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The Role of Capital Flight and Remittances in Current Account Sustainability in Sub-Saharan Africa

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The views and opinions expressed herein are those of the author and do not purport to represent those of the United Nations Economic Commission for Africa

Abstract

The literature on capital flight and remittances is copious, as a plethora of studies in recent years have focused greater attention on the determinants and impact of capital flight and remittances in the development process. These issues are particularly more pertinent to Africa in view of its relatively high incidence of capital flight in the presence of foreign exchange constraints, limited foreign capital inflows, external indebtedness and high dependence on overseas development assistance. **The principal aim of this paper is to estimate the extent and magnitude of capital flights from Africa and remittance inflows to Africa, and to assess their role in current account sustainability.**

The paper employs standard methodological approaches to estimating capital flight and remittances for selected African countries and analyses their relationships with current account balance and key economic indicators. The findings from the statistical exercises in the paper yielded a number of important results:

- The magnitude of capital flight from Africa has increased considerably in recent years, with widespread fluctuations and volatility
- The volume of remittances into Africa has increased dramatically but steadily.
- There is a negative association between balances on current account and capital flight, implying that capital flights tend to worsen current account difficulties.
- There is a positive relationship between remittances and current account, suggesting that remittances could play an important role in mitigating current account problems
- The link between remittances and economic growth is positive, albeit insignificantly in the statistical sense, suggesting some evidence of the crucial role of remittances in the economic growth and development process.
- External debt and capital flight are positively intertwined, providing support to the so-called 'round-tripping' or 'back-to-back' hypothesis

The policy implications of these findings are that in spite of the good progress made by many African countries towards economic and political reforms, more innovative policy thinking and reform deepening must be initiated to create conducive environment for private sector participation in general and foreign capital (including capital flight reversal) in particular. Similarly, there is a need for incentivising and mainstreaming remittances into national development strategies with the view to promoting the growth enhancing effects of remittances. A wide range of policy options and forward thinking analyses were advanced in the paper.

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1. Introduction

The current account position of many African countries has shown a remarkable improvement in recent years even though the vast majority of the countries are still recording current account deficits. The situation is much worse for non-oil producing countries, particularly those affected by conflict, terms of trade deterioration, external indebtedness, restrictive export structure and inappropriate trade policy.

Thus, external resource flows, such as Foreign Direct Investment (FDI), portfolio investment, ODA, and remittances of migrants could play a key role in offsetting current account deficits. But, most of these capital flows are highly volatile, and can be disruptive to exchange rates and current account sustainability, as the Asian crisis in the late 1990s has shown. It is generally acknowledged, however, that remittances are much less volatile than other types of capital flows, and can be a major source of external finance for African countries and could help to ease current account deficits. In addition, reversal of capital flight could help fill in the external resource gap facing most African countries. But the key questions are: what is the nature and extent of capital flight and remittances for African countries? What incentive structures are available to encourage capital flight reversal as well as to attract and channel remittances into productive activities? What other policy options would need to be considered to improve the sustainability of current accounts? Answers to these and other related questions are at the core of this paper.

The rest of the paper is structured as follows: Section 2 discusses the determinants of capital flight and the motives behind remittances. Section 3 looks at the methodological approaches to estimating capital flight and remittances. Section 4 presents estimates for capital flight and remittances for selected African countries, and investigates the linkages between these estimates and key macroeconomic variables, including current account balances. Section 5 pulls together the main conclusions of the paper and discusses the policy implications of the results.

2. Factors Affecting Capital Flights and Remittances in Africa

The theoretical and empirical literature on capital flight and remittances is rich, but there are still divergent views on the concepts, definitions, causes and effects of both concepts in the economic growth and development process. Clearly, this poses serious problems for empirical analysis and policy prescriptions. It is therefore not surprising that in the case of Africa in particular, these studies have produced differing estimates of capital flights and remittances depending upon methodological approaches, statistical techniques, cross-country coverage, time-period used and nature and sources of data. We now turn to examine some of these issues as they relate to Africa.

Capital Flight

Several studies have recently identified a number of factors that encourage capital flight out of Africa [see for example, Ajayi (1997); Boyce and Ndikumana (2001); Collier, Hoeffler and Pattilo (2001); Hermes et al. (2002); Ndikumana and Boyce (2002); Mohamed and Finnoff (2004)]. Some of the main determinants of capital flight are briefly reviewed below. These include: macroeconomic instability, political instability, external borrowing, risk-adjusted rates of return differentials, and financial development, among others.

Macroeconomic instability

Macroeconomic factors such as inflation, fiscal balance, economic growth, current account position, and exchange rate movements can influence the nature and extent of capital flight. High inflation, for instance, make domestic asset holders react to the erosion of the real value of their assets by moving their assets abroad. Also, since inflation is often regarded as an indicator of the government overall ability to manage the economy (Fischer, 1993), a rising inflation rate tends to undermine that ability. Most empirical studies have found evidence of a positive relationship between capital flight and inflation, but such a relationship was not statistically significant for African countries (see for example, Murinde et al., 1996; Lensink et al., 1998; Olopoenia, 2000; Nyoni, 2000; Ndikumana and Boyce, 2002).

Capital flight may also be stimulated by exchange rate fluctuations and volatility, which in itself can also be influenced by inflationary pressures. For instance, high inflation may create increasing expectations about future exchange rate depreciation, and may provide incentives for capital flight. Empirical evidence about the effects of exchange rate movements on capital flight from Africa is mixed. While Hermes and Lensink (1992) found a strong support for a positive link between real effective exchange rate and capital flight in Cote d'Ivoire, Nigeria, Sudan, Tanzania, Uganda, and Zaire (now Democratic Republic of Congo) for the period 1978-88, other studies (e.g. Murinde et al. 1996; Lensink et al. 1998; and Ng'eno 2000) found no statistically significant relationship between the two variables.

Budget deficit, reflecting the extent of government public sector borrowing requirement, may also encourage capital flight. Increased budget deficit raises expectations of domestic economic agents regarding future tax increases to meet the government debt repayment obligations, thereby resulting in capital flight. Empirical evidence on the effect of fiscal balance on capital flight from Africa is also mixed. For instance, Ndikumana and Boyce (2002) found a negative and statistically significant relationship between budget 'surplus' and capital flight in cross-sectional regressions, but a positive and statistically significant relationship in panel data regressions.

It is noteworthy that other studies of the capital flight effect of fiscal policy stance have focused on only one element of the fiscal balance, that is taxation, due to its effect on domestic capital formation. The reasoning here is that high expected tax rates might reduce net expected returns to domestic investment, and that the volatility of the tax rate might raise investment risk, thereby leading to lower risk-adjusted returns to domestic investment (Ndikumana and Boyce, 2002). Also, tax incentives to foreign investors, as opposed to domestic investors, may drive domestic capital out of the country. It is worth noting, however, that studies that include the tax rate, proxied by tax-to-GDP ratios, have found no discernible relationship between capital flight and taxation.

