

Part 3

Reality: The Impact of Capital Flows and Policy Responses

Chapter 6 Macroeconomic Impact

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Private capital flows have had pervasive effects on African economies in the 1990s. While all five countries in this study benefited from the worldwide surge in private capital flows to developing countries in this period, the timing of the rise in flows, especially of their macroeconomic impact, was most closely linked to internal developments. In particular, it was the acceleration of the process of financial sector reform and the liberalisation of exchange controls that were in all countries the most decisive factors.

The concerted programmes of liberalisation and reform were a decisive factor in stimulating new private capital inflows. International investors responded to the increasingly credible signals of government commitment to more market-oriented policies and to maintaining an investor-friendly environment. Also important — most obviously in the East African countries — was the return of flight capital, attracted by the reforms.

The reforms also, however, heightened the macroeconomic impact of private capital movements. By freeing key prices in the economies — most importantly the exchange rate and interest rates — the reforms created a set of transmission mechanisms through which changes in cross-border capital flows had important real and monetary effects on the economies. Although the microeconomic foundations for these macroeconomic effects are beyond the scope of this study, the macroeconomic effects of capital flows have been amplified by rigidities in these economies arising from incomplete markets (such as bond and stock markets); underdeveloped sectors (such as small and medium-scale enterprises); and high transaction and information costs. It is the presence of such rigidities that underlies “gap” theories, which postulate that capital inflows can enable developing countries to achieve higher rates of economic growth by helping to bridge foreign exchange or savings or absorptive capacity gaps.

The most important macroeconomic effects are evident first in the balance of payments, second in savings, investment and growth, and third in monetary policy and financial markets.

6.1 Balance of Payments

For much of Africa, the balance of payments has long been driven by developments affecting the current account. Most important have been

swings in world commodity prices. Primary products account for a dominant share of exports throughout Africa, and this is evident in the five countries examined in this study. In Uganda, for example, coffee accounted for almost 60 percent of goods exported in 1997. A similar dependence on primary goods is evident in Tanzania and Zimbabwe, although Tanzania is less dependent on a single crop than Uganda and Zimbabwe has a relatively diversified primary sector. The dependence is most striking in Zambia, where the copper producer ZCCM generates more than 90% of export earnings. Even in South Africa, with its more developed manufacturing base, net gold exports accounted for almost 20% in 1997.

However, the current account has been less of a driving force in the 1990s. The sharp rise in private capital flows in all five countries has had a significant impact on the balance of payments. This impact is evident in exchange rates (see Figures 6.1a-e), and on reserves, imports and exports.

Private capital flows have had significant effects on nominal and real exchange rates since the beginning of the 1990s. Through the 1980s, dependence on mineral and other primary exports combined, in most cases, with a large external debt led to persistent overvaluation of the exchange rate — a problem that was exacerbated by fixed exchange rate policies. This led, in turn, to the development of parallel foreign exchange markets and, frequently, a multiplicity of exchange rates. In this environment, changes in the balance of payments were not reflected in the rigid official exchange rate, but did rapidly affect the parallel market premium.

The liberalisation of foreign exchange markets eliminated parallel markets in the first half of the 1990s. Unification of the foreign exchange market has

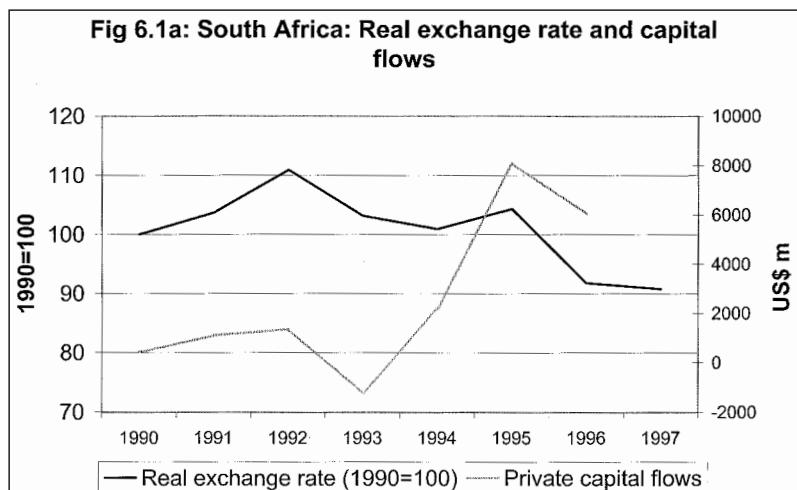
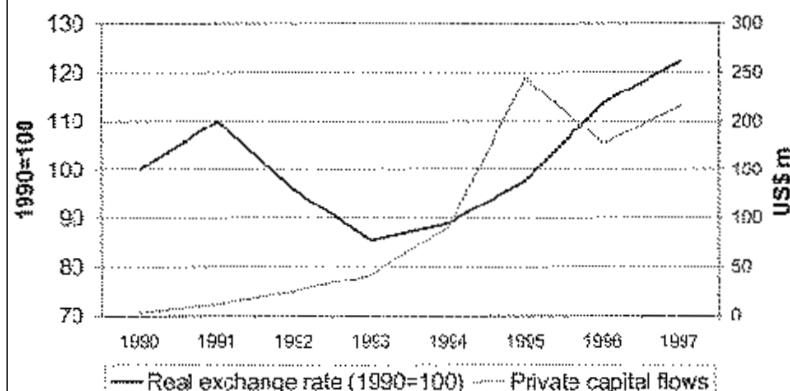


Fig 6.1b: Tanzania: Real exchange rate and capital flows



made rates more volatile — even where the previous official exchange rate was already fully floating. Some of this volatility is a verification of the volatility that was previously confined to parallel markets, but much of it stems from the greater volume and volatility of the private capital flows in all countries.

In Tanzania, Uganda and Zambia, the liberalisation of the foreign exchange market — which started with efforts to begin liberalising the current account in the first half of the 1980s — rapidly gathered pace in the early 1990s following sharp depreciations of the exchange rate. Although the timing of the depreciations varied, the precipitating factor in each case

Fig 6.1c: Uganda: Real exchange rate and capital flows

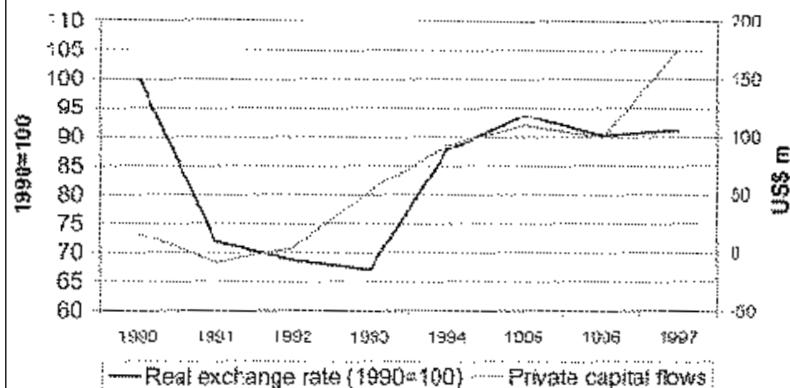
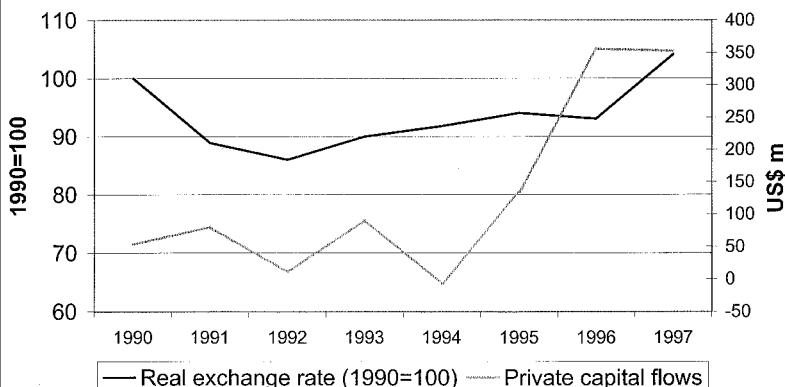


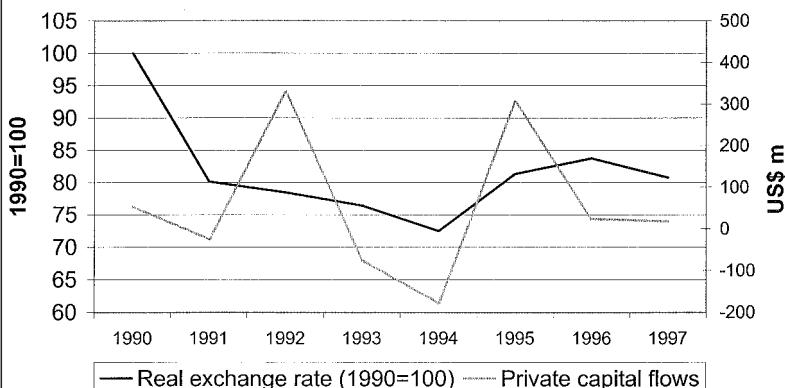
Fig 6.1d: Zambia: Real exchange rate and capital flows



was the interaction of financial liberalisation and a large repressed demand for foreign exchange. This was driven by a history of low foreign and domestic investor confidence, which had been associated with financial indiscipline and macroeconomic instability, as evident in fiscal deficits and inflation rates. The initial reaction to liberalisation was therefore large-scale capital flight.

However, the sharp depreciation gave new impetus to the reform pro-

Fig 6.1e: Zimbabwe: Real exchange rate and capital flows



cess and led to rapid moves in the direction of liberalisation. In Tanzania, for example, the government enacted a series of reforms in February 1992. It created a second “window” for foreign exchange by allowing the establishment of private foreign exchange bureaux, freed the holding of foreign exchange by residents and eased procedures for foreign exchange receipts and payments. In Uganda, a string of reforms culminated in November 1993, when the introduction of the interbank foreign exchange market completed the transition to a unified foreign exchange market.

Having liberalised current account transactions by 1993, the project countries proceeded to liberalise the capital account but, as discussed in Chapter 7, using sharply divergent strategies.

With these reforms to the current and then capital account came a determination to allow the exchange rate to adjust to changing market conditions. All countries adopted floating exchange rate regimes, accompanied by increasingly flexible and market-sensitive strategies for intervention, as discussed below.

