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A Kleptocrat's Survival Guide:

Autocratic Longevity in the Face of Civil Conflict

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Autocratic regimes are quite often short-lived kleptocracies formed and maintained through force and used to appropriate wealth from subjects. Some of these autocracies collapse after only a year or two of plundering while others manage to survive for fifteen or twenty years. This paper asks why some autocratic regimes survive while others fail. A database of political regimes from 1960 to 2003 is introduced and accompanies the paper in an appendix. A model of political survival suggests that autocrats exchange constraints on their executive power for their continued survival. The relationship between payouts from successful rebellion and ease of rebellion determines how willing kleptocrats are to extend the political franchise and protect their power. Results show that extremely oppressive regimes and great expenditures on security are likely to accompany the most difficult environments for defense of the state. The model is used to identify the costs of pervasive political conflict and to decompose the "civil peace dividend" enjoyed by inclusive democracies that do not suffer from the malady of kleptocratic rule. Finally, the model suggests that slow democratization pushed by the autocratic elites themselves to guarantee their survival, accompanied by stable development, may be the best path toward a democratic future for many fragile states.

The kleptocratic tendencies of autocratic regimes has been argued in Grossman and Noh (1994), Konrad and Skaperdas (1999), Addison and Murshed (2002), Mehlum, Moene and Torvik (2002), Bueno de Mesquita, Smith, Siverson and Morrow (2003) and Acemoglu, Robinson and Verdier (2004). These papers suggest that the governing elites in these regimes reward their base, client and patron networks (often organized along ethnolinguistic, religious or ideological party lines) with appropriation from those not in these networks, the subject population. Often this appropriation takes the form of taxation, though it can also include direct appropriation by force and rents from special licenses; sale of rights; privatization and plundering of natural and national resources; impunities from crime; and the privileged use of the powers of the state, including military and police services. Since kleptocratic elites prefer to stay in power to extract these rents, the research question is how do they avoid costly and unproductive political competition to maintain power?

In the model that follows, two players – "the governing elites" and "the subject population" – balance the costs and rewards of civil conflict against the shared benefits of civil cooperation. The model is specifically designed to highlight the trade-off that all actors in any civil society face between contributing to total output of the state ("creating a larger pie" through cooperation) and exerting energy to increase their share of output ("securing a larger piece of the pie" through conflict). Unlike previous models it distinguishes between the costs of conflict borne in the form of conflict resources and the costs of conflict due to lost cooperation. This approach captures both the effect of asymmetry on civil conflict and the incentives for all actors for civil cooperation. In the model the governing elites use this authority to declare a tax rate: a simple division of the total output if both parties cooperate, similar to a single-round offer game. It is this advantage, the setting of the tax rate, which separates the two groups and ensures that all gains from cooperation are enjoyed by the elites. Given this tax rate, both players assign effort to conflict. For the governing elites this effort is security or repression: the force of the state employed to maintain and protect the status quo, effectively enforcing the tax rate. For the subjects, this effort represents everything from organizing to civil disobedience to rebellion: any efforts taken to overthrow the governing elites and secure the resources of the state for themselves. This simple model provides rich results on the distribution of income, the behavior of both groups and the costs of conflict.

In the first section of the paper some descriptive statistics on regime change are presented to motivate the research questions. In the second section of the paper, a simple model of an "autocracy game" is developed within the context of similar models in the previous literature. The model shows how autocratic elites are able to extend the political franchise to prolong the life of an otherwise unpopular regime. This approach contributes to the literature by differentiating between the costs of the conflict through conflict expenditure and the costs of conflict associated with missed opportunities for cooperation. The sum of both of these costs is referred to as the "civil peace dividend." Additionally, the model allows for continuous levels of autocracy – from the most repressive, autocratic regimes to those regimes that are nearly democracies – in contrast to previous discrete models in the literature. A brief comparison in the form of a "democracy game" is introduced. The final section presents some brief empirical results which motivate future research questions and concludes.

1.   Some Descriptive Statistics

Democracy is on the march. According to the Polity IV data set (Marshall and Jaggers, 2003), the number of democracies in the world has increased from 20 in 1945 to more than 80 in 2003[2]. Though many of these new democracies are new states, a similar trend is not seen in autocracies, which saw a rise from approximately 50 in 1945 to more than 100 in the late 1970s and then declined to less than 80 autocracies in 2003. Many of these autocracies became functioning democracies in the last quarter of the 20th century during the so-called "Third Wave" of democratization (Huntington, 1991).

Huntington suggests that industrialization and economic development lead to a burgeoning middle class that ultimately demands democratic representation. Though there has been an overall trend in democratization in the world accompanied by economic development, the general trend that constitutes Huntington's Third Wave does not capture the autocratic fits and democratic starts that many of these countries have experienced during their political journey. How did Botswana transition so smoothly out of British rule and how has Honduras

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[2] The list of countries and regimes included in the study is available as an appendix to the paper. Autocratic regimes are defined as any regime with a Polity score of less than 3 in its first year. Statistics for regime start date and the length of survival of a regime were compiled with reference to Krieger (2001) and clarification from CIA (2005) and Geddes (1999), as necessary. Polity is the democracy score less the autocracy scores from the Polity IV data set. Both of the component measures range from 0 to 10, therefore polity scores are range from -10 (Absolute autocracy, no democracy) to 10 (Democracy, no autocracy). For more information, see Marshall and Jaggers (2003).

managed to keep the military out of politics for the past two decades? Should Sri Lanka and Venezuela be considered successful democratic transitions? Why did democratic experiments in the Sudan, Somalia and the Gambia fail? As Acemoglu, Johnson, Robinson and Yared (2004) suggest, the answers to these questions lie not in cross-country comparisons on broad trends in income and education. This paper goes one step farther than Acemoglu, et al., suggesting that the answer lies in the incentives of the principal players.

To highlight the difference between the global trend of democratization and the nature of specific political transitions, I run some exploratory regressions and report the results in Figure 1. A simple fixed-effects regression of polity score on lagged level of economic development (GDP per capita, PPP) on a sample of 151 countries supports Huntington's Third Wave hypothesis with a significant positive coefficient of 1.69 (the first point estimate with line confidence interval of 95% in Figure 1, measured on the right axis). Not only is the effect of lagged GDP on polity score positive, but there is some impressive explanatory power between countries (R^2=.35, first vertical bar in Figure 1, measured on the left axis). This accounts for the intuitive appeal of the Third Wave hypothesis: it is generally the case that more developed countries have more participatory political systems.

However, this relationship between development and polity score breaks down when the sample is selected by polity score. The rest of Figure 1 shows the effect of restricting the sample based on polity score two years prior to the observation. For example, the results in the second bar are restricted to preceding polity scores equal to or less than 9. The sample farthest to the right of Figure 1 is for only those countries with observations of polity score of -9 or -10. The vertical lines illustrate confidence intervals around the point estimates of the coefficients. The mid-range samples illustrate how tenuous the Third Wave hypothesis is. When the sample is restricted to polity scores of less than 6, the coefficient of income on polity score actually becomes negative and significant. These results would suggest that countries with lower incomes are likely to be more democratic, perfectly contrary to Huntington. As the samples are restricted even farther, the coefficient becomes positive and significant again when only the most authoritarian countries are considered (the far right section of the figure). Additionally, note how the explanatory power (R^2) drops off dramatically when those countries with polity scores of 10 are excluded.
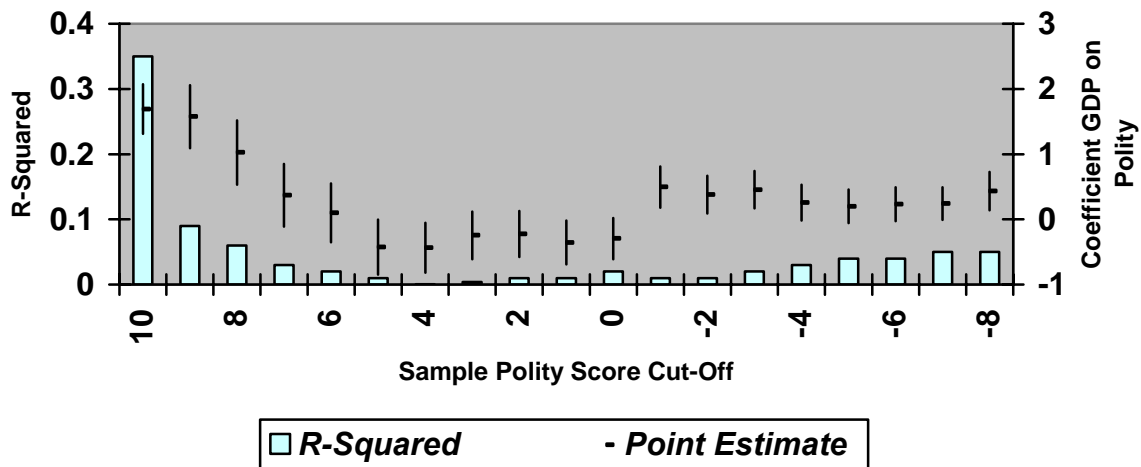
Figure 1: Effect of Development on Democracy, Allowing Sample to Vary by Polity Score

Figure 1 depicts both the general trend that more developed countries are more democratic and the nuanced reality that economic development alone cannot account for either the successes or the failures of recent democratic transitions. Of course, these results do not speak to causality at all, simply the relationship between development and democracy. What can be concluded from Figure 1 and the statistics so far is that countries that are able to build lasting democracies and enjoy some prosperity seem to pool at a stable equilibrium among other successful performers including the OECD countries and a few eastern European transition economies as suggested by Przeworski, Alvarez, Cheibub and Limongi (2000). This equilibrium is little consolation to the people of the 80-plus anocracies and autocracies identified earlier that might yet want to make this transition and reach the seemingly stable and prosperous democratic equilibrium enjoyed by the first world. Since there seems to be little compelling evidence that there are specific country effects that determines success in political transitions, I follow Przeworski, et al. (2000) and turn to comparison of regimes across countries and time to explain why some countries fail and other succeed at establishing functioning democracies.