Yet another macroeconomic driver of capital flight is growth rate of an economy, or growth rate differentials between countries. Here, the hypothesis is that the lower the growth rate of an economy, the higher is the capital flight. In other words, the higher the growth rate differential between two countries, the higher is the capital flight from the country with the lower growth rate. There is ample empirical evidence to support this hypothesis. But with respect to Africa, however, very few studies have focused attention on the growth rate hypothesis. One such study by Nyoni (2000) finds strong support to the link between capital flight and the growth rate differential between Tanzania and the UK. Other studies on the causality between the absolute level of economic growth and capital flight from Africa, however, have mixed results on this hypothesis (see Hermes et al. 2002). A plausible explanation for such mixed effects of the economic growth rate on capital flight is that they may "reflect the fact that economic growth is

itself affected by some of the same factors that cause capital flight, making it difficult to isolate its independent effects” (Ndikumana and Boyce 2002).

Political Instability

Lack of confidence in the domestic political system, coupled with weak governance institutions, may lead to capital flight. Political instability often breeds macroeconomic instability, including economic mismanagement, directly unproductive rent-seeking economic activities and illicit diversion of public funds. These together with weaknesses in the institutions for protecting property rights and incessant political unrest and associated general sense of insecurity to life and property tend to encourage capital flight. Available empirical evidence shows that political instability in Africa is associated with greater capital flight whilst democracy and political freedom tend to reduce the incidence of capital flight (Hermes and Lensink, 2000; Lensink et al., 2000).

External Debt

The simultaneous occurrence of external debt overhang and capital flight in the developing countries has provoked a number of empirical studies on the link between the two issues. One such study, by Boyce (1992), has identified 2 sets of bi-directional causality between external debt and capital flight, leading to the categorization of causal linkages into the following four groups: debt-driven capital flight; debt-fuelled capital flight; flight-driven external borrowing; and flight-fuelled external borrowing. In the first two categories, the direction of causality runs from external debt to capital flight whilst in the last two cases, the causality is from capital flight to external debt. In the case of debt-driven capital flight, external borrowing causes capital to flee or leave a country owing to the associated economic consequences of external debt. For instance, following external borrowing, holders of domestic assets may expect unusually onerous taxes in the wake of a possible debt crisis (Ajayi, 1997). In order to avoid such taxes in the future, domestic residents are motivated to move their assets abroad. In addition, external debt may crowd out domestic investment thereby causing it to flee a country.

The second category (debt-fuelled capital flight) involves a situation where borrowed funds provide the resources for capital flight. Borrowed funds may also provide the motive for siphoning capital abroad. In the case of flight-driven external borrowing, capital flight creates a resource gap in the domestic economy, which forces the government to borrow overseas. Finally, a flight-fuelled situation occurs when capital siphoned out of the country provides the foreign resources that finance external loans to the same residents who exported the capital in the first place. This phenomenon is known as ‘round tripping’ or ‘back-to-back loans’. In other words, “resident capital is dollarized and deposited in an overseas bank, and the depositor then takes a ‘loan’ from the same bank, for which the deposit may serve as collateral” (Boyce, 1992).

Empirical scrutiny of each of these causal linkages in the African context is limited, but available statistical exercises yielded mixed results. For instance, employing panel data regressions on ten African countries, including the heavily-indebted ones, Ajayi (1997) found no evidence of causal links (in any direction) between external debt and capital flight. However, Collier et al. (2001), in a cross-sectional study, which includes some African countries, found evidence of debt-fuelled capital flight. Such finding is not surprising, as it must have been largely influenced by the presence of non-African countries in the sample (such as the Philippines) where evidence of debt-fuelled capital flight and flight-fuelled external borrowing had been reported earlier (see Boyce 1992, 1993).

In addition to external debt, a number of studies have attempted to investigate the effects of other capital inflows, such as overseas development assistance (ODA) and foreign direct

investment (FDI) on capital flight. For instance, both Hermes and Lensink (2000) and Lensink et al. (2000) found evidence of ODA-fuelled capital flight in a sample of African countries. Their findings tend to lend support to the phenomenon of ‘aid fungibility’. However, Lensink et al. (2000), who introduced FDI into their model, found no evidence of causal relationship between FDI and capital flight.

Risk-Adjusted Returns Differentials

The portfolio choice theory provides the basis of empirical investigations of the link between risk-adjusted returns to investment and capital flight. This is grounded in the assumption that investors attempt to maximize profits by diversifying their portfolios between foreign and domestic investments based on the relative risk-adjusted rate of return abroad and at home. In the empirical literature, a number of indicators have been used to operationalize the concept of risk-adjusted returns to investment. These include exchange rate volatility, interest rate differential between home and abroad, and a host of survey-based measures of institutional investor risk perceptions (Ndikumana and Boyce, 2002). All the existing studies on capital flight in Africa, which used interest rates as an explanatory variable in their models (Hermes and Lensink, 1992; Murinde et al., 1996; Nyoni, 2000; Ng’eno, 2000), found no statistically significant relationship between interest rates and capital flight. However, studies that utilised exchange rate indicators of risk-adjusted returns (Murinde, et al., 1996; Hermes and Lensink, 1992; Lensink et al., 1998) found some evidence of the link between exchange rate overvaluation and capital flight in Sub-Saharan Africa.

Financial Market Development

The literature on financial intermediation is divided into two main strands. On the one hand, it hypothesizes an inverse relationship between financial development and capital, based on the assumption that liberalization of financial markets can create opportunities for diversification of domestic portfolio. On the other hand, financial deepening could stimulate capital flight through the facilitation of international capital transfers. Available empirics on this issue for Africa are mixed. Whilst Lensink et al. (1998) found a negative and statistically significant effect of financial development (proxied by demand deposits), Collier et al. (2001) found evidence of insignificant relationship in the statistical sense.

Remittances

The theoretical and empirical literature on remittances is rich, as many studies on the motives, causes, and effects of workers’ remittances in the economic growth and development process have been conducted. In terms of the determinants of workers’ remittances, in particular, Elbadawi and Rocha (1992) provide a detailed analysis of the literature, which can be divided into two main categories – ‘endogenous migration’ and ‘portfolio’ approaches.

