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Capital flight from sub-Saharan Africa: linkages with external borrowing and policy options

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Even as African countries became increasingly indebted, they experienced large-scale capital flight. Some of this was legitimately acquired capital fleeing economic and political uncertainties; some was illegitimately acquired wealth spirited to safer havens abroad. This paper presents new estimates of the magnitude and timing of capital flight from 33 sub-Saharan African countries from 1970 to 2004. We then analyze its determinants, including linkages to external borrowing. Our results confirm that sub-Saharan Africa is a net creditor to the rest of the world, in that the subcontinent's private external assets exceed its public external liabilities: total capital flight amounted to $443 billion (in 2004 dollars), compared to the external debt of $195 billion. Econometric analysis indicates that for every dollar in external loans to Africa in this period, roughly 60 cents flowed back out as capital flight in the same year, a finding that suggests the existence of widespread debt-fueled capital flight. The results also show a debt-overhang effect, as increases in the debt stock spur additional capital flight in later years. In addition to policies for recovery of looted wealth and repatriation of externally held assets, we discuss the need for policies to differentiate between legitimate and odious debts, both to ease current burdens on African countries and to improve international financial governance in the future.

Keywords: capital flight; external debt; stolen assets; odious debt

JEL Classifications: F21, F33, F34, F35, H26, O16, O24

1. Introduction

The analysis of capital flows to and from Africa presents a stunning paradox. On the one hand, African countries are heavily indebted and must make difficult decisions with regard to the allocation of national resources between debt payments and provision of vital social services to their populations. Over the past decades, African countries have been forced by external debt burdens to undertake painful economic adjustments while devoting scarce foreign exchange to debt-service payments. On the other hand, African countries have experienced massive outflows of private capital towards Western financial centers. Indeed, these private assets surpass the continent's foreign liabilities, ironically making sub-Saharan Africa a 'net creditor' to the rest of the world (Boyce and Ndikumana 2001). Compared to other developing regions, Africans tend to exhibit a significantly higher preference for foreign assets relative to

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domestic assets; hence Africa has the highest proportion of private assets held abroad (Collier, Hoeffler, and Pattillo 2001).

Some of the private assets held abroad by Africans were legally acquired. But the legitimacy of a significant fraction of these assets is questionable. This is especially the case for the wealth held by African political and economic élites in international financial centers that provide the coveted secrecy of banking operations. Recently, international pressure on Swiss banks has uncovered large sums of money belonging to former African rulers, including Abacha of Nigeria and Mobutu of the Congo (formerly Zaïre). These may be only the tip of the iceberg of looted African national resources.

The problem of capital flight from African economies deserves serious attention for several reasons. First, capital flight constitutes a diversion of scarce resources away from domestic investment and productive activities. In recent decades, African economies have achieved significantly lower investment levels than other developing countries (International Finance Corporation 1998; Ndikumana 2000). Collier, Hoeffler, and Pattillo (2001, 60) estimate that if Africa were able to attract back the flight component of private wealth, domestic private capital stock would rise by about two-thirds, and that Africa's GDP per capita is 16% lower than it would be if the continent had been able to retain its private wealth at home. Fofack and Ndikumana (2009) document large potential domestic investment gains from capital repatriation. The hemorrhage of financial capital is likely to be accompanied by losses of human capital, due not only to outmigration but also to missed opportunities for learning-by-doing amongst entrepreneurs and financial institutions (Nyarko 2007).

Second, capital flight has pronounced regressive effects on the distribution of wealth. The individuals who engage in capital flight generally are members of the subcontinent's economic and political élites who take advantage of their privileged positions to acquire and channel funds abroad. Both the acquisition and the transfer of funds often involve legally questionable practices, including the falsification of trade documents (trade misinvoicing), the embezzlement of export revenues, and kickbacks on public and private sector contracts (e.g., Ndikumana and Boyce 1998). The negative effects of the resulting shortages of revenue and foreign exchange fall disproportionately on the less wealthy members of the society. The regressive impact of capital flight is compounded when financial imbalances result in devaluation: the wealthy who hold external assets are insulated from the effects, while the poor enjoy no such cushion.

A third reason for greater attention to African capital flight is that most sub-Saharan African countries remain in the grip of a severe external debt crisis. In 2000, debt service amounted to 3.8% of gross domestic product (GDP) for sub-Saharan Africa (SSA) as a whole. By comparison, SSA countries spent 2.4% of GDP on health in that year. Only 55% of the people in SSA have access to clean drinking water, while illiteracy rates and infant mortality rates in SSA are among the highest in the world (UNECA 2007). Insofar as the proceeds of external borrowing were used not to the benefit of the African public but rather to finance the accumulation of private external assets by the ruling élites, the moral and legal legitimacy of these debt-service obligations is open to challenge.

The debate over strategies to increase development financing in Africa must include a discussion of policies to curb the continent's hemorrhage of capital, and strategies for inducing repatriation of capital legally held by Africans abroad. Efforts to recover African wealth that was acquired illicitly and is now held abroad will meet resistance both from the holders of the assets and from their bankers in the West. While economic reforms in African countries may attract the return of legally acquired assets (as well as foreign direct investment), repatriation of illicit capital and

the prevention of future illicit outflows will require a concerted effort by the international political and financial community to increase transparency and accountability in international banking practice.

The first objective of this paper is to provide a comprehensive set of estimates of the magnitude of capital flight for a sample of 33 African countries over the period 1970–2004. Second, the paper reviews the literature on the causes of capital flight from sub-Saharan Africa, with a focus on factors that may be reversed by appropriate policy. Third, we provide new econometric evidence on the linkages between external borrowing and capital flight, one of the key relationships identified in the empirical literature. We confirm the robustness of the debt–capital flight relationships by using a number of econometric estimation methods, including ordinary least squares (OLS), fixed-effects and GMM techniques. For further robustness tests we also use a proxy of capital flight that is independent of debt in its construction: bank deposits held by African non-bank private agents in Western banks. Finally, we discuss strategies to prevent and reverse capital flight, with emphasis on the rationale for invoking the doctrine of odious debt for the repudiation of illegitimate debts. The paper closes with a summary of the evidence and arguments.