These regimes have made the exchange rate more sensitive to shifts in capital flows — but through the real more than the nominal exchange rate. Figures 6.1a-e show the annual changes in private capital flows and the real exchange rate in the five countries. While experience varies across countries, there are clear periods when capital flows had significant effects on the real exchange rate. One example is South Africa in 1995. Following heavy capital outflows in early 1994, South Africa experienced a surge in capital inflows following the successful democratic elections in April. The real exchange rate, which fell slightly in 1994, increased significantly in 1995.

There has also been a positive relationship between inflows and the nominal exchange rate in Zimbabwe from 1990, and especially after 1994 when the authorities adopted a floating rate. Strong capital inflows in the first half of 1994 led to an appreciation of almost 6% in the nominal exchange rate; in the second half of the year capital outflows led to a 3% depreciation. The Zimbabwean experience illustrates a complication in assessing the impact of capital inflows on the exchange rate, and the balance of payments more generally: namely, the difficulty of assessing the relative impact of private and official capital flows. In Zimbabwe, as in all the other countries except South Africa, balance of payments support has been an important component of donor assistance. Thus, the authorities' ability to intervene in the foreign exchange market to influence the exchange rate is related most directly to official, rather than private, capital inflows. For this reason, the level of official flows may have, or be perceived to have, a more direct impact on the exchange rate than private flows. On the other hand, the lower volatility of official flows may work in

the opposite direction (Kufeni *et al*, 1997). In any event, evidence suggests that Zimbabwe's exchange rate stability and liberalisation in the early 1990s were dependent on strong private inflows. The subsequent loss of most of its balance of payments support in the mid-1990s has pushed authorities to the point of confiscating private flows to attempt to intervene on the exchange rate.

The experiences of Tanzania and Uganda in 1994-5 provide further examples of the impact of private capital flows on the real exchange rate. Both countries experienced sharp rises in capital inflows and the real exchange rate in 1994 and 1995. However, they also illustrate another intervening factor. Coffee is the principal export of both countries and, during 1994-5, there was an increase in world market prices of 15%. This price boom led to a sharp rise in export earnings and in capital flows. The change in the terms of trade was critical to the appreciation of the real exchange rate. The link between the terms of trade and capital inflows is also evident in Zambia, where there is a strong correlation between traditional exports and FDI as well as net short-term debt.

Nevertheless, it is possible due to the segmentation of markets to identify clear effects of private capital flows on the exchange rate in both Tanzania and Uganda. In both countries, large amounts of private capital flows have flowed through the bureaux market, which has been the benchmark for the foreign exchange market in most of the 1990s. The bulk of flows through this market were not export proceeds but private flows. Moreover, even the repatriation of export proceeds represents in a sense private flows: until recent years, they would have been kept outside the country or under-reported. For Tanzania, statistical tests taking into account changes in the terms of trade have found a strong effect on the real exchange rate of changes in private capital flows. Using the long-term concept of the real equilibrium exchange rate (REER) and data for the period 1968 to 1995, the results in Kimei *et al* (1997) suggest that a (permanent) 1% increase in net capital inflows may lead to an appreciation of 4%.

Private capital flows can also have a direct impact on exports and imports. The effects on exports have, in general, been minimal. While authorities acknowledge the desirability of FDI in the export sector, such investment has been small — especially in non-traditional products. In Zambia, for example, there is a strong positive relationship between capital inflows, especially FDI, and traditional exports (copper, cobalt, zinc), but not with non-traditional exports (agricultural products, processed food, semi-precious stones, engineering products). This suggests that private flows, including FDI have so far not been sufficiently aimed towards this sub-sector (Matale *et al*, 1997:52). Too often, inward investment is instead

aimed at producing consumer durables, such as luxury cars, for the domestic market. There have, however, been some exceptions to this pattern, such as the cut flower industry in Zimbabwe.

Generally, private flows and imports have had a strong positive relationship. This has been unambiguous in Tanzania (Kimei *et al*, 1997) and Uganda, where imports have increased substantially as a result of FDI and private transfers (Kasekende *et al*, 1997:27, 28), and in Zimbabwe with total imports almost doubling from \$1.3bn in 1989 to \$2.2bn in 1996 (Kufeni *et al*, 1997:3) against a background of sharply higher private capital inflows. Zambian tests found links only between FDI and related capital goods imports — data were unavailable to test the anticipated effects of short-term suppliers lines of credit (Matale *et al*, 1997:49).

The effects on imports are one of the important transmission mechanisms via which capital flows influence economic development and growth. In all of these countries, the balance of payments has long been a constraint on growth. As small open economies with relatively high import intensities, a significant increase in the rate of growth tends to induce a sharp rise in imports. This mechanism is particularly important in South Africa, where increases in fixed investment have strong effects on import levels due to the large imported component of investments in capital equipment and machinery (Khatri *et al*, 1997).

This mechanism has also contributed in South Africa to an inverse relationship between the current account balance and capital movements. A rise in economic activity has tended to drive the current account into deficit — due to the increase in imports, and the tendency of exporters to switch back to the local market when demand is sufficiently high. At the same time, higher imports are usually associated with greater use of foreign trade finance. This positive effect on the capital account is typically reinforced by the higher interest rates that result as liquidity conditions tighten. Higher rates further increase capital inflows as importers and exporters switch from domestic to offshore sources of trade finance, domestic companies turn to foreign finance for new investments and foreign investors are attracted by higher rates of return (Khatri *et al*, 1997).

Overall, the existence of a positive correlation between terms of trade changes and capital inflows can lead to strong boom and bust cycles —for example in Tanzania and Uganda in 1994-95 (Kimei *et al*, 1997:32; Kasekende *et al*, 1997). The result has been pronounced volatility in the overall balance of payments and the economy more generally, with important implications for macroeconomic management, as discussed in Chapter 7. Capital flows have, however, been largely counter-cyclical — inversely correlated with terms of trade — in South Africa (Khatri *et al*, 1997:3- 13). The same pattern is evident in Zimbabwe, where high export demand has

resulted in higher inflows, especially of short-term bank loans. This effect is strengthened due to Zimbabwe's "relatively thin capital and financial markets, which have been characterised by a high cost of borrowing, hence making cheaper foreign credit lines more attractive" (Kufeni *et al*, 1997:47-8).

The effect of private capital flows on foreign exchange reserves has been mixed and variable across countries. Official and private flows combined have had a strong positive effect on reserves in Tanzania and Uganda. It is difficult to disaggregate the relative importance of each, but the increase in FDI is believed to have been the key factor in Tanzania (Kimei *et al*, 1997:30), whereas the Ugandans see donor flows as central (Kasekende *et al*, 1997:28). In Zimbabwe, however, private capital flows have certainly influenced reserves, though the relationship broke down in 1991-3 (Kufeni *et al*, 1997:50-51). In South Africa, this effect has varied over time. In the 1960s and 1970s, it was typically muted, due to the inverse relationship between the current account balance and net capital flows. In recent years, however, it has been strong and positive, with periods of capital inflows since 1994 being characterised by sharp rises in foreign reserves (Khatri *et al*, 1997:3-5).

In all countries, the effects of capital flows on the exchange rate and the level of reserves are heavily influenced by the authorities' intervention strategies in the foreign exchange market, as discussed in Chapter 7. In Tanzania, Uganda and Zambia, the less developed state of money and capital markets has severely circumscribed the scope for sterilisation of capital flows, particularly because establishing and maintaining macroeconomic stability is the overriding objective of economic policy. This leads to relatively greater pressure to appreciate the exchange rate in order to adjust to capital flows. While governments would like to vary their policy response according to how investment-oriented and irreversible capital flows are perceived to be, such information is not available. In this light, macroeconomic stability takes precedence over concerns about decreasing competitiveness.

For all countries except South Africa, the result — as evident in Figures 6.1a-e — has been a significant rise in the real exchange rate over the period 1993 to 1997. Kasekende *et al* (1997:29) estimate that in Uganda the real exchange rate appreciated by more than 11% between 1994 and 1997. In Tanzania, Kimei *et al* (1997:43) estimate that the exchange rate became overvalued from 1994, with the cumulative overvaluation reaching about 20% by the end of 1996.

6.2 Savings, Investment and Growth

The second important set of effects has been on the level of savings and investment. While the evidence available from the project countries suggests some tentative findings with respect to investment and growth, relatively little can be said about the effects on savings.

This is, in part, the result of weaknesses in the economic analysis of savings, whose macroeconomic determinants continue to be poorly understood. But it is mainly a product of the weakness of available data. Savings statistics in national accounts data are typically residuals, and thus are subject to the cumulative effect of measurement errors in consumer expenditure and income. The problem is, of course, worse when these errors are large, as we would expect in the less developed countries that are the focus of this study.

In most countries, the data suggest that capital inflows have supplemented domestic savings (e.g. Khatri *et al*, 1997:3-11), but no clear pattern emerges from the studies on the positive or negative impacts of capital flows on savings. Tanzania finds a negative correlation between FDI and domestic savings since 1991 (Kimei *et al*, 1997:25-6). Zambia finds a positive correlation between FDI and private consumption, although the direct correlation with domestic savings is insignificant (Matale *et al*, 1997:50-1). However, the findings of Kasekende *et al* (1997:32) for Uganda are likely to hold for most of the region. They find it impossible to identify the impact of capital flows on domestic savings, as it is swamped by the negative effects on savings of extremely high inflation and a weak financial system and, more recently, by the positive effects of public sector savings. The switch in 1992/3 from fiscal deficits to fiscal surpluses has contributed to a rise in gross national savings from 0.3% of GDP in 1991/2 to 7.6% in 1995/6. The effects on savings of these factors — inflation, financial sector development and, especially, public sector savings — have in every country dominated the effects of private flows.

By contrast, the impact of capital flows on investment has been consistently positive, although varying considerably in degree. In Tanzania, the effect on gross fixed capital formation has been positive, but weak, since 1991: but available data are not sufficient to distinguish these effects from those of other factors including the National Investment Protection and Promotion Act (1991), increased political stability, the successful privatisation programme, export retention schemes for foreign exchange, own-funded imports, and a conducive exchange rate regime (Kimei *et al*, 1997:26-7).

In Uganda, significant growth in private investment as a share of GDP in part reflects the surge in private capital inflows and transfers. The

growth in sectors such as manufacturing and construction suggests that a significant fraction of inflows have been used to finance investment rather than consumption. Official inflows have also been an important influence (Kasekende *et al.*, 1997:32-3).

In Zambia, gross domestic investment is positively correlated with FDI. Although it was not possible to disaggregate public and private investment, the insignificant level of public investment over the period means that the relationship is primarily with private investment (Matale *et al.*, 1997:38, 51).

