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Capital Flight Repatriation: Investigation of its Potential Gains for Sub-Saharan African Countries*

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***Abstract*:** Despite the substantial recent increase in capital flows to sub-Saharan Africa (SSA), the sub-continent remains largely marginalized in financial globalization and chronically dependent on official development aid. The current debate on resource mobilization for development financing in Africa has overlooked the problem of capital flight, which constitutes an important untapped source of funds. This paper argues that repatriation of flight capital deserves more attention on economic as well as moral grounds. On the moral side, the argument is that a large proportion of the capital flight legitimately belongs to the African people and therefore must be restituted to the legitimate claimants. The economic argument is that repatriation of flight capital will contribute to propelling the sub-continent on a higher sustainable growth path while preserving its financial stability and independence and without mortgaging the welfare of its future generations through external borrowing. The anticipated gains from capital repatriation are large. In particular, this paper estimates that if only a quarter of the stock of capital flight was repatriated to SSA, the sub-continent would go from trailing to leading other developing regions in terms of domestic investment. The paper proposes some strategies for inducing capital flight repatriation, but cautions that the success of this program is contingent on a strong political will on the part of African and Western governments and effective coordination and cooperation at the global level.

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**The World Bank and African Development Bank, respectively.

1. Introduction

In the Handbook of Development Economics, Cardoso and Dornbusch (1989) summarized the challenges of resources mobilization in support of economic growth and development in low-income countries facing debt overhang and plummeting credit ratings by the following excerpt: 'Commercial banks are unlikely to provide much development finance in years to come. Bond markets, likewise, will be closed for countries with poor debt experience. Efforts to develop private capital flows to debtor countries must, therefore focus on other mechanisms.' Decades later, this assessment still holds and could greatly inform the growth process in the post-HIPC Completion Point era in sub-Saharan Africa (SSA).

In addition to their poor credit ratings, the challenges facing the majority of highly indebted poor countries (HIPC) in SSA—most of which are not even rated—are further compounded by the steadily declining level of international development assistance (World Bank, 2006). And with the spread out of debt relief granted under the HIPC initiative, there is only one possible route that is still unexplored, and yet could enhance the massive inflows of capital in support of the 'big push' model: the repatriation of flight capital. Indeed, the hundreds of billion of dollars of capital flight from SSA represent a sizable amount of untapped resources with tremendous potential to stimulate economic growth and development if repatriated to source countries.

According to the most recent estimates, capital flight—the voluntary exits of private residents' capital either for a safe haven or for investments made in foreign currency—from a sample of 40 SSA countries amounts to 420 billion in real US dollars over the three decades spanning 1970–2004 (Ndikumana and Boyce, 2008).[1] Including interest earning on past flight capital, the cumulative amount reaches a staggering $607 billion. An abbreviated description of the computation of capital flight is provided in the Appendix. A more detailed description can be found in Ndikumana and Boyce (2008) and Boyce and Ndikumana (2001).

The high levels of capital flight pose serious challenges for domestic resource mobilization in support of investment and growth in Africa. These challenges are even more important because the region is confronted with an acute shortage of capital and is increasingly marginalized in the global distribution of foreign direct investment, which remains heavily skewed in favor of OECD and emerging market economies (World Bank, 2006). These challenges are also exacerbated by the absence or relatively low level of *additionality* of resources within the HIPC framework.

Thus there is a need to give more attention to capital flight repatriation as a source of additional resources. Empirical evidence point to significant growth and welfare returns from massive repatriation of flight capital and/or

reflows of funds to source countries in developing and advanced economies alike. Capital repatriation schemes have been used successfully to boost domestic investment and growth in a number of countries in Asia and Latin America. One of the most publicized cases is the mobilization of domestic resources through capital repatriation using debt-equity-swaps programs in Chile (Armendariz de Aghion, 1991; Laban and Larrain, 1998). As a result of this program, Chile achieved investment and growth rates in scales unprecedented. Interestingly, advanced economies have also drawn on capital repatriation schemes to spur growth. The launching of a tax amnesty scheme in favor of private foreign asset holders enabled the government of Italy to recoup $30 billion from Swiss banks in 2001 (Watts, 2002).

In spite of the significant potential of capital flight repatriation for growth and macroeconomic stabilization, the SSA region has not fully benefited from it. Yet it is the most capital starved region of the world with the highest proportion of its assets held abroad (Collier *et al*., 2001). A substantial share of these assets is held abroad in the form of liquid assets especially as bank deposits. The highly liquid nature of these assets makes the expected transaction costs associated with their repatriation relatively low, and effective repatriation highly probable, provided that there is a strong political will and commitment at the global level.