2. Magnitude of capital flight from sub-Saharan Africa

2.1. New estimates of capital flight over the 1970–2004 period

Existing studies reveal large amounts of capital outflows from sub-Saharan African countries over the past decades. The estimated magnitudes of capital flight have varied, primarily due to differences in data and time-period coverage.[1] The standard methodology is to calculate capital flight as the residual difference between capital inflows and recorded foreign-exchange outflows. For country i in year t, capital flight is computed as follows (Boyce and Ndikumana 2001):

$$KF_{it} = \Delta DEBTADJ_{it} + DFI_{it} - (CA_{it} + \Delta RES_{it}) + MISINV_{it} \quad (1)$$

where $\Delta DEBTADJ$ is the change in the country's stock of external debt (adjusted for cross-currency exchange rate fluctuations, in order to take into account the fact that debt is denominated in various currencies and then aggregated in US dollars); *DFI* is net direct foreign investment; *CA* is the current account deficit; ΔRES is the change in the stock of international reserves; and *MISINV* is net trade misinvoicing. This method is a variant of the one used by the World Bank (1985) among others, based on the difference between the inflows of foreign exchange from external borrowing (as reported in the World Bank's *World Debt Tables*) and the uses of foreign exchange reported in the IMF's *Balance-of-Payments Tables* (IMF 2007a). Boyce and Ndikumana (2001) refine this measure by incorporating adjustments for trade misinvoicing and for the impact of exchange rate fluctuations on the dollar value of external debt.

In this study, we include two further innovations to the method of computation of capital flight. First, we adjust the change in debt to account for debt write-offs. Debt write-offs reduce the stock of debt although they have no corresponding flow of debt service. Hence, they lead to an overstatement of debt service and an understatement of the change in debt obtained as the change in annual debt stocks over consecutive years. Second, we include an adjustment for underreporting of remittances.

Table 1 summarizes data on capital flight for the 33 sub-Saharan African countries over the 1970–2004 period.[2] Real capital flight over the 35-year period amounted to

Table 1. Total capital flight, 1970–2004.

Country	Real KF (m 2004 US$)	Stock of KF, in 2004 (m US$)	Net foreign assets in 2004 (m US$)	Total real KF/ GDP in 2004 (%)	Stock of KF/debt in 2004 (%)
Angola	42178.8	50950.6	41430.0	215.6	535.2
Botswana	1127.9	–1086.9	–1610.9	12.6	–207.4
Burkina Faso	3076.9	4670.6	2934.6	73.6	269.0
Burundi	2073.6	2566.6	1181.2	312.2	185.3
Cameroon	18378.9	27287.7	17791.8	116.5	287.4
Cape Verde	2190.9	2707.1	2190.1	231.1	523.6
Central African Republic	1943.8	2774.1	1696.4	148.7	257.4
Chad	1337.7	2345.6	644.3	31.1	137.9
Congo, Dem. Rep.	19572.5	36737.6	24896.7	295.1	310.3
Congo, Rep.	14950.4	17474.8	11645.4	344.3	299.8
Côte d'Ivoire	34349.4	54000.6	42261.2	222.0	460.0
Ethiopia	17031.5	22526.0	15951.9	175.0	342.6
Gabon	8580.8	11997.6	7847.9	118.7	289.1
Ghana	8503.7	11208.4	4173.3	98.7	159.3
Guinea	551.2	1048.9	–2489.6	14.6	29.6
Kenya	2665.4	6369.3	–456.9	16.6	93.3
Lesotho	407.4	893.4	129.8	29.8	117.0
Madagascar	7430.9	9570.8	6108.5	170.3	276.4
Malawi	2527.8	3825.4	407.5	132.9	111.9
Mauritania	2319.1	4006.0	1709.2	151.2	174.4
Mozambique	10677.7	14273.4	9622.9	180.6	306.9
Nigeria	165696.7	240781.0	204891.3	230.0	670.9
Rwanda	3366.8	5889.5	4233.8	183.5	355.7
Sao Tome and Principe	723.3	1059.1	696.9	1265.9	292.4
Seychelles	2700.9	2986.3	2371.5	384.1	485.7

Table 1. (*Continued*).

Country	Real KF (m 2004 US$)	Stock of KF,in 2004 (m US$)	Net foreign assets in 2004 (m US$)	Total real KF/ GDP in 2004 (%)	Stock of KF/debt in 2004 (%)
Sierra Leone	4607.7	7005.4	5282.6	424.7	406.6
South Africa	18266.0	17492.3	7552.7	8.5	176.0
Sudan	9218.7	16325.0	−3006.7	43.0	84.4
Swaziland	1263.9	1342.6	872.5	50.2	285.6
Tanzania	5185.2	9963.4	2163.9	45.8	127.7
Uganda	4982.0	6853.7	2031.4	73.0	142.1
Zambia	9769.5	19814.3	12535.5	180.2	272.2
Zimbabwe	16162.0	24556.0	19758.5	344.2	511.9
33-country total	443818.8	640216.0	447449.1	91.4	332.1

Notes: For Burkina Faso, the last year where KF is available is 2003; so totals, stocks, and ratios refer to 2003.
Sources: Ndikumana and Boyce (2003); series updated (1997 to 2004) and sample expanded using information from: IMF (2007a); IMF (2007b) IMF (2007c). World Bank (2006a); World Bank (2006c).

about $443 billion (in 2004 dollars) for the 33 countries as a whole. Including imputed interest earnings, the accumulated stock of capital flight was about $640 billion as of the end of 2004. Together, this group of SSA countries is a 'net creditor' to the rest of the world in the sense that their private assets held abroad, as measured by capital flight including interest earnings, exceed their total liabilities as measured by the stock of external debt. Their net external assets (accumulated flight capital minus accumulated external debt) amounted to approximately $447 billion over the 35-year period. To give a sense of the relative magnitude of the region's net external position, the region's external assets are 3.3 times the stock of debts owed to the world.[3]

2.2. International comparisons

There is evidence that capital flight from African countries constitutes a heavier burden compared to that from other developing regions, even though the absolute volumes may be lower. Chang and Cumby (1991) examined a sample of 36 African countries from 1976 to 1987 and found that, with the exception of Nigeria, the absolute levels of capital flight from individual African countries were smaller than those from Latin American countries, but that relative to external debt and GDP, African countries experienced higher capital flight than their Latin American counterparts. Hermes and Lensink (1992)[4] also found that while total capital flight from sub-Saharan African countries was smaller than that from Latin American countries, the burden of capital flight (as a percentage of GDP) was higher: 61% for the sub-Saharan sample compared to 22% for Latin America (also see Murinde, Hermes, and Lensink 1996). Collier, Hoeffler, and Pattillo (2001) find that in 1990 about 40% of African private capital was held abroad, the highest ratio in the developing world. In a subsequent study, these authors find that African capital flight increased in the 1990s (Collier, Hoeffler and Pattillo 2004).

