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Democracy and Corruption: 
On the Limited Role of Accountability in 
Deterring Asset Stripping

MELVIN D. AYOGU
and
TENDAI GWATIDZO

ABSTRACT

Focusing on capital flight of the worst kind for developing countries—stolen public assets—we develop a model which shows that both the threat of losing elective office and its complement, the threat of delayed detection, do not affect the choice of whether to plunder or not. Rather they mitigate the level of plundering. The role of instantaneous detection in the model drives the implication that separating a miscreant from the benefits of his crime can be an effective deterrent. However, such weaponry requires investment in the capabilities for “integrated financial investigation” and international cooperation. The ideas espoused in this paper corroborate the logic of the StAR initiative of the UNODC and the World Bank. We suggest the development of a research agenda on how to (i) grow adequate capabilities for detection, and (ii) create the political demand for the required international cooperation.

1 Ayogu (corresponding author): Fellow, Africa Growth Initiative, Brookings Institution, 1775 Massachusetts Avenue NW, Washington DC, 20036. Email: mayogu@brookings.edu; Gwatidzo: School of Economics and Business Sciences, University of Witwatersrand, Johannesburg, South Africa. Email: Tendai.Gwatidzo@wits.ac.za. We thank two anonymous referees for their constructive comments which have improved this paper substantively. All errors and omissions remain our responsibilities.
INTRODUCTION

The choice of whether to save or to borrow in order to invest would not matter if financial markets were efficient. Unfortunately both widespread financial crises and the problems of the "original sin" [Eichengreen and Hausmann, 2005] teach that the choice of financing matters. Developing countries historically have experienced net capital inflows that are predominantly of short term nature and thus subject to sudden reversals. This is not surprising. James Tobin notes that capital by its nature is restless. He offers as evidence the daily volume of global foreign exchange transactions which in 2001 amounted to 1.5 trillion dollars. Of this volume, ninety percent are reversed within a week and forty percent within twenty four hours. He notes that whereas net capital inflows bring economic benefits, its restless cousins bring along the menace. Presumably countries are better off without certain kinds of capital inflows but are unambiguously worse off with capital flight. Furthermore, if indeed investments which have propelled the growth of developing countries `have been mainly due to their own internal savings" then, flight of public capital from developing countries to wealthier and developed countries is indeed pernicious. The consequences of these missing monies on growth and development are well appreciated [Baker, 2005; The World Bank, 2007]. Domestic resources that have taken flight is no longer available for use locally and thus does not belong in Tobin's class of effective development capital—the `people's money."

This paper is about how to both stop and prevent future looting of public funds. Thus it adds to the literature on corruption and political regimes. Many of the studies on corruption particularly the empirical literature have investigated the relationship between corruption and democracy as measured by different proxies. Some of the selected measures include voting and formation of political associations, freedom of the media, civil liberty, and

2 Not counting the 2008 global financial crisis, there have been seventy financial crises since the eighties with one third of the most recent occurrences in developed countries (Adelman, 2000).
3 Tobin (2000)
4 Ibidem, p.1101
5 People's money has a huge advantage over "other people's money." On the dangers of "other people's money," see Eichengreen and Hausmann (2005).
length of procedural democracy. The evidence so far remains mixed [Warren 2005, Seldadyo and de Haan, 2006]. These findings and others such as Adesrà, Boix, and Payne (2003) and Persson, Tabellini, and Trebbi (2003) suggest that details of the structure and process which comprise a democracy matter for outcomes.

By contrast, our contribution lies in advancing the understanding of the precise role of political accountability in deterring corruption. In this, we join the strand of the relatively limited literature that aim to elaborate the logic of the relationship between specific aspects of democracy and corruption. See for instance, Warren (2005), Adesrà et al. (2003), and Bates (2006). To assess the importance of political accountability which is defined as efforts on the part of office holders to retain office by serving the interest of citizens, Bates (2006) design a game theoretic model in which a government derives private benefits from extractable rents but at the same time is subject to voting rules which are designed to discourage the rent extraction.