The object of this paper is to investigate the channels through which capital flight repatriate will benefit African countries in terms of higher economic growth. We emphasize the gains through higher domestic investment.

Empirically, it is shown that if only a quarter of the estimated assets held abroad were repatriated to source countries and used to finance domestic investment, the sub-continent would go from trailing to leading other developing regions in terms of domestic investment. Its ratio of domestic investment to GDP would rise from 18.5 percent to 29.6 percent. Comparatively, 25 percent of the stock of capital flight from the 40 countries in the sample represents more than twice the total volume of debt relief received by this group of countries. Thus, the growth and welfare returns from capital flight repatriation are clearly superior to expected gains under the HIPC relief, suggesting that a 'big push' in the form of massive reflows of capital could highly complement and enhance the effectiveness of the HIPC initiative.

2. Recent Developments in Capital Flows from and to Developing Countries

The process of globalization has been accompanied by a dramatic increase in the volume of capital flows at the global level (World Bank, 2002, 2006; Fofack, 2007). This impressive rate of expansion of capital flows is largely

the result of net private flows, which reached the new record high of US$491 billion in 2005 (World Bank, 2007a). FDI remains the predominant form of private capital inflows to Africa.

While net equity inflows (portfolio and foreign direct investment) continue to account for the lion's share of net private flows (over 60 percent), market-based flows from private creditors in the form of bonds or short-term debt are also growing quite rapidly, reflecting the maturation of financial markets and improvement in the investment climate in a number of developing economies. Recent estimates suggest that capital inflows from market-based debt are growing even more rapidly than equity flows. Since 1998, gross market-based capital flows to developing countries have grown by more than twofold to reach US$385 billion in 2005 (World Bank, 2006). These developments reflect the growing interest of international investors in local-currency bond markets, and reduction of political risks and macroeconomic instability in an increasingly large number of developing countries, particularly in Europe and Central Asia, East Asia and Latin America, the regions which are benefiting the most from the global surge in capital flows and where yields and potential gains from currency appreciation have been the highest.

However, in the midst of this exceptional surge in net private capital flows, the heavily skewed shape of the global distribution of total net private capital flows to developing countries has persisted, further deepening the marginalization of SSA. Expressed as a share of global net private capital flows to developing countries SSA's share is still low, representing 10 percent, against 41 percent for the East Asia and Pacific region in 2005 (Table 1 and Figure 1). Moreover, market-based inflows to SSA are even lower (less than 3 percent of total) and the majority of it went to South Africa, which accounts for over 50 percent of gross market-based capital flows to the sub-region (World Bank, 2006).

Given the large gaps between the needs and resources for financing for development in Africa, new sources must be explored for increasing the resource inflows to the continent. In this regard, capital flight repatriation offers a potentially rewarding avenue. The process of capital repatriation has been largely documented in the LAC region where capital flight was significant in scope and magnitude, with estimates of cumulative stock (including interest earnings) exceeding US$350 billion by the late 1980s (Lessard and Williamson, 1987; Pastor, 1989). However, in addition to incentives created by the improved macroeconomic environment, the repatriation process was facilitated by the fact that more than 50 percent of flight capital was held abroad in the form of liquid assets (Armendariz de Aghion, 1991).

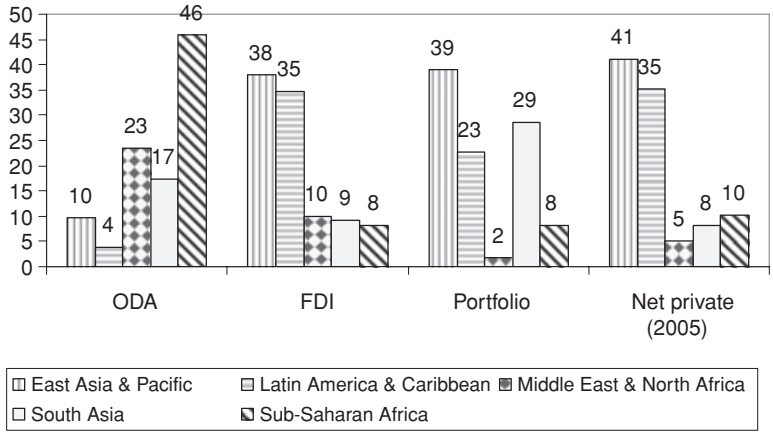
According to the United Nations Economic Commission for Latin America and the Caribbean, significant reflows of capital to the region took place in the 1990s when net private capital flows increased by more than