Of 118 developing countries listed in the accompanying appendix, 188 autocratic regimes failed during the period 1960 to 2003. Seven regimes survived the entire 44 years (Bhutan, China, Cuba, Egypt, Jordan, Morocco and Saudi Arabia) and approximately 30 lasted more than 20 years. The mean age at failure was a little over 10 years. Note that these statistics speak more to the fragility of the state in general in developing countries than autocracies in particular, since among democracies that failed during the same period, the mean age was about 9 years.

What is telling is not the frequency with which regimes fail in these fragile states, but the relationship between age and type of transition after failure.
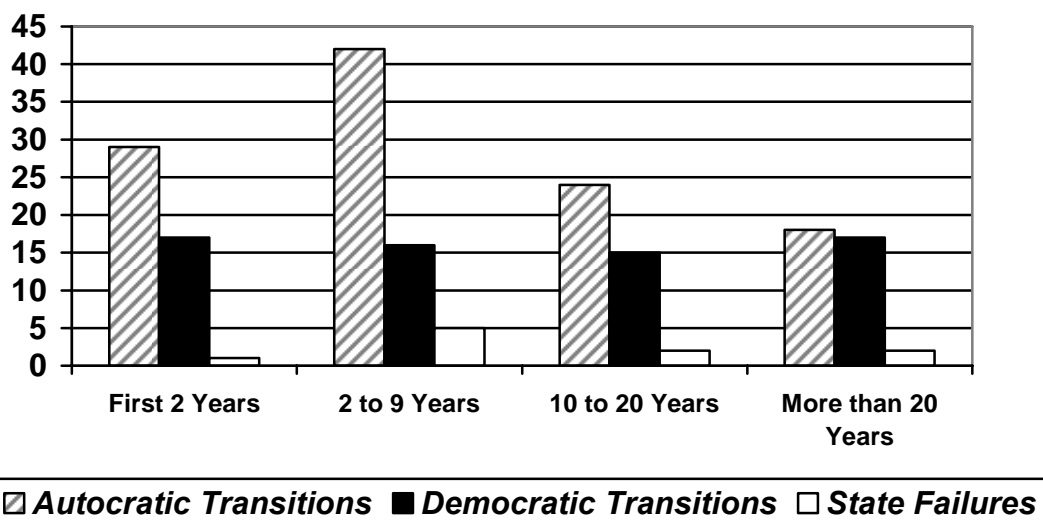
Figure 2: Autocratic Regime Failures by Following Regime Type

Figure 2 divides the 188 autocratic regime failures by the type of regime that followed. An autocratic regime that failed in less than 10 years was much more likely to become another autocracy than a democracy. By comparison, an autocratic regime that failed after more than 10 years was only slightly more likely to be followed by an autocracy than a democracy. Regimes that are replaced with other autocratic regimes last on average 10.3 years with a median survival of only 6 years, whereas autocratic regimes that are replaced by democratic regimes last on average 13.4 years with a median survival of 10 years. Is there something systematic about the approaches of rulers in longer-lived autocracies that simultaneously increase their political longevity and also result in more democratic transitions?

A surrender of authority by the governing elites could explain the disparities in survival and regime change in autocratic regimes. Polity data from the Polity IV data set is used as a measure of political restraint – an increase in polity score in a given year is considered increased constraint on political authority. Table 1 shows that autocratic regimes that are followed by democracies are also much more likely to extend the franchise sometime during their reign. Column 1 tabulates the count and percentages of increases in polity score for those autocratic regimes that are succeeded by democracies. Column 2 counts the increases in polity score for those autocratic regimes that are followed by other autocracies. Column 3 counts the increases

in polity score for those regimes that do not fail over the observation period (those that "survive" through the end of 2003).

Table 1. Autocratic Regimes, Type of Transition and Increases in Polity Score

	Column 1 Autocratic Regimes that Transition to Limited Democracies		Column 2 Autocratic Regimes that Transition to Autocracies		Column 3 Autocratic Regimes that Survive through the End of the Sample	
Total Observations	65		116		66	
	N	%	N	%	N	%
0 Increases in Polity	41	63	93	80	25	38
1 Increase in Polity	13	20	14	12	19	29
2 Increases in Polity	4	6	8	7	11	7
3 Increases in Polity	5	7	1	1	7	10
4 Increases in Polity	1	2	0	0	4	6
5 Increases in Polity	1	2	0	0	0	0
Mean Age	13.4		10.3		20.8	
Median Age	10		6		14	

Sources: Regime Dates: Compiled by the Author, see accompanying appendix.
Increase in Polity Score: Polity IV
An autocracy is defined as a regime that started with a polity score of 2 or less.
A democratic regime is one that comes to power with a polity score of 3 or more.

Thirty-seven percent of the autocracies that transition into limited democracies increase polity at least once during their lifetime, whereas only 20% of the regimes that transition to autocratic regimes increase their polity score. For those autocratic regimes that outlive the sample period (column 3), 62% increase polity score at least once.

The data is compelling and motivates the present analysis; however, it is hardly conclusive. In addition to providing the backdrop for the discussion that follows, Table 1 also introduces the endogeneity issues that plague the discussion of democracy and development. It could be that extension of the political franchise reduces political competition and decreases the likelihood of regime ending power struggles; or it could simply be that short-lived autocratic regimes don't live long enough to extend the franchise, and thus fewer extensions are observed. Similarly, the transitions in Figure 2 could be a manifestation of increasing trends toward democratization (the Third Wave) – if such a trend exists then longer-lived regimes are more likely to fail later in the sample period and are more likely to be replaced by democratic regimes. The direction of causality cannot be inferred from this simple correlation. The model that follows in the next section shows how new constraints on executive authority in the form of an extension of the franchise could result in increased survival of an autocratic regime.

2. A Model of Political Survival for Kleptocrats

The model follows Acemoglu and Robinson's seminal "Theory of Political Transitions" (Acemoglu and Robinson, 1999) and a similar model of political competition presented by Addison and Murshed (2005). It is also informed by the insights from Grossman and Noh (1994), the first paper in the literature to endogenize political survival. This model is slightly more general than Acemoglu and Robinson (1999) in that there are no assumptions on inequality or distribution of wealth – the governing elites and the subjects are defined only by the strategy set available to them. One difference between this model and its predecessors is that it includes both a measure of gains from cooperation and costs of conflict in resources devoted to competition. This allows for an accurate assessment of the civil peace dividend. The model presented here also allows for continuous measures of democracy, conflict and economic performance, while the predecessor models only allow for discrete states of democracy/non-democracy, rebellion/no rebellion and high/low economic performance. Continuous measures of these variables allow for the very real possibility that the elites in power in an autocracy can surrender some of their political authority to avoid or lessen civil conflict ensuring the survival of their regime. Such kleptocratic survival instincts are a very real possibility previously ignored in the discrete models.

2.1 The Basic Model

The model assumes two groups, the governing elites and the subject population. The governing elites (denoted by subscript G) control the government and claim a monopoly on the use of violence to protect that control. The subjects (denoted by subscript S) are simply the outsiders of the state functions – their only available strategy is resisting the state in the hopes of regime change. These two groups each act collectively as two players, assuming away collective action problems in the following simple game:

1. At the beginning of the game the state of the economy is revealed to both players[3]. This information includes the composition of elites and subjects,

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[3] The basic game is abstracted from issues of time. Obviously the shadow of the future weighs heavily over both actors as they determine whether they will engage in civil conflict where one side might be eliminated. However, for simplicity, expectations on future output and shares are included in present value state of the economy realized in stage 1.

information on total output, Y and the payouts for both players, γY and λY, respectively, given a successful rebellion that period.

2. In response to the state of the economy, the governing elites set the level of autocracy, A, which determines the tax rate, τ, as described below.

3. In response to A and τ and in light of the state of the economy the elites and subjects simultaneously devote resources to fighting, F, which determines the probability of regime change.

4. Payoffs are realized for each group dependent upon the outcome of the regime change contest (regime change or otherwise).

The one thing that both groups know at the beginning of the game is what the total output of the state will be and what their shares would be, given a successful rebellion. In other words, both players know the size of the pie and how the pie would be divided if the elites were to be removed from power. In this event the governing elites receive γY, the subjects receive λY and some fraction, θ, of the total expected output is lost because of the lack of cooperation, such that:

$$\gamma + \lambda + \theta = 1 \qquad\qquad\qquad\qquad\qquad\qquad (1)$$

The values of these parameters determine what "type" of economy is being represented. A very low γ, high λ and low θ might represent a "tinpot dictator" or a small group of privileged governing elites who are extracting rents simply by virtue of controlling the military and the government (Wintrobe, 1998). Conversely, a high γ and low θ suggests that the elites contribute quite a bit to the output and have little to lose from civil conflict. In addition to the relative values of γ and λ, the value of θ is very telling on the economy type. A low value of θ implies that there is little complementarity between the output of both groups and small expected gains from civil cooperation. A high value of θ suggests that there is great complementarity and cooperation could be very beneficial to both groups.