The key determinants and motivating factors behind the endogenous migration approach are economic situations facing the migrant and their family as well as demographic information describing the nature of family ties or the existence of other family arrangements (Chami et al., 2003). In the case of the portfolio approach to remittances, the main determinants include interest rate differentials on deposits between the host and home countries, rates of return on real estate in the home country, black market premium, inflation rates and political risk and uncertainty. On the basis of these approaches, remittances can be divided into what Wahba (1991) describes as “fixed” and “discretionary” remittances. The fixed remittances go to support the family that are left behind in the home country whilst the discretionary remittances go to

investment purposes. Indeed, it is the distinction between these two types of remittances that is at the centre of debate on the economic effects of remittances.

The empirical studies on the determinants of remittances in Africa are very scanty. But the few that exist tend to yield mixed outcomes. Whilst most studies have found evidence of altruism as the principal motive for remittances (i.e. concern over the consumption or income levels of the family members left behind in the home country), Lucas and Stark (1985), for example, found evidence in favour of self-interested behaviour (rather than altruism) of remittances in Botswana.

In terms of the effects of remittances, however, the results are also mixed for Africa, depending on the types of methodological approaches employed. Studies based on regression analysis tend to find a negative relationship between remittances and economic growth whilst studies based on household surveys find evidence of positive linkages between the two variables. For instance, in a recent study, Chami et al. (2003) found evidence of a negative and statistically significant relationship between remittances and economic growth for Sub-Saharan African countries in their panel data regressions for the period 1970-1998 and sub-period 1985-1998. This finding suggests that remittances retard growth in the SSA, indicative of a severe moral hazard problem in remittance flows.

Studies based on household surveys are, however, optimistic. Adams (1991) found evidence, from a household survey of 74 Egyptian families, that the remittances increase the marginal propensity to invest, albeit in residences and land. This indirectly lends support to the growth enhancing effect of remittances. Similarly, the International Migration Policy Programme (IMP) (2003) reported instances of beneficial effects of remittances in many African countries. In particular, an increasing number of village associations and other social development initiatives in many African countries were attributed to the positive impact of migrant remittances. For example, in both West Africa and North African sub-regions, there was some evidence to suggest that sizeable proportions of remittances are being channelled for investment in agriculture (to finance irrigation and other agricultural inputs), equipment and small-scale businesses. For example, according to IMP (2003, p.8), “household surveys in Burkina Faso indicate that migrant transfers successfully improved rural household income levels and helped to reduce the incidence of urban poverty.” It further adds, “remittances have been used to substitute the labour of absent (migrant) family members with that of (hired) domestic labour, financed with additional cash-income provided through the transfers.” Evidence from land-locked southern African countries also shows that in these countries, where remittances account for nearly 50% of GDP, remittance flows contribute significantly to the national economies of the sub-region.

3. Methodological Issues

Both capital flight and remittances are difficult to measure for a number of reasons. First, in the case of capital flight there is no consensus on its definition, and so different studies have utilised different approaches to estimating the volume of capital from balance of payments data. Second, in some cases, capital flees or leaves a country legally (the so-called *normal* capital outflows), whilst in other cases capital flight occurs illegally (*abnormal* capital outflows). In the latter case, economic agents who engage in such activities would not want to disclose such activities for fear of prosecution. So, in practice, it is rather difficult to distinguish between normal and abnormal (illegal) capital outflows (Gordon and Levine, 1989). Third, in the case of remittances, it is also calculated from the balance of payments data under the lines ‘workers’ remittances’ and ‘compensation of employees’, but these are likely to understate the extent of remittances, as some remittance flows occur through non-market (informal) channels, and are excluded from the official records. In view of these and other problems, empirical studies on capital flights and

remittances have relied on different methodological approaches for measuring these resource flows.

Measurement of capital flight

There are a number of methods for measuring capital flight, including the residual approach, the hot money approach, trade misinvoicing method, the Dooley method, and the asset methods. Hermes et al. (2002) provide detailed measurement procedures for each of these approaches along with their relative drawbacks. In their view, both the hot money and the Dooley methods appear to be conceptually deficient. In the case of the hot money methodology, it is argued that it is a narrow measure of capital flight and may omit potentially large parts of capital flight. With regard to the Dooley method, it is argued that its distinction between ‘normal’ and ‘abnormal’ capital outflows is problematic.

In the case of the trade misinvoicing method, it provides better estimates of capital flight by taking account of the inaccuracy of trade data owing to misinvoicing. But it is argued that trade misinvoicing could also occur in the presence of trade taxes (Hermes et al. 2002). As a result, trade misinvoicing ‘may be unrelated to the phenomenon of capital flight’ (Gibson and Tsakalotos, 1993:150). With respect to the asset method, which takes the total stock of assets of non-bank residents held at foreign banks as a measure of capital flight, lack of available information for recent years, however, precludes its application. This leaves us with the residual method.

The residual method

The formula for estimating capital flight via the residual method is as follows:

$$KF = \Delta DEBT + FDI - (CA + \Delta RES) \quad (1)$$

Where:

KF = Estimated Capital Flight

DEBT = Stock of Gross External Debt

FDI = Net Foreign Direct Investment

CA = Current Account balance

RES = Stock of official Foreign Reserves

Δ = Denotes ‘change in’

The residual method in equation (1) has been widely used in the empirical literature with some modifications. For example, Boyce and Ndikumana (2001) computed capital flight with three modifications, taking into account (i) exchange rate fluctuations of the dollar value of the stock of long-term debt; (ii) trade misinvoicing; and (iii) inflation or accumulated interest earnings on past capital flight.

Remittances

In the case of remittances, Central Banks record official flows of workers’ earnings sent back home as part of their balance of payments statistics. Thus, remittances are often calculated from the IMF balance of payments statistics as the total value of “workers’ remittances” and “labour income” (or “compensation of employees”). This has become the standard methodological approach used in the empirical estimation and analysis of remittance flows.

4. Estimates of Capital Flights and Remittances

Table 1 shows the estimates of capital flight, remittances and current account balances for 46 Sub-Saharan African countries for the period 1991-2004. The total capital flight from these countries amounted to nearly US\$184 billion, averaging over US\$13 billion per annum. The trend in the aggregate capital flight is depicted in Figure 1, which shows that the capital flight from SSA almost doubled from around US\$15 billion in 1991 to just under US\$ 30 billion in the year 2003. There are however, three distinct exceptions to the growth trend: in 1997, 2000 and 2004. In the first two cases (1997 and 2000), the magnitude of aggregate capital flight from the SSA was negative, suggesting an evidence of capital flight reversals. In the year 2004, however, capital flight was positive but declined substantially to just \$1.1 billion, from over US\$28 billion in the preceding year. This was largely caused by equally substantial capital flight ‘reversals’ in the oil and mineral rich countries of Nigeria, Congo, and Angola (see Table 2 and Figure 2).