The causality in this relationship is an important issue. The role of private capital flows in increasing the supply of funds for investment — and, in the case of FDI, in increasing investment directly — suggests that increases in capital flows may lead to higher domestic investment. Equally, however, a rise in domestic investment may attract higher capital inflows by signalling an increase in confidence among domestic investors (who are presumed to have superior “insider” access to information on the economy and economic policy) or simply by leading to a rise in imports of capital goods and hence in related external financing. Finally, changes in other factors — such as interest rates and rates of return more generally as well as other aspects of the economic and policy environment — may cause both domestic and foreign investment to change, leading to a positive correlation despite the absence of any causal relationship.

In Zimbabwe, the positive relationship between capital flows and domestic investment combined with the absence of causality suggests that the third explanation advanced above — of common variables influencing both capital flows and domestic investment — may be the most appropriate (Kufeni *et al.*, 1997).

In South Africa, however, the causality appears to have run in different directions during different periods. Between 1961 and 1984, peaks and troughs in net capital movements tended to follow, with a lag of up to 12 months, peaks and troughs in domestic fixed investment, suggesting that domestic investment may have been attracting capital inflows. Between 1984 and 1994, however, exogenous political factors (sanctions) led to a period of sustained capital outflows. The outflows were an important contributory factor to a decline in the growth performance of the economy and a collapse in domestic investment from 25% of GDP in 1984 to 15.5% in 1993. Although part of this decline reflected sharp cutbacks in public investment, cutbacks in private, especially manufacturing, investment were equally significant (Khatri *et al.*, 1997:3-9).

The generally positive impact of capital inflows on investment, imports and exports suggests that the impact on growth has also been positive — although the long-term effect may be less healthy if, as in Zambia, capital inflows are increasing consumption (Matale *et al.*, 1997:50).

The natural experiment afforded by the so-called financial sanctions on South Africa between 1985 and 1994 provides strong evidence of the direct impact of capital flows on growth. The sustained capital outflows during this period led to an unprecedented decline of more than 12% in real GDP per capita. Conversely, the role of capital inflows in funding capital (and intermediate) imports and investment is found by Khatri *et al* (1997:3-12) to have been “an important contributing factor to the high economic growth of the 1960s and 1970s”. The outflow of capital in the late 1980s and early 1990s curtailed growth both through direct effects on investment and by forcing the authorities to apply restrictive policy measures.

A similarly strong relationship between capital inflows and growth is identified in Uganda, where the role of external savings in financing investment is again emphasised. In this case, however, a crucial aspect of the impact of capital flows on growth is the specific role of access to coffee prefinance from foreign sources, a factor identified by Kasekende *et al* (1997:33) as “critical to the recovery in the coffee industry in Uganda”.

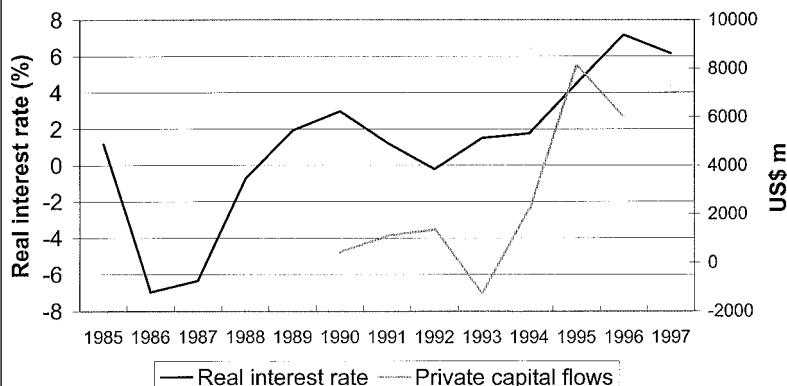
Another mechanism connecting capital inflows and growth is the role of FDI in facilitating the transfer of modern technology and improving managerial and technical skills. Although this factor was cited in most studies, evidence was not available to test its importance.

6.3 Monetary Policy and Financial Markets

The sharp rise in capital inflows — and occasional outflows — in the 1990s has had a profound impact on monetary conditions, monetary policy and financial markets in all the project countries. The rise in capital flows has been associated with concerted programmes of financial liberalisation and macroeconomic stabilisation, which have profoundly changed in the macroeconomic environment. Moreover, as a result of the increase in international capital flows, changes in net foreign assets have become a more important — and, in many cases, dominant — determinant of changes in the money supply. Capital flows influence inflation and the macroeconomy through their effects not only on interest rates, but also on exchange rates. Finally, the increasing volatility of capital flows has had implications for monetary conditions and for financial markets more generally.

The most evident result has been the sea change in real interest rates. As shown in Figures 6.2a-e, real interest rates were persistently negative in the 1980s in all countries. Liberalisation in the early 1990s led to sharp rises and sustained positive real interest rates in virtually all countries. This is particularly evident in the 1993 interest rate rises in Zambia, Zimbabwe

Fig 6.2a: South Africa: Real interest rates and capital flows



and Uganda. The only partial exception to this pattern is Tanzania, which has seen pronounced volatility and a return to negative real interest rates in 1997-8: but this reflects the particular "captive" nature of Tanzania's Treasury Bill market, which reduced the market orientation of the T-Bill rate.

While the shift from negative to positive real interest rates was a necessary and desired outcome of liberalisation and stabilisation, the unexpected persistence of very high real interest rates, in most countries, has raised

Fig 6.2b: Tanzania: Real interest rates and capital flows

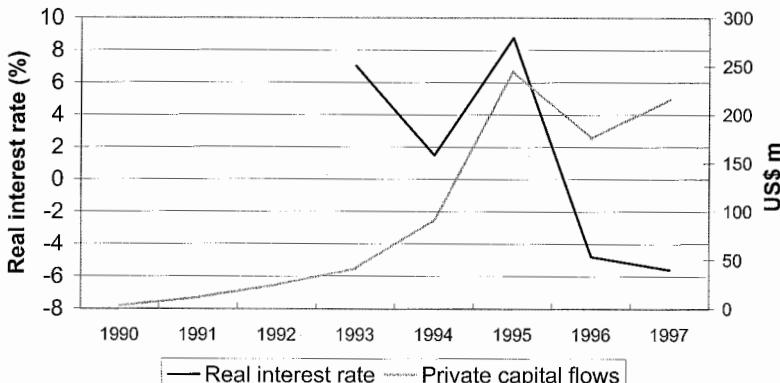
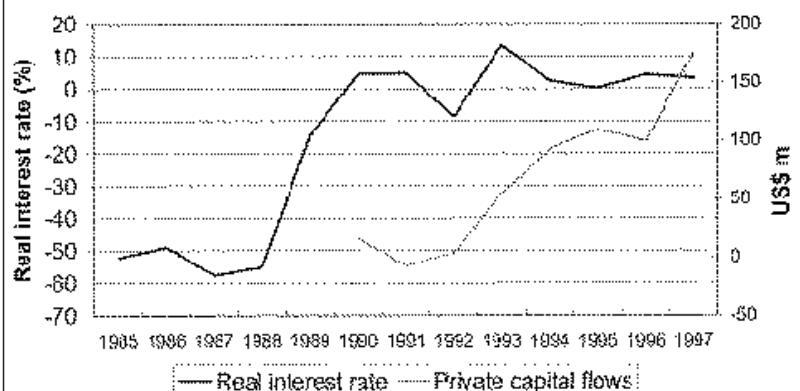


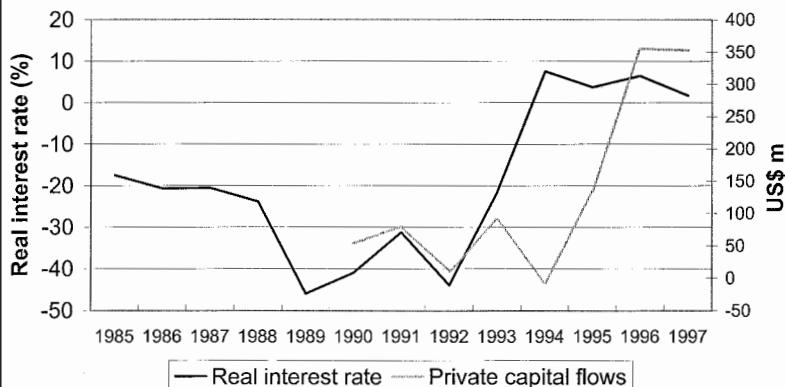
Fig 6.2c: Uganda: Real interest rates and capital flows



questions throughout the region concerning the potential costs associated with the new openness to private capital flows. It is increasingly evident — not least in the aftermath of the Asian Crisis — that the heightened role now played by private capital flows in domestic markets, and the volatility of these flows, is a key factor behind the persistently high real interest rates.

The increase in private capital flows has also affected the volatility of interest rates. The effects of changing capital flows on interest rates depend importantly on the policy stance adopted by the authorities, as discussed further in Chapter 7, as well as on the structure of domestic capital markets. In countries such as Tanzania and Uganda, where concerns about macroeconomic stability have led the authorities more readily to accept an appreciation of the real exchange rate, swings in capital flows have had relatively limited effects on the volatility of domestic interest rates. The link between capital flows and domestic interest rates is strongest in countries, such as South Africa and Zimbabwe, where capital markets are most developed. In Zimbabwe, Kufeni *et al* (1997:53) find evidence of a strong causal link between capital inflows and interest rates. In South Africa, the discount rate system of monetary policy that was followed until March 1998 meant that short-term interest rates were effectively tied to the "Bank rate" set by the central bank, and hence were unresponsive to capital flows. Long-term interest rates, however, have been highly responsive to international capital movements. The surge in inflows during 1995 led to a large fall in the yields on long-term government stock (Van der Merwe, 1998), and the outflows after the exchange rate crisis in February 1996 raised

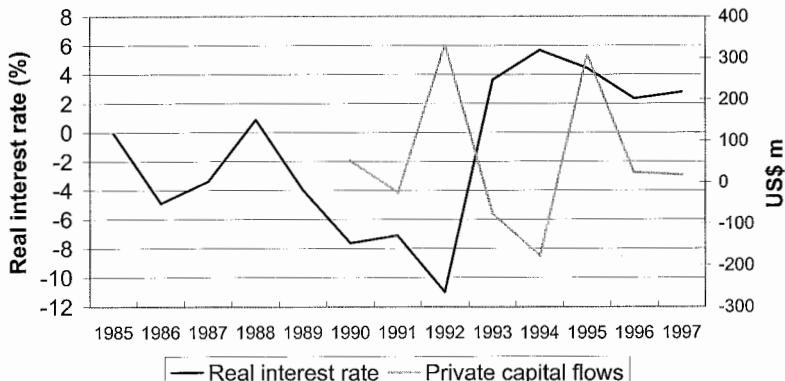
Fig 6.2d: Zambia: Real interest rates and capital flows



yields sharply again.