If both groups cooperate and abide by the policies established by the governing elites, total output for the economy is Y. However, before either group decides how much to devote to security/conflict, the governing elites propose a taxation/redistribution/appropriation policy, τ. Under this scheme, if both groups cooperate, the governing elites receive τY and the subjects receive $(1-\tau)Y$. These terms are defined in the most general economic sense and taxation can take any form of allocation or appropriation of the output – from income and other taxation to bribes and corruption that add costs to transactions.

Whatever the form of the taxation, the governing elites would certainly like to tax as much as possible from the subjects. They face two constraints on their choice of taxation level. First, if they set a very high tax level, the subject population will revolt and overthrow the regime. Second, they are constrained by their own credibility. Since the elites claim a monopoly on the use of force, there is nothing to stop them from declaring a tax rate and then reneging on the tax rate after both groups have agreed to cooperate, effectively extracting rents from their monopoly on force.

To mitigate these constraints, the elites can willingly surrender some portion of their executive authority, yielding some portion of their political power to the subject population – effectively allowing them some say in τ. Note that there is no group mobility, relinquishing political power does not affect the identities of the two groups. Though the subjects participate more in the political process determining τ through an extension of the franchise, their share of the output if they cooperate will still be $(1-\tau)$. The relationship between taxation and autocracy is assumed to be basically monotonic, $\tau=f(A), f'>0$.

This implies that the level of autocracy determines the de facto level of taxation; since the governing elites will tax all that they can, given the constraints on their executive power. Thus the model is cognizant of the reality well-known by the disenfranchised of the world: totalitarian talk is cheap. The elites can declare whatever tax rate they like, but the subjects know what the actual tax rate will be given the constraints on executive power. The model that follows is first solved for the optimal level of taxation, τ^*.

If both groups cooperate under the tax rate determined by the political process described above, the income of each group is given by Y_G and Y_R as follows:

$Y_G= \tau Y$ and $Y_S=(1-\tau)Y$ where $\tau=f(A)$, $\gamma+\theta \leq \tau <1$ and $f'>0$ (2a,2b)

This cooperation is what the governing elites would like to have happen, but the subjects don't have to accept this tax rate as a given. The subject population has some capacity to rebel and overthrow the governing elites through civil conflict, here broadly defined to include anything from civil disobedience, protests and strikes to bloody rebellions – any type of civil conflict intended to result in regime change. Resources devoted to this conflict by the governing elites and the subject population are referred to here as "fighting" and are represented by the variables F_G and F_S, respectively. As long as $\tau > \gamma+\theta$, it is assumed that some civil conflict occurs whenever resources are expended on fighting – whether it is posturing, protesting, riots or actual

civil war[4]. The outcome of the conflict is determined by a simple weighted contest success function, following Hirshleifer (1995) and Skaperdas (1996). The probability of the subjects' success in overthrowing the regime is given by π in equation 3:

$$\pi = \frac{\mu F_S}{F_G + \mu F_S} \qquad \mu > 0 \qquad\qquad (3)$$

The parameter μ weights the function for or against the subject population. For $\mu > 1$ the subjects have an advantage in the contest; for the cost of one unit of fighting resources for the governing elites, the subjects receive effectively μ units toward the contest. This advantage could represent mountainous and wooded terrain benefits to guerrilla warfare as suggested by Sambanis (2004) and Collier and Hoeffler (2004); the ease of targeting certain strategic interests such as oil pipelines and alluvial diamonds as discussed in Ross (2004); and the relative ease of gathering, organization and refuge provided by large, homogenous ethnic and linguistic groups among the rebels (Collier and Hoeffler, 2004). Conversely, a $\mu < 1$ suggests an advantage for the governing elites in the civil conflict, which could represent relatively easily navigable terrain; highly developed communications and infrastructure that compliment security efforts by the government (Fearon, 2005); and/or highly fractionalized ethnic groups among the subjects, making it easier for the governing elites to "divide and conquer" in any civil conflict.

With these assumptions, the expected income of risk-neutral governing elites can be found by weighting the implicit payoffs from equations 1 and 2a by the probability of a successful regime change given by equation 3 to form equation 4a:

$$E(Y_G) = (1-\pi)(\tau Y - F_G) + \pi (\gamma Y - F_G) \qquad\qquad (4a)$$

With probability $(1-\pi)$ the power struggle is unsuccessful and the governing elites maintain their hold on the government, collecting their share of the total output, τY, and paying for their security, F_G. With probability π the power struggle is successful and the governing elites are left with their consolation income of γY, though they must still pay for their security, F_G.

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[4] Skaperdas (1996), Konrad and Skaperdas (1999) and others point out that conflict itself is costly and that once resources have been spent on establishing a credible position of strength, both sides can benefit from negotiating as an alternative to violence. While this is invariably true, explicitly modeling negotiations would add another level of complexity to the game by introducing another node to the stage game without changing the first-order effects appreciably. Additionally, there are some limits on assumptions regarding negotiations in the presence of violence that make negotiated settlements less credible. Instead, the present definition of conflict is more broadly conceived to include negotiations, protests, rallies and other nonviolent, nonproductive activities that might influence the outcome of the contest.

Similarly, the expected income of risk-neutral subjects is given by equation 4b:

$$E(Y_S)=(1-\pi)((1-\tau)Y-F_S) + \pi (\lambda Y-F_S) \tag{4b}$$

Like equation 4a, the payoffs and costs for the subjects in the event that the regime maintains power or that the power struggle is successful, $(1-\tau)Y-F_S$ or $\lambda Y-F_S$, respectively, are weighted by the probability of success in regime change, π. This equation confirms the lower limit on τ: for there to be any civil conflict in this environment, the tax rate, τ, must be set above $\gamma + \theta$, otherwise the subjects have no incentive to overthrow the regime. In this light, the gains from cooperation in an autocracy are the "rents" of power, enjoyed by the governing elites. When the level of autocracy is sufficiently low (as regimes become more democratic), the tax rate approaches this bound. Once the tax rate passes this boundary, the political dynamics of the regime are different (as will be seen below) since the gains from cooperation are being divided by both groups, instead of extracted by the elites. Perhaps this is what fundamentally separates kleptocratic autocracies from democratic states.

2.2 Solutions to the Model

Armed with this very simple model, equilibria follow. To begin, note that equation 4b shows how the payoff to the subject population is contingent upon the policy choice of the elites. As the elites increase taxation, τ, the incentives for cooperation decrease for the subjects and the marginal returns to conflict increases through π, while the unit cost of conflict is constant. Taken together, equations 4a and 4b illustrate the fundamental aspect of all non-productive activities; since conflict is costly, there are Pareto preferred allocations involving less competition that would be preferred by both parties were they credible. This can be shown by reducing equilibrium F_R and F_G by the same factor – the probability of success in the civil conflict does not change and expected income increases for both actors. This illustrates how it can be in the elites' interests to surrender political authority, if such a move reduces resources spent on costly political competition by both parties[5].

Recall that the sequencing in the game is such that the governing elites set a policy choice for the levels of autocracy, A, and then both parties respond with resources devoted to conflict,

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[5] Gehlbach (2005) argues that autocratic elites cannot credibly commit to lower levels of appropriation and cites the Glorious Revolution as an example: the Crown could have benefited from lower taxes through both increased productivity and lower political competition, but had to be deposed by Parliament and subjected to restrictions of power before both sides would reduce resources devoted to political competition.

F_S and F_G, which determine whether the regime will be overthrown. Therefore, it is assumed that the elites set their optimal choice of autocracy, A^*, and the de facto tax rate, τ^* using backwards induction from optimal levels of fighting resources, $F_G{}^{NE}$ and $F_S{}^{NE}$. Taking derivatives of equations 4a and 4b with respect to F_G and F_S, respectively, solving for each and substituting in these solutions yields the following unique Nash Equilibria, $F_G{}^{NE}$ and $F_S{}^{NE}$:

$$F_G^{NE} = \frac{\mu(\tau - \gamma)^2(\tau - \gamma - \theta)}{[(\tau - \gamma) + \mu(\tau - \gamma - \theta)]^2} Y \qquad (5a)$$

$$F_S^{NE} = \frac{\mu(\tau - \gamma)(\tau - \gamma - \theta)^2}{[(\tau - \gamma) + \mu(\tau - \gamma - \theta)]^2} Y \qquad (5b)$$

Recall from equation 4b that an interior solution that involves civil conflict occurs when $\tau > \gamma + \theta$. From the best response functions derived from 4a and 4b, it can be shown that $F_S = 0$ and, therefore, $\pi = 0$ if $\tau \leq \gamma + \theta$, so that there is a corner solution without any conflict for a sufficiently low tax rate/level of autocracy. Again, this suggests a fundamental shift in the power dynamics between the two groups if the level of autocracy and taxation is low enough (once $\tau \leq \gamma + \theta$). This possibility is elaborated upon again later in discussion of stable political equilibria.

Dividing equation 5a by 5b yields $\dfrac{(\tau - \gamma)}{(\tau - \gamma - \theta)}$. For the internal conditions specified above ($\tau > \gamma + \theta$), resources devoted to conflict by the governing elites is always greater than resources devoted to conflict by the subjects. It will be shown that this is an important feature of the model in determining the equilibrium level of taxation/autocracy.