3. Causes of capital flight from Africa: literature review

To devise strategies for curbing capital flight and inducing the repatriation of private wealth held outside Africa, it is important to understand the forces that drive capital flight from the continent in the first place. In this section, we briefly review some of the existing econometric evidence on the determinants of capital flight.[5]

External borrowing has been found to be strongly correlated with capital flight. In a sample of 30 sub-Saharan countries over the period 1970–96, Ndikumana and Boyce (2003) found that for every dollar of external borrowing by an SSA country in a given year, on average roughly 80 cents left the country as capital flight. Their results also support the hypothesis that debt overhang has an independent effect on capital flight: a one-dollar increase in the stock of debt adds an estimated 3.5 cents to annual capital flight in subsequent years. Collier, Hoeffler, and Pattillo (2004) report a very similar result, with a one-dollar increase in the stock of debt leading to 3.2 cents of capital flight.

The causal relationships between capital flight and external debt can run both ways; that is, foreign borrowing can cause capital flight, while at the same time capital flight can lead to more external borrowing. Boyce (1992) distinguishes four possible causal links: (1) *debt-driven capital flight*, where 'capital flees a country in response to economic circumstances attributable to the external debt itself' (Boyce 1992, 337); (2) *debt-fueled capital flight*, where funds borrowed abroad (by the government or by

private borrowers with government guarantees) are re-exported as private assets (also see Henry 1986); (3) *flight-driven external borrowing,* where capital flight drains national foreign exchange resources, forcing the government to borrow abroad;[6] and (4) *flight-fueled external borrowing,* where flight capital directly finances foreign loans to the same residents who export their capital, a phenomenon known as 'round-tripping' or 'back-to-back loans.'

Capital flight tends to persist over time: all else equal, past capital flight 'causes' more capital flight, which suggests *hysteresis* in the dynamics of capital flight. Ndikumana and Boyce (2003) interpret this as a habit formation effect, as private actors gain experience in smuggling capital abroad. It may also reflect a contagion effect, as capital flight corrodes the legitimacy of capital controls, contributing to deterioration of the macroeconomic environment. This implies that there may be substantial time lags before countries are able to reap the dividends from policy reforms aimed at curbing capital flight.

Higher economic growth is associated with lower capital flight (Ndikumana and Boyce 2003). Higher economic growth is a signal of higher expected returns on domestic investment, which are expected to provide a disincentive for capital flight. At the same time, lower capital flight may contribute to greater investment and higher growth.

Political risk is widely believed to play a significant role in the capital hemorrhage experienced by sub-Saharan African countries over the past decades. Fedderke and Liu (2002) and Collier, Hoeffler, and Pattillo (2004) find that political stability is associated with lower capital flight. It does not necessarily follow, however, that durable regimes are associated with a better political environment, as illustrated by the case of the Congo (ex-Zaïre) under Mobutu (Ndikumana and Boyce 1998).

Corruption has also been identified as an important factor in capital flight from sub-Saharan Africa. Corruption facilitates both the illegal acquisition and the illegal transfer of private assets. Moreover, in an environment characterized by weak accountability and governance, private agents cannot fully internalize the costs of corruption and may choose to hold assets abroad as a means of hedging against uncertainty.

Empirical studies also have found a significant effect of the black market premium on capital flight (Collier, Hoeffler, and Pattillo 2004). The black market premium reflects an effective subsidy on assets held abroad and symmetrically a levy on assets held domestically. Exchange rate distortions therefore can have important regressive effects, hurting the general public relative to the élites who hold assets abroad.

4. External debt and capital flight

4.1. Estimation methodology

The econometric analysis in this section explores further the relationship between capital flight and both annual flows of external borrowing and the cumulative stock of external debt. We formulate the econometric model as follows:

$$KF_{it} = \sum_{j=1}^{q} \theta_j KF_{i,t-j} + \alpha_1 DEBT_{it} + \alpha_2 growth_{it} + \boldsymbol{\beta}' \mathbf{X}_{it} + \eta_i + \varepsilon_{it} \qquad (2)$$

where for country i in year t, KF is the ratio of real capital flight to GDP (and $j = 1 \ldots q$ is the number of lags), $DEBT$ is alternatively the ratio of the annual inflow of debt to GDP or the ratio of the debt stock to GDP (we also test both variables simultaneously), *growth* is real GDP growth rate, $\mathbf{X}$ is a vector of control variables, η_i is a country-specific intercept representing unobservable individual country characteristics, and ε is a white-noise error term.

Among control variables we explore are the macroeconomic environment, interest rate differentials, financial development, natural resources and governance. We proxy macroeconomic uncertainty by inflation variability, measured as the absolute value of the difference between actual inflation and predicted inflation.[7] Including the real interest rate differential – proxied by the real US Treasury bill rate minus the African country's real deposit rate – permits us to test the conventional portfolio theory assumption that capital flight is driven by higher world interest rates relative to domestic rates. As a measure of financial development, we use bank credit to the private sector as a ratio of GDP. The natural resource endowment, here proxied by using the share of fuel exports in the country's total exports, is included as a potential source for embezzlement.[8] We explore the role of governance by interacting natural resources with a polity measure, on the hypothesis that a resource-rich country with a corrupt regime will experience more capital flight.[9]

In the estimation of the above equation, we pay due attention to potential causes of biases. In addition to country-specific fixed effects, we control for outliers by using the robust ordinary least squares (OLS) estimation technique. We also account for potential simultaneity between external borrowing and capital flight. As discussed above, and more extensively in Boyce and Ndikumana (2001) and Ndikumana and Boyce (2003), the relationship between capital flight and external borrowing can run both ways. While external borrowing can provide both resources and motives for capital flight, the latter in turn can cause more external borrowing as it drains government resources. We account for this potential two-way causality by using two techniques: (1) instrumental variables (where debt is considered endogenous); and (2) the general method of moments (GMM). These techniques allow us to test the robustness of the regression results.

4.2. Discussion of the results

4.2.1. The revolving door: debt flows and capital flight

The results reported in Table 2 show a positive and statistically significant relationship between capital flight and the annual inflows of external debt (change in the stock of debt). The table contains results with robust OLS estimation, country fixed effects, the instrumental variable approach and GMM estimation. We first run the regressions with the annual change in debt, then with the total debt stock, and finally with both debt indicators entered simultaneously.