Another striking recent finding (by Ncube *et al*, 1996) is that international capital movements in South Africa have affected the correlation of domestic interest rates with US interest rates. In the first quarter of 1996, for example, when net foreign purchases on the South African bond market were at near record levels, the correlation between domestic bond yields and the yields on US Treasury bonds was 95%. When, however, foreign purchases collapsed in the second quarter, the correlation with US

Fig 6.2e: Zimbabwe: Real interest rates and capital flows



interest rates did too — dropping to 4%.

Capital flows also affect monetary conditions through the increased role of net foreign assets in determining changes in the money supply. This is typified by the experience of Uganda, where the increase in net foreign assets has replaced net domestic asset growth as the principal cause of broad money expansion (Kasekende *et al*, 1997:30). In Zimbabwe, too, increases in capital inflows have been associated with increased growth in monetary aggregates, with clear causality from capital flows to aggregates. Money supply growth is, however, more volatile than capital flows, pointing to the continuing importance of domestic factors (Kufeni *et al*, 1997:53).

In South Africa, capital movements have sometimes stabilised the growth in the money supply due to the inverse relationship between the current account balance and net capital flows. Often, however, capital movements have accentuated changes in the rate of increase of monetary aggregates. Since June 1993, when the monetary fluctuations resulting from government financing activities were essentially eliminated by the creation of government “tax and loan” accounts with commercial banks, changes in net foreign assets and in notes and coin in circulation have been the main causes of changes in domestic liquidity. For much of this period, the increased level and volatility of private capital flows has meant that changes in net foreign assets have dominated monetary aggregates (Khatri *et al*, 1997:3-16,18). A striking example of volatility came at the end of 1995, when fluctuating international capital flows resulted in an increase of R5.5 billion of net foreign assets in the fourth quarter of 1995, followed by a decrease of R4.4 billion in the first quarter of 1996 — a swing of 2.2% of GDP.

Capital flows also affect monetary aggregates via changes in domestic credit. This occurs when the flows are the result of domestic producers switching between foreign and domestic sources of finance, typically because of changing interest rates (in domestic and foreign markets) and interest rate expectations. While the depth and liquidity of South African financial markets make this particularly evident in South Africa, it has occurred to varying degrees in all countries.

Finally, capital flows affect monetary conditions, and hence inflationary pressures, via effects on the exchange rate. A rising exchange rate slows the economy, while a depreciating exchange rate will generally stimulate the economy. The rising exchange rates in Tanzania and Uganda during the recent capital inflows helped to offset the potential inflationary pressures of the inflows. In the case of Uganda, the rise has been sufficient, in combination with the tight fiscal stance, to contain inflationary pressures. In Tanzania, private capital flows exerted upward pressure on inflation in

1994-5, suggesting that the dampening effect of the exchange rate appreciation was insufficient.

Overall, there is no doubt that the most important factor behind the recent increased volatility in exchange rates and interest rates in the project countries is the shift to more flexible, market-determined exchange rates and interest rates. Nevertheless, the analysis in the country studies suggests that capital flows have accentuated this volatility. A series of banking sector crises in Tanzania, Uganda and Zambia has resulted from this volatility. Although Africa has, to date, escaped the acute financial instability experienced in Mexico in 1994-5 and in Asia in 1997-8, the narrow, illiquid markets found in most countries are ill-suited to the task of absorbing the large swings in capital flows that have occurred in recent years. The non-existence or narrowness of capital markets, in particular, have made these countries more vulnerable to asset price bubbles and the associated risk of crashes. Even in South Africa, with the deepest and most liquid capital markets in the region, the swings in capital flows experienced since 1994 have dominated the macroeconomic policy environment. It is to these policy challenges that we now turn.

Chapter 7 Policy Responses

Jonathan Leape

While private capital inflows are now being actively encouraged in many African countries, the analysis in the previous chapter suggests that such flows can have negative effects on both the financial and the real sectors of the economy, while the benefits may prove hard to realise.

A key determinant of the balance between these different effects is the policy strategy adopted by government. Where capital flows are large relative to the economy — as in all of the countries studied here — such strategies are crucial to limiting the destabilising effects of capital inflows, and maximising their contribution to growth and investment.

While achieving a variety of macroeconomic or other objectives may represent the primary justification for government intervention, governments increasingly recognise that they have an implicit (or even explicit) liability for servicing private capital flows. The Asian crisis of 1997 shows that this liability constitutes a powerful argument for governments to adopt an active and broad-ranging approach in responding to cross-border private capital flows.

Appropriate policies depend on the availability and flexibility of various instruments, the nature of domestic financial markets, the scale and composition of inflows, the prevailing policy environment and the extent of policymakers' credibility.

In theory, decisions should be guided by the causes and effects of flows. The more they are competitiveness-enhancing and the product of sustainable domestic ("pull") factors, the more justified is an appreciation of the currency. Conversely, the more the inflows are consumption-oriented and the product of short-term, reversible international ("push") factors, the more justified is an accumulation of foreign reserves.

In practice, however, the causes of capital flows are difficult to identify. In this light, other balance of payments and macroeconomic policy objectives predominate and policy is likely to focus on containing vulnerability to possible outflows, and minimising risks of overheating, real exchange rate appreciation, and unsustainable consumption growth.

The key policy options are foreign exchange market intervention, capital account liberalisation, monetary policy and sterilisation, fiscal policy, and financial sector reform and development.

7.1 Foreign Exchange Intervention and Exchange Rate Policy

The most immediate challenge to the authorities has been how to manage the exchange rate and foreign reserves. Faced, for example, by a capital account surplus that outstrips any deficit on the current account, the authorities have to decide whether, or to what extent, to allow an appreciation of the exchange rate or to accumulate foreign exchange reserves so as to limit appreciation.

The two polar policy responses are fixed and floating exchange rates. Under fixed or pegged exchange rates, the central bank is formally committed to acquiring all foreign exchange assets which flow into the economy (in exchange for domestic assets). Under a pure floating exchange rate, the central bank undertakes no foreign exchange intervention and accumulates no reserves. Any surplus on the capital account must therefore be matched by a deficit on the current account, and equilibrium between the two is achieved through an appreciation of the exchange rate.

In the 1980s, many African countries were operating a fixed exchange rate — although typically in a situation of multiple exchange rates as a result of the emergence of parallel markets in foreign exchange. By the mid-1990s, almost all — including all five countries studied here — had unified the foreign exchange market, and shifted to a floating regime. In most countries the shift was gradual, albeit with identifiable milestones. In Tanzania and Zimbabwe, reforms culminated in an official shift from an administered exchange rate to a floating regime (in mid-1993 and early 1994, respectively).

Balance of payments volatility — due, not least, to the increasing volatility of private capital flows — was perceived by the authorities to leave little choice but flexible rates. It is, however, far from clear that countries have reaped the expected benefits. A recent study by economists at the InterAmerican Development Bank suggests that floating exchange rates in the 1990s in some Latin American countries has not enabled an independent monetary policy (Hausmann *et al*, 1999). Moreover, flexible exchange rates have caused higher real interest rates, smaller financial systems and increased sensitivity of domestic interest rates to changes in international (especially US) rates. These findings echo the experience in Africa. Flexible exchange rates have not yielded greater independence for domestic interest rates: monetary policy remains largely determined by the balance of payments. At the same time, real interest rates have risen, with often severe adverse effects for domestic investment and growth. And in South Africa, where capital markets are most developed, South African interest rates have been increasingly sensitive to international (US) rates (see Chapter 6). Taken together, these effects suggest that the question of

the appropriate exchange rate regime for African countries remains open.

None of these countries has a “pure” floating exchange rate, opting instead for the common intermediate case of a “managed” float — in which the authorities must decide on the appropriate trade-off between an appreciation of the currency (the default response under a pure float) and an accumulation of foreign reserves (the default response under a fixed regime). An appreciation of the exchange rate may facilitate foreign debt service and keep downward pressure on import prices, but at the cost of undermining competitiveness and growth. On the other hand, an increase in foreign reserves may prevent any fall in competitiveness, but at the cost of unacceptable inflationary pressures (or excessively costly sterilisation, as discussed below). The project countries have followed different strategies in making these trade-offs.

A further complication arises from the fact that traditional exports are priced in US dollars while most non-traditional exports and, especially, most imports are priced in European and regional currencies. This asymmetry implies that any simple measure of the real exchange rate does not fully capture a country’s policy objectives (Jenkins and Thomas, 1999).

The scale and volatility of capital flows has led governments to intervene more actively in the foreign exchange market, to manage inflows or to smooth outflows. Deciding on the appropriate exchange rate strategy requires difficult trade-offs. Policymakers in project countries have incomplete information to make these judgements. Nominal appreciation pre-empts inflationary pressure, but excessive appreciation risks undermining the current account and sowing the seeds for future balance of payments crises, hitting non-traditional exporters and import competing industries hardest. On the other hand, intervention to prevent appreciation can provide an important foreign reserves cushion to help offset unexpected outflows, but substantial intervention quickly outstrips the authorities’ capacity for sterilisation (see below) leading to destabilising inflation. Given the central role of exchange rate depreciation in adjustment programmes and export promotion, many countries treat appreciation as a serious problem.

In Uganda and Zimbabwe, the central banks have intervened to smooth short-term fluctuations, and to moderate large appreciations (e.g., Kasekende *et al*, 1997:21). In Tanzania, the government has intervened heavily, mostly to prevent depreciation. Yet this has undermined external competitiveness with a 20% real appreciation of the currency in 1994-6 (Kimei *et al*, 1997:38-9).

In Zambia, the exchange rate is a focal point of policy, given high import dependency, and severe external indebtedness. Supply of foreign exchange is vulnerable and unstable as most is derived from copper export receipts and donor aid. Demand, however, is consistently strong and not

responsive to policy measures. This means that the exchange rate is the principal mechanism matching supply with demand. Rapidly-growing foreign exchange accounts held by residents have not been exchange rate sensitive in the short-term, because they are mostly importing firms building amounts for imports, and international organisations operating in Zambia (Matale *et al*, 1997:25-6). The authorities also recognise that the exchange rate is important to competitiveness with Zambia's main trading partners but, as shown in Figure 6.1d, they have had mixed success, as the real exchange rate has been volatile and overall has appreciated since 1992.

