitigate the initial monetary impact of QFAs. Sterilization of monetary expansion resulting from QFA financing has increased central bank quasi-fiscal losses as nominal interest payments have increased rapidly with rising inflation. Rising interest payments have also increased the financing requirement of the central government, creating further monetary expansion (ultimately weakening the effectiveness of sterilization). Accelerating inflation has also led to devaluation and further valuation losses.

Given highly negative real interest rates¹⁹ during various periods and the lack of any inflation accounting in the public sector, an operational balance cannot be meaningfully interpreted for Zimbabwe. Tanzi, Blejer, and Teijeiro (1993) stress that nominal interest payments include an inflation component that compensates for the reduction in the real value of the principal. Hence with high inflation the real cost of borrowing of the public sector can be substantially overstated. Thus to get a truer picture of the impact of fiscal and quasi-fiscal policy on aggregate demand in real terms, the operational balance should be calculated by removing the inflation component of nominal interest payments of both the RBZ and the government. However, in Zimbabwe real interest rates have been swinging from positive to negative since 2003 (Figure 5) making the calculation of an operational balance meaningless.

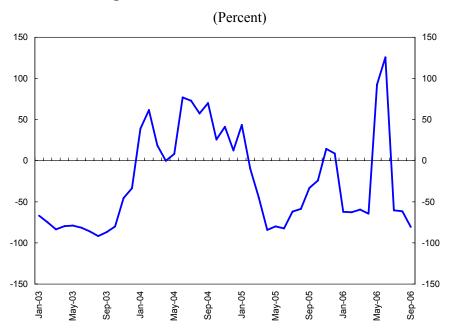


Figure 5. Real Ex-Post Interest Rates

Growing losses have led to inconsistent use of monetary policy instruments and eroded the RBZ's ability to conduct monetary policy. The RBZ has been forced to sterilize the monetary

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¹⁹ Real ex-post interest rates are calculated as the nominal 3-month treasury bill minus the inflation rate that actually prevailed over the 3 months after issuance.

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impact of its losses by absorbing liquidity from the financial system. To a large extent, this has been done through open market operations but the RBZ has also started to reinforce these operations by requiring banks to invest any excess liquidity at the end of the day into 2-year Special treasury bills at sharply negative real interest rates—and more recently the 270-day nonnegotiable CD, which has a zero nominal interest rate—and mandating a highly punitive overnight lending rate on financial institutions access to its facilities. These actions have both transferred monetary policy costs to the banks and made liquidity management more difficult for them but have not been effective in reducing money growth.

IV. ELIMINATING QFAS IN A TRANSPARENT AND SUSTAINABLE MANNER

The remedy to the current situation is clearly to eliminate the causes of losses by transferring quasi-fiscal losses to the budget and tightening fiscal policy, implementing measures to improve the cash-flow of the bank, and restore its financial position. The main measures would be to eliminate quasi-fiscal activities; restructure of the central bank functions and activities and reduce operating expenses to avoid the possibility of incurring losses from increases in remunerated liabilities and nonearning assets; and recapitalize the central bank to move out the accumulated losses or existing nonearning assets (and improperly priced off-balance sheet items).

The government could do the above in a sequence of steps: (1) increasing transparency and accountability; (2) taking actual measures to reduce and eliminate QFAs; (3) ensuring that the RBZ has a cash-flow to finance its legitimate functions; and (4) recapitalizing the RBZ once macrostabilization has been achieved.

(1) All quasi-fiscal losses should be identified, properly recognized, and moved out from the books of the central bank and included in the government budget.²⁰ At the time of the preparation of the budget, losses associated with former QFAs should be included in the projected deficit. This would give a truer picture of the size of the public sector and the relative importance of different taxes and expenditures.²¹ One way to do this would be for the government to include former QFAs explicitly in the budget, to execute them through the normal budgetary channels, and to subject them to the same scrutiny as other budgetary operations. Although the distortive effects of former QFAs on production and consumption decisions would remain, their presence in the budget may make it more likely that the political will to eliminate them can be achieved.