Table 1: Capital flows to developing countries, volumes (billion dollars) and share (%)

	1980		1990		2000		2005		2007	
	$bn	Share (%)	$bn	Share (%)	$bn	Share (%)	$bn	Share (%)	$bn	Share (%)
ODA										
East Asia & Pacific	3.4	13.5	7.7	16.5	8.6	24.3	9.5	11.2	7.20	9.7
Latin America & Caribbean	2.1	8.4	5.1	10.9	4.8	13.7	6.3	7.5	2.86	3.8
Middle East & North Africa	7.0	27.6	10.4	22.1	4.5	12.8	26.9	31.8	17.42	23.4
South Asia	5.3	20.6	6.0	12.7	4.2	11.9	9.3	10.9	12.89	17.3
Sub-Saharan Africa	7.6	29.9	17.8	37.9	13.2	37.3	32.6	38.5	34.09	45.8
All	25.5	100.0	47.0	100.0	35.4	100.0	84.6	100.0	74.50	100.0
FDI										
East Asia & Pacific	1.4	14.3	10.3	49.4	44.3	32.0	65.3	40.4	117.4	38.0
Latin America & Caribbean	6.4	66.5	8.3	39.7	79.3	57.2	61.4	37.9	107.2	34.7
Middle East & North Africa	1.5	15.2	1.0	4.9	4.1	3.0	9.1	5.6	30.5	9.9
South Asia	0.2	2.0	0.3	1.4	4.4	3.1	8.4	5.2	28.9	9.3
Sub-Saharan Africa	0.2	1.9	1.0	4.6	6.5	4.7	17.6	10.9	25.3	8.2
All	9.6	100.0	20.9	100.0	138.6	100.0	161.8	100.0	309.2	100.0
Portfolio flows										
East Asia & Pacific	0.0	358.3	0.4	13.3	6.6	51.5	26.5	44.7	48.6	39.1
Latin America & Caribbean	0.0	0.0	2.5	74.6	−0.6	−4.4	12.5	21.1	28.1	22.6
Middle East & North Africa	0.0	0.0	0.0	0.1	0.2	1.9	0.9	1.5	2.1	1.7
South Asia	0.0	0.0	0.0	0.0	2.4	18.6	12.2	20.6	35.4	28.5
Sub-Saharan Africa	0.0	0.0	0.4	11.9	4.2	32.4	7.2	12.1	10.2	8.2
All	0.0	100.0	3.3	100.0	12.8	100.0	59.3	100.0	124.4	100.0
Net private flows										
East Asia & Pacific	7.2	17.5	17.0	49.2	37.8	25.0	107.6	41.1		
Latin America & Caribbean	24.9	60.5	13.3	38.4	86.8	57.3	92.4	35.3		
Middle East & North Africa	3.5	8.4	0.6	1.8	5.2	3.4	13.7	5.2		
South Asia	1.2	3.0	1.9	5.5	10.7	7.0	21.2	8.1		
Sub-Saharan Africa	4.4	10.7	1.8	5.2	11.1	7.3	27.1	10.3		
All	41.1	100.0	34.6	100.0	151.5	100.0	262.0	100.0		

Source: World Bank (2008).

Figure 1: Share of net private capital flows by region (percentage of total flows to developing countries), 2007[a]



[a]2005 for net private capital flows.
Source: World Bank (2008).

sevenfold. Though numerous countries in the region enjoyed the process of capital repatriation, Chile is often cited as the most successful case where massive repatriation of capital was used to finance productive investments. Net capital inflows to Chile (translating in capital account surplus) increased to US$3 billion in the early 1990s, from about US$1 billion in the 1980s. These repatriation schemes occurred in the context of rapid increase in FDI inflows to Chile, which received more than 15 percent of private investment flows to Latin America throughout the 1990s (Laban and Larrain, 1998).

The massive inflow of capital to Chile in the 1990s is often attributed to a combination of favorable external and domestic factors such as increasing interest rate differentials with advanced economies and reduction of the country risk premium, especially due to a reduction in debt and successful macroeconomic stabilization program. It is believed that the improvement of credit worthiness and implementation of debt-equity swaps also played a critical role in the Chilean 'big push'.[2]

According to Edwards (1990), the debt-equity swaps emerged as effective instruments for reducing external debt and increasing private capital flows, contributing to more than a fivefold increase in the rate of capital repatriation.[3]

Evidence of repatriation of capital flight to SSA is very limited. Nevertheless, the purchase of divested state-owned enterprises in Uganda using repatriated flight capital, following the liberalization of capital account, may be viewed as a variant of the debt-equity-swaps, albeit on a much smaller scale.[4] Recent estimates suggest that the cumulative stock of flight capital

from the region reached the critical threshold of US$607 billion in 2004 (Ndikumana and Boyce, 2008), this, even as countries were striving to meet the HIPC conditionalities for eligibility to debt relief.