South Africa's approach differs primarily in the greater scope for intervention afforded by its more developed financial markets. Two features of South Africa's intervention strategy deserve particular attention: the forward market and what might be called "potential" intervention.

By undertaking forward transactions with authorised foreign exchange dealers or by adjusting its own forward rates when the Reserve Bank has itself quoted to the market, the Bank can increase or decrease the supply of dollars to the market (without affecting gross or net foreign reserves). Alternatively, the Bank can undertake foreign exchange swaps — selling forward US dollars to a foreign exchange dealer and buying spot US dollars from the dealer (or vice versa) — to increase or decrease its (spot) foreign exchange reserves. The net effect of a swap transaction is to transfer foreign exchange from the banking sector to the Reserve Bank (or vice versa). For a detailed discussion of these issues see Kahn and Leape (1996) and especially Leape (1998a).

Such swaps are sometimes initiated by the Reserve Bank to fund its intervention in the spot market (by, say, selling US dollars to support the Rand) or to boost its foreign reserves. This is an example of "active" intervention in the forward market. The Reserve Bank also intervenes "passively" in the forward market, when transactions initiated by foreign exchange dealers (reflecting, in turn, forward transactions by private firms and banks) result in a change to the Bank's net forward position. In this case, the decision to allow an increase in forward exposure is a decision to intervene — passively — in the market.

As shown in Box 7.1, South Africa's use of the forward market has dramatically enhanced its ability to intervene in foreign exchange markets, which would otherwise have been severely constrained by the low level of reserves. Forward market intervention has dwarfed spot market intervention. For example, in the rand crisis of 1996, intervention in the forward market exceeded \$9 billion, compared to just \$1.6 billion from (spot) foreign reserves. This has had undoubted benefits by enabling the Bank to maintain a liquid foreign exchange market — even in times of crisis — and to dampen the volatility of the exchange rate. But, the availability of such a

“deep pocket” has also created an incentive for excessive intervention. In addition, the Bank’s large resulting forward liabilities have, at times, destabilised the foreign exchange market. These liabilities (the excess of forward sales over forward purchases) have averaged around one-fifth of GDP since 1987, seven times as high as average gross foreign reserves.

Box 7.1 South African Intervention in the Foreign Exchange Market

Intervention in the foreign exchange market in response to capital flows enables authorities to influence the stability of the real exchange rate, liquidity in the foreign exchange market, foreign reserves levels, and inflation. However, attaching a single policy instrument to multiple objectives inevitably leads to conflicts, forcing authorities to make trade-offs.

In the wake of huge capital inflows in 1995 for example, the South African authorities reached the point where further intervention to prevent excessive exchange rate appreciation risked unacceptable inflationary pressure. On the other hand, limiting intervention to moderate its inflationary effects may compromise real exchange rate targets, and efforts to increase foreign reserves. In practice, while intervention in the spot foreign exchange market is straightforward, Leape (1998a) shows that the South African authorities have preferred to intervene to a far greater extent in the forward market (see Figure 7.1). Indeed, over the period 1987 to 1997, changes in the net oversold forward position (total forward sales by the central bank less forward purchases) accounted for 90% of changes in the overall net open position (which reflect intervention on forward and spot markets together).

The significance of forward market intervention is shown clearly also in Table 7.1, which maps the key episodes of capital inflows and outflows since 1994. The first episode saw downward pressure on the Rand as an outcome of political uncertainties in the election period, and the Reserve Bank intervened in the spot and forward markets. In the second episode, strong inflows enabled the authorities to significantly reduce the oversold position on the forward book, and to minimise the adverse effects of excessive accumulation of reserves. In the third episode, short-term capital flowed out on a large scale, and again the authorities used the forward market well in excess of the spot market while in the fourth, increases in net reserves following a surge in inflows were again more than offset by significantly greater decline in the oversold forward

position. The fifth episode was triggered by the collapses in Russia and Indonesia in May 1998, which led to large capital outflows. Thus during periods of capital inflows (Episodes 2 and 4), forward market intervention served to minimise macroeconomic disruption that would have occurred if intervention was limited to accumulation of spot foreign reserves — or if the exchange rate had been allowed to rise sharply. During periods of capital outflows (Episodes 1, 3 and 5), the forward market helped at a time when low foreign exchange reserves limited the scope for intervention in the spot market. Indeed, Table 7.1 shows that, in the most recent two of these outflow episodes, intervention on the forward market has outstripped that on the spot market by a factor of almost five to one.

The Reserve Bank's use of "potential intervention" has also been significant. In early 1995 and again in mid 1997, when reserves were low enough to threaten the credibility of SARB's aims to maintain stable real exchange rate, and liquidity in the foreign exchange market, SARB sent signals to the market that the central bank has access to extensive credit lines from international banks, and hence has greater capacity (potential) to achieve its aims through intervention.

Source: Leape (1998a)

Table 7.1 SARB Intervention in Spot and Forward Markets
(millions of dollars)

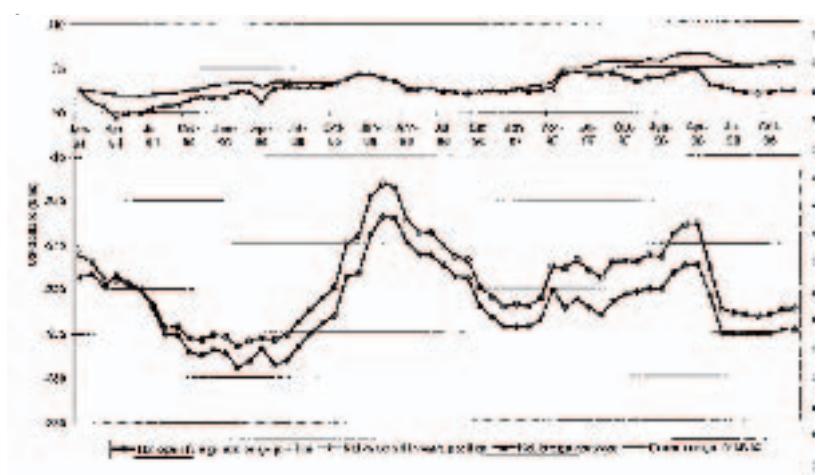
	Change in net oversold forward position	Change in net foreign reserves position
Episode 1: Jan 1994 - Apr 1994	-1,050	-1,993
Episode 2: Jan 1995 - Jan 1996	13,259	2,368
Episode 3: Feb 1996 - Oct 1996	-9,209	-1,610
Episode 4: Feb 1997 - Feb 1998	5,155	2,097
Episode 5: May 1998 - Jun 1998	-7,814	-1,884

Source:

Leape (1998a); updated using SARB data.

A second important feature of South Africa's recent strategy has been "potential" intervention. The Reserve Bank has repeatedly complemented intervention in spot and forward markets with signals of its ability and willingness to intervene, if necessary. In particular, it has used international credit lines — that is, potential borrowed reserves — as an instrument for influencing the markets. The role of "potential" reserves in intervention

Figure 7.1: Net foreign exchange position of the South African Reserve Bank



"is created by the fact that the foreign exchange markets... are driven by expectations. Foreign exchange transactions undertaken today will be heavily influenced by agents' expectations of future exchange rates. And just as the various participants in the foreign exchange markets will attempt to identify possible future influences on the exchange rate coming from the current and capital accounts, they will also take account of expected intervention by the central bank" (Leape, 1998a:38).

In this context, the greater a central bank's access to international credit lines, the greater will be its perceived ability to intervene, and the more weight will be given to those aims by agents in the market. In the South African context, persistently low foreign reserves have threatened to undermine the Reserve Bank's credibility in intending to stabilise the real exchange rate and maintain a liquid foreign exchange market. This was particularly true when the government was proposing to liberalise exchange controls — notably the commitment in late 1994 to abolishing the financial rand (dual exchange rate) system. Foreign reserves remained below two months' import cover — less than the three months' the Reserve Bank had set as a precondition for further liberalisation. Therefore the Bank's strategy in early 1995 was to inform the markets that it had arranged substantial international credit lines which, together with existing gross reserves, took the total "potential" reserves well above three months' cover (Leape, 1998a:37-8).

7.2 Capital Account Liberalisation

While the foreign exchange intervention discussed above, and the sterilisation measures discussed below, focus on mitigating the adverse effects (and promoting the positive effects) of capital flows, capital account liberalisation allows countries to work to change the flows. The liberalisation itself, and the way in which it is undertaken, can influence the level, composition and volatility of capital flows. Liberalisation of controls on non-residents is likely to lead to increased inflows — although the short-term effect may be the reverse if there is pent-up demand for foreign exchange (e.g. to repatriate earnings). Liberalisation of controls on residents can provoke excessive foreign inflows through increased outflows by residents, but may also facilitate the return of flight capital. The selective maintenance — or imposition — of controls can alter the nature and level of foreign inflows.

The focus to date in project countries has been on liberalising the capital controls used historically to protect the balance of payments. Increasingly, however, they are considering the potential role of measures such as taxation of inflows and special reserve requirements on foreign credits as valuable instruments for managing the macroeconomic impact of swings in capital flows. All countries are liberalising their capital accounts, but there is active debate on appropriate speed and sequencing and on the final objective. The principal regulatory issue is how best to ensure that mechanisms are in place, when controls are lifted, to limit the systemic risk associated with foreign exchange transactions by resident banks and companies. The Asian crisis illustrated how capital controls have a regulatory function which goes far beyond protecting the balance of payments. The crisis also highlighted the continuing role for government intervention arising from the implicit (and sometimes explicit) government guarantees created by cross-border capital flows.

Liberalisation of controls also requires countries to take steps to protect the tax base. In the corporate sector, countries must introduce “thin capitalisation” and “transfer pricing” regulations to prevent profit shifting, while being careful not to discourage new investment. Such regulations, common in OECD countries, prevent companies from using corporation tax, in particular the tax deductibility of interest payments — to reduce or eliminate their tax payments in host countries. In the personal sector, tax rules for investments made abroad require attention.

The sequencing, timing, speed, consistency and credibility of reforms are critical issues. The regulatory roles implicitly performed by capital controls indicate that early liberalisation of the capital account may have a devastating impact on the financial sector and, to a lesser extent, on the tax

base. It is widely agreed therefore that capital account liberalisation should follow the current account and go hand in hand with regulatory reform, and should not be undertaken prematurely in countries with weak domestic financial systems (see, for example, the literature survey in Kasekende and Martin, 1995). Capital account liberalisation is best undertaken gradually, focussing first on FDI and trade-related flows (Fischer and Reisen, 1992). Consistency of macroeconomic, financial and exchange rate policy is vital above all (see, for example, Schadler *et al*, 1993).