As is well known, these countries benefited considerably from the oil price increases of 2004, which enabled them to build up substantial amounts of foreign exchange reserves. Since the residual method for calculating capital flight deducts changes in foreign exchange reserves from sources of capital inflows (changes in external debt and direct foreign investment), the overall negative capital flight estimates for these countries in 2004 were to be expected. Indeed, these massive negative numbers tend to mask the sizeable contribution of other countries to the growth of capital flight in Africa (Table 2 and Figure 3). For instance, South Africa, with an estimated capital flight of US\$38 billion during 1991-2004 has the largest capital flight figure on the continent. This is in line with the findings of previous studies, which attributed the high incidence of capital flight to the attitude of wealthy South Africans who felt uncomfortable with the transition to democratic rule (Mohammed and Finnoff, 2004). It is noteworthy, however, that relative to its GDP, South Africa’s capital flight is amongst the least in Africa (Table 3). Other countries that have experienced widespread cases of capital flight in recent years include Chad (possibly associated with its new found oil wealth) and Cote d’Ivoire, owing to political instability.

In contrast to the volatile trend in capital flights, the trend in remittance flows to Africa since 1991 has exhibited a steady growth pattern rising from less than US\$ 2 billion dollars in 1991 to nearly US\$ 5 billion by 2003 (Table 1 and Figure 3). Nigeria is by far the largest recipient of remittances in Africa, accounting for one-third of all remittance flows to the continent. Nigeria is followed by Kenya, Lesotho, South Africa, Mauritius, Uganda, Benin, and Cape Verde. Together, these 8 countries accounted for nearly three-quarters of remittances in Africa (Table 4 and Figure 5).

Link between Capital Flight, Remittances and Current Account Sustainability

The current account positions of many SSA countries have improved slightly in recent years. But as Table 1 shows, a number of countries have recorded current account deficits in excess of the widely acclaimed ‘sustainability’ threshold of 5 percent of GDP. Although the average current account deficit for the SSA as a whole, over the period 1991-2004, was 7.8 percent of GDP, the wide variation across individual countries raises a cause for concern. In this section we examine the extent to which current account movements are related to capital flights and remittances, and what policy lessons can be learnt from such relationships.

In order to unearth the linkages between capital flight, remittances, and current account balance (deficit/surplus), we estimated three parsimonious regression equations for each of the three variables for the cross-section of 46 countries in SSA, using the annual average data for the

period 1991-2004. Because of the potential problems of simultaneity bias, we employed the generalised instrumental variable estimator in the form of two-stage least squares technique.

Table 5 shows the results of the regression analyses. Equation 1 of the table shows the estimated regression coefficients for capital flight. The results show a negative and statistically significant relationship between capital flight and current account. This was to be expected in view of the mechanical nature of the residual method of calculating capital flight – i.e. a residual after deduction of the current account balance and changes in international reserves from sources of capital inflows (debt and FDI). The results, however, show a positive and statistically significant link between capital flight and remittances, suggesting that an increase in workers' remittances tends to encourage capital flight! There is also some evidence of debt-fuelled capital flight in the sense that the estimated coefficient of the debt-to-GDP ratio is positive and statistically significant in the capital flight equation (Table 5). There is, however, no discernible relationship between capital flight and economic growth, as the estimated coefficient of GDP growth rate is negative but not statistically significant.

Equation 2 of Table 5 shows the regression results for remittances. Here, there appears to be a positive linkage between remittances and current account but with a very weak statistical significance. The implication of this result is that remittances could provide important resources for mitigating current account deficits. The positive link between remittances and capital flight is also confirmed by this equation. As discussed earlier, one of the strands of the theoretical literature on remittances suggests that these resource flows play a key role in the growth process of economies of the source countries of migrants. There is, however, lack of sufficient evidence to suggest that this was the case for the SSA countries, as the estimated coefficient of the GDP growth rate is positive but not significant at any level. In other words, whilst there appears to be a positive association between remittances and economic growth, such a relationship is not robust in the statistical sense, but it does provide some policy guidance.

Finally, the current account equation does reinforce the results in equations 1 and 2 of Table 5 with respect to capital flight and remittances – the estimated coefficient of capital flight in the current account equation is negative and significant and the coefficient of remittances in the current account equation is positive. These results lend support to the hypotheses that capital flights exacerbate current account problems while remittances help to ameliorate these problems.

In sum, the results from these regression equations provide some food for thought with respect to policy options on capital flights and remittances in dealing with the real and potential threats posed by current account unsustainability in many SSA countries. Although these results give some useful pointers, they should be treated with extra caution. For one, there appears to be a high degree of pair-wise correlations between most of the explanatory variables, which is likely to affect the outcomes from the regression analysis. Various corrective methods did not, however, help matters unless of course some crucial explanatory variables are dropped from the model! Also, the equations do not allow for dynamic learning over time. An appropriate procedure for capturing both the static and dynamic effects of the model is via panel data regressions, which could account for both country specificities and time dimensionality. Alternatively, a vector autoregressive regression (VAR) technique is likely to untangle the nature and extent of the variable decomposition and multiplier effects. This is a subject matter for yet another paper, but results reported here do provide some guidance on current and future policy prescriptions on these issues.

5. Conclusions and Policy Implications

This paper has surveyed the theoretical and empirical literature on capital flight and remittances with respect to Sub-Saharan African countries and investigated the links between these and current account situations. Estimates for capital flight, based on the standard ‘residual’ approach, showed that the trends in capital flight in SSA have been volatile relative to that for remittances. This volatility is on account of the mineral resource-based countries in the region. Indeed, both the magnitude and volatility of capital flights and their ‘reversals’ are substantial for this group of countries, suggesting the widely perceived association of capital flight with oil and mineral resource wealth. In terms of remittances, however, the trend in the SSA has been steady and positive. But with the exception of Nigeria (an oil rich but poor country), which accounted for nearly one-third of remittance flows into SSA, and South Africa, the other key players are small, land locked and/or island economies.

The findings from the statistical exercises in the paper yielded a number of important results:

- The negative link between current account balance and capital flight implies that capital flights tend to worsen current account difficulties.
- The positive relationship between remittances and current account situation, suggests that remittances could play an important role in mitigating current account problems
- The positive association between remittances and economic growth, albeit insignificant in the statistical sense, does suggest some evidence of the crucial role of remittances in the economic growth and development process.
- The positive causal link between external debt and capital flight provides support to the so-called ‘round-tripping’ or ‘back-to-back’ hypothesis

These results have important implications for policy. First, the huge estimates of capital flight suggest a huge potential for capital flight reversals. Efforts must be made towards the design and implementation of appropriate policy measures that would encourage flight capital to return to source countries. For ‘normal’ capital flight, this would require an urgent need for speeding up and deepening of economic and political reforms to create conducive environment for both domestic and foreign private sector participation. With respect to the ‘abnormal’ component of capital flight, SSA governments should provide policy incentives towards attracting these resources. One such incentive is to declare an amnesty for such capital to return back to the continent. For example, a period of say six months could be declared an amnesty period so that those who reverse their ‘abnormal’ flight capital within such a period would be spared punishment and/or given tax incentives on such capital. This is a ‘catch 22’ situation, but it provides a way forward on this issue.