The two common elements of equations 5a and 5b, *(τ-γ)* and *(τ-γ-θ)*, describe the incentives of both parties for conflict. The first captures the governing elites' incentive for conflict since it is the difference between their share of output under cooperation/taxation and their consolation income given a regime change. Ceteris paribus, a larger *(τ-γ)* encourages the elites to fight for the right to tax. The second term, *(τ-γ-θ)*, describes the difference between the subjects' expected income from conflict and their income under the elites' tax plan. The equilibrium level of resources devoted to conflict by both parties is a function of both of these terms, since the best response functions for both parties involve the expected resources devoted to fighting by the other.

Equations 5a and 5b, determine the Nash equilibrium level of conflict, π^{NE}, when substituted into equation 3 to derive equation 6:

$$\pi^{NE} = \frac{\mu(\tau - \gamma - \theta)}{(\tau - \gamma) + \mu(\tau - \gamma - \theta)} \qquad (6)$$

Equation 6 solves for some equilibrium probability of success in a political competition, for any level of τ (with the possibility that $\pi = 0$ if $\tau \leq \gamma + \theta$, the corner solution suggested earlier for sufficiently low levels of taxation). Since π^{NE} and the costs associated with conflict, F_G^{NE} and F_R^{NE}, are all increasing in τ, it is conceivable that the governing elites may actually prefer a low τ. However, recall that the elites cannot credibly commit to a low level of taxation. To avoid costly political competition, they can commit to a de facto tax rate through an increase in democracy. Taking the derivative of the expected income of the governing elites, equation 4a, with respect to τ, substituting in the Nash equilibrium solutions above and solving for a maximum, yields the optimal tax rate, τ^*:

$$\tau^* = \gamma + \frac{3\mu\theta}{(\mu+1)} = 1 - \lambda + \frac{\theta(2\mu-1)}{(\mu+1)} \qquad (7)$$

The fundamental lesson in equation 7 is that the tax rate/level of autocracy is increasing in μ. This might seem counterintuitive: one might expect elites that face particularly daunting opposition to appease their subjects through lower taxation and more representative government. However, this result stems from the Cournot nature of the model - because the elites set the tax rate before both sides assign resources to conflict they are first movers and their level of security is already incorporated in the solution. Furthermore, since the elites are already expending high levels of resources (always shown in equations 5a and 5b), the level of autocracy secures as large a share of output as possible, inclusive of the marginal costs of conflict. Given the asymmetric relationship between the two actors, this result is actually quite realistic.

The result in equation 7 is interesting both for what it contains and what it omits. As expected, τ^* is increasing in γ; ceteris paribus, the reservation income to the elites given a rebellion is positively related to their level of taxation. However, since the share variables, γ, λ and θ sum to 1, this relationship is more complex than the partial derivative. Note that τ^* is increasing in θ, the output due to cooperation, further reinforcing the perspective that gains from cooperation should simply be defined as rents from governing in autocratic states. In fact, the derivative with respect to θ is larger than that with respect to γ, implying that a decrease in elite's share offset by an equivalent increase in cooperation share results in more autocracy. The

constraint on shares from equation 1 provides a more nuanced relationship between the shares on the level of autocracy.

The variable conspicuous in its absence from equation 7 is *Y*, total output. Equation 7 suggests that the actual tax rate and, therefore, level of autocracy is not related to level of income – seemingly rejecting Huntington's hypothesis on development and democracy. This suggests that two countries identical in distributions of wealth and cooperation will have the same level of autocracy and conflict, regardless of level of income. This seems like an an outrageous claim, but is it? These results are much more realistic when a distinction is made between income and level of development. While *Y* reflects the income of the state, the variable μ is actually much more closely associated with level of development.

For example, Fearon (2005) suggests that development in transportation infrastructure and communications make guerrilla warfare and other rebel tactics less feasible, and allow for better identification of rebels and quicker responses to conflict than in states where these networks do not exist. A positive externality of development could be in decreasing μ. However, the relationship between level of income and development is a complex one. States heavily dependent on natural resources, such as those identified in Ross (2004), might have higher incomes than comparable states without large stocks of natural resources, yet remain exposed to conflict due to the vulnerability of oil pipelines or ease of appropriation of alluvial diamonds, for example. To further muddy the waters, other variables, such as mountainous and wooded terrain used by guerrillas and dissidents for cover, and ethnic fractionalization which might make organizing and executing revolutionary movements more difficult, might have little or nothing to do with level of development, yet affect μ. Additionally, even in this relatively simple model, μ does not affect τ^* linearly[6]. The model confirms the evidence presented in section 1 and Figure 1. The relationship between democratization and economic development is much more complex than can be captured by a simple regression with income on the right hand side.

To further complicate matters, it seems that income and inequality don't affect the probability of a successful civil conflict under the optimal tax rate. This can be seen by

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[6] It can be shown that: $\dfrac{\partial \tau^*}{\partial \mu} > 0, \dfrac{\partial \tau^{*2}}{\partial^2 \mu} < 0, \underset{\mu \to \infty}{Lim}(\tau^*) = \gamma + 3\theta$

substituting the solution for τ^* back into equation 6 and simplifying for the probability of success given the optimal tax rate:

$$\pi^* = \frac{2\mu - 1}{2(\mu + 1)} \qquad (8)$$

Clearly, π^* in equation 8 is not a function of Y, γ, λ or θ. Once equilibrium levels of taxation and conflict resources are chosen, the probability of regime change is merely a function of the relative strengths of both groups in conflict. As suggested above μ might include: development, ethnic fractionalization and polarization, inequality, terrain, infrastructure, education, natural resource dependence and much more. What exactly is included in μ and what is not? The indiscriminate nature of the variable may explain why so few conclusive results have been identified in the conflict literature[7]. While inequality, ethnic fractionalization, terrain and natural resource dependence have been found to be significant in one or more studies, they are not consistently significant across all (or even most) studies. About the only variable that is significant across all studies in predicting the probability of successful civil conflict is income per capita. As this model and the preliminary data in the first section suggest, however, it is likely that researchers have been detecting the impact of higher levels of development on reducing the incidence of conflict, not the effects of wealth and income.

Finally, the resources devoted to conflict in equilibrium can be determined by substituting solutions from equation 7 back into equations 5a and 5b to obtain F_G^* and F_S^* in equations 9a and 9b:

$$F_G^* = \frac{9\mu\theta(2\mu - 1)}{4(\mu + 1)^3} Y \qquad (9a)$$

$$F_S^* = \frac{3\theta(2\mu - 1)^2}{4(\mu + 1)^3} Y \qquad (9b)$$

The optimal levels of resources devoted to fighting, F_G^* and F_S^*, are shares of Y, increasing in θ and non-monotonic in μ, initially increasing and then decreasing. Equations 9a and 9b demonstrate that the ratio of resources devoted to security by the governing elites to that of the subjects is $\dfrac{3\mu}{(2\mu - 1)}$ which is decreasing in μ but always greater than 1(1.5), suggesting that no

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[7] See Sambanis (2004) for a very thorough survey of recent articles and a broad array of econometric results that illustrate how inconsistent results are across these articles.

matter how extremely the contest is weighted toward the subjects, the elites will spend relatively more resources to defend their privilege.

2.3 Decomposing the Civil Peace Dividend

Before considering the implications of this model the costs of conflict are considered. Equations 3, 4a and 4b can be used to determine the net expected output, $E(Y^*)$, given equilibrium resources devoted to conflict, F_G^* and F_S^*, and optimal tax rate, τ^*:

$$E(Y^*| \tau^*, \lambda, \gamma, \theta) = E(Y_G) + E(Y_S) = Y - F_G^* - F_S^* - \pi^* \theta Y \qquad (12)$$

Expected output is composed of four elements, total output, expenditures on conflict by each group and the lost output from cooperation in the event of successful conflict. To motivate this argument, Table 2 compares three possible ex post interpretations of output, Ψ, given observed cooperation and civil peace, P, or civil conflict and rebellion, R.

Table 2: Three Interpretations of GDP

	Observation under Peace	Observation under Rebellion
1) "Naïve" Measure	$\Psi^P_1 = Y$	$\Psi^R_1 = Y - \theta Y$
2) "Empirical" Measure	$\Psi^P_2 = Y - F_S^*$	$\Psi^R_2 = Y - F_S^* - \theta Y$
3) "Real" Measure	$\Psi^P_3 = Y - F_G^* - F_S^*$	$\Psi^R_3 = Y - F_G^* - F_S^* - \theta Y$

Here, an interpretation of output, Ψ, superscripted by P refers to the realization of a successful rebellion. Ψ superscripted by R refers to the realized event of regime change. Simple measures of output that do not account for resources devoted to conflict, often refer to the difference $\Psi^P_1 - \Psi^R_1$ as the "peace dividend" – additional output that would be enjoyed if conflict were avoided. While the difference between columns in table 2 is constant across rows, such a "naïve" measure ignores the possibility that resources devoted to conflict could have been employed in otherwise productive activities. An "empirical" measure of output (GDP, for example), is actually closer to Ψ^P_2 in time of peace and Ψ^R_2 in periods of civil conflict, since resources devoted by the subject population to conflict are not included formally in measures of an economy. This definition, referred to in row 2 as the "Empirical" Measure of the peace dividend is the most common in the economic literature on conflict[8]. In contrast the interpretations of output in row 3 are derived directly from equation 12. The equations from this row show that even the observed measure of

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[8] For a very thorough analysis of the peace dividend with respect to international conflict and disarmament, see the authoritative Gleditsch, et al (1996). An insightful example of this approach is employed in Harris (1999).

the "peace" dividend is incomplete. The true costs of conflict are borne by autocratic states in every year of peace through the resources devoted to conflict shown in Ψ^P_3. Additionally, to differentiate between the common understanding of the peace dividend with regards to international conflict and the present definition with regards to kleptocratic regimes, the term "civil peace dividend" is employed.