One of the most striking findings to emerge from the country studies is the extent to which current account liberalisation led to a *de facto* liberalisation of the capital account. This is most evident in Uganda and Tanzania, where Kasekende *et al* (1997) and Kimei *et al* (1997) find evidence of significant capital inflows coming through the porous current account and, in particular, through foreign exchange bureaux. The same pattern was evident earlier in South Africa, where capital flight via the liberalised current account was substantial (see, for example, Kahn, 1991).

From 1993, countries have been liberalising the capital account, but the timing and sequencing have diverged tremendously. Zambia adopted a "big bang" approach, completely liberalising in 1995. Its decision was driven primarily by a desire to signal government commitment to liberalisation. The government was convinced that controls were preventing private capital inflows, and judged that a gradual approach would lead investors to wait and see whether reforms persisted. Initially, the liberalisation provoked large outflows, including repatriations already in the pipeline: many international bankers used the chance to test government commitment to reform. Only when reforms persisted did inflows begin to resume, highlighting the importance of government credibility as a determinant of the impact of liberalisation measures.

Uganda also announced complete liberalisation in July 1997. By 1998, the reform had provoked interest by foreign fund managers in shilling denominated assets, including EADB bonds and promissory notes, although it was too soon to assess the overall impact (Kasekende *et al*, 1997:24).

Other countries have been more cautious, following a gradual approach. Tanzania's initial response to inflows both official and private was to liberalise the exchange regime (Kimei *et al*, 1997:32-6). However, the government was very cautious in 1995-7 for fear of outflows, and was not convinced that liberalisation would increase inflows.

South Africa, too, has followed a gradual approach. Priority was given to abolishing all restrictions on non-residents, and abolishing the "financial rand" mechanism — a dual exchange rate system that applied to all investments by non-residents — in March 1995. Once controls on non-residents

had been eased, priority in liberalising restrictions on residents was given to relaxing controls on outward investment by institutional investors. The case for this sequence was strong. In the first place, pension funds and life insurers hold a dominant portion of personal savings and needed international diversification in their portfolios. Secondly, the reporting mechanisms for institutional investors required for prudential regulatory purposes provided a straightforward means for monitoring outflows. Finally, the large domestic liabilities of these institutions (associated with future pension and insurance payouts) provided a natural limit to their desired foreign investment. For these reasons, relaxing controls on institutional investors was a useful instrument for the phased liberalisation of controls on individuals. By contrast, relaxing direct controls on individuals or companies was recognised to cause monitoring problems — though by 1996 measures were being introduced allowing foreign currency holdings by individuals and easing restrictions on foreign direct investment by firms (Kahn and Leape, 1997).

A distinguishing feature in South Africa has been a concerted — and largely successful — effort to minimise market and macroeconomic disruption. This has had three main components. The first has been to implement reforms gradually. This minimised the impact of the reforms by restricting the volume of funds involved and also enabled the government to adapt the pace and strategy of liberalisation in light of the initial private sector response. The second has been to establish appropriate fiscal and regulatory frameworks before reforms (e.g., by tightening the fiscal position since 1994 and formalising all government guarantee arrangements in 1997). The third has been careful management of private sector expectations in the lead up to changes. The 1995 abolition of the financial rand provides the most striking example. Extensive “leaks” about the imminence of abolition, and about the central bank’s assessment of the post-reform value of the currency, closed the gap between primary and secondary exchange rates in the three months before abolition. The government then announced abolition after close of business on Friday and was able to open the newly unified foreign exchange market on Monday with no perceptible disruption to the large volume of foreign exchange transactions on current and capital accounts.

Gradualism has produced internal and external criticism about the slow pace of reform, but it has also helped to prevent policy reversals — even in the face of currency crises in 1996 and 1998.

Zimbabwe has also followed a gradual approach, although with less success. In 1994, corporate and individual foreign currency accounts were allowed. Other liberalisation measures include 100% remittance of profit and dividends, foreign exchange bureaux and the abolition of export

surrender requirements (Kufeni *et al*, 1997:56). However, liberalisation has not proved sustainable. In September 1998, the government responded to a depreciation of 50% in the space of a few days by reimposing wide-ranging controls on the capital account and current account. These policy reversals have created considerable uncertainty as to the future of Zimbabwe's liberalisation and raised questions regarding the strength of the political commitment to reform. But they also suggest that the pace and sequencing of the earlier liberalisation programme may have been inappropriate.

When the capital account has been liberalised, will selective reintroduction of capital controls prove useful in managing capital flow surges, or possible capital flight? Outflows are difficult to control, and capital flight will occur under even the tightest control regime. Controls will also be of little benefit if not accompanied by sound domestic macroeconomic management. Helleiner (1996) argues that Sub-Saharan Africa's strategy of allowing the exchange rate to adjust to the level of flows has produced much less satisfactory results than East Asian and Latin American policy mixes of foreign exchange intervention, sterilisation, fiscal discipline, and careful use of direct controls on inward and outward flows to dampen volatile short-term movements.

One instrument widely employed in a range of countries — but not in Africa — is special reserve requirements for foreign borrowing. These are sometimes called “variable deposit requirements” or VDRs. These are imposed as non-interest-bearing reserve requirements — deposits held with the central bank — paid and denominated in foreign currency. VDRs represent an effective tax on foreign credits, which works to discourage inflows. In addition, the requirements have a potentially useful impact on domestic liquidity, both directly and indirectly (Schadler *et al*, 1993; Reinhart and Dunaway, 1995; Lee, 1996; and Leape, 1998a). VDRs are flexible because they can be adjusted by the authorities in a number of ways. The most basic is the percentage. A second is the minimum deposit period (this can influence the maturity structure of foreign credits, as the effective tax associated with any specified deposit holding period will be greater the shorter the maturity of the credit). A third is applying the VDR differentially to new and existing credits, allowing a higher effective tax to be imposed on new borrowings.

These features have made VDRs an attractive instrument for influencing the level and the maturity structure of foreign borrowing by domestic residents, as demonstrated by Spain and Chile. Another significant advantage is their ability to enhance authorities' efforts to manage the impact of capital inflows on domestic liquidity and aggregate demand. By retaining in the central bank a fraction of new foreign credits (through the required

deposits), VDRs directly reduce the impact of the inflows on the monetary base, thereby reducing the need for sterilisation. In addition, as non-interest bearing reserve requirements generate revenue for the central bank, VDRs avoid – and, in a minor way help to offset – the potentially high quasi-fiscal costs of other sterilisation measures (such as open market operations), thereby increasing the scope for such measures.

VDRs could prove a useful addition to the set of instruments employed in Sub-Saharan Africa. Since VDRs are a form of capital control (albeit a market-oriented one), it is sensible to maintain the credibility of government commitment to liberalisation by using them sparingly — to minimise the risk that investors perceive essentially prudent controls as policy reversals. Moreover, VDRs must be used by governments as a complement to — not a substitute for — appropriate monetary and fiscal policies.

Relatedly, there has, to date, been little discussion in the project countries of the possibility of using taxation as an instrument to reduce the level or alter the composition of capital inflows, despite the active international debate on the “Tobin tax” and other proposals to tax cross-border capital transactions (see, for example, Obstfeld, 1995). Taxes deserve further attention, as they cause less distortion in foreign exchange and financial markets than direct controls, and have the benefit of raising fiscal revenues. A tax on short-term speculative inflows has attracted increasing attention as an instrument for increasing speculation costs. Drawing on experiences in Latin America and Asia, some have argued forcefully in favour of such measures (Griffith-Jones 1995, Dornbusch 1997, Williamson 1994). Though others have argued that they are temporary measures and likely to prove ineffective (Schadler *et al*, 1993; Mathieson *et al*, 1993), there is now a growing consensus (see, for example, BIS, 1995a and 1995b) that selective capital controls are an essential weapon in the policy armoury, if accompanied by sound macroeconomic management.

Yet practical difficulties currently prevent their implementation in Africa. Inadequate data make it unlikely that governments could consistently distinguish between speculative flows and productive flows. Attempts to impose controls on loans or deposits might lead to evasion by over- and under-invoicing of goods, a private sector return to the parallel financial market, and channelling capital inflows through the subsidiaries of foreign companies (making them direct investment rather than loans or deposits). In addition, the introduction of controls may wrongly be taken as an attempt to reverse policy, and therefore undermine credibility and adjustment.

7.3 Monetary Policy

A third key aspect of the policy response concerns measures to influence domestic prices and aggregate demand. The problems are most acute during large capital inflows. If the authorities try to limit the upward pressure on the exchange rate by accumulating foreign reserves, the central bank's net holdings of foreign assets will rise, leading to an increase in the monetary base. The short-term macroeconomic policy response to capital flows, and management of their impact, begins with monetary policy.

The issue is how to manage the central bank's balance sheet so as to achieve the desired effect on the monetary base, by reducing other components to offset excessive growth in net foreign assets caused by capital inflows. Most important among these other components are net lending to government (the fiscal deficit), and changes in the amount of currency in circulation. If the authorities limit growth in these other components, it may be possible to "sterilise" the impact of capital inflows (and outflows). Recent assessments of sterilisation measures in developing countries include Helleiner (1996), Reinhart and Dunaway (1996) and Reisen (1996).

As recent experience in Africa and elsewhere has highlighted the problems of sudden capital outflows, it is important also to highlight that if these cause a drop in foreign exchange reserves, monetary policy to inject liquidity is essential to preventing an excessive monetary contraction.

The policy instruments employed by the monetary authorities to sterilise the impact on domestic liquidity are the same as those used more generally for liquidity management. They can be divided into "market" and "non-market" operations. The former include all forms of open market operations and other measures such as foreign exchange swaps; the latter include changes in statutory reserve requirements, which have proved especially important in the region, and other instruments such as transfers of government deposits between commercial and central banks. It is also important to bear in mind that, by keeping interest rates high, sterilisation can perpetuate large inflows, and prevent inflows from increasing domestic investment and growth. It can also involve unsustainable quasi-fiscal costs.

The underdeveloped state of securities markets in most African countries severely circumscribes the scope for sterilisation. Unsterilised foreign exchange intervention in the face of capital inflows leads to reserves accumulation and increases the money supply. While this puts downward pressure on interest rates and thus may curtail inflows, without a corresponding increase in money demand it causes inflation, and forces up the real exchange rate. This has often been "the first line of defence" for many African countries in the absence of sterilisation options.