The results in all cases show a statistically significant and economically large effect of external borrowing on capital flight. The estimated coefficient on change in debt implies that up to 67 cents out of each dollar borrowed abroad between 1970 and 2004 has left sub-Saharan Africa in the form of capital flight. The results provide strong support for the existence of *debt-fueled capital flight*, the revolving door phenomenon whereby borrowed funds are captured and converted into private assets in foreign banks.

Table 2. External borrowing and capital flight.

	Regressions with debt flows (change in debt)				Regressions with debt stock				Regressions with both	
Variables	OLS[a] (1)	FE (2)	iv_(FE)[b] (3)	GMM (4)	OLS[a] (5)	FE (6)	iv_(FE)[b] (7)	GMM (8)	FE[c] (9)	GMM (10)
Change in debt	0.663 (0.00)	0.651 (0.00)	0.499 (0.00)	0.655 (0.00)					0.674 (0.00)	0.648 (0.00)
Debt stock					0.047 (0.00)	0.044 (0.00)	0.049 (0.00)	0.045 (0.00)	0.031 (0.00)	0.016 (0.04)
1st lag of capital flight	0.226 (0.00)	0.144 (0.00)	0.147 (0.00)	0.134 (0.00)	0.208 (0.00)	0.117 (0.00)	0.117 (0.00)	0.115 (0.00)	0.146 (0.00)	0.130 (0.00)
2nd lag of capital flight	0.106 (0.00)	0.030 (0.23)	0.034 (0.20)	0.029 (0.20)	0.115 (0.03)	0.031 (0.30)	0.032 (0.29)	0.035 (0.23)	0.020 (0.43)	0.028 (0.21)
Lagged real GDP growth	–0.077 (0.00)	–0.063 (0.03)	–0.068 (0.02)	–0.061 (0.02)	–0.053 (0.11)	–0.049 (0.17)	–0.043 (0.23)	–0.055 (0.11)	–0.069 (0.02)	–0.050 (0.07)
F (with p-value)	34.3 (0.00)	102.2 (0.00)			11.5 (0.00)	10.3 (0.00)			85.4 (0.00)	
overall R-sq	0.40	0.39	0.40		0.18	0.17	0.17		0.39	
between R-sq (FE)		0.72	0.11			0.66	0.64		0.64	
within R-sq (FE)		0.31	0.29			0.044	0.04		0.32	
Wild Chi2 (pr)			401.3 (0.00)	495.0 (0.00)			272.4 (0.00)	43.9 (0.00)		488.0 (0.00)
Observations	935	935	917	902	936	936	935	903	934	902

Notes: The dependent variable is the ratio of capital flight to GDP. The numbers in parentheses are p-values.

[a] OLS = with robust standard errors, taking account of outliers.

[b] iv_FE = instrumental-variable fixed-effects estimation where change in debt and stock of debt are considered as endogenous.

[c] The combined regression includes the second lag of the stock of debt, given that by construction, the change in debt is dependent on the contemporaneous and first lag of the stock of debt.

4.2.2. The debt overhang effect: debt stock and capital flight

The results also show a statistically strong and economically meaningful effect of the stock of external debt on capital flight. They suggest that an increase in the stock of debt by one dollar leads to 2 to 4 cents of capital flight in subsequent years. There are two related possible explanations for this debt overhang effect. First, in a highly indebted country, investors may expect that future economic performance will be lower, implying lower overall returns to domestic investment. Second, private agents may expect that future debt service obligations associated with high debt stock will force the government to raise taxes, reducing expected after-tax returns to domestic investment, again leading to higher capital flight.

In the last two columns of Table 2, the debt flow and debt stock are included simultaneously in the regressions. The coefficients on both variables are statistically significant. These results imply that capital fight in this sample of countries is both *debt-fueled* (through change in debt) and *debt-driven* (through debt stock).

4.2.3. Other factors

Consistent with evidence from past studies (Ndikumana and Boyce 2003), the results in Table 2 indicate that capital flight is a phenomenon that tends to persist over time, as shown by the positive and statistically significant coefficients on lagged capital flight. Also consistent with evidence in the literature, economic growth (here lagged by one year) acts as a deterrent to capital flight. This may be because strong growth performance is associated with higher overall returns to capital in the country, discouraging capital flight.

In Tables 3 and 4, we report results on the effects of inflation variability, real interest rate differentials, financial development, fuel exports and governance. Inflation variability has a positive and statistically significant effect on capital flight. This suggests that macroeconomic instability discourages domestic investment by raising the discount rate applied to the expected profitability of investment. Investors may also interpret inflation variability as a sign of lack of effective control by the government over the macroeconomic policy, which reduces confidence in the performance of the local economy.

Somewhat surprisingly, the results show that the real interest rate differential does not have a statistically significant impact on capital flight. This suggests that other motivations – such as the desire to safeguard illicit wealth – have been more important than conventional portfolio investment criteria in explaining capital flight from sub-Saharan Africa.

The results indicate that financial development – proxied by the ratio of bank credit to the private sector as a fraction of GDP – has no impact on capital flight. The evidence thus does not support the presumption that the development of the financial system, and the ease of conducting transactions that accompany it, may facilitate the export of capital.

We investigated the effects of natural resource endowment on capital flight, under the premise that natural resource exports are subject to embezzlement by leaders as well as smuggling and misinvoicing by private operators. This exercise is hindered by the poor quality of data on natural resource exports. The coefficient on the share of fuel exports in total exports is positive and statistically significant in robust OLS estimations (not reported here), but it becomes statistically insignificant (and negative)

Table 3. Capital flight and inflation, financial development, fuel exports: fixed-effects estimates.