To structure the discussion, some new terms are introduced. The difference between Ψ^P_2 and Ψ^R_2 is defined as the "conflict wedge". This is the direct effect of a lack of cooperation on output. The sum of $F_G{}^*$ and $F_S{}^*$ are defined as they have been used throughout this paper, as the "conflict resources" or "resources devoted to conflict". Finally, the "civil peace dividend" is defined as the sum of the conflict resources and conflict wedge. To reiterate:

$$\textit{Conflict Wedge} = \Psi^P_2 - \Psi^R_2 = \theta Y \tag{13a}$$

$$\textit{Conflict Resources} = \Psi^P_1 - \Psi^P_3 = F_G{}^* + F_S{}^* \tag{13b}$$

$$\textit{Civil Peace Dividend} = \Psi^P_1 - \Psi^R_3 = F_G{}^* + F_S{}^* + \theta Y \tag{13c}$$

2.4 In Contrast, the Democracy Game

In the development of the model in section 2.1, the variable θ is identified as the "cooperation" effect – the part of output that would be lost if the regime was overthrown. Later, in the analysis of the model, it is shown that this share of output is claimed completely by the elites as their entitlement from governing. In addition, the optimal tax rate beyond this entitlement is a proportional function of the size of this entitlement. These effects are direct results of the asymmetry of the tax setting privilege of the elites in a kleptocracy. Finally at the end of section 2.3, this portion of output is defined as the conflict wedge, since for autocratic regimes, it clearly has little to do with cooperation; in fact, equations 9a and 9b illustrate that the resources devoted to conflict for both groups are increasing functions of this conflict wedge in such regimes.

The paradox of the state lies in this conflict wedge. Both groups could conceivably benefit from the cooperation through more output; however, due to the asymmetry of autocracy, only the elites receive θ and therefore, efforts to overthrow the regime are direct threats to this portion of the elites' income. As θ increases, the elites' share from "cooperation" (maintaining power) becomes larger and they have more incentive to protect this share. As decomposition of

the peace dividend at the end of section 2.3 illustrates, output is reduced not just by the conflict wedge, but also by the additional resources devoted to conflict due to the size of the wedge.

The asymmetry that results in this effect is a direct result of the assumptions in the model. Assumptions of asymmetry where one group has the capacity to set policy seem reasonable when modeling an autocracy. In contrast, consider a simple model of a democracy using similar mechanisms and the same variables, but allowing the share θ to be divided through political competition. The democracy game follows a similar format to the autocracy game presented in section 2.2:

1. The state of the economy is revealed to both players, including Y, γ, λ *and* θ.
2. Both players devote political conflict resources toward competition for θ.
3. Payoffs are realized for each group dependent on this contest.

In the democracy game no advantage is given to either group. There is no additional stage of tax setting and no backwards induction. Also, there is an implicit guarantee of "property rights" that is not present in the autocracy game, where the governing elites can appropriate part of λ. For simplicity the same notation, G and S, is kept for the two groups, though they are only defined by their relative shares now. The superscript D is used to denote the variables and following solutions associated with the democracy game:

$$E(Y^D_G) = (\gamma + (1 - \pi^D)\theta)Y - F^D_G \tag{14a}$$

$$E(Y^D_S) = (\lambda + \pi^D\theta)Y - F^D_S \tag{14b}$$

In the democracy game the "elites", G, expect γY plus some share of θY less their resources devoted to political competition, F^D_G. The "subjects", S, expect λY plus a share of θY, less their expenditure on political competition, F^D_G. Assume that the contest success function, π^D, is determined by relative contributions of political competition resources from each group, F^D_S and F^D_G, following the same form as the CSF in the autocracy game, but with $\mu=1$ (both groups have equal access to the state):

$$\pi^D = \frac{F^D_S}{F^D_G + F^D_S} \tag{15}$$

Assuming risk neutral players, this contest can either represent the probability in a winner take all contest or a determinant of the share in a splitting the pie contest. The Nash Equilibrium solution for this contest is:

$$F^{D*}_S = F^{D*}_G = \tfrac{1}{4}\theta Y \tag{16}$$

$$\pi^{D^*} = \frac{1}{2} \tag{17}$$

Here it might be more reasonable to allow for the possibility of negotiated settlements that could reduce resources spent on political competition. However, to keep the results comparable with those from the autocracy game, this possibility is excluded (new, weak democracies like those that might develop out of autocracies might not yet have the institutions necessary to enforce such negotiations).

With a few assumptions these results can be directly compared to the results for the autocracy game given in section 2. Let $\mu=1$ in the autocracy game and assume that:

$$\gamma = \lambda = \frac{1}{2}(1-\theta) \tag{18}$$

With these assumptions there is no functional difference between the two groups in the democracy game, and the only difference between them in the autocracy game is in their asymmetry (i.e., who answers the phone in the capital). Under these assumptions, solutions from equations 9a and 9b can be compared to equation 16 to show that resources devoted to civil conflict are greater for the governing elites under autocracy than democracy, whereas the resources devoted by the subjects are greater under democracy than autocracy ($F^*_G > F^{D^*}_G$ and $F^*_S > F^{D^*}_S$). The governing elites prefer autocracy to democracy because they receive the entitlement from the conflict wedge and can appropriate some of the resources from what would otherwise be protected in a democracy. This is exactly the nature of kleptocrats invoked at the outset of the paper. Figure 3 illustrates this preference graphically over the range of $0 < \theta < .5$ (under the assumptions in 18, $\tau=1$ when $\theta =.5$).
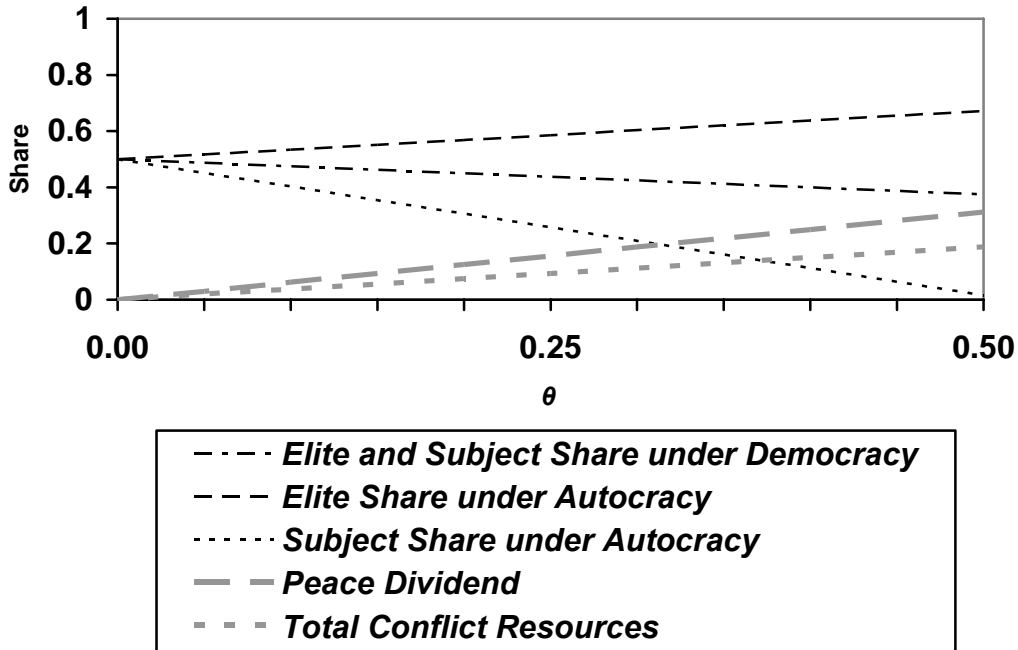
Figure 3: Shares of Income under Autocracy and Democracy for Identical Groups

Figure 3 shows that the elites' share under autocracy is larger than their share under democracy for all levels of θ. The subjects' share, meanwhile, is lower than their share under democracy. Additionally the peace dividend, the difference between 1 and the total income under autocracy and the resources devoted to conflict under autocracy are included in the figure. The expected conflict wedge (weighted by the probability of successful regime change, ie. $\pi\theta$) is graphically represented as the difference between the peace dividend curve and the total conflict resources curve. As the wedge increases, income of the elites and the total resources devoted to conflict increase.

This exercise explains why elites prefer maintaining costly autocracies even in the presence of seemingly large benefits from cooperation. Given reasonable assumptions on non-credible negotiations, it seems that the only hopes that disenfranchised subjects have for democratization are shifts in the relative shares that either group expects from rebellion or shifts in the decisiveness parameter, μ. As explained in section 2.3, a drop in this decisiveness parameter actually reduces the need for extreme autocracy on the part of the elites.