However, in the midst of this rather disappointing record, it is worth noting that Nigeria successfully recovered half a billion dollars of stolen capital from Swiss banks in 2005 (World Bank, 2007b). Though marginal compared to the scale of capital flight from that country (the cumulative stock of flight capital from Nigeria up to 2004 amounts to US$240 billion), this repatriation of flight capital provides jurisprudence for other countries. It is occurring at a particularly critical and opportune moment, when the international community is working towards the establishment of an institutional framework for curbing illicit capital outflows and ensuring the repatriation of past flight capital.

The commitment of the international community to addressing this financial hemorrhage goes back to December 2000 when the UN General Assembly adopted resolution 55/188 in which it called upon countries to cooperate through the United Nations system by devising ways and means of preventing and addressing the illegal transfer of assets and repatriating illegally transferred funds. Following that resolution, asset recovery was identified as a new and complex field of international cooperation during the United Nations Convention against corruption held in 2006. That same year, the International Centre for Asset Recovery (ICAR) was established at the Basel Institute on Governance. And in September 2007, the Stolen Asset Recovery (STAR) initiative was jointly launched by the World Bank and United Nations Office of Drugs and Crime (World Bank, 2007b).

At the same time, the recovery of looted assets and repatriation of capital flight to source countries is marred with a number of challenges. Not the least because the costs associated with capital flight are not uniformly distributed at the global level. The loss of assets in the form of capital flight for source countries in the south is a gain in terms savings for recipient countries in the west. Historically, countries seeking the return of flight capital or stolen assets have often been confronted with the challenges of obtaining domestic freezing and confiscation orders that provide a sufficient basis for international request and in obtaining the enforcement of judgments. Moreover, most jurisdictions do not allow for the confiscation and return of assets on the basis of a criminal conviction.

However, according to experts from the International Centre for Asset Recovery, the overwhelming majority of capital flight from SSA is held abroad in the form of liquid assets, and particularly in the form of bank deposits. In this regard, the transaction costs associated with the repatriation of these assets should be relatively low. Essentially, repatriation hinges on the political will and the extent of coordination at the international level. For instance, cooperation at the international level enhanced the repatriation of

a fraction of flight capital to the Philippines government in the post-Marcos era. These cases of success at recovering looted assets could greatly inform the newly established STAR initiative and enhance the repatriation of flight capital in support of efforts to increase internal resource inflows and as a complement to the HIPC initiative in SSA.

3. Capital Flight Repatriation: Potential Gains

We examine potential gains from capital flight repatriation in terms of economic growth by focusing on one of the key drivers of economic growth, namely physical capital accumulation. The argument is that capital flight repatriation would boost domestic saving, which in turn would induce higher investment. In addition, repatriated capital flight would increase the taxable base, raising government revenue, which would allow the government to increase public investment. This will ultimately boost capital formation, a key driver of long-term growth.

To examine the potential gains from capital flight repatriation we use two sets of empirical relationships. First, we estimate econometrically the effects of capital flight on gross domestic investment, public investment and private investment. We control for real GDP to account for accelerator effects. As the results in Table 2 show, capital flight depresses private investment while it has no discernible effect on public investment.

The results suggest that the negative effects of capital flight on domestic investment operate through private investment more than public investment. One of the reasons is that capital flight, part of which is operated by

Table 2: Impact of capital flight on investment (2-step GMM estimates)

	Total domestic investment	Private investment	Private investment	Public investment
Lagged investment	0.651	0.620	0.520	0.638
	(0.00)	(0.00)	(0.00)	(0.00)
KF	−0.007	−0.026	−0.021	0.0006
	(0.00)	(0.00)	(0.00)	(0.79)
GDP growth	0.123	0.022	0.021	0.064
	(0.00)	(0.00)	(0.01)	(0.00)
Public investment			0.014	
			(0.46)	
Sargan test	37.9	27.94	29.57	30.91
	(1.00)	(1.00)	(1.00)	(1.00)
2nd order autocorrelation	−1.13	0.51	−0.03	−0.63
	(0.26)	(0.61)	(0.98)	(0.53)
Observations	1109	717	684	705

Notes: Regressions in levels.
Numbers in parentheses are *p*-values.

private actors, reduces the volume of private savings that can be allocated to productive investment. Another reason is that given that environments that are conducive to capital flight are most likely to be characterized by uncertainty, both macroeconomic and political, this implies that private agents will prefer to either defer investment or simply hold alternative assets, including foreign assets rather than investing in the country. The savings-liquidity effects are compounded by the uncertainty effects in discouraging domestic private investment.