This is certainly true for Uganda, which has had minimal success in

containing monetary growth through monetary policy in a liberalised financial system. Liberalising interest rates and issuing government or central bank bills have been undermined by thin and underdeveloped financial markets. The problem has been aggravated by distressed banking systems, the volatility of money demand and multipliers, and elements of reserve money that are beyond the control of the central bank. This raises the need for tight fiscal policy (see below) to supplement sterilisation efforts through the issue of Treasury Bills (Kasekende *et al*, 1997:23).

In Zambia, however, nominal interest rates were raised sharply in response to high inflation in 1994, and successfully limited excessive domestic credit expansion and encouraged higher domestic savings. Open market operations were introduced only in 1995. Matale *et al* (1997) conclude that they have so far been “successful in influencing short-term liquidity in the domestic money market”, but future desirability of this policy option in Zambia is reduced by its “large cost particularly in respect to deposits taken”.

Tanzania’s reliance on monetary policy and interest rates to ease the effects of the 1994-5 coffee price boom was, in the view of Kimei *et al*, “excessive”. The centrepiece of the government’s sterilisation strategy was a proposal to place medium and long-term government securities with the non-bank sector. The proposal was, however, watered down, and the authorities instead issued floating certificates of deposit to non-bank financial institutions at a negotiated rate of 31%. The slack was partly picked up by other policies, especially heavy use of changes in reserve requirements, as discussed below under “non-market” monetary measures. The government also tightened releases of pipelined debt conversion proceeds and suspended the “Gold Purchase Scheme” of the Bank of Tanzania. In addition, however, the effects of the boom were blunted by the withdrawal of donor assistance in November 1994 following the government’s tax evasion scandal (Kimei *et al*, 1997:36-7).

Market-oriented monetary measures in South Africa have taken two forms: open market operations and foreign exchange swaps. Until March 1998, open market operations played an important role in sustaining a money market shortage, which forced commercial banks to make use of the discount window, in turn tying short-term market interest rates to the official Bank rate. Since then, under a new system for monetary policy based on a daily tender via repurchase transactions, open market operations have been used to ensure that banks are always participating in the daily tender, but money market interest rates are now determined by the daily tender, rather than tied to an official rate. Unusually by international standards, open market operations in South Africa historically involved long-term government securities. This was due to a persistent shortage of

short-term government paper, which banks required (as collateral) to access the refinancing facilities at the Reserve Bank and to comply with liquid asset requirements.

Another important feature has been the dual role of the Reserve Bank in the market for government securities — as funding agent for the government in both primary and secondary markets, and as principal in using market operations to implement monetary policy. Conflicts between the two roles were inevitable — and emerged in the Bank's use of pre-funding and over-funding in the primary market to reduce liquidity — both of which raised the government's cost of funding. This dual role ended in April 1998, when a set of government-appointed private market-makers took over responsibility for government funding. The shift to a repo system and introduction of private market-makers has increased the role of short-term instruments and the responsiveness of short-term interest rates, thereby enhancing the effectiveness of open market operations as a policy tool for responding quickly to swings in capital flows (Leape, 1998a).

Even more important in liquidity management has been the use of foreign exchange swaps. Particularly where there are autonomous increases in liquidity as a result of increases in net foreign assets, the Reserve Bank has frequently used swaps to manage the money market shortage. More generally, when faced by a shortage of instruments for open market operations, swaps have offered a useful alternative market instrument for reducing liquidity. To drain liquidity from the banking system, foreign exchange held by the Reserve Bank is sold spot to banks against a forward repurchase by the Bank, with the foreign currency then placed on deposit in the banks' names at the Reserve Bank. In this way, the Bank shifts foreign exchange from the Reserve Bank into the banking system in exchange for domestic liquid assets, reducing the monetary base. When faced by capital outflows, the Bank buys spot and sells forward for the purposes of injecting liquidity, which also has the effect of temporarily increasing the level of foreign reserves held by the Reserve Bank. If, in this case, the money market shortage is the result of capital outflows, the Bank's interest in increasing liquidity is likely to coincide with a desire to increase its supply of foreign reserves for intervention purposes. These instruments have had considerable success in offsetting the adverse macroeconomic effects of swings in capital flows. When, for example, South Africa experienced a sharp reversal of capital flows in early 1996 — a swing equivalent to two percent of GDP in the space of a few months — domestic liquidity changed by less than R1bn (Leape, 1998a).

Limits to market-oriented monetary measures. Despite their many advantages, these measures also have costs. Among the most serious are the

“quasi-fiscal” costs of sterilisation. Regardless of the form of market intervention, sterilisation ultimately involves the authorities exchanging typically high-yield domestic bonds for low-yield foreign exchange. Where the interest differential is substantial — as it has been in every African country — so is the direct quasi-fiscal cost. Also important is the upward pressure on domestic interest rates created by such measures and the associated opportunity cost in debt service as well as the crowding out effects on private credit. Moreover, the rise in interest rates may stimulate further capital inflows, thus aggravating the problem.

In addition, sterilisation measures based on open market sales of domestic bonds will only reduce liquidity to the extent that investors do not regard them as perfect substitutes for foreign bonds. And with the liberalisation of exchange controls, financial institutions find it increasingly easy to adjust their foreign exchange positions following government intervention so as to maintain their desired portfolio — and thereby to undermine the impact of the monetary intervention.

Finally, even in those countries with more developed financial markets, such as Zimbabwe and South Africa, the central banks have often simply lacked the supply of domestic bonds necessary to carry out sustained open market operations. In some instances, this has led to the issuance of central bank bills for the purposes of open market operations.

7.4 Non-Market Measures

Non-market operations, including transfers of public sector deposits and especially changes in reserve requirements, have also played an important role in liquidity management in response to swings in capital flows.

Transfers of public sector deposits. The shifting of government deposits between private banks and the central bank has proven internationally to be an effective means of sterilisation. Since 1993, the South African government has maintained “Tax and Loan Accounts” (TLAs) with private banks in addition to its Exchequer Account with the Reserve Bank. An important function of the TLAs has been to minimise the distorting impact on liquidity of government financing transactions. They have also, however, provided an additional discretionary instrument whereby the Bank can alter the money market shortage by shifting deposits from the TLAs to the Exchequer Account or vice versa. Recent developments have, however, sharply reduced their scope. They are largely dependent on the availability of government deposits held at banks when a large inflow of capital takes place. Efforts by the government since 1996, to improve its

debt and cash management, so as to reduce interest costs, have largely eliminated such “idle” deposits. The use of transfers of government deposits has been considered in Uganda (Kasekende *et al*, 1997) and elsewhere in the region, but no policy decisions have yet been taken.

Changes in reserve requirements. Much more widespread in the region has been the use of changes in reserve requirements. Raising reserve requirements acts as a tax on the banking system and can work to decrease the money multiplier and limit credit to the private sector. It can also be used counter-cyclically, by targeting the source of a boom. In political economy terms, changes in reserve requirements have the advantage of being an implicit or *hidden* tax that arouses less popular opposition than more explicit taxes. Such requirements can also be used to limit particular types of capital inflow, as discussed above.

Changes in reserve requirements have some limitations. Non-interest bearing reserve requirements act as a tax on bank intermediation, and may widen the spread between lending and deposit rates and stimulate disintermediation, as borrowers shift to (un-taxed) non-bank financial institutions. This will undermine monetary control, weaken regulation and supervision and damage the efficiency of the financial system by pushing borrowers towards less efficient lenders. Moreover, the active use of changes in the cash reserve requirement to manage liquidity changes will interfere with banks’ portfolio management strategies.

Changes in reserve requirements have, nevertheless, often been used in the region. Tanzania has relied heavily on them since 1987. From 1993, the cash reserve requirement was raised eight times, reaching its highest levels to combat the effects of the 1994-5 coffee boom. The minimum reserve requirement was raised from 8 % in June 1994 to a peak of 18% in June 1995 and was only lowered to 12% in March 1996 (Kimei *et al*, 1997:36, 38).

Zimbabwe has also used changes in reserve requirements to manage destabilising capital flows. Most recently in September 1998, when balance of payments pressures led to a collapse of the exchange rate, the policy measures adopted included a rise in the reserve requirements from 20 to 25% for commercial and merchant banks and from 4 to 5% for finance houses.

Even after shifting to a market-oriented approach to monetary policy, South Africa has occasionally used changes in reserve requirements to support market operations, especially in response to large and sudden changes in domestic liquidity. When surging capital inflows exhausted the scope for market instruments in early 1995, the Bank raised the minimum reserve requirement of banks from 1 to 2% of their total liabilities to the public.

In contrast to the foregoing examples, Uganda has avoided increasing reserve requirements. The principal reason has been a recognition that weaknesses in the financial sector made it impossible to implement such requirements effectively. If anything, requirements have been substantially reduced on certain deposits in support of financial sector development objectives.

The potential costs of reserve requirements — to monetary control, effectiveness of regulation and financial sector development — indicate that countries must avoid excessively high levels, but experience in the region shows they can be useful against large sustained changes in liquidity. A key issue looking forward is how to fine tune such requirements to target them more effectively. One example is targeting reserve requirements to specific types of liabilities (for example to off-shore borrowing of banks) as discussed above. A second is the use of supplementary cash requirements against increases in the banks' liabilities from a certain date, rather than against the total liabilities, to concentrate the desired impact on current borrowing and lending decisions while reducing overall distortions.

Finally, the sharp increases in the level and volatility of cross-border capital flows have also had implications for monetary policy frameworks throughout the region. The first and most direct effect, as highlighted earlier, is that changes in net foreign assets have become a more important — in many cases, dominant — determinant of monetary conditions. This has forced countries to broaden the range of intermediate targets used in monetary policy. Within that range, the exchange rate has come to play a greater role as an indicator of economic and monetary conditions. In South Africa, for example, the increased magnitude and volatility of capital flows has led to a significant downgrading of money supply targets. Tanzania, Uganda and Zimbabwe have been similarly affected, and have also rethought their money supply targets.

7.5 Fiscal Policy

Fiscal adjustment is also an important part of the policy response to capital flows. By reducing the fiscal deficit, the authorities can mitigate the adverse macroeconomic impact of capital inflows by decreasing the government's own contribution to domestic liquidity. In this way, fiscal adjustment can work to offset potentially inflationary increases in liquidity.