Explanatory variable	Inflation variability (1)	Interest rate differential (2)	Credit/GDP (3)	Fuel exports/ total exports (4)	Fuel export share*Polity2 (5)
Change in debt	0.699	0.596	0.576	0.690	0.539
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Debt stock (2nd lag)	0.046	0.049	0.050	0.046	0.035
	(0.00)	(0.00)	(0.00)	(0.01)	(0.09)
1st lag capital flight	0.113	0.123	0.074	0.040	0.146
	(0.00)	(0.00)	(0.00)	(0.29)	(0.00)
2nd lag capital flight	0.035	0.021	0.033	–0.027	–0.050
	(0.23)	(0.51)	(0.00)	(0.46)	(0.34)
Lagged growth	–0.040	–0.049	–0.055	–0.058	–0.065
	(0.15)	(0.08)	(0.03)	(0.16)	(0.09)
Inflation variability	0.015				
	(0.10)				
Interest rate differential		–0.0003			
		(0.90)			
Credit/GDP			–0.018		
			(0.61)		
Fuel exports				0.010	–0.037
				(0.86)	(0.58)
Polity2 index					0.181
					(0.32)
Fuel exports*Polity2					–0.003
					(0.41)
overall R-sq	0.43	0.26	0.23	0.26	0.27
between R-sq	0.58	0.10	0.16	0.16	0.20
within R-sq	0.42	0.28	0.26	0.34	0.35
observations	617	644	797	395	282

Note: The dependent variable is the ratio of capital flight to GDP. The numbers in parentheses are p-values.

when country-specific fixed effects are included. This is not surprising given that natural resource endowment is likely to be one of the key country fixed effects that is unaccounted for in the OLS.[10]

One possible linkage between capital flight and natural resource endowments is that the exports proceeds are embezzled by leaders. This would imply that the link would be stronger under non-democratic regimes. We explore this possibility by adding to the regression the polity index of the quality of governance and its interaction with the share of fuel exports. However, the estimated coefficients on the polity indicator and the interaction term have mixed signs and are statistically insignificant.[11]

4.3. Further robustness tests of the debt-capital flight link

One possible concern with our econometric estimates of the relationship between capital flight and external borrowing is that the results may be driven by the way in which our measure of capital flight is constructed. Given that the change in the stock

Table 4. Capital flight and inflation, financial development, fuel exports: GMM estimates.

Explanatory variable	Inflation variability (1)	Interest rate differential (2)	Credit/GDP (3)	Fuel exports/ total exports (4)	Fuel export share*Polity2 (5)
Change in debt	0.686	0.580	0.530	0.673	0.493
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Debt stock (2nd lag)	0.026	0.029	0.035	0.065	0.026
	(0.03)	(0.03)	(0.00)	(0.07)	(0.40)
1st lag capital flight	0.099	0.111	0.035	–0.046	0.020
	(0.00)	(0.00)	(0.19)	(0.30)	(0.70)
2nd lag capital flight	0.050	0.036	0.030	–0.076	–0.147
	(0.07)	(0.25)	(0.21)	(0.05)	(0.00)
Lagged growth	–0.010	–0.018	–0.018	–0.039	–0.087
	(0.71)	(0.52)	(0.48)	(0.44)	(0.03)
Inflation variability	0.015				
	(0.06)				
Interest rate differential		0.0008			
		(0.76)			
Credit/GDP			–0.030		
			(0.37)		
Fuel exports				0.042	0.033
				(0.61)	(0.72)
Polity2 index					–0.169
					(0.62)
Fuel exports*Polity2					0.001
					(0.84)
Wild Chi2 (pr)	484.2	248.7	264.4	141.8	106.0
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
observations	590	615	765	319	216

Note: The dependent variable is the ratio of capital flight to GDP. The numbers in parentheses are p-values.

of debt is one component of the capital flight measure, errors in this variable could lead to a spurious relation. To address this concern, we re-estimate the model using a proxy for capital flight that is unrelated to the data on debt. This proxy is the deposits held by non-bank African agents in Western banks (that is, the liabilities of foreign banks *vis-à-vis* the African non-bank private sector).[12] Reported holdings in Western banks represent only a fraction of capital flight; this measure omits non-bank financial holdings, real estate and other property holdings, and bank holdings for which the African identity of the depositor is concealed, as well as capital flight that was used to finance overseas consumption. Hence the proxy measure is much smaller than our measure of total capital flight. For the 33 African countries in our sample, recorded bank deposits in 2004 amounted to $30.8 billion, roughly 7% of our measure of cumulative capital flight for the 1970–2004 period ($443 billion in 2004 dollars).[13]

The results of the regressions, with the dependent variable specified as foreign bank liabilities *vis-à-vis* the African private sector, are reported in Table 5. The results confirm the positive effects on capital flight of external debt, both for annual flows and stock of debt, although as expected the estimated magnitude is much smaller. Considering the regressions including both the flow and stock of debt, the estimated

Table 5. Regression results with an alternative proxy for capital flight (foreign bank liabilities).

	Regressions with debt flows (change in debt)				Regressions with debt stock				Regressions with both	
Variables	OLS[a] (1)	FE (2)	IV_(FE)[b] (3)	GMM	OLS[a] (4)	FE (5)	IV_(FE)[b] (6)	GMM	IV_(FE)[b] (7)	GMM
Change in debt	0.017 (0.00)	0.012 (0.20)	0.161 (0.00)	0.012 (0.21)					0.173 (0.00)	0.020 (0.05)
Stock of debt					0.003 (0.00)	0.023 (0.00)	0.008 (0.15)	0.024 (0.00)	0.015 (0.00)	0.011 (0.00)
1st lag of foreign bank liabilities	0.825 (0.00)	0.631 (0.00)	0.619 (0.00)	0.620 (0.00)	0.794 (0.00)	0.601 (0.00)	0.621 (0.00)	0.604 (0.00)	0.602 (0.00)	0.602 (0.00)
2nd lag of foreign bank liabilities	0.049 (0.00)	0.051 (0.20)	0.104 (0.02)	0.036 (0.35)	0.055 (0.00)	−0.001 (0.96)	0.030 (0.45)	−0.018 (0. 14)	0.056 (0.23)	0.019 (0.62)
Lagged real GDP growth	−0.013 (0.00)	0.004 (0.58)	0.013 (0.20)	0.007 (0.42)	−0.012 (0.00)	0.020 (0.02)	0.010 (0.29)	0.022 (0.00)	0.007 (0.48)	0.002 (0.81)
F (with p-value)	2783 (0.00)	122 (0.00)	3295 (0.00)		2601 (0.00)	141 (0.00)	4305 (0.00)		3235 (0.00)	
overall R-sq		0.73	0.63			0.64	0.72			
between R-sq (FE)		0.99	0.95			0.74	0.95			
within R-sq (FE)		0.39	0.22			0.42	0.41			
Wald Chi2 (pr)				441 (0.00)				4993 (0.00)		458 (0.00)
Observations	783	785	783	752	784	786	783	753	783	743

Notes: The dependent variable is the ratio of foreign bank liabilities to GDP. The numbers in parentheses are p-values.

[a] OLS = with robust standard errors, taking account of outliers.

[b] iv_FE = instrumental-variable fixed-effects estimation where change in debt is considered as endogenous.

coefficients imply that one dollar of new borrowing results in 2–17 cents of deposits by Africans in foreign banks in the same year and 1.1–1.5 extra cents annually in subsequent years. These results support the finding in this study and our earlier studies (Ndikumana and Boyce 2003) that there is a clear positive and significant relationship between capital flight and external borrowing.