Second, migrant remittances can undoubtedly play a crucial role in many SSA countries, but at present these remittance flows are largely directed to meeting the consumption needs of family members left behind rather than channelled towards directly productive investment activities. Also, the bulk of these remittances occur via informal channels thereby escaping the register books of the treasury. Attempts should be made by policy makers to recognise the importance of remittances by mainstreaming remittances in national development strategies through provision of less costly and hassle free methods of transmission. Efforts should also be made to encourage both remitters and recipients on the value-adding nature of their remittances through a number of initiatives, including micro-finance, small and medium sized enterprise projects, special and differential interest rate (or rate of return) on remittance deposits (or investment). It should be noted, however, that the success of these initiatives depends yet again on the existence of

conducive macroeconomic and political environment. Hence the need for deepening reforms, especially on economic and political governance to allay the fears that remitters currently express about widespread problems associated with ‘principal-agent’ relationships in Africa.

Third, the recent G8 declaration on African aid, trade and debt issues, particularly the proposed 100 per cent debt cancellation of low income countries that have reached their HIPC (Heavily Indebted Poor Countries) completion point and the doubling of overseas development assistance, is a welcome idea. But African policy makers must focus more attention on addressing supply constraints that inhibit the growth of inter- and intra-African trade. In this regard, efforts should be made towards accelerating and diversifying exports, increasing the value-added content of Africa’s exports, reducing the wide ranging trade barriers that militate against the emergence of real regional integration in Africa, strengthening the financial market to facilitate trade and monetary transactions and building a sustainable capacity to negotiate effectively in the international trading system.

References

- Adams, R.H. (1991). "The Economic Uses and Impact of International Remittances in Rural Egypt." *Economic Development and Cultural Change*, 39, 695-722.
- Ajayi, I.S. (1997). "An Analysis of External Debt and Capital flight in the Severely Indebted Low Income Countries in Sub-Saharan Africa." *IMF, Working Paper WP/97/68*.
- Anthony, M. and A.H. Hallett (1992). "How Successfully Do We Measure Capital Flight? The Empirical Evidence from Five Developing Countries." *Journal of Development Studies*, 28(3), 538-556.
- Boyce, J.K. (1992). "The Revolving Door? External Debt and Capital Flight: A Philippine Case Study," *World Development*, 20(3), 335-349.
- Boyce, J.K. and L. Ndikumana (2001). "Is Africa a Net Creditor? New Estimates of Capital Flight from Severely Indebted Sub-Saharan African Countries, 1970-1996." *Journal of Development Studies*, 38(2), 27-56.
- Chami, R., C. Fullenkamp, and S. Jahjah (2003). "Are Immigrant Remittance Flows a Source of Capital for Development?" *IMF, Working Paper, WP/03/189*.
- Collier, P., A. Hoeffler, and C. Pattillo (2001). "Flight Capital as a Portfolio Choice". *World Bank Economic Review*, 15(1), 55-80.
- Elbadawi, I.A. and R. Rocha (1992). "Determinants of Expatriate Workers' Remittances in North Africa and Europe". *World Bank Policy Research Working Paper 1038*.
- Gibson, H.D. and E. Tsakalotos (1993). "Testing a Flow Model of Capital Flight in Five European Countries". *The Manchester School*, 61(2), 144-166.
- Gordon, D.B. and Levine, R. (1989). "The 'Problem' of Capital Flight: A Cautionary Note". *The World Economy*, 12(2), 237-252.
- Hermes, N. and R. Lensink (2000). "Capital Flight and the Uncertainty of Government Policies." University of Groningen, unpublished manuscript.
- Hermes, N. and R. Lensink (1992). "The Magnitude and Determinants of Capital Flight: The Case of Six Sub-Saharan African Countries". *De Economist*, 140(4), 515-530.
- Hermes, N., R. Lensink, and V. Murinde (2002). "Flight Capital and its Reversal for Development Financing". *WIDER, Discussion Paper 2002/99*.
- International Migration Policy Programme (2003). "Migrant Remittances – Country of Origin Experiences: Strategies, Policies, Challenges and Concerns", paper presented at the International Conference on *Migrant Remittances: Development Impact and Future Prospects*, organised by UK DFID and the World Bank, London, 9-10 October 2003.
- Lensink, R., N. Hermes, and V. Murinde (1998). "The Effect of Financial Liberalization on Capital Flight in African Economies". *World Development*, 26(7), 1349-1368.
- Lensink, R., N. Hermes and V. Murinde (2000). "Capital Flight and Political Risk." *Journal of International Money and Finance*, 19, 73-92.
- Lucas, R.E.B. and O. Stark (1985). "Motivations to Remit: Evidence from Botswana." *Journal of Political Economy*, 93, 901-918.
- Mohammed, S. and K. Finnoff (2004). "Capital Flight from South Africa, 1980-2000". *African Development and Poverty Reduction, Forum Paper*.
- Murinde, V., N. Hermes, and R. Lensink (1996). "Comparative Aspects of the Magnitude and Determinants of Capital Flight in Six Sub-Saharan African Countries". *Savings and Development Quarterly Review*, 20(1), 61-78.
- Ndikumana, L. and Boyce, J.K. (2002). "Public Debts and Private Assets: Explaining Capital Flight from Sub-Saharan African Countries". Political Economy Research Institute, *UMASS, Working Paper Series No.32*.
- Ng'eno, N.K. (2000). "Capital Flight in Kenya." In Ajayi, I. and M. Khan (eds). *External Debt and Capital Flight in Sub-Saharan Africa*. Washington, D.C.: The IMF Institute, 300-321.

- Nyoni, T. (2000). "Capital Flight from Tanzania". In Ajayi, I. and M.S. Khan (eds). *External Debt and Capital Flight in Sub-Saharan Africa*. Washington, D.C.: The IMF Institute, 265-299.
- Olopoenia, R. (2000). "Capital Flight from Tanzania". In Ajayi, I. and M.S. Khan (eds). *External Debt and Capital Flight in Sub-Saharan Africa*. Washington, D.C.: The IMF Institute, 238-264.