We then test econometrically whether and to what extent an increase in domestic savings leads to an increase in domestic investment in this sample of countries. As discussed above, one of the ways in which capital flight depresses investment is by reducing domestic savings. This result is useful in examining potential gains from flight capital repatriation. Our approach is to assume that repatriated capital flight will augment the recipient African country's domestic savings, which will stimulate domestic investment.

To measure this effect of flight capital repatriation on investment, we estimate equations for gross domestic investment, public investment and private investment where investment depends on domestic savings, controlling for GDP (the accelerator effect). The results in Table 3 show that an increase in savings does lead to an increase in private, public, and total domestic investment. As expected, the effect on private investment is larger than that on public investment. According to these results, a one percent increase in savings leads to a 0.109 percent increase in domestic investment.

The estimated link between investment and saving as measured by the coefficient of 0.109 may seem smaller than expected. However, in this sample of countries, there are many factors that may explain the small elasticity of

Table 3: Impact of savings on investment (GMM 2-step results)

	Total domestic investment	Private investment	Public investment
Lagged investment	0.617	0.610	0.698
	(0.00)	(0.0)	(0.00)
Saving	0.109	0.073	0.027
	(0.00)	(0.00)	(0.00)
GDP growth	0.115	0.011	0.089
	(0.00)	(0.09)	(0.00)
Sargan test	37.3	27.4	29.8
	(1.00)	(1.00)	(1.00)
2nd order autocorrelation	−1.14	0.42	−1.16
	(0.25)	(0.68)	(0.24)
Observations	1125	715	703

Notes: Saving and investment are in percentage of GDP; numbers in parentheses are *p*-values.

investment to savings. First, the weak link between investment and savings is a result of the inefficiencies in financial systems, which are unable to channel savings into productive investment. In particular, African financial systems are unable to perform their role of maturity transformation, whereby they are expected to help alleviate the mismatch between the demand of long-term financing and the supply of savings which are mostly kept in the form of liquid and semi-liquid assets. Second, public investment, which is a large fraction of domestic investment, is financed partly by aid and therefore not highly sensitive to domestic saving.

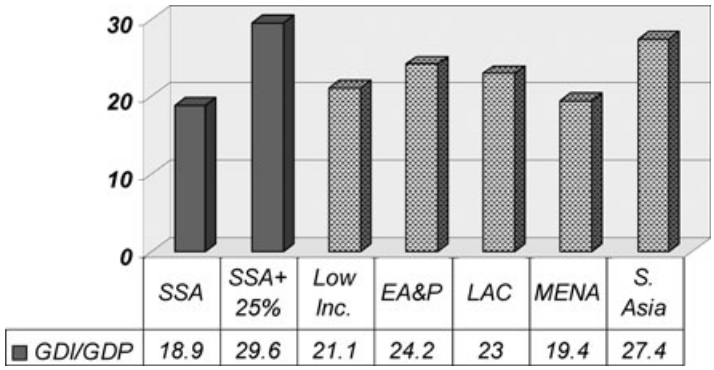
We will nevertheless use this estimated link between investment and saving to attempt an economic illustration of the impact of capital flight on investment. Based on these results, we simulate the effects of capital flight repatriation by assuming, first, that the repatriated capital constitutes an increase in domestic saving, and second, that the increase in savings will lead to an increase in investment at a rate of 0.109 as estimated in the regression analysis.

Evidently, it is difficult if not impossible to repatriate the totality of capital flight in the short term. Thus we will assume that only a fraction of the stock of capital flight is repatriated, intermediated into the financial system as savings, and eventually allocated to financing investment. Table A1 in the appendix shows for each country the current investment to GDP ratio and the ratios that would result from the repatriation of 25 percent of the stock of capital flight as estimated in 2004. We use average investment and saving to GDP ratios for the period 2000–2004.