This paper used a very simple, static game to capture the first-order incentives of two actors in fighting for regime change out of kleptocracy. The model was kept intentionally memoryless and myopic without dynamic effects so that the first order effects of division and

size of the pie could be developed and discussed. However, there are some clues that suggest that μ might be useful in peaceful transitions from autocracy to democracy. For example, the optimal tax rate determined in equation 7 and the level of conflict in equation 8 both suggest corner solutions where subjects don't invest in conflict resources when $\mu < \frac{1}{2}$. Thus, μ might be a good starting point for considering future extensions to the model for future papers that incorporate changes over time. As a preview of such models, set $\theta = .2, \gamma = \lambda = .4$ and consider income shares for both groups in the autocracy games over the range $0 > \mu > 5$, illustrated in Figure 4.
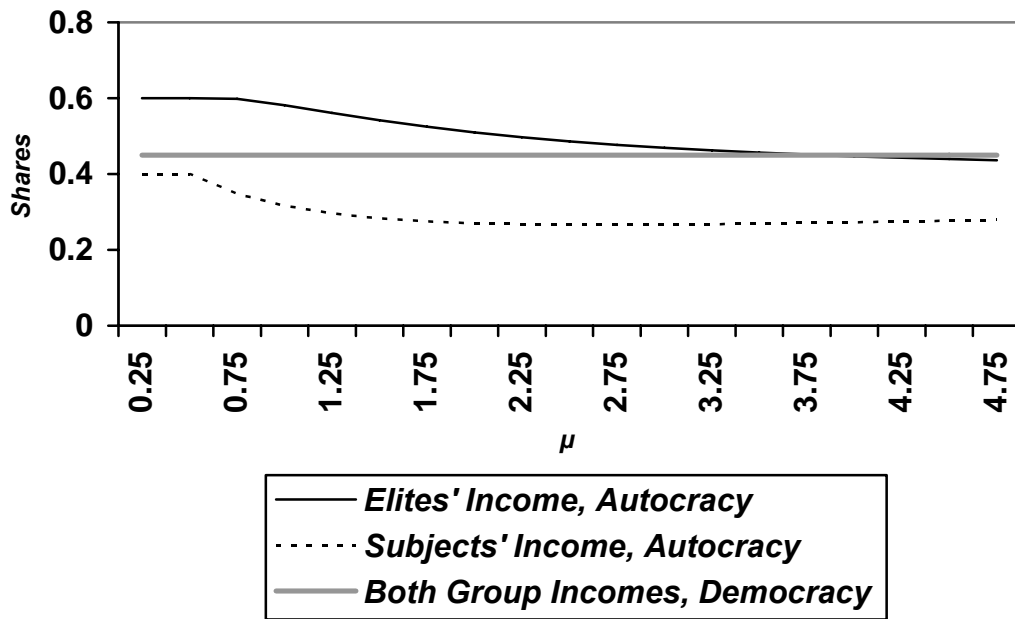
Figure 4: Nash Equilibrium Income Shares under the Autocracy Game and Democracy Game

Figure 4 plots the solution incomes from the static autocracy and the democracy games, allowing the decision variable, μ, in the autocracy game to vary. For higher levels of μ, income is decreasing for the elites. This effect is non-monotonic for the subjects; their income is decreasing in μ for low levels of μ, and increasing for higher levels. The constant solution income for the comparator democracy game is included as well, a reminder of what the elites could have if they switched to democracy. Clearly, for extremely high levels of μ the elites would be better off simply abrogating into democracy – since their income from autocracy is below the democracy income, because of their costly conflict in trying to protect the conflict wedge. However, from equation 8 it should be noted that a level of $\mu = 4$, for example, suggests

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a probability of successful regime change of 70%. Elites might consider themselves lucky to have the option to declare democracy in such an environment. More realistic levels of μ are found to the left of the Figure 4. In this range the elites have no incentive to switch to democracy because they are receiving a large portion of the conflict wedge, even net of the resources necessary to protect it. In this range, though, the elites do have an incentive to reduce μ to increase their income. Note from equation 7, that τ^* is increasing in μ so a reduction in μ would result in a corresponding reduction in τ and an increase in democracy. This suggests an opening for future investigations. If elites are able to invest in infrastructure with positive externalities on growth following on Fearon (2005) or diversify the economy away from easily targeted primary commodities (Ross, 2004), then dynamic effects might be possible that encourage elites to reinvest out of their own personal interest and, simultaneously, reduce conflict and promote democracy.

Other possibilities for future investigations involve assumptions on shares. Is it possible for subjects to push for democracy by reinvesting in agriculture and other non-appropriable productive assets, and do elites protect their autocracies by promoting only investments that can be easily looted in the event of rebellion? Perhaps this is the mechanism through which natural resources contribute to the fragility of autocratic states. Another future exploration would involve the nature of anocracy: why do so many regimes fail when trying to pass through the gauntlet of democratization? Is the fragility of transition a result of the changing All of these questions feed into the larger question of whether or not there are stable political paths that autocrats might follow to ensure their political survival and/or enrichment, yet might ultimately lead to democratization.

4. Conclusion and Implications

This paper began with some observations on the longevity of autocratic regimes and the phenomenon that longer-lived autocratic regimes are more likely to transition into democracies. A model of political survival was introduced to explain this phenomenon. The model demonstrated that the asymmetry of power in domestic policy setting guarantees that governing elites can appropriate from their subject populations and that elites will protect this power with tremendous resources devoted to security. Furthermore it was demonstrated that the share of income normally attributed to "cooperation" in democratic states should really be defined as a

"conflict wedge" in kleptocracies.   These results have important implications for the survival of autocratic regimes.

Using comparative statics on equation 7, it can be shown that the level of autocracy (proxied by the tax rate) is increasing in the share of resources guaranteed to the elites, increasing in the conflict wedge and decreasing in the share of resources guaranteed to the subject population. The discussion that followed equation 7 demonstrated that this relationship is complex, since equation 1 implies that these shares are mutually constrained to sum to 1. Differencing equation 7 yields an equation where the tax rate (level of autocoracy) is only increasing if changes in γ are not offset by changes in θ. As noted in section 2.2 of the paper, this suggests that the level of autocracy is not only a direct function of inequality (the ratio of γ to λ), but instead a function of the relationship between inequality, cooperation and development. This relationship is represented in Table 3:

Table 3: Role of Elite's Share, γ, and the Conflict Wedge, θ, in Determining the Level of Autocracy, A

	$\underline{\Delta\theta>0}$	$\underline{\Delta\theta<0}$
$\Delta\gamma>0$	$\mathbf{A}\uparrow$	If $\Delta\theta < \Delta\gamma\dfrac{(\mu+1)}{3\mu}$ then $\mathbf{A}\uparrow$ If $\Delta\theta > \Delta\gamma\dfrac{(\mu+1)}{3\mu}$ then $\mathbf{A}\downarrow$
$\Delta\gamma<0$	If $\Delta\theta >\Delta\gamma\dfrac{(\mu+1)}{3\mu}$ then $\mathbf{A}\uparrow$ If $\Delta\theta < \Delta\gamma\dfrac{(\mu+1)}{3\mu}$ then $\mathbf{A}\downarrow$	$\mathbf{A}\downarrow$

Identifying the conflict wedge and conflict resources separately allowed for a more precise definition of the "civil peace dividend" foregone due to conflict or the threat of conflict in autocratic states.   Since the conflict wedge in only observed when rebellion is successful, the civil peace dividend is approximated by combinations of more naïve measures.   While the conflict wedge may be difficult to measure and approach empirically, figures 3 and 4 and table 3 above demonstrates how important the conflict wedge can be in determining the civil peace dividend and explaining why some autocracies are able to survive and navigate peacefully toward democratic transition while others seem to revert to authoritarian rule until overthrown.

Finally, the implication of the conflict wedge was considered in both the autocracy game and a simple democracy game. It was shown that the conflict wedge is doubly damaging to autocratic regimes: through both resources lost to regime failure and the conflict resources devoted to avoiding regime change. Further comparisons of the democracy and autocracy games suggested areas for future research; including investments in reducing the decisiveness of conflict, which has a positive spillover on democratization. Such paths would have important policy implications; while kleptocrats may not be the first best choice as shepherds of states toward democracy, they may be preferable to the fly-by-night autocracies and periods of repeated state failure which are all too prevalent in fragile states.

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Appendix

Regimes and Regime Type
Autocracies (Polity<3) and Limited Democracies (Polity>2)
1960 to 2003

Country	Years	Regime Type[9] (Rule)	PRIO Civil War[10]	Przeworski Regime Type[11]
Afghanistan	1933-73	Autocracy (Shah)	1978-2001 (G)	
	1974-77	Autocracy (Daoud)		
	1978	Lack of State (Khalq/Parcham)		
	1979-86	Autocracy (Karmal)[12]		
	1987-92	Autocracy (Najibullah)		
	1993-95	Lack of State (Rabbani)		
	1996-2001	Autocracy (Taliban)		
Albania	1945-90	Autocracy (Albanian Communist Party)		
	1991-97	Limited Democracy (Democratic Party)[13]		
	1997-eos[14]	Limited Democracy (Socialist Party)		
Algeria	1962-91	Autocracy (Front de Libération Nationale (FLN), Armée de Libération Nationale)	1955-61 (G)	1962-64 (B) 1965-76 (A) 1977-90 (B)
	1992-94	Autocracy[15]	1993-2001 (G)	
	1995-eos	Autocracy (Pouteflika/Military)		

[9] Distinction is only made here between autocracies and limited democracies. Autocracies are any state with polity scores lower than 3. States with a polity score of 3 or greater are referred to as "Limited Democracies" to reflect the difficulty that all governments (including Western OECD countries) face in forming true democracies. Even states with a polity score of 10 are referred to as Limited Democracies.