Limits to the scope for monetary operations — in the face of sustained surges of inflows — have placed great pressure on fiscal policy in the project countries. Fiscal restraint has become the primary method to prevent

overheating and a real exchange rate appreciation. Some see this as the only long-term policy (Corbo *et al*, 1994; Schadler *et al*, 1993). They suggest expenditure cuts as opposed to tax rises, in order to limit the demand for non-traded goods, but not tradeables (Calvo, Leiderman and Reinhart, 1993). This makes sense because credit availability from huge capital inflows would counteract the effectiveness of the revenue approach, and also because countries have no easy revenue raising solutions, especially where the formal sector is heavily taxed and the informal sector is large. However, reducing government expenditure can have extremely undesirable social consequences and is often a political minefield. The social and political implications of expenditure cuts severely limit their usefulness as a policy response.

Fiscal measures can also influence the level of capital flows. Reductions in deficit financing can put downward pressure on interest rates, which reduces the attractiveness of domestic bonds to foreign investors — and helps to stem inflows. Fiscal adjustment may, through a different mechanism, also prove important in responding to capital *outflows*. When outflows are, at least in part, the product of foreign (or domestic) investor perceptions of macroeconomic weakness or instability, fiscal adjustment is likely to be central to restoring macroeconomic balance and to signalling the credibility of the government's commitment. This type of fiscal adjustment has been central to recent experience in the project countries. Reducing the deficit has been a priority for all in the 1990s, and most have achieved a significant degree of success. While this has usually been primarily driven by structural adjustment (home grown or otherwise), concerns about capital flows and about the impact of the Asian crisis have also been a factor.

The lack of flexible and effective monetary policy instruments in Uganda meant that sterilisation without the support of fiscal policy could have only limited effectiveness. As a consequence, priority was given in the early 1990s to budgetary control, and significant progress has been made since 1992 in controlling expenditure and boosting revenue mobilisation. Government has become a substantial net lender to the banking system. The budget has been managed flexibly, using cashflow budgeting in co-ordination with the monetary authorities. This is achieved by cutting or deferring spending to generate savings necessary for orderly absorption of capital inflows and to keep inflation in check. However, beyond a certain level, Uganda has experienced difficulties in generating sufficient savings. The authorities are constrained by the fact that "expenditure is already at critically low levels, and the potential to increase revenue is limited" (Kasekende *et al*, 1997:22).

Tanzania has also taken steps to bring spending under more effective control — as discussed further below — and to enhance revenues. Interestingly, efforts to boost revenues led in 1997 to the decision to end the (mainly fiscal) incentives provided under the National Investment Promotion and Protection Act (1990). These included tax exemption on specified capital and intermediate imports by foreign investors, and the five-year tax holiday (Kimei *et al*, 1997:41).

Zimbabwe has had less success. Political problems have hampered the development of effective mechanisms for expenditure control, with the result that fiscal deficits have stayed stubbornly high — in contrast to the downward trend in most of the region. One aspect of fiscal policy where Zimbabwe has set an example for the region, however, is in boosting revenues by fighting tax evasion. ‘Operation Tax Net’ and ‘Operation Bhadharai’ (meaning Operation Pay) in 1997 netted huge additional revenues through spot visits and closer examination of goods (Leape, 1999). These high-profile enforcement exercises have the additional benefit of raising revenues through increased voluntary compliance.

While these short-term measures as well as the continuing attempts to contain fiscal deficits have all been important, several countries have gone further and implemented changes in institutional frameworks, in order to enhance credibility by increasing the clarity of the governments’ medium and long-term fiscal policy programme, and by raising the cost of policy reversals — announcing the abandonment of a new institutional framework would be far more costly for policymakers than simply failing to achieve some *ad hoc* fiscal target (Leape, 1999). One example was Zambia’s decision in 1993 to adopt a cash budget, to end a spiralling fiscal deficit and macroeconomic instability by requiring that authorisation of spending match the accrual of revenues. A cash budget provides a formal institutional framework which sharply decreases discretionary powers in the authorisation of spending. The government’s public commitment to the framework or ‘rule’ makes it costly for officials or politicians to violate the rule. The cash budget thus operates as a credible public constraint on spending. The impact of the cash budget in Tanzania has been dramatic. Kimei *et al* (1997:44) argue that “whereas fiscal improvement in 1991/92 was brought about by tightening expenditure under the first year of the ESAF1, the 1995/96 outturn was the result of adoption of a cash-based budget”.

A second example is the recent adoption by South Africa of a medium-term expenditure framework (MTEF). The MTEF was announced by the Minister of Finance in December 1997 and was implemented in the 1998 Budget. As with the cash budget, the MTEF operates as a public constraint on spending and was adopted largely as a mechanism to enhance the credibility of the government’s commitment to fiscal discipline. Its focus, how-

ever, is on medium-term spending priorities, rather than the short-run fiscal position.

Enhancing revenues can play as important a role as controlling expenditure, and a number of countries have adopted new institutional frameworks in this context, too. Bureaucratic inertia compounded, in recent years, by increasing pressure on civil service salary bills has, in most African countries, undermined the effectiveness of revenue collection. To the extent that civil service cuts cause a deterioration in enforcement or a growth in corruption, the net effect may, ironically, be a worsening of the fiscal position. Moreover, all too often cuts in salaries and staffing levels create a seedbed for corruption, further weakening enforcement and undermining taxpayer incentives to comply. While a variety of measures have been employed to strengthen tax enforcement — including increases in the budget for enforcement as well as managerial and technical training for revenue personnel — four of the five project countries have also changed the institutional structure of the revenue authorities. South Africa, Tanzania, Uganda and Zambia have granted revenue authorities a substantial degree of autonomy, and established a clear set of objectives and incentives. In all cases the result has been a significant initial increase in revenues collected. However, in Tanzania, Uganda and Zambia, collections have subsequently stagnated, indicating that there are no easy institutional solutions to revenue collection.

7.6 Financial Sector Development

Latin American and South East Asian experiences with capital inflows and reversals show the crucial importance of effective banking regulation and supervision. Surges of capital inflows increase the level of non-performing assets, as cheap finance is made available to less creditworthy borrowers and loans are increasingly made on the collateral of inflated asset prices. This makes the financial sector vulnerable to flow reversals, and therefore to financial crisis. Reducing such vulnerability therefore requires risk management policies including risk-based capital requirements, limits on the foreign exchange exposure of banks, adequate supervision, and the development of effective internal risk management in private banks.

For smaller, and especially developing, economies, “importing” risk management skills and even regulation is likely to be one component of any successful strategy. Carefully reducing barriers to entry for foreign financial institutions may help to reduce the vulnerability of the financial sector. In theory, the entry of international banks can enhance private risk manage-

ment, by importing risk management systems and improving the quality of credit analysis. In addition, where the international banks come from major financial centres, and continue to be subject to regulation in their home country, the developing market benefits from this more developed regulatory and supervisory framework and there is scope for fruitful cooperation between the two regulatory authorities. Finally, the increased competition may, over time, improve the quality of loans as the pressure on profit margins leads to increased emphasis on credit analysis and sound lending decisions.

Experience in the project countries, however, indicates that these benefits are not always realised in practice. As discussed in Chapter 4, competition among banks has not improved significantly during the 1990s, in spite of liberalisation of entry barriers. In some cases — notably BCCI and Meridien — the collapse of foreign banks, partly due to the inadequacy of international regulation and supervision, has temporarily undermined the credibility of the whole banking system. In others, the capture of virtually all profitable niche markets by the foreign banks has undermined the indigenous banking sector, contributing to banking collapses. Entry of foreign banks has therefore been no panacea for financial sector development.

These issues have been addressed directly in Uganda in recent years. The 1993 Financial Institution Act empowers the central bank to supervise the banking sector. Prudential requirements were revised in line with Basle standards. Entry and exit barriers have been lifted to encourage competition, and minimum capital requirements of new and existing banks have been increased to better protect depositors. Fortunately, however, Uganda was cautious in letting in new foreign banks, avoiding for example BCCI and Meridien. A deposit insurance fund has been set up, and the open foreign exchange positions of banks have been capped at 25% of core capital. The performance of problem banks has been improved, and the opened-ended lending to commercial banks by the central bank, a source of inflationary pressure, has been stopped. However, the financial system remains weak with a high amount of non-performing assets. The Non-Performing Assets Recovery Trust has been set up to recover the bad debts of the Uganda Commercial Bank, but this will require strict supervision. Our country study pointed out the need to address weaknesses in reporting requirements — which was amply borne out by the recent banking sector crisis in Uganda (Kasekende *et al*, 1997:25).

Zimbabwe, too, has focussed on enhancing its banking supervision, and its amended Banking Act is awaiting ratification by Parliament (Kufeni *et al*, 1997:56-7). In Tanzania, the Capital Markets and Securities Act (1994) established a legal framework for the development of Tanzania's capital and securities market. The Capital Markets and Securities Authority

(CMSA) was created, with responsibility for overseeing regulations for licensing and supervision of market agents, including dealers and brokers, and provides training and public education (Kimei *et al*, 1997:39).

South Africa benefits from a well-established system of banking regulation and supervision controlled by the Registrar of Banks, based in the central bank. From the mid-1990s, the Registrar was exhorting the major private banks to enhance their internal risk management and advancing the idea of a partnership between them and the central bank. By 1998, the key issue was the overall institutional structure for regulation. Influenced particularly by recent developments in Australia and the UK (where the new Labour government immediately announced that all financial supervision would be integrated into a single regulatory agency, the Financial Services Authority) the government proceeded with a review of the regulatory framework which was expected to reach a conclusion during 1999.

Capital flows have also accelerated other components of financial sector development. The most notable has been pressure to develop, or further develop, capital markets as a vehicle for the efficient allocation of inflowing capital. Many of the countries in the region have given high priority to establishing the legal and institutional framework for capital markets. In Zambia, a stock exchange was established in 1992 and in Tanzania, as discussed above, the framework for capital markets was set out in 1994 and the Dar es Salaam Stock Exchange was established.

In countries where such markets already exist, there has been pressure to develop these markets further. In South Africa, for example, the increasing presence of foreign investors in domestic capital markets has been an important triggering factor behind a series of reforms of the stock and bond exchanges. These include, at the stock exchange, the adoption in March 1996 of automated (screen-based) trading through the Johannesburg Equity Trading (JET) system, fully negotiated fees and dual capacity for brokers. On the bond market, electronic settlement was introduced in 1995 and the process of immobilising scrip in a central depository was launched, listing requirements were tightened and, in late 1997, the exchange shifted to three-day rolling settlement, in line with international best practice (Ncube *et al*, 1996).