The results show clearly that SSA would generate tremendous benefits from capital flight repatriation. If only 25 percent of the stock of capital flight accumulated up to 2004 was repatriated, the average ratio of gross domestic investment to GDP for the sub-continent would increase from the current 18.5 percent to 29.6 percent (Table A1). This result is economically significant on two accounts. First, it implies that through repatriation of only a quarter of capital flight stock, the sub-continent is likely to go from trailing other developing regions to leading in terms of domestic investment (Figure 2). Second, repatriation of this small fraction of capital flight would allow the sub-continent to move very close to the minimum threshold of investment that is conventionally considered to be necessary to achieve the required growth rates needed to achieve the millennium development goals (MDGs). Indeed the United Nations Economic Commission for Africa (UNECA) estimated in 1999 that Africa needed an investment/GDP ratio of 34 percent in order to achieve the growth rate of 7 percent per annum that is needed to reduce poverty by half by 2015 (UNECA, 1999).

In general, the debates around accelerating growth through increasing domestic investment have focused on mobilization of external private capital flows (UNECA, 2006) and increasing domestic resources especially by

Figure 2: Domestic investment in SSA and other developing regions – with effects of capital flight repatriation



Note: SSA + 25% = Gross domestic investment achieved following repatriation of 25 percent of the stock of capital flight.
Source: World Bank, World Development Indicators. See the text for the details on the estimation of the impact of capital flight repatriation on investment.

deepening financial intermediation to increase savings and by raising tax revenue (UNCTAD, 2007). The issue of capital flight has been overlooked in these debates. Yet, without curbing capital flight, African countries will not be able to mobilize sufficient domestic resources and retain external resources to finance high levels of investment. Most importantly, flight capital and other forms of stolen funds held abroad constitute a source of substantial untapped resources that could contribute to boosting domestic investment. Thus, African countries need to design strategies to repatriate flight capital, as an integral part of the national agenda for resource mobilization as a means of accelerating economic growth.

4. Conclusions and Recommendations on Strategies for Capital Flight Repatriation

4.1 Summary of Findings

This paper has argued that repatriation of capital flight should take a much more prominent place in the debates about mobilization of resources to increase financing for economic development in African countries. One argument for repatriation is based on simple moral principles, especially the fact that a large proportion of capital held abroad by Africans was obtained through embezzlement of national resources and fraudulent use of

borrowed funds.[5] Therefore those funds belong legitimately to the population of African countries and must be repatriated. The other argument is based on economics principles: instead of continuing to rely on debt-generating resources and other forms of financing that are usually associated with binding direct and indirect conditions, African countries would be much better off tapping the stocks of funds held in Western countries in the form of capital flight. This source of financing, unlike aid and debt, does not imply any commitments to future payments to be shouldered by the African population.

The paper has provided some illustration of the magnitude of potential benefits from capital flight repatriation through domestic investment. Using a representative sample of SSA countries (40 countries), the analysis shows that based on the stock of capital flight as of 2004, and considering the empirical link between investment and savings, if only 25 percent of the stock of capital flight was repatriated to these African countries, and channeled through the system as savings, the average investment to GDP ratio in this sample would increase from 18.5 percent to 29.6 percent. This would not only propel SSA to the top of other developing countries in terms of domestic investment, this would also allow many countries in the region to reach the levels of investment needed to sustain growth rates necessary to reach the MDGs.

By contributing to increasing the rate of capital accumulation, repatriation of capital flight would help launch African countries on a path of higher economic growth, and eventually increase the pace of poverty reduction. This would be achieved while keeping African countries free of the burden associated with external borrowing and other debt-generating forms of external financing on which African countries typically rely so heavily. The gains from repatriation also vastly dominate the potential gains from debt relief, the most lauded source of non-debt generating external financing in recent years.

For these potential gains to materialize, it will be necessary to design strategies at the national and international level to induce repatriation of legitimate assets held abroad and impound illicit assets stolen from the continent. This implies responsibilities for and actions by African governments, Western governments, and international banks.

4.2 Repatriation and Responsibilities of African Governments

African governments have important responsibilities in initiating and sustaining flight capital repatriation. The first area of focus is improvement of the regulatory framework and the general investment climate in order to attract private assets that were acquired legally and only held abroad for

the purpose of return maximization and risk minimization. The evidence indicates that Africa is still trailing behind other regions in terms of the quality of the investment climate. African countries generally score poorly in all areas related to the ease of doing business and exhibit relatively higher transactions costs (UNCTAD, 2007). In those conditions, it will be hard to attract legitimate assets held abroad by Africans. Thus the strategies for repatriating legitimately acquired assets must be an integral part of the national agenda for promoting both domestic and foreign investment.

The second focus of policy is improvement of governance in African countries. Governments in Africa must demonstrate to asset holders that repatriated assets will not be subject to distortionary treatment through excessive and discriminatory taxation, or even worse, to the risk of embezzlement. Commitment to transparency by the leadership will be critical in convincing private asset holders to repatriate their wealth back into the continent.