According to evidence from a panel of sub Saharan countries, competitive political institutions did not result in the adoption of World Bank’s advocated policy choices. The author interprets this evidence as affirming political accountability. The logic is that the policy prescriptions of the World Bank, the so-called ‘‘Washington consensus,’’ were not adopted because they were unpopular and had in fact been rejected by the polity to whom the governments were beholdng. We do not interrogate this interpretation of the evidence other than to note that some of the regimes in place during the contentious era of structural adjustments in Africa were non democratic yet responsive to public opinion over the distributional consequences and estimated benefits of the prescribed reforms. Furthermore, there were other potent (external) forces that contributed in shaping governments’ policy choices over the initiation and sequencing of the reforms.

By comparison, the choice-theoretic model developed here parallels the theoretical thrust in Bates (2006) but differs in emphasis by stressing that the nature of the competitive electoral process (even with citizens voting retrospectively) does not ensure that office holders will not plunder public resources. Through such a demonstration, the paper aims to make a logically
compelling case for extending the discourse on combating corruption to beyond the usual recommendation to establish a functional democracy.

The rest of the paper is organized as follows. Section 2 develops a model of political accountability; Section 3 characterizes the resulting equilibrium and discusses some policy implications. Section 4 concludes with suggestions for a potentially fruitful research agenda.

A MODEL OF POLITICAL ACCOUNTABILITY

Consider a representative democracy in which voters elect candidates by balloting. However, candidates for public office must contest on a party platform. In other words, they must become registered candidates under an approved political party in order to be eligible to contest. In the model, voters hold politicians accountable for the pre-election promises by voting retrospectively. There are three main actors namely the citizens who are also the voters, political parties, and office holders or candidates for public office. Whereas the party determines the rules for intra party competition and thus acts as the selectorate for the candidates, however, once the candidates are voted into power, they become the policymakers and executives of public policies.6

Mindful of the variety of possible political regimes in the developing world, we adopt as our most representative set up, the case of fiscal discipline in a weak federalism. The fiscal federalism is weak in the sense that despite the effect of individual behavior on the collective destiny of the union, the centre has limited control over the spending proclivities of the federating states (a classic “tragedy of the commons”). In its formulation in the model, deterring corruption is analogous to instilling fiscal discipline within the federation. The institutional details that drive the weakness of the centre is not modeled. Rather, we motivate this weakness as a deliberate instrument of political control; as part of a repertoire of devices that can be used to organize political support or disorganize political opposition. Loopholes exist so that they can be exploited but access to those holes is privileged. As argued in Bates (1983,

6 Whether parties compete directly or indirectly through their candidates is not material for the “social contract” not to plunder. When parties compete directly at the ballot box, they nonetheless confront the same agency problems \textit{ex post} as when their nominees compete.
p.130), political discretion “allows exception to the rules; by threatening to
enforce the rules, it threatens sanctions.”

In our model of federalism, the centre state is assumed to be the party
which is personified in the President or Prime Minister and who also leads a
coalition represented at the state or provincial level by the office holders
(variously Governors or Premiers). These leaders receive centre-to-state grants
formulatively. A combination of factors such as prosecutorial discretion within
the government apparatus and constitutional immunity during incumbency
enables leaders to abuse their budgets at will. Following the methodology and
terminology in the seminal analysis of fiscal discipline in a federation by
Aizenman (1998), we label such an abuse “opportunistic behavior.” Over
time such an opportunistic behavior is detected and punished through a
permutation of possible leadership changes where one or more of the office
holders are ousted, sometimes resulting in a regime change.

MODELING THE INCENTIVES
The federation consists of n equally influential provinces that share
fiscal revenue \( Y \) according to some agreed formula. The fiscal plan for any
given period \( t \) is the budget which specifies a planned revenue allocation
each to \( n \) leaders who are the custodians of public resources in their respective
domain:

\[
\hat{G}_{it} = \frac{1}{n} (Y_t + \hat{b}_t - \tilde{b}_{t-1}) \quad i = 1, \ldots, n; \quad t = 1, \ldots, m,
\]

where \( \hat{b}_t \) is a one-period financing of the budget deficit; “\( \hat{b} \)” is planned
deficit and “\( \tilde{b} \)” is actual debt stock.\(^7\) Equation (1) says that planned
centre-state grant is comprised of national income plus planned borrowing,
less repayment of prior year debt.\(^8\) All the variables except the level of debt
financing are determined exogenously. Although this assumption conveniently
allows us to focus on plundering and politics, it is not altogether fantastic. The

\[^7\] Outside our one-period interest-free financing framework, “\( \tilde{b} \)” would represent the stock of
debt (i.e., accumulated debt plus interest accrued).

\[^8\] Implicitly, there can be a debt roll-over scheme which effectively changes the distribution of the
sphere of influence over domestic politics to include also international actors such as creditors.
external debts of many developing countries are on terms that are dictated by the debt clubs. For natural resource-dependent African economies, oil and solid mineral prices are either determined in the international commodities market or are appreciably influenced by international marketing cartels via the output decisions of these cartels.