The RBZ should also be prepared to disclose its negative net worth to the public, along with the actions that may be taken to restore net worth over time. Transparency and international

²⁰ It is the *new flows* of activity previously done by the RBZ that need to be transferred, not the stock of losses from past QFAs.

²¹ The inclusion in the 2007 budget of substantial quasi-fiscal activity reported by the RBZ, such as the provision of subsidized foreign exchange to the public sector and price supports to commodity exporters, marked a positive step towards increasing transparency. However, the budget made only minimal provision for the newly-absorbed QFAs, without any supporting measures to credibly lower them.

accounting standards require the disclosure of losses to be in the income statement, charged against capital, and any resulting negative net worth to be disclosed in the equity section of the balance sheet.²²

- (2) Actual measures need to be taken to permanently eliminate the QFAs. The central government should incorporate the quasi-fiscal expenditures, leaving the RBZ accounts covering only legitimate functions. This will involve a series of reforms such as (i) a full liberalization of the exchange rate regime for current account purposes, (ii) substantial fiscal tightening at the level of the adjusted primary balance, (iii) price deregulation and hard budget constraints on public enterprises, and (iv) establishment of a strong nominal anchor by the RBZ.
- (3) The RBZ should only incur those costs related to its functions and have the resources to cover them. The RBZ pricing should be consistent with its functional objectives at market rates. The RBZ needs to have sufficient income to perform its functions either by allocating it sufficient assets to generate income or transfers from the budget to cover realized costs.
- (4) Following macroeconomic stabilization, the government should recapitalize the RBZ by the issuance of marketable government securities, through a transparent budgetary appropriation. ²³ This would create a new central bank asset, usually in the form of government securities, that bear interest at market-related rates, held by the central bank. ^{24,25} Negotiable securities should be transferred directly to the central bank. ²⁶ The RBZ

²⁴ This is often done through the formalization of the central bank's claims on the government and the conversion of such claims into debt instruments with market based return and duration. See Leone (1994) for details.

²² Dalton and Dziobek (2005) notes that "such disclosure provides a transparent view of the true financial condition of the central bank (including negative net worth). It also avoids creating an impression that the management of the central bank is either unwilling or unable to confront the problems that have given rise to the losses. Finally it serves to put the financial sector and the community generally on notice that the central bank must adopt a stringent and prudent approach to any further creation of credit or extension of central bank financial support."

²³ See Dalton and Dziobek (2005) for details.

²⁵ Accounting standards require the securities to be initially recognized at their fair value. For fair value to equal face value the securities must have an interest and duration matching similar instruments in the market. Previous practices of long dated (or undated) securities with zero or submarket interest rates no longer qualify for recapitalization securities as their fair values will fall short of the face value. Accounting standards require the bank to recognize all interest payments on recapitalization securities in the income statement.

²⁶ Stella (2005) favors transferring the required securities in a lump-sum fashion at the beginning of the reform rather than transferring only the minimal amount of securities required each time period or budgetary year. He argues that the lump-sum recapitalization provides a signal of the government's commitment to allow the central bank conduct appropriate monetary policy. A mere promise by the government to solve the problem is not credible. However, if the scale of the recapitalization is beyond the current budgetary resources, a phased recapitalization could be considered.

law would have to be amended to specifically permit the recapitalization. The current RBZ law does not allow a payment by the government, which is the only procedure that would guarantee a reduction in nonearning assets. It merely makes the government responsible for compensating the central bank for exchange rate losses without specifying the mechanism. Moreover, the central bank legislation would need to be revised to limit the extent to which QFAs can be carried out and recognize provisions for government support in case of major central bank losses.²⁷

Recapitalization should take place once macrostabilization has been achieved since it could have significant budgetary implications.²⁸ This is because the costs of restoring the financial position of the RBZ would imply transferring accumulated losses to the government. Therefore shifting the losses from the central bank to the government budget is a "zero-sum" game,²⁹ but it increases transparency of the public sector accounts and strengthen the autonomy of the central bank.