4.3 Responsibilities of Western Governments

Western governments also have a very important role to play in facilitating repatriation of capital flight. The first area of responsibility is the enforcement of transparency in the banking system. Historically, African leaders and private asset holders have benefited from the tradition of secrecy that characterizes banking operations. Even when the asset holders are well known to be corrupt leaders, Western banks have always put their profit motives before the principles of honesty and transparency in the dealings with corrupt leaders. It is the responsibility of Western governments to uproot these practices, which undermine the interests of African populations who are the legitimate claimants on these stolen assets.

Western governments can also play a critical role in the effort to recover stolen assets by utilizing their economic and financial intelligence services to uncover deposits of illegally acquired funds especially from African leaders and their private acolytes. In the post-2001 fight against terrorism, it has been demonstrated that given adequate political will on the part of Western governments, it is possible to track down illicit transactions. Similarly, albeit belated, the success in tracking down hidden Nazi assets showed that strong political determination is critical to enforce cooperation by Western financial centers in uncovering illicit funds. Such strong political commitment from Western governments will be indispensable for the success of the efforts to repatriate the massive wealth stolen from African countries. In addition to individual countries' initiative, it will require a concerted effort at the international level, especially through the ratification and implementation of specific conventions against fraud, corruption, and money laundering. In

this respect, initiatives such as the UN Resolution 55/188 on illegal transfer of assets, the Stolen Asset Recovery initiative, and the International Center for Asset Recovery deserve to be supported and given adequate material, human and political resources to promote transparency in financial transactions.

4.4 Responsibilities of Western Banks

As the old saying goes, *it takes two to tango*. Thus, in the absence of complicity from Western banks, it would be nearly impossible for corrupt African leaders and private actors to channel and hide stolen funds abroad. Therefore, it is necessary for Western governments and the international financial institutions to design regulatory mechanisms that provide for appropriate and symmetrical sanctions to both African smugglers of wealth and their bankers. Thus far, when stolen funds have been uncovered, only the African culprits have incurred the penalties while their Western bankers have enjoyed impunity. This asymmetric treatment of financial crime undermines efforts aimed at curbing capital flight and recovering stolen funds from the African continent.

Evidently, the critical ingredient in the success of capital flight repatriation is strong political will both at the level of African governments and at the international level to enforce transparency in banking and capital account transactions. African countries will have little chance in uncovering and repatriating the stolen funds without the support and cooperation of their Western counterparts. Thus repatriation of capital flight should figure prominently on the agenda of the dialogue aimed at mobilizing domestic resources and boosting international support to accelerate growth and reduce poverty in Africa.

Notes

1. Capital flight is sometimes measured as errors and omissions in the balance of payments and often refers to illicitly acquired resources. However, the proposed estimated cumulative stock is based on an elaborate methodology that is described in detail in Ndikumana and Boyce (2008) and Boyce and Ndikumana (2001).

2. In particular, the implementation of macroeconomic reforms in Chile and reduction of external debt resulted in a significant improvement of credit rating in the early 1990s. Chile reached investment grade risk rating when it received a BBB from S&P, the highest in Latin America at the time. Credit worthiness remains low across SSA where most countries are not even rated. The few exceptions are South Africa and Mauritius which

enjoy rating comparable to Chile (World Bank, 2006). Not surprisingly, these two countries have received a large share of capital inflows into the region.

3. The debt-equity-swaps refer to a technique initially developed to reduce a country debt burden through the conversion of a debt from a loan into a firm of government equity holding. This technique was widely used in Latin America. Though Chile aggressively made use of this technique, it was also implemented in Bolivia, Brazil, Mexico, Venezuela and Argentina, resulting in massive inflows of capital.

4. For further details, see Kasekende (2001).

5. See Ndikumana and Boyce (1998) for an illustration with the case of capital flight under the Mobutu regime in the former Zaïre (today's Democratic Republic of Congo). Also see Ndikumana and Boyce (2005) for a discussion regarding the responsibility of capital flight.

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Appendix: A Brief Summary of the Computation of Capital Flight

Here we provide only an abbreviated summary of the computation of capital flight. A detailed description can be found in Ndikumana and Boyce (2008) and Boyce and Ndikumana (2001).

Definition of Capital Flight

Capital flight is defined as the difference between total capital inflows and recorded foreign exchange outflows. In a given year t for a country i capital flight is computed as:

$$KF_{it} = \Delta\, DEBTADJ_{it} + DFI_{it} - (CA_{it} + \Delta\, RES_{it}) \qquad \text{(A1)}$$

where $\Delta DEBTADJ$ is the change in total external debt outstanding adjusted for exchange rate fluctuations (see below), DFI is net direct foreign investment, CA is the current account deficit, and ΔRES is net additions to the stock of foreign reserves.