Table 1
Capital Flight, Remittances and Current Account Balance for SSA*

Countries	Capital Flight (1991-2004)			Remittances (1991-2003)			Current Acc. Bal. (1991-2004)	
	Total (US\$m)	Average (US\$m)	% of GDP	Total (\$mn)	Average (\$mn)	% of GDP	US\$m	% of GDP
Angola	15164.65	1083.19	12.12	5	0.38	0.00	-456.95	-8.02
Benin	3589.21	256.37	10.81	1215	93.46	3.94	-157.38	-6.17
Botswana	-6926.49	-494.75	-9.23	662	50.92	0.95	472.80	8.96
Burkina Faso	4661.37	332.96	11.30	1056	81.23	2.76	-245.73	-7.72
Burundi	1490.83	106.49	12.50	0	0.00	0.00	-76.34	-8.82
Cameroon	5668.86	404.92	3.76	162	12.46	0.12	-334.21	-3.33
Cape Verde	1449.48	103.53	18.84	1079	83.00	15.10	-51.24	-9.22
CAR	1165.51	83.25	7.37	0	0.00	0.00	-40.59	-3.47
Chad	8798.00	628.43	33.58	1	0.08	0.00	-362.99	-18.22
Comoros	303.35	21.67	8.83	165	12.69	5.17	-20.03	-8.60
Congo	2872.85	205.20	7.64	0	0.00	0.00	-177.03	-9.02
DRC	5112.15	365.15	5.82	55	4.23	0.07	-277.19	-4.10
Côte d'Ivoire	1712.86	122.35	1.05	1420	109.23	0.93	-311.68	-2.92
Djibouti	711.21	50.80	9.56	1	0.08	0.01	-30.75	-5.70
Eq. Guinea	5892.93	420.92	38.53	10	0.77	0.07	-129.89	-38.59
Eritrea	1401.30	100.09	15.58	3310	25.46	3.96	-26.20	-3.66
Ethiopia	-1908.90	-136.35	-2.20	42	3.23	0.05	-185.71	-2.73
Gabon	-6058.50	-432.75	-8.39	295	22.69	0.44	353.65	6.51
Gambia	862.94	61.64	15.93	358	27.54	7.12	-15.06	-3.87
Ghana	8208.59	586.33	8.86	150	11.54	0.17	-328.43	-5.07
Guinea	3062.16	218.73	6.42	56	4.31	0.13	-204.95	-5.98
Guinea-Bissau	515.12	36.79	15.58	4157	319.73	135.42	-35.90	-15.37
Kenya	2867.90	204.85	2.01	4191	322.38	3.16	-307.74	-2.61
Lesotho	3053.60	218.11	23.79	0	0.00	0.00	-209.04	-23.70
Madagascar	4733.09	338.08	8.97	10	0.77	0.02	-245.66	-6.76
Malawi	3703.47	264.53	14.19	1361	104.69	5.62	-163.34	-9.12
Mali	2197.94	157.00	5.09	93	7.15	0.23	-189.10	-6.23
Mauritius	53.57	3.83	0.09	1758	135.23	3.17	3.24	-0.25
Mozambique	10465.74	747.55	22.99	698	53.69	1.65	-586.09	-18.70
Namibia	-387.54	-27.68	-0.80	126	9.69	0.28	144.88	4.14
Niger	2251.16	160.80	7.64	14365	1105.00	52.51	-115.76	-5.40
Nigeria	13015.32	929.67	2.39	65	5.00	0.01	-552.23	-2.33
Rwanda	2564.09	183.15	10.76	5	0.38	0.02	-134.00	-7.50
Sao Tome & P.	450.27	32.16	64.43	2628	202.15	404.99	-24.82	-49.80
Senegal	5610.38	400.74	7.86	26	2.00	0.04	-317.92	-5.94
Seychelles	1812.37	129.46	22.90	159	12.23	2.16	-55.00	-9.28
Sierra Leone	308.84	22.06	2.68	0	0.00	0.00	-68.97	-8.30
Somalia	3658.64	261.33	22.87	2837	218.23	19.10	-129.91	-7.48
South Africa	37640.44	2688.60	1.91	6274	482.62	0.34	-546.69	-0.30
Swaziland	1672.58	119.47	8.89	1043	80.23	5.97	-44.80	-3.10
Tanzania	7887.55	563.40	7.57	73	5.62	0.08	-480.26	-6.72
Togo	3296.13	235.44	15.65	493	37.92	2.52	-145.10	-9.43
Uganda	7586.02	541.86	10.19	1622	124.77	2.35	-258.57	-4.33
Zambia	4313.15	308.08	8.55	0	0.00	0.00	-332.48	-9.06
Zimbabwe	7396.74	528.34	7.10	46	3.54	0.05	-306.62	-3.64
SSA	183900.92	13135.78		49093	3776.35		-7707.80	-7.80

* Excluding Liberia due to missing data on a number of key variables.

Source: Calculated from data obtained from the following sources: Current Account Balance, Foreign Direct Investment and Foreign Exchange Reserves were obtained from the IMF Balance of Payments Statistics; External Debt data were obtained from the World Bank's World Debt Tables. In the case of remittances, the data were obtained from the World Bank's Global Development Finance.

Table 2
Trends in Capital Flight: Selected African Countries (1991-2004)

Year	SSA	Nigeria	Congo	Angola	S-Africa	Chad	Cote d'Ivoire
1991	15718.84	594.10	-212.90	521.23	2699.73	246.92	2235.98
1992	13574.49	854.79	-378.01	1323.27	-78.45	264.22	1676.88
1993	15174.54	3568.19	987.48	921.75	-938.70	273.34	1764.65
1994	23991.58	5225.58	716.63	981.02	2488.02	193.42	338.07
1995	19316.28	3474.54	1715.81	824.11	7954.01	-244.87	-748.75
1996	3209.703	-3931.57	701.01	-3200.95	3974.94	183.00	491.39
1997	-73.56751	-6282.72	127.76	2111.77	7050.85	304.97	-1545.57
1998	19841.97	3755.03	541.08	3971.23	1577.56	220.87	-2803.32
1999	20714.24	6288.64	1153.00	2850.54	1452.81	354.61	1015.84
2000	-5763.22	-6707.59	-414.86	-1049.12	-1025.94	463.47	583.19
2001	10571.74	-1244.69	397.07	3758.07	779.25	1017.07	-639.51
2002	18099.21	10828.29	848.36	2013.29	1860.36	1979.47	-2777.80
2003	28422.95	4839.63	1335.99	2139.25	6176.75	1953.65	982.97
2004	1102.149	-8246.90	-4645.56	-2000.81	3669.25	1587.86	1138.84
Cumul.	183900.9	13015.32	2872.85	15164.65	37640.44	8798.00	1712.86