5. Policies to address the problem

Policy initiatives to address the problem of capital flight from sub-Saharan Africa must have two prongs. The first consists of measures to induce repatriation of private assets now held abroad by Africans. Here we must distinguish between assets that originated in legal activities and assets acquired illicitly, as different policy measures will be needed for their repatriation. The second prong consists of policies to prevent future capital flight. Here a key issue is how to shut the 'revolving door' between external borrowing and capital flight.

5.1. Inducing repatriation of flight capital

Private assets held abroad by Africans include legally acquired assets as well as illicitly obtained assets. Different strategies may be required to repatriate the two types of assets. Legally acquired assets are held abroad for purely portfolio choice considerations; that is, the savers choose to hold foreign assets to maximize the risk-adjusted returns. These assets will be repatriated as domestic risks diminish and domestic returns to assets rise relative to foreign returns; that is, as the domestic investment climate improves relative to the rest of the world.

Illegally acquired assets are held abroad not so much to maximize the returns on assets but to evade the law. These assets are likely to be held predominantly by individuals directly or indirectly connected to the government, who are able to use their political power both to acquire the assets and to smuggle them abroad. Owners of these assets will be enticed by higher domestic returns only if they have some guarantees of immunity against prosecution for fraud and penalties for unpaid taxes. Such guarantees would have perverse incentive effects by rewarding malfeasance. Alternatively, these assets could be impounded and repatriated by legal action.

5.1.1. Repatriation of legally acquired assets: improving the domestic investment climate

Strategies for inducing repatriation of legitimate private assets held abroad by Africans revolve around improvement of the domestic investment climate. The literature on foreign direct investment has emphasized three categories of factors that have hindered capital inflows and that need to be addressed in order to improve Africa's *locational advantage* in the eyes of investors: openness to investment; the availability and efficiency of the economic infrastructure; and the quality of institutions (Asiedu 2004a, 2004b; Asiedu and Lien 2003; Morisset 2000). Although many sub-Saharan African countries significantly improved these attributes of the domestic investment climate in recent years, progress in this respect has been much less than has been observed in other developing regions (Asiedu 2004a). As a result, the relative locational disadvantage of African countries with regard to foreign investment has increased.

African countries may need to make some concessions in order to attract private assets from abroad. For instance, even legally acquired assets held abroad may be liable for unpaid taxes, which may be sizeable enough to constitute a deterrent for disclosure and repatriation. One possibility is to grant tax amnesties, or at least tax breaks, to repatriated assets. Following the launching of a tax amnesty scheme for private foreign asset holders in 2001, Italy recorded $30 billion of repatriated funds from Swiss banks (Watts 2002). Although the gains may not be as large for African countries, the strategy deserves serious consideration.

5.1.2. Impoundment and forcible repatriation of illicit assets

Economic policies aimed at creating an attractive domestic investment environment are not likely to entice the repatriation of illegally acquired assets held abroad by Africans. For this category of assets, African countries will have to use coercive methods, asserting the people's moral and legal right to recover these assets. The main problem is that such assets generally are carefully concealed with the cooperation of Western banks and individuals.

Illicit assets held abroad by Africans are to a large extent the product of the misappropriation of public funds, including borrowed money. Efforts to recover and repatriate illicit private fortunes are one way in which African people and their governments can attempt to repair the disjuncture between public external debts and private external assets. This is a difficult task, however, since it places the burden of proof squarely on the African governments to locate and reclaim the money. The Stolen Asset Recovery (StAR) initiative, launched in 2007 by the World Bank and the United Nations Office of Drugs and Crime, may help to improve prospects for asset recovery. Even so, forcible repatriation efforts offer only limited possibilities for easing sub-Saharan Africa's public external debt burden.

A complementary strategy would be for African countries to repudiate debts that financed these private assets, on the ground that these debts are *odious*. This is equivalent to asset repatriation in that it blocks completion of the final step in the 'revolving door' circuit between external borrowing and capital flight. The net capital loss to Africa from debt-fueled capital flight (and flight-fueled external borrowing) comes not from the initial two-way flows but rather from the resulting debt-service payments (both amortization and interest) in subsequent years. While African countries cannot close the stable door after the horse has bolted, they can cut their losses insofar as they have not yet paid for the horse. As discussed below, odious-debt repudiation would also help to deter future capital flight.

5.2. Preventing future capital flight

The evidence discussed in this paper and earlier studies (Boyce and Ndikumana 2001; Ndikumana and Boyce 2003) shows that sub-Saharan Africa is a net creditor to the rest of the world, in the sense that private assets held abroad exceed the continent's liabilities to the rest of the world. If Africa is a net creditor, why are so many of its people so poor? The answer, of course, is that the subcontinent's private external assets belong to a narrow and relatively wealthy stratum of its population, while public external debts are borne by the people through their governments. To the extent that these private assets were accumulated using the external borrowings that were intended to develop the countries, this raises the question of the legitimacy of much

of the debt owed by African countries. In other words, there is legal basis for claiming that a substantial fraction of Africa's debts are 'odious.'

A country's debts are considered odious if three conditions hold (Sack 1927; Khalfan 2003; King 2007; Howse 2007): (1) *absence of consent*: the debts were incurred without the consent of the people, which is typically the case when the debts were borrowed by an undemocratic regime; (2) *absence of benefit*: the borrowed funds were used not for the benefit of the people but instead for the interests of the rulers, and possibly for repression against the same people that these funds were nominally intended to help;[14] (3) *creditor awareness*: creditors were aware or should have been aware of conditions (1) and (2).

The doctrine of odious debt draws from both international law and domestic law, including that of the United States and United Kingdom, to whose jurisdictions dispute resolution often is assigned in loan agreements. One strong legal backing for the doctrine is the principle of *domestic agency*, which states that 'every power of making a binding commitment for another person carries with it the special responsibility of acting in the interest of that person' (Khalfan 2003, 3). Thus, while the agent (in this case, the government) has the power to make binding debt commitments in the name of the principal (the people), it also has the fiduciary obligation to do so in the latter's interest. When it fails to meet this obligation, there is a well-established legal basis for challenging the legitimacy of the resulting liability. Moreover, under domestic law in most countries, a third party can be held liable for assisting an agent in the breach of his obligation toward his principal. This implies that if a bank knowingly assists a government official or private citizen in robbing a country, the bank is liable for the losses incurred by the nation and its people.[15]

The practice of servicing external debts regardless of the uses to which the borrowed money was put gives rise to a moral hazard problem: insured against the risk of malfeasance, creditors lack adequate incentives to act to minimize this risk. One way to improve international financial governance would be to improve the institutional arrangements for repudiation of odious debts. This would encourage due diligence by creditors and it would curtail the phenomenon of debt-fueled capital flight in future years.