Adjustments to the Basic Measure of Capital Flight

Ndikumana and Boyce (2008) and Boyce and Ndikumana (2001) apply the following adjustment:

(1) *Adjustment for exchange rate fluctuations:* The objective is to correct for potential discrepancies due to exchange rate fluctuations. We adjust the change in the long-term debt stock for fluctuations in the exchange rate of the dollar against other currencies.
(2) *Adjustment for debt write-offs:* The component 'change in debt' is adjusted to account for debt write-offs, given that they reduce the stock of debt although they have no corresponding flow of debt service. The value of debt write-offs (absolute value, in 2004 dollars) is added to the estimated capital flight in Equation (A1).

(3) *Adjustment for trade misinvoicing:* Trade misinvoicing is estimated by comparing the country's export and import data to those of its trading partners, under the assumption that the trade data from industrialized countries are relatively accurate. The discrepancy between these and the data from their African trading partners is interpreted as evidence of misinvoicing.

(4) *Adjustment for underreporting of remittances:* This adjustment takes into account the fact that remittance inflows are often underreported in the African countries' official balance-of-payments (BoP) statistics. Unrecorded remittance inflows have an effect on capital flight estimates analogous to that of unrecorded export earnings: the amount of foreign exchange entering the African country is greater than what is captured in the official BoP. Ndikumana and Boyce (2008) design an algorithm to estimate unrecorded remittances which is used to adjust the measure of capital flight.

(5) *Inflation adjustment:* To make annual capital flight estimates comparable over an extended period of time, Ndikumana and Boyce (2008) convert nominal flows to constant dollars, using the US producer price index for this purpose.

(6) *Adjustment for interest earnings:* Ndikumana and Boyce (2008) compute the stock of interest-earnings adjusted capital flight (*SADJKF*) by applying the US Treasury bill rate to accumulated past capital flight.

Table A1: Estimated impact of capital flight repatriation on domestic investment

Country	Stock of capital flight (US$m)	Saving/ GDP (%)	Investment/ GDP (%)	New investment/ GDP (%)
Angola	50950.6	24.7	12.8	16.4
Benin	−7663.9	5.5	19.0	19.0
Botswana	−1086.9	39.6	25.8	25.8
Burkina Faso	4670.6	5.0	19.4	30.3
Burundi	2566.6			
Cameroon	27287.7	19.1	17.2	22.0
Cape Verde	2707.1			
Central AR	2774.1	11.4	12.6	22.2
Chad	2345.6			
Comoros	−168.7	0.4	11.9	11.9
Congo DR	36737.6	4.2	8.2	37.4
Congo Rep	17474.8	51.9	23.6	26.5
Côte d'Ivoire	54000.6	20.8	10.5	16.9
Ethiopia	22526.0	7.4	19.2	35.2
Gabon	11997.6	43.8	26.9	28.4
Ghana	11208.4	10.2	24.2	29.8
Guinea	1048.9	11.1	14.6	13.8
Kenya	6369.3	11.8	14.9	15.0
Lesotho	893.4			
Madagascar	9570.8	9.5	18.6	31.2
Malawi	3825.4			
Mali	−425.4	12.2	23.6	23.6
Mauritania	4006.0			58.1
Mauritius	650.1	24.7	23.5	22.2
Mozambique	14273.4	10.6	23.5	33.8
Niger	−8732.6	4.8	13.6	13.6
Nigeria	240781.0	32.6	22.4	27.9
Rwanda	5889.5	1.1	18.4	166.2
Sao Tome & Principe	1059.1			
Senegal	−13077.3	8.7	19.7	19.7
Seychelles	2986.3	21.3	23.5	38.5
Sierra Leone	7005.4			
South Africa	17492.3	20.3	16.4	14.9
Sudan	16325.0	14.7	18.4	16.4
Swaziland	1342.6	11.7	20.1	21.1
Tanzania	9963.4	9.5	18.3	19.1
Togo	−4064.6			
Uganda	6853.7	7.3	20.3	22.0
Zambia	19814.3	16.0	22.8	37.8
Zimbabwe	24556.0	8.1	10.6	30.3
Sample	606733.7	10.4	18.5	29.6

Sources: Capital flight figures from Ndikumana and Boyce (2008); saving, investment and education ratios from World Development Indicators (2007).