[10] The International Peace Research Institute of Oslo (PRIO) compiles civil war data for all countries from 1946 to 2003 in their Armed Conflicts Database (Gleditsch, N.P., P. Wallensteen, M. Eriksson, M. Sollenberg and H. Strand, 2002). Civil wars included here are defined as major civil wars in the PRIO data set, wars in which battle deaths exceeded 1,000 per annum. Civil wars are identified as two types: those for control of the government (G) and those for secession or autonomous control of territory (T).

[11] Przeworski, et al. (2000) divide political regimes into two groups, autocracies and democracies. They further subdivide each group. Autocracies are divided into totalitarian autocracies (A) and bureaucratic autocracies (B). Democracies are divided by presidential system (E) and parliamentary system (P). For a few cases mixed (M) systems are identified, see original source for details.

[12] Afghanistan lacked state functions during 1978 and early 1979 as factional fighting between the Khalq (Masses) led by Nur Muhammad Taraki and the Parcham (Banner) forces led by Babrak Karmal. A coup by Hafizullah Amin claimed the government from Taraki in September 1979, however it was overthrown by Karbal in December 1979.

[13] Popular uprising in 1997, followed by limited government, state failure – peace restored by European peacekeeping force.

[14] Sample ends December 31st, 2003, so regimes that survive through the end of 2003 survive until end of sample (eos).

[15] Civil war resumes after government asserts power, cancels election results and bans Front Islamique du Salut (FIS).

Angola	1975-91	Autocracy[16]	1975-94 (G)	1975-79 (A)
				1980-90 (B)
	1992-2001	Autocracy[17]		1998-2001 (G)
	2002-eos	Autocracy		

Argentina	1955-62	Autocracy[18]		1958-61 (E)
				1962 (A)
	1963-65	Autocracy (Illia)		1963-65 (E)
	1966-72	Autocracy (Ongania)		1966-72 (A)
	1973-75	Limited Democracy (Cordobaza, Peron)[19]	1975 (G)	1973-75 (E)
	1976-82	Autocracy[20]		1976-82 (A)
	1983-eos	Limited Democracy		1983-90 (E)

Armenia	1991-1995	Limited Democracy		
	1996-eos	Autocracy (Kocharian)		

Azerbaijan	1992-eos	Autocracy (Aliyev, New Azerbaijan Party)	1992-94 (T)	

Bahrain	1971-eos	Autocracy (Al Khalifah)		1971-72 (A)
				1973-74 (B)
				1975-90 (A)

Bangladesh	1972-75	Autocracy (M. Rahman, Awami League)		1972-74 (B)
				1975-78 (A)
	1976-81	Autocracy (Z. Rahman, Bangladesh National Party (BNP))		1979-81 (B)
	1982-90	Autocracy (Ershad, Jaliya Party)		1982-85 (A)
				1986-90 (E)
	1991-95	Limited Democracy		
	1996-eos	Limited Democracy[21]		

Belarus	1991-94	Limited Democracy (Shushevich)		
	1995-eos	Autocracy (Lukashenka, Communist Party)		

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[16] Popular Movement for the Liberation of Angola (MPLA) was marginally in control, though Jonas Savimba's National Union for the Total Independence of Angola (UNITA) and the National Front for the Liberation of Angola (FNLA) fought until cease-fire signed in 1991.

[17] After free and fair elections, Savimba rejects results, war breaks out again. Civil war ends with the death of Savimba, Dos Santos placed in power.

[18] Peron overthrown by coup, 1955.

[19] After Peron was reelected there were massive uprisings and radical opposition from revolutionary guerrilla groups. After Peron's death in 1974 there was an escalation of violence on both sides.

[20] Return to autocracy in 1976 after coup ousts faltering government.

[21] 1996 elections not accepted by Awami League, agitation pushed BNP into resigning, new elections held.

Benin	1960-62	Autocracy	1960-64 (B)
		(Maga, Mouvement Démocratique du Dahomey)	
	1963	Autocracy (Soglo)	
	1964	Autocracy (Apithy, Ahomadegbe)	
	1965-66	Autocracy (Soglo)[22]	1965-78 (A)
	1967	Autocracy (Kouandete)	
	1968	Autocracy (Zinsou)	
	1969	Autocracy (De Souza, Sinzogan and Kouandete)	
	1970-71	Limited Democracy[23]	
	1972-89	Autocracy (Kerekou)	1979-89 (B)
	1990-eos	Limited Democracy (Soglo, Kerekou)[24]	1990 (A)

| **Bhutan** | 1907-eos | Autocracy (Wangchuk since 1972) | |

Bolivia	1952-63	Autocracy	1956-63 (B)
		(Movimiento Nacionalista Revolucionario (MNR))	
	1964-68	Autocracy (Barrientos)	1964-78 (A)
	1969	Autocracy[25]	
	1970	Autocracy (Torres)	
	1971-77	Autocracy (Banzar)	
	1978-79	Limited Democracy (Tejada)	1979 (E)
	1980-81	Autocracy (Meza, Suazo)	1980-81 (A)
	1982-eos	Limited Democracy[26]	1982-90 (E)

Brazil	1945-64	Limited Democracy	1950-60 (E)
			1961-62 (M)
			1963 (E)
			1964-67 (B)
	1965-84	Autocracy (Castello Branco)	1968-69 (A)
			1970-78 (B)
	1985-eos	Limited Democracy	1979-90 (E)

| **Bulgaria** | 1945-89 | Autocracy (Bulgarian Communist Party) | 1950-89 (B) |
| | 1990-eos | Limited Democracy | 1990 (P) |

Burkina Faso	1959-65	Autocracy	1960-65 (B)
		(Yaméogo, Rassemblement Démocratique Africain (RDA))	
	1966-70	Autocracy (Lamizana)	1966-69 (A)
	1971-73	Autocracy (RDA)	1970-73 (B)
	1974-77	Autocracy	1974-77 (A)
	1978-79	Limited Democracy (RDA)	1978-79 (B)
	1980-81	Autocracy (Zerbo)	1980-90 (A)
	1982	Autocracy (Ouédraogo)	
	1983-86	Autocracy (Sankara)	
	1987-eos	Autocracy (Campaoré)	

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[22] Soglo took control after Unified party of Apithy and Ahomadegbe dissolves.

[23] Maga first of presidential council to take power, Kerekou overthrows council in coup while Ahomadegbe in power of presidential council and politically incapacitated by alliance of Maga and Apithy.

[24] Nacional Sovereign Conference (NSC) paves the way for peaceful transition to democracy. Nicephore Soglo named prime minister to accompany newly limited presidency of Kerekou.

[25] Barrientos dies in helicopter accident, successor Luis Adolfo Siles Salinas replaced by General Alfredo Ovanda Candia by military.

[26] Coalition governments composed of Acción Democrática Nacionalista (ADN), Movimiento de Izquierda Revolucionaria (MIR) and MNR.

Country	Period	Regime		
Burundi	1962-65	Autocracy (Mwambutsa)		1962-65 (B)
	1966-92	Autocracy (Micombero, Buyoya)		1966-81 (A)
				1982-86 (B)
				1987-90 (A)
	1993-95	Limited Democracy (Ndadaye)		
	1996-2000	Autocracy (Buyoya)	1998 (G)	
	2001-eos	Limited Democracy[27]	2000-02 (G)	
Cambodia	1955-69	Autocracy (Sihanouk)	1967 (G)	
	1970-74	Autocracy	1970-75 (G)	
	1975-78	Autocracy (Pol Pot, Khmer Rouge)	1978 (G)	
	1979-88	Lack of State[28]		
	1989-91	Autocracy	1989 (G)	
		(Cambodian People's Party (CPP))		
	1992-96	Autocracy[29]		
	1997-eos	Autocracy		
Cameroon	1960-81	Autocracy (Ahidjo)		1960-70 (B)
				1971-72 (A)
	1982-eos	Autocracy		1973-90 (B)
		(Biya, Cameroon People's Democratic Movement (CPDM))		
Central African Republic	1960-64	Autocracy (Dacko)		1960-65 (B)
	1965-78	Autocracy (Bokassa)		1966-86 (A)
	1979-80	Autocracy (Dacko)		
	1981-92	Autocracy (Kolingba)		1987-90 (B)
	1993-2002	Limited Democracy (Patassé)		
	2003-eos	Autocracy (Bozize)		
Chad (B)	1960-74	Autocracy		1965-88 (G) 1960-74
		(Tombabaye, Parti Progressiste Tchadien)		
	1975-78	Autocracy (Malloum)		1975-90 (A)
	1979-81	Lack of State[30]		
	1982-89	Autocracy (Habre)		
	1990-eos	Autocracy (Deby)	1990 (G)	
Chile	1932-72	Limited Democracy[31]		1950-72 (E)
	1973-88	Autocracy (Pinochet)		1973-89 (A)
	1989-eos	Limited Democracy		1990 (E)
China	1949-eos	Autocracy (Chinese Communist Party (CCP))		1950-53 (A)
				1954-90 (B)
Colombia	1957-eos	Limited Democracy	1989-90 (G)	
			1992-93 (G)	
			1998-2002 (G)	

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[27] Transitional government with power-sharing agreements signed immediately after end of sample.

[28] Cambodia occupied by Vietnam, operated as satellite.

[29] Sihanouk restored to power under UN Protectorate. In 1996 Hun Sen staged coup to regain power.

[30] Weak coalition government formed by Goukouni Weddeye, Front de Libération Nationale du Tchad (FROLINAT)). Arguably non-existent state: southern territories functioned as independent states, northern states controlled by independent warlords.

[31] Allende elected in 1970.