"Weak" fiscal federalism allows the level of current expenditure to depend also on the level of current period looting. A binding constraint is that if current period looting exceeds a certain threshold $κ^*$ the office holder is detected and sacked immediately before completely carting off the loot else there exists a probability $φ_t$ that he may be detected at the end of period $t$. This contemporaneous probability of detection $φ_t = φ(k_t)$ depends on the extent of the plunder. Therefore, an intention to loot within the acceptable bound implies a higher likelihood of implementing an opportunistic consumption $\hat{k}_{it}$. Furthermore, by comparison to the alternative of being sacked, successfully looting imposes on the public the additional costs of pursuing a value recovery of the stolen assets. It should be clear thus far that we can distinguish between the odds of instantaneous detection

$$φ \mid k > κ^* = 1$$

and of delayed detection

$$φ \mid k ≤ κ^* = φ(k).$$

Although the resulting national debt

$$\bar{b}_t = \hat{b}_t + \sum_{i=1}^{n} k_{it}$$

is the outcome of the joint behavior of the office holders, we can nonetheless summarize an office holder’s expenditure options as follows:

$$\tilde{G}_{it} = \hat{G}_{it} + \hat{k}_{it}, \quad \hat{k}_{it} = \begin{cases} k_{it} & \text{if } k_{it} ≤ κ^* \\ 0 & \text{else} \end{cases}.$$
Accordingly any resulting unplanned debt financing in period $t$ is a cover up of profligacy and hence is viewed unfavorably by the electorate. We denote $\phi_{t1}$ as the probability of the incumbent regime getting reelected in the next period and assume that this probability depends on current period debt level; no new debt means no-change in the odds of being reelected whereas increasing debt level implies worsening of the odds. Summarizing,

$$\phi_{t1} = \phi(\tilde{b}_t), \quad \phi'(0) \equiv \frac{d\phi}{db} \big|_{\tilde{b}_t = 0} = 0, \quad \phi' < 0 \quad \forall \tilde{b}_t > 0$$

Since the leader is assumed to be motivated by office and rents, he selects an expenditure level to maximize expected lifetime utility (henceforth, the pronoun he should be taken as gender neutral):

$$U_i = E_t \left\{ \sum_{j = t}^{T} \rho^{j - t} u_j(\tilde{G}_{ij}) \right\}, \quad 0 < \rho \leq 1, \quad j = t, 1, 2, \ldots, T$$

where $\rho$ is the personal discount factor, $E_t$ is the expectations operator conditional on information available in period $t$; $u_j$ is period utility function satisfying the following regularity conditions $u' > 0$, $u'' < 0$, $u(0) = 0$.

**EQUILIBRIUM ANALYSIS AND DISCUSSION**

It is commonly presumed that given a chance, a politician will select a policy or make choices that advance his political fortune. Accordingly, the analysis is presented in a manner that illustrates the different aspects of the

---

*Office holders cannot fool the electorate by consuming $k_{it}$ and implementing $(\hat{G}_{it} - \hat{k}_{it})$ because this trick would manifest as uncompleted line items in the task list.*
DEMOCRACY AND CORRUPTION

political fortune. Figure 1 summarizes an extensive form representation of the three stages of what is possibly a two-period game for an office holder. The players are in a game in which the payoffs are jointly determined by their own behavior (choice of strategy) and the implications of those choices for the other actors in the game namely, the electorate. Two relevant equilibriums are possible; a structure-induced equilibrium [Shepsle and Weingast, 1981] which can maximize the collective welfare and a Nash equilibrium which although does not serve aggregate welfare but nonetheless emerges as a natural outcome to the free-rider problem in the fiscal federalism.\textsuperscript{10}