V. CONCLUSIONS

Zimbabwe's failure to address continuing central bank quasi-fiscal losses has interfered with both monetary management and the independence and credibility of the RBZ. The RBZ is making losses because of the costs involved in supporting government policy through quasi-fiscal activities and keeping the currency overvalued. Current quasi-fiscal losses comprise subsidies, realized exchange losses, and interest cost of open market operations; while capital quasi-fiscal losses are unrealized exchange losses resulting from exchange rate movements on foreign currency assets and liabilities. The escalating realized quasi-fiscal losses of the central bank have been financed through money creation or issuance of central bank securities, pushing inflation above 1,000 percent in 2006. These developments have resulted in an unstable macroeconomic environment that risks hyperinflation, reinforcing the argument in favor of far-reaching and simultaneous reforms in the areas of fiscal, monetary, and exchange rate to restore policy credibility and impose macroeconomic discipline.

The remedy to the current situation is clearly to eliminate the causes of losses by implementing measures to improve the cash-flow of the bank and restore its financial position. The main measures would be to eliminate of quasi-fiscal activities; restructure of the central bank functions and activities and reduce operating expenses to avoid the

²⁷ Central bank laws should include two provisions for coverage of central bank losses: (1) a level of reserves available to cover operational losses and other risks as a multiple of capital or as a percentage of the monetary liabilities of the central bank and (2) a requirement by which the government would issue to the central bank securities that bear interest at market-related rates to restore the solvency of the central bank in cases where the central bank has negative net worth.

²⁸ A minimum recapitalization must cover realized costs. In a stable macroeconomic environment, the central bank can still have large and growing negative notional capital and perform its functions.

²⁹ "Improving the central bank net-worth position and eliminating its losses will result in a deterioration of the fiscal stance of the nonfinancial public sector." (Leone, 2004, pp. 748).

possibility of incurring losses from increases in remunerated liabilities and nonearning assets; and recapitalize the central bank to replace the existing nonearning assets (and improperly priced off-balance sheet items) with revenue generating resources. The government could do the above in a sequence of steps: (1) increasing transparency and accountability; (2) taking actual measures to reduce and eliminate QFAs; (3) resourcing the RBZ to enable it to perform its functions; and (4) eventually recapitalizing the RBZ when QFAs have been eliminated and macrostabilization has been achieved.

This paper argues that the government should absorb into the budget the QFAs now reported in the RBZ's balance sheet. They would thus be executed through normal budgetary channels and be subject to the same scrutiny as other budgetary operations. Moreover, Zimbabwe needs to rationalize the relationship between the central bank and the central government. Vaez-Zadeh (1991) recommends the following basic rules: (i) the central bank should rely on the treasury bills issued by the government in conducting open market operations. This way the cost of monetary policy implementation will pass through to the central government; (ii) any central bank allocation of financial resources should be at market prices and only in relation to its delegated functions. Any subsidy is best done through the budget, making the cost more transparent and monitorable; (iii) the central bank should only borrow abroad for short-term balance of payment purposes, and the government should assume all exchange rate risk in any foreign borrowing by the central bank; and (iv) the central should set aside reserves against potential losses.

Central banks do not need to have capital or even positive net worth to function. However, positive equity enhances central bank credibility and independence. When balance sheets have seriously deteriorated as in the case of Zimbabwe, a recapitalization of the central bank would be recommended once stabilization has been achieved. In determining how much capital a central bank should have, factors such as the foreign reserve policy and the institutional relation with the government are important. Central banks that hold the country's foreign reserves on its balance sheet and therefore are subject to foreign exchange risk hold relatively large capital reserves. The ability of the central bank to meet its monetary objectives will depend on its ability to maintain an appropriate cash-flow to sustain its operating expenditures and to avoid potentially costly quasi-fiscal activities.

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