Table 3
Capital Flight as percentage of GDP: Selected African Countries (1991-2004)

Year	Nigeria	Congo	Angola	S-Africa	Chad	Cote d'Ivoire
1991	2.18	-7.81	4.27	2.25	13.15	21.31
1992	2.61	-12.89	22.90	-0.06	14.04	15.04
1993	16.71	51.46	17.44	-0.72	18.68	15.98
1994	22.08	40.50	24.17	1.83	16.40	4.07
1995	12.36	81.09	16.27	5.26	-17.02	-6.81
1996	-11.14	27.59	-42.53	2.77	11.40	4.07
1997	-17.34	5.50	27.51	4.74	20.23	-13.26
1998	11.66	27.76	61.04	1.17	12.68	-21.93
1999	16.88	48.98	35.26	1.09	23.15	8.09
2000	-14.59	-12.88	-11.49	-0.77	33.29	5.50
2001	-2.59	14.24	42.06	0.66	61.00	-5.96
2002	23.18	28.12	18.58	1.68	98.31	-23.76
2003	8.29	37.48	15.47	3.73	74.10	7.00
2004	-11.40	-105.97	-9.87	1.71	37.26	7.37
Aver	4.21	15.94	15.79	1.81	29.76	1.19

Figure 4
Trends in Remittances (Top 8 Recipient Countries)

	Nigeria	Kenya	Lesotho	S Africa	Mauri- tius	Uganda	Benin	Cape Verde	Total8	ROA	SSA
1991	3.8	7.2	25.4	7.5	0.0	0.0	6.9	3.6	54.4	45.6	100
1992	3.1	6.3	24.8	6.5	0.0	0.0	7.4	4.1	52.2	47.8	100
1993	32.8	4.9	16.6	4.2	0.0	0.0	4.5	3.1	66.2	33.8	100
1994	25.3	6.3	14.7	4.5	5.4	0.0	4.1	3.9	64.3	35.7	100
1995	28.4	10.5	14.5	3.7	4.7	0.0	3.5	3.7	69.1	30.9	100
1996	32.1	9.8	13.1	3.5	5.4	0.0	2.9	3.4	70.1	29.9	100
1997	47.6	8.9	9.6	5.2	4.3	0.0	1.8	1.9	79.4	20.6	100
1998	42.5	9.6	8.1	7.8	5.0	0.0	2.5	2.0	77.4	22.6	100
1999	39.9	10.6	6.8	8.0	4.4	5.7	1.9	1.9	79.2	20.8	100
2000	39.8	12.6	5.9	8.0	4.1	5.6	2.0	2.0	80.1	19.9	100
2001	31.3	12.4	5.0	7.1	5.2	11.6	2.0	1.9	76.6	23.4	100
2002	34.0	9.5	4.4	6.9	5.1	8.9	2.0	2.0	72.8	27.2	100
2003	35.0	10.3	3.8	9.1	4.5	6.2	1.8	1.9	72.6	27.4	100
Total 91-03	33.4	9.7	9.7	6.6	4.1	3.8	2.8	2.5	72.6	27.4	100