The literature on odious debts has outlined two main strategies with regard to the question of repayment of debts that are presumed odious. The first strategy is for debtor countries to repudiate past debts unilaterally. We refer to this as the *ex post* strategy. In the second strategy, odious debts are defined as loans issued to a government that has been designated as 'odious' *ex ante* by an international institution. Under this scenario, successor governments can repudiate those debts incurred after the 'odious government' status was established and made public by the appropriate international institution. Here we discuss both strategies and their implications for African countries.

5.2.1. The ex post *repudiation of odious debt*

Just as in the case of private assets held abroad by Africans, it is difficult to distinguish between legitimate debts and odious debts. Putting the burden of proof on the shoulders of debtor countries to establish the odious nature of debts in many cases could impose insuperable transaction costs. An alternative approach would be to put the burden of proof on the creditors to demonstrate the legitimacy of the debts contracted by previous dictatorial regimes.[16] Sub-Saharan African governments would inform their creditors that outstanding debts will be treated as legitimate if,

and only if, the real counterparts of the debts can be identified and shown to have benefited the people of the country. If the creditors can document where the money went, and show when and how it benefited citizens of the borrowing country via investment or consumption, then the debt would be regarded as a *bona fide* external obligation of the government (and hence an external asset of the creditor bank or government). But if the fate of the borrowed money cannot be traced, then the present African governments must infer that it was diverted into private pockets associated with the former regimes, and possibly into capital flight. In such cases, it can be argued that the liability for the debt lies not with the current government but with the private individuals whose personal fortunes are the real counterpart of the debt.

In adopting such a strategy, Africans can invoke as a precedent the US government's stance a century ago toward the creditors of the erstwhile Spanish colonial regime in Cuba after the Spanish–American War: the creditors knew, or should have known, the risks they faced when they made the loans to the predecessor regime, and they 'took the chances of the investment'.[17] Regarding the burden of proof, they can invoke the further precedent of the Tinoco Arbitration, in which US Supreme Court Justice William Howard Taft ruled in favor of the Costa Rican government in a dispute over external credits that had been diverted for the personal use of the dictator Federico Tinoco and his brother: Taft required the creditor 'to discharge the burden of proving that the Costa Rican governments had used the money for legitimate purposes, something which it could not do'.[18]

In effect, this strategy would accord symmetric treatment to Africa's external assets and liabilities. On both sides of the balance sheet, the burden of proof in establishing the legitimacy of claims and realizing their face value would lie with the creditors: African governments seeking to reclaim flight capital, and banks and creditor governments seeking to collect debt-service payments.

The case for symmetry is reinforced by the past complicity of sub-Saharan Africa's external creditors in sustaining the power of corrupt rulers and in helping them to spirit their ill-gotten gains abroad. As the *Financial Times* (2000, 5) remarks, in an editorial comment on the freezing of General Sani Abacha's Swiss bank accounts, 'Financial institutions that knowingly channeled the funds have much to answer for, acting not so much as bankers but as bagmen, complicit in the corruption that has crippled Nigeria.' Capital flight from Nigeria under the Abacha regime was simply a particularly egregious example of a more widespread phenomenon in the subcontinent.

One concern is the potential for retaliation by lenders who may refuse to lend to countries whose governments opt to exercise the odious debt doctrine. However, this concern may be exaggerated. First, many African countries currently receive little in terms of new loans; indeed many are experiencing negative net transfers, paying more in debt service than they receive in new money. Such debtor countries can rather easily endure the 'punishment' of credit rationing. Second, the invocation of the odious debt doctrine is not equivalent to across-the-board debt repudiation. Legitimate creditors have no reason to fear, given that all legitimate loans will be duly repaid. Applying the odious debt doctrine will enforce and reward responsible lending practices by Western financial centers as well as responsible and transparent debt management by leaders in the South. Thus, with respect to future lending, the strategy will yield a win–win outcome for lenders and borrowers.

On the other hand, there is a risk that debtor countries would adopt an overly expansive definition of what constitutes an 'odious debt' if they could repudiate such debt unilaterally, with no recourse to legal proceedings to assess the merits of the case. Governments that abused the odious debt doctrine presumably would be denied further credit even for legitimate purposes, but this may not be a strong deterrent for the reason stated above. To address this concern, it would be useful to establish an international institution to adjudicate questions of debt legitimacy.[19]

5.2.2. The ex ante *designation of 'odious government' and 'odious debt'*

Under the alternative strategy, an international referee determines whether a regime is odious or not. Creditors may lend to a government that has been designated odious, but they do so at their own risk. Successor governments not only can repudiate any such loans, but in fact would be *required* to repudiate all debts subsequently issued to the odious government, so as to prevent new loans and aid from being squandered on servicing odious debts. Kremer and Jayachandran (2002, 2003) claim that if the referee indeed assesses the legitimacy of the government truthfully, and if creditors act rationally, no or little odious debt will be issued in the market. The authors also argue that this mechanism is superior to conventional economic sanctions as it is less likely to affect adversely the population in the debtor country.

This approach has several weaknesses as a strategy for addressing the problems of odious debt and capital flight. First and foremost, the strategy leaves the burden of past debts, a large portion of which may be odious, on the shoulders of the population of the debtor countries. On its own, this strategy would leave African countries trapped in the current debt crisis that resulted in large part from irresponsible borrowing by past regimes and complacent lending by Western financiers. The strategy therefore lets both beneficiary parties (past corrupt governments and their financiers) off the hook at no cost.

Second, this approach may increase the risk of moral hazard in the debt market. Myopic rulers may borrow excessively if they have the green light to access external debt, and creditors may be willing to lend excessively if they have been assured that their loans are safe from being regarded as odious debts. Regimes not designated as odious may also divert some borrowing to private pockets, not only impairing the ability to repay the loans but also raising the issue of the responsibility of the population at large to service the resulting debts.

Third, there may be some scope for legitimate lending even to regimes designated as odious, if such lending would benefit the people of the country. To ensure legitimacy, creditors would need to exercise due diligence, monitoring uses of the loan proceeds and suspending disbursements in case of misuse. By virtue of its all-or-nothing character, *ex ante* designation of odious governments would deter such lending; *ex post* repudiation, by contrast, could be selective.