\begin{equation}
\text{Figure 1: Politician's Fortune Cookie}
\end{equation}

\textsuperscript{10} Structure-induced equilibrium pertains to collective decisions in smaller groups of political representatives with well defined preferences whereby the institution imposes a particular procedure for decision making that enables them to achieve a consensus.
Figure 1 can be described as follows: At the beginning of the regime period $t_{0}$, the leader of the office holders (policymaker) announces a feasible budget. Then, the office holders simultaneously implement policies by individually selecting both the planned level of public expenditure and a preferred level of opportunistic consumption. At the end of the regime, an election is held to determine the fate of the office holders and ultimately the regime. The result of the election depends on the actual debt level which in turn depends on the extent to which the regime succeeds in taming opportunistic tendencies; to borrow Olson's phraseology, on the extent to which they are able to set up as a "stationary bandit."

An office holder determines his optimal behavior by maximizing his lifetime utility subject to binding constraints. These constraints comprise the planned budget deficit and rules of the political game namely, whether or not to cooperate and when. In particular, let $XQ$, $GQ$, and $HQ$ respectively denote the following strategy combinations, fully non cooperative behavior whereby every office holder implements opportunistic consumption, full cooperation whereby all abstain, and the intermediate case where at least one office holder defects. $GQ$ is the socially preferred outcome which although maximizes as well the party’s political fortune, nonetheless is not an individual office holder’s most preferred outcome. Thus, without appropriate institutions—suitable restrictions on individual behavior and hence on the choice mechanism—$GQ$ will not emerge naturally (i.e. be the relevant equilibrium).

The strategy combination $HQ$ implies the following choice variables for an individual office holder

$$s \in \{1, \cdots, n\}.$$ Setting $\hat{k}_{t} \leq \kappa^*$; $\phi_{t1} | HQ = \phi(b_{t} + k_{st})$; and $\tilde{G}_{st} = \left\{ \frac{1}{n}(Y + \hat{b} - \hat{b}_{t-1}) + k_{st} \right\}$

we have the following lifetime utility function:

$$U_{s} | HQ = u_{t}(\tilde{G}_{st}) + (1 - \varphi_{t} | \phi_{t1})\rho u_{t+1}(\tilde{G}_{s,t+1} + \kappa^*)$$
The first order condition for optimal opportunistic expenditure is given by
\[
\frac{\partial U_s}{\partial k} \bigg|_{HQ} = 0
\]
\[
\frac{\partial u_t}{\partial k} + \rho u_{t+1}(\bullet) \frac{\partial(1 - \varphi_t \big| \phi_{t1})}{\partial k} = 0
\]

Equivalently, we can define \( \Pi \) as the contemporaneous probability of being removed from office which then enables us to express Equation (6) concisely:
\[
u' - \rho u_1(\bullet)[\Pi' + \frac{\partial \Pi}{\partial b'} b'] = 0; \quad \varphi(k_t) \big| \phi(b_t) \equiv \Pi(b(k), k)
\]

Equation (7) says that the dishonest office holder will increase current consumption up to the point where the ratio of the additional benefit from further current consumption to its price (which is the marginal risk of detection) equals the next best alternative namely, the present discounted expected value of the benefits from surviving to consume in the next period:
\[
\left( \frac{\partial \varphi \big| \phi_{t1}}{\partial k} \right)^{-1} u' = \rho u_1(\bullet).
\]

By contrast, under XQ strategy combination, an office holder selects a level of consumption mindful that
\[
\phi_{t1 \mid XQ} = \phi(\hat{b}_t + \sum_{i=1}^{n} k_{it}) \text{ and } \tilde{G}_{it} = (\hat{G}_{it} + k_{it}).
\]

Given the risk of instantaneous detection, we know that \( \sum_{i=1}^{n} k_i \leq n\kappa^* \).

Thus to the individual participant, the risk of not gaining reelection is higher under XQ. As per Equation (6), \( \rho u(\bullet) \) is invariant across both XQ and HQ whereas \( \Pi(b) \) is higher under XQ because of the resulting higher debt level.
Thus far we can appreciate that whilst GQ is politically the preferred strategy combination, HQ maximizes individual utility even though as a consequence they all wind up in XQ.