ROA = Rest of Sub-Saharan African countries

Fig.1: Trends in Capital Flight from SSA

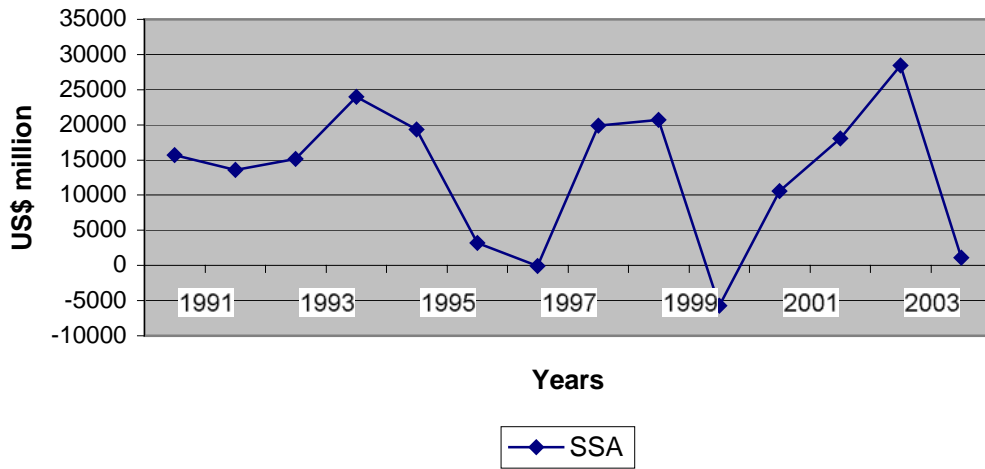


Fig.2: Capital Flight: Selected Countries 1

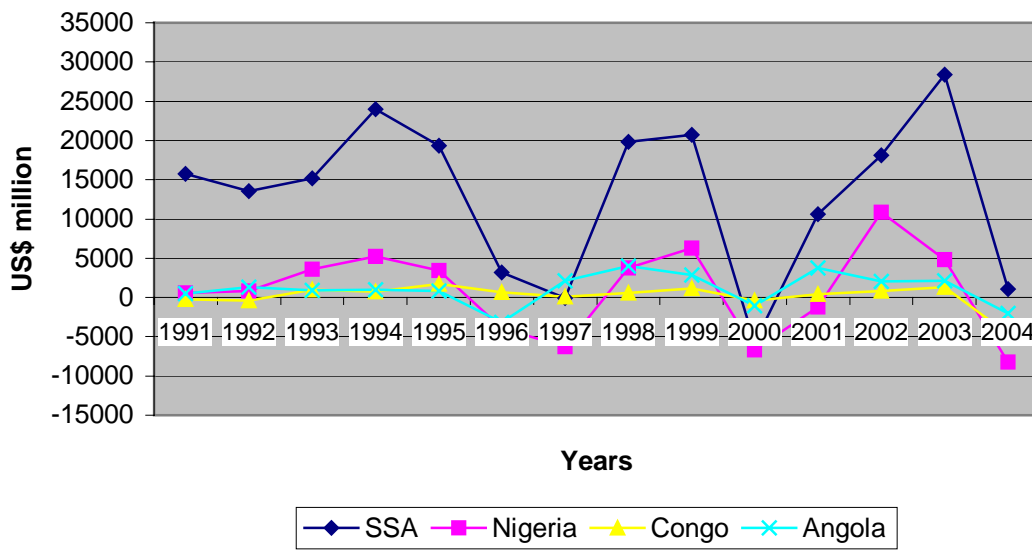


Fig.3: Capital Flight: Selected Countries 2

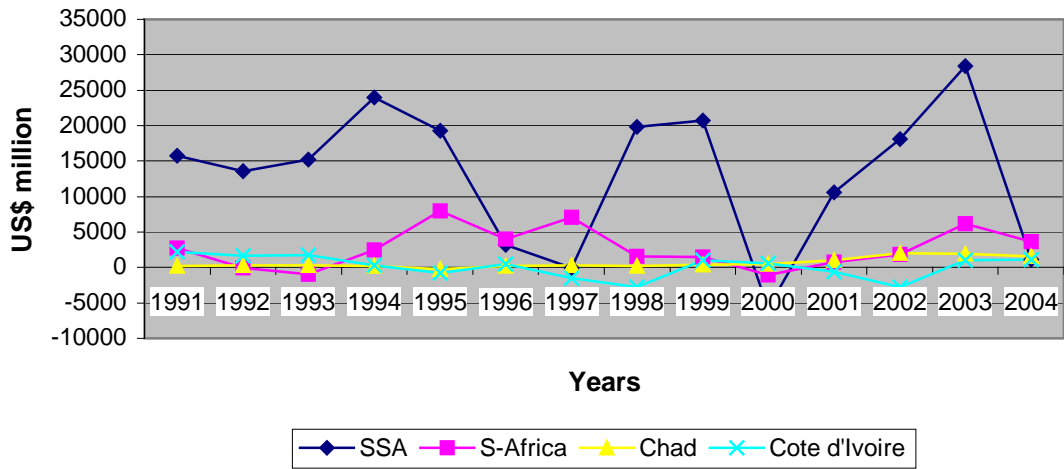
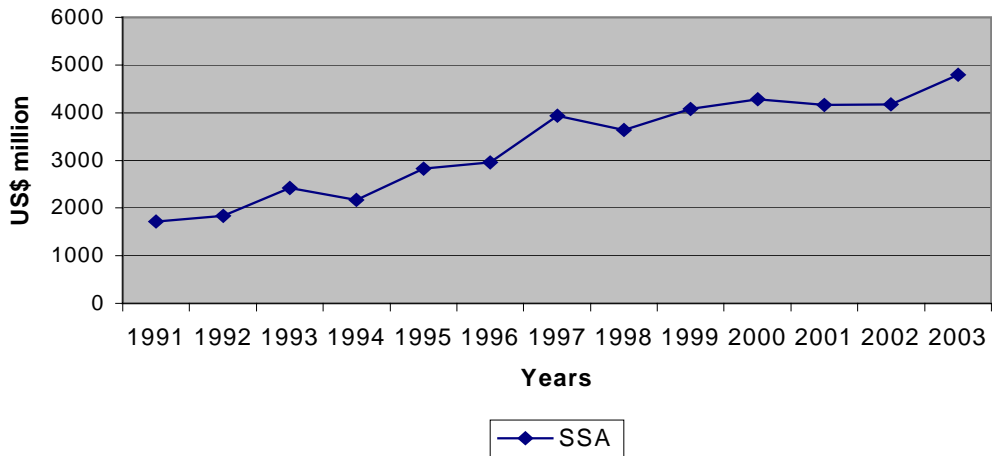
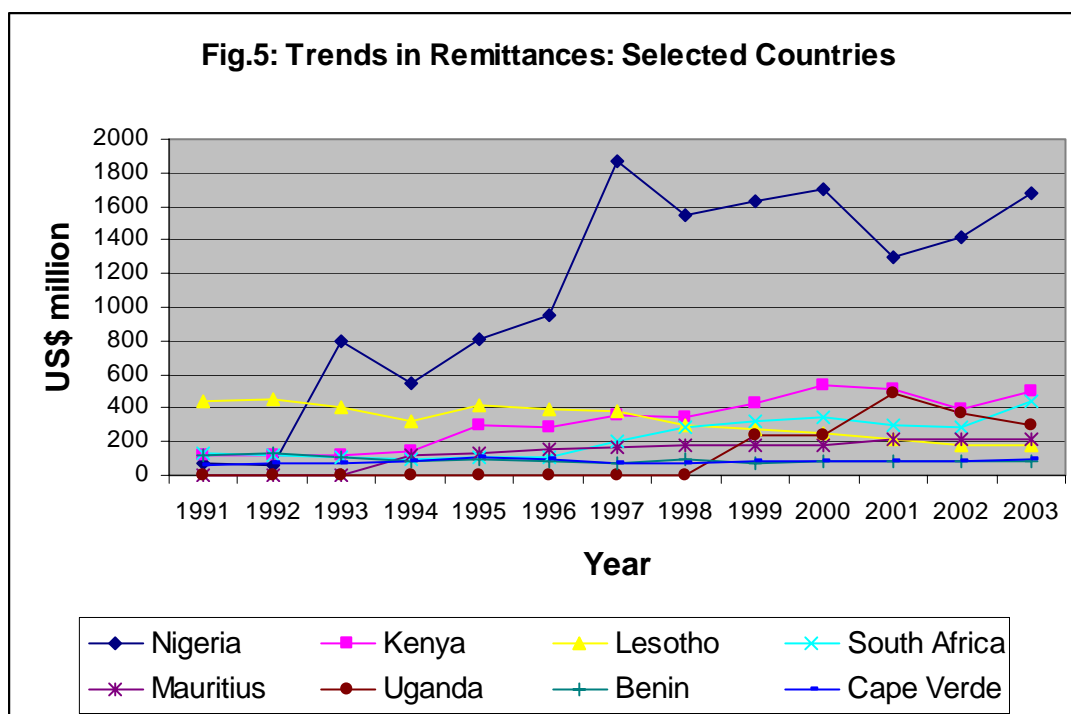


Fig.4: Trends in Remittances: SSA





Statistical Verification

Table 5: Estimated Regression Equations of Capital Flights, Remittances and Current Account Balance

	Equation 1 KG/GDP	Equation 2 RM/GDP	Equation 3 CA/GDP
CONS	5.70***	3.12***	4.21***
KF/GDP		0.07***	-0.59***
RM/GDP	0.05**		0.02
CA/GDP	-1.23***	0.09*	
GDPGR	-0.35	0.15	-0.62***
DEBT/GDP	0.04**		0.04***
X/GDP			
Adjusted R ²	0.891	0.951	0.920
F-ratio	79.8	89.7	87.1

***, **, and * denote statistical significance of estimated coefficients at the 1 percent, 5 percent and 10 percent levels respectively.

KF/GDP = Capital flight as a percentage of GDP

CA/GDP = Current Account balance as a percentage of GDP

RM/GDP = Remittances as a percentage of GDP

DEBT/GDP = External Debt as a percentage of GDP

X/GDP = Exports as a percentage of GDP

GDPGR = Real growth rate of GDP