Finally, it is difficult to find a competent and impartial institution that will assess 'truthfully' the nature of existing governments. Western governments, multilateral institutions and non-governmental organizations often have specific political interests in supporting client regimes, regardless of whether these regimes are democratic or not. Influential governments may paralyze the functioning of the referee institution by exercising their veto power when a ruling is likely to go against a client regime or when they want to enforce a particular outcome for a disfavored regime. In addition

to obvious political interests, bias may arise in favor of economically powerful countries. For instance, any institution will hesitate to classify the government of a country like China or India as odious, given their importance in the international economic arena. In contrast, smaller countries, especially African countries, are likely to be disproportionately rationed out of the debt market under this approach. As a result, such a strategy could increase the marginalization of Africa.

6. Conclusion

This paper has presented new evidence on the dramatic financial hemorrhage of African economies through capital flight over the past four decades. The estimates indicate that for the sample of 33 countries as a whole over the period 1970–2004, capital flight amounted to $443 billion in real terms (in 2004 dollars) and $640 billion when imputed interest earnings are included. The stock of capital flight exceeds the countries' combined external debt by $447 billion, making Africa a 'net creditor' to the rest of the world. The econometric analysis in the paper shows strong linkages between capital flight and external borrowing: out of every dollar of new borrowing, as much as 67 cents left the country in the form of capital flight the same year. The evidence suggests that a solution to the problem includes a combination of better management of debt by African governments, prevention of future capital flight, and repatriation of African assets held abroad.

The paper has advocated the strategy of challenging the legitimacy of parts of African debts based on three crucial arguments. First, past borrowing practices failed the test of benefiting the people. Second, the debts were often borrowed in the name of the people without their consent. Third, historical evidence can readily establish the test of creditor awareness. Consequently, much of Africa's accumulated debts may be deemed to be odious and their legitimacy challenged by the people of debtor nations and their governments. We argue that the burden of proof of legitimacy of past debts must rest on the lenders, and that enforcing the doctrine of odious debt will result in a win–win situation for borrowers and lenders in future years. As Africa searches for ways to achieve financial stability and increase resources for development financing, we believe that the strategies outlined in this paper for addressing the problem of capital flight must feature prominently in debates at the national level as well as in the international development assistance community.

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Notes

1. For discussions of the methodology for the computation of capital flight, see Lessard and Williamson (1987), Ajayi (1997) and Boyce and Ndikumana (2001).

2. Boyce and Ndikumana (2003) report estimates of capital flight for the period 1970–96 for a sample of 30 countries included in this study. For these countries and this period, we simply convert these series to 2004 dollars, and add the further adjustments for debt write-off and unrecorded remittances. A detailed description of the algorithm we use to compute capital flight and a dataset on annual flows are provided in a working paper available from the authors.
3. Of course, some of Africa's flight capital has been dissipated in consumption. For this reason, the cumulative stock reported in Table 1 can best be regarded as a measure of the opportunity cost of capital flight rather than assets actually available today. By counting imputed interest earnings, we obtain a measure that is comparable to the external debt stock, since the latter includes interest arrears and debt contracted to service previous debt.
4. The study by Hermes and Lensink (1992) covers six countries (Congo-Zaïre, the Ivory Coast, Nigeria, Sudan, Tanzania and Uganda) over the period 1976 to 1989. They used the somewhat narrower 'non-bank' definition of capital flight proposed by Morgan Guaranty Trust (1986), which excludes assets held abroad by domestic banks.
5. For a more extensive review, see Ndikumana and Boyce (2003).
6. Kahn (1991, iv) suggests that in the South African case, in some periods 'the need to finance capital flight might account for all the accumulation of external debt'.
7. Predicted inflation is obtained from a linear regression of inflation on time.
8. 'Fuel exports' consist of 'mineral fuels' (SITC Section 3) as reported in the World Bank Africa Database (World Bank 2006b) (and World Development Indicators [World Bank 2006c]).
9. As a proxy of governance we used the Polity2 index from Polity IV Project's database which ranges from –10 (strongly autocratic) to +10 (strongly democratic).
10. We also experimented with various measures of natural resource endowment, including the share of various natural resources in total exports as well as a dummy taking the value of one if the share of natural resources in total exports is greater than 75% and zero otherwise. These too yielded weak results.
11. Again the use of country fixed effects, which masks inter-country differences in the polity index, may be part of the explanation. Summary statistics for our sample show that capital flight is lowest in countries with either the most democratic or the most autocratic regimes, and highest in countries in the intermediate range.
12. These data are published by the Bank for International Settlements (2007).
13. This proxy of capital flight is positively correlated with our broader measure of capital flight. The correlation coefficient (using the panel data) between capital flight and foreign bank liabilities is 0.33 (significant at 1% level); the correlation of the two variables as ratios of GDP is 0.08 (significant at 10% level).
14. A good example is the case of debt issued to the apartheid regime in South Africa which was used to consolidate the oppressive regime. See Walker and Nattrass (2002) for a discussion of the South African case.
15. For discussion, see Jochnick (2006) and Buchheit, Gulati, and Thompson (2007).
16. Referring to domestic law, Buchheit, Gulati, and Thompson (2007, 1252) write: 'We believe that governmental corruption in some countries is so suffocatingly ubiquitous that a U.S. court could legitimately shift onto the plaintiff [i.e., a creditor seeking redress for non-repayment] the burden of showing that a particular transaction was *not* tainted by corruption…. Against a showing of pervasive corruption, is it unreasonable to ask the plaintiff/lender to explain how it alone had managed to preserve its virtue in dealing with the corrupt regime?'
17. For discussion, see Hoeflich (1982) and Ndikumana and Boyce (1998).
18. Howse (2007, 15); for discussion, see also Buchheit, Gulati, and Thompson (2007).
19. The Norwegian government has called for the creation of an 'international debt settlement court' for this purpose. See the Soria Moria Declaration on International Policy, October 2005, available at http://www.dna.no/index.gan?id=47619&subid=0. In making a case for an *ex ante* instead of *ex post* odious debt strategy, Jayachandran and Kremer (2006, 83) express the worry that 'any adjudicating body that had the power to declare debt void might nullify legitimate debt if it placed a high value on the welfare of the debtor country', thereby shutting down access to legitimate loans and presumably harming the country. But actions yielding this result would seem to be a rather perverse form of favoritism.

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