In equilibrium, what seems to matter for the miscreant (bad office holder) is the tradeoff between expected benefits (holding office and plundering i.e. the prize) and detection (the price). Both the threat of election and the threat of delayed detection do not appear to affect the choice of whether to plunder or not. Rather it is the selection of the level of plunder that is mitigated by both threats. On the other hand, as made clear by the game tree (Politician’s Fortune Cookie) in Figure 1, it is the warning of instant removal rather than the threat of a probable detection that constitutes a deterrent. However, note that in practice, $K^*$ represents a warning if and only if there is a detection and enforcement mechanism.

A disquieting feature of the model is that it assumes perfect detection and enforcement mechanisms that activate at $K^*$. It is unlikely that these conditions will be met in many budding democracies especially in the face of recent troubling events in some countries whereby incumbents have rejected electoral outcomes and instead sought to negotiate a power sharing arrangement with the incoming. Paradoxically the strength of the model is in its weakness in that it thereby highlights a crucial dimension of the fight against asset stripping—the establishment of political order.\footnote{On this, consult Bates (2006).}

The overarching policy implication of the discussion and insight from the analysis is that by building capabilities in value recovery, the instantaneous detection threshold can be lowered. Developing such capabilities undoubtedly places the vice (asset stripping) in the vise with the screws turned on. In fact, by initiating the Stolen Asset Recovery, the United Nations Office on Drug and Crime and the World Bank jointly anticipated this insight. Strengthening the repertoire of devices for the detection, identification, tracing and confiscation of criminal proceeds can combine with political accountability to serve as a potent deterrence by credibly threatening that stealing public money is a losing proposition because such a crime will no longer carry a positive long-
term payoff. Here, the effectiveness of international cooperation and its articulation with the parallel development of relevant domestic institutions will be crucial.

**SUMMARY AND CONCLUDING REMARKS**

This paper has developed a model of political accountability in which each political party occupies a political domain within which it is presumed to possess uncontested power to select candidates for political office. Once elected, the candidates become executives of public policy, having command over public resources. The party is personified in the centre state which is presumed the policymaker and leader of the coalition of states. Outside the party structure operates a weak fiscal federalism in the sense that the centre is unable to exercise command and control over the spending proclivities of the federating states. Furthermore, a combination of leeway within the government and constitutional immunity during incumbency enables office holders to abuse their budget at will. The instrument of political accountability is via fair and free elections wherein citizens vote retrospectively on the basis of a well specified performance indicator as well as other issues of interest. Although other issues of interest to voters were not explicitly modeled, nonetheless they matter indirectly by the very presence of uncertainty in the mapping from policy outcomes (performance) to aggregate voting behavior.

The model finds that both the threat of election, and its complement, the threat of delayed detection do not appear to affect the choice of whether to plunder or not. Rather they mitigate the level of plundering. In the extensive form representation of the office holder’s choice mechanism, instantaneous detection and removal from office is decisive as a deterrent. These results reinforce the findings in Bates and Shepsle (1997), Adersà et al (2003), and Chowdhury (2004) on respectively the role of monitoring and verification technologies in building credible deterrents; the impact of democracy and press freedom on corruption; and the role of information in deterring corruption.\(^\text{12}\) Our results and their bearing on the existing literature imply that much could be gained by encouraging the development of both the practical

\(^\text{12}\) Civil litigators experienced in the value recovery of stolen public money also emphasize the role of the media.
and research capacity for value recovery namely, the identification, tracing, verification, and confiscation of stolen assets. Thus the ideas espoused in this paper corroborate the logic of the Stolen Assets Recovery [StAR] initiative of the United Nations Office on Drug and Crime and the World Bank.

In closing, we raise briefly the various features of political accountability that consequently require further research. These challenges derive from the complex and unpredictable nature of the interaction between footloose citizens, organized interest groups, political parties, political elites (potential bandleaders) and the elected government.13 Secondly, political models of party politics and voting are still rudimentary [consult Weingast, 1989; Bartels and Brady, 2003; Besley and Case, 2003]. When voters either care about other attributes besides economic policy, maintain ideological differences, are reluctant to punish own political party for malfeasance by their selected office holders, or are swayed by ethnic affiliations, then observed political outcomes can on the surface be difficult to comprehend. The other corollary is a reminder from the literature on economic policy making and reforms. Because the economic necessity for reform may not necessarily translate into effective political demands for it, our results suggest also a further research agenda on how to translate the imperatives of the StAR initiative into political demands for it.

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13 Caplan (2007) emphasizes this point as well.
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