Comoros	1975	Limited Democracy (Abdallah)		1975-77 (A)
	1976-77	Autocracy (Ali Soilih)		
	1978-89	Autocracy (Abdallah)		1978-90 (B)
	1990-94	Limited Democracy (Djohar)		
	1995	Autocracy[32]		
	1996-98	Limited Democracy (Abdulkarim Taki)		
	1999-eos	Autocracy (Assoumani)		
Congo	1960-62	Limited Democracy (Youlou)		1960-62 (E)
(Brazzaville)	1963-67	Autocracy (Masemba-Debat)		1963-76 (B)
	1968-90	Autocracy		1977-78 (A)
		(Ngouabi, Sassou-Nguesso, Parti Congolais du Travail (PCT))		1979-90 (B)
	1991	Lack of State[33]		
	1992-96	Limited Democracy		
		(Lissouba, Panafricaine pur la Democratie Sociale (UPADS))		
	1997-eos	Autocracy (Sassou-Nguesso)	1997-98 (G)	
Congo	1960	Limited Democracy		1960 (A)
(Kinshasha)		(Lumumba, Mouvement National Congolais (MNC))		
	1961-64	Autocracy	1964-65 (G)	1961-62 (B)
				1963-69 (A)
	1965-96	Autocracy (Mobutu)		1970-90 (B)
	1997-eos	Autocracy (L. Kabila, J. Kabila)[34]		1997-2000 (G)
Croatia	1991-99	Autocracy		
		(Tudjman, Croatian Democratic Union (HDZ))		
	2000-eos	Limited Democracy		
		(Mesic, Six-party coalition government)		
Cuba	1959-eos	Autocracy (Castro)	1958 (G)	
Cyprus	1963-73	Limited Democracy		
	1974	State Failure (War)	1974 (T)	
	1975-eos	Limited Democracy		
Djibouti	1977-98	Autocracy (Aptidon)		1977-1990 (B)
	1999-eos	Limited Democracy (Guelleh)		
Dominican	1930-61	Autocracy (Molina)		1950-61 (B)
Republic	1962	Limited Democracy		1962-65 (A)
		(Bosch, Partido Revolucionario Dominicano (PRD))		
	1963-65	Autocracy		
	1966-77	Autocracy (Balaguer)		1966-90 (E)
	1978-eos	Limited Democracy (Bosch, Balaguer)		

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[32] Djohar killed in coup.

[33] Transition government, party state regime abolished at Nacional Conference.

[34] Despite Laurent Kabila's assassination in 2001, transition to presidency for Joseph Kabila was without incident and the familial legacy suggests that this regime should be coded as one continuous regime.

Ecuador	1948-62	Limited Democracy		1950-62 (E)
	1963-67	Autocracy		1963-67 (A)
	1968-71	Limited Democracy		1968-69 (B)
				1970-78 (A)
	1972-78	Autocracy		
	1979-eos	Limited Democracy		1979-90 (E)
Egypt	1952-eos	Autocracy		1950-90 (B)
El Salvador[35]	1960	Lack of State		1960 (A)
	1961-78	Autocracy		1961-83 (B)
	1979-91	Autocracy[36]	1981-90 (G)	1984-90 (E)
	1992-eos	Limited Democracy		
Equatorial	1968-78	Autocracy (F. Nguema)		
Guinea	1979-eos	Autocracy[37] (T. Nguema)		
Eritrea	1993-eos	Autocracy		
		(Afwerki, People's Front for Democracy and Justice (PFDI)		
Ethiopia	1917-71	Autocracy (Selassie)		1950-56 (A)
				1957-73 (B)
	1972-90	Autocracy (The Dergue)	1976-91 (G)	1974-86 (A)
			1974-91 (G/T)	1987-90 (B)
	1991-eos	Autocracy		
		(Ethiopian People's Revolutionary Democratic Front (EPRDF))		
Fiji	1970-86	Limited Democracy		1970-86 (B)
	1987-89	Autocracy (Rabuka)		1987-90 (A)
	1990-eos	Limited Democracy		
Gabon	1961-66	Autocracy (Mba)		1960-90 (B)
	1967-eos	Autocracy (Bongo, Parti Démocratique Gabonais)		
Gambia	1965-93	Limited Democracy		1965-90 (B)
	1994-eos	Autocracy (Jammeh)		
Ghana	1957-65	Autocracy (Nkrumah)		1957-64 (B)
	1966-71	Autocracy		1965-69 (A)
		(Army-Police Alliance, National Liberation Council (NLC)		1970-71 (E)
	1972-78	Autocracy (Acheampong)		1972-78 (A)
	1979-80	Autocracy (Limann)		1979-80 (E)
	1981-91	Autocracy		1981-90 (A)
		(Provisional National Defense Council (PNDC))		
	1992-eos	Autocracy [38]		

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[35] Popular unrest and lack of respected leadership qualifies El Salvador in 1960 as a failed state. Lt. Colonel Julio Adalberto Rivera seized power in 1961 and power was passed on without incident to his successor Colonel Fidel Sánchez Hernández under the guidance of the military, qualifying the successive terms of the two autocrats to be counted as one autocratic regime.

[36] Army leadership was ousted by reformists; civil war began, guerrillas captured the capital city in 1989.

[37] The assassination of Francisco Nguema, coup d'etat and rise to power that followed by his nephew Teodoro Nguema suggest that these two regimes were separate entities with no legacy effect between them.

Country	Years	Regime		
Greece	1950-66	Limited Democracy		1950-66 (P)
	1967-74	Autocracy		1967-70 (A)
				1971-73 (B)
				1974-90 (P)
	1975-eos	Limited Democracy		
Guatemala	1957-62	Autocracy (Fuentes)		1958-62 (E)
	1963-81	Autocracy[39]	1969-87 (G)	1963-65 (A)
				1966-81 (E)
	1982	Autocracy		1982-85 (B)
	1983-95	Autocracy (Victores)		1986-90 (E)
	1996-eos	Limited Democracy		
Guinea	1958-83	Autocracy		1958-83 (B)
		(Sékou Touré, Parti Démocratique de Guinée (PDG))		
	1984-eos	Autocracy		1984-90 (A)
		(Conté, Conseil Militaire de Redressment National (CMRN))		
Guinea-Bissau	1974-79	Autocracy (Cabral)		1974-90 (B)
	1980-97	Autocracy (Vieira, Revolutionary Council)		
	1998	Autocracy (Mane)	1998 (G)	
	1999-2002	Limited Democracy		
	2003-eos	Autocracy (Rosa)		
Guyana	1966-eos	Autocracy[40]		1966-90 (B)
Haiti	1957-85	Autocracy[41] (F. Duvalier, J.C. Duvalier)		1950-85 (B)
	1986-89	Limited Democracy		1986-89 (A)
	1990	Limited Democracy (Aristide)		1990-90 (B)
	1991-93	Autocracy		
	1994-eos	Limited Democracy (Aristide)		
Honduras	1955-62	Autocracy (Morales)		1957-62 (E)
	1963-69	Autocracy (Arellano)		1963-64 (A)
				1965-70 (B)
	1970-71	Autocracy (Cruz, National Party)		1971-71 (E)
	1972-77	Autocracy (Arellano, Castro)		1972-81 (A)
	1978-81	Autocracy (Garcia)		
	1982-eos	Limited Democracy		1982-90 (E)

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[38] The PNDC was transformed into National Democratic Congress (NDC) in 1992 along with founding of a new constitution and a return to multi-party politics. Despite democratic advances including elections and peaceful transfer of power, the polity score for Ghana through the end of the sample recommend it for coding as an autocracy.

[39] While there was peaceful transfer of power between the presidencies over this period, failed constraints on executive power, a lasting insurgency and a slow erosion of democracy suggest that the leaders during this period enjoyed the legacy effect of a common autocratic regime. Presidents during this period included (in order of succession) Alfredo Enrique Peralta Azurdia, Julio Cesar Mendez Montenegro, Carlos Manuel Arana Osorio, Kjell Eugenio Laugerud García, and Rome Lucas Garcia. A coup in 1982 interrupted this cycle and presented another peaceful transition of power.

[40] Peaceful transitions, familial relationship (Dr. Cheddi Jagan, Janet Jagan) and dominance of the People's National Congress suggest that governance for Guyana over the sample period was largely single-party rule best represented by one autocratic regime.

[41] The transition of authority from Francois Duvalier to Jean-Claude Duvalier is the textbook example of autocratic legacy. The younger Duvalier fled the country after popular unrest in 1989. A provisional government governed democratically until Aristide was elected in 1990.

Hungary	1956-88	Autocracy (Kadar, Communist Party)	1956 (G)	1950-89 (B)
	1989-eos	Limited Democracy		1990 (E)
Indonesia	1959-64	Autocracy (Sukarno)		1957-59 (B)
				1960-70 (A)
	1965-67	Autocracy		
	1968-98	Autocracy (Suharto)	1975-78 (G/T)	1971-90 (B)
			1976-78 (G/T)	
	1999-eos	Limited Democracy		
Iran	1953-78	Autocracy (Shah)		1950-60 (B)
				1961-62 (A)
				1963-83 (B)
	1979-eos	Autocracy (Ayatollah Khomeini)	1979-80 (T/G)	1984-1990 (A)
			1981-82 (G)	
			1982 (T/G)	
Iraq	1958-62	Autocracy (al-Karim Qasim)	1961-63 (T/G)	1958-79 (A)
	1963-67	Autocracy (Nasserists)	1965-66 (T/G)	
	1968-78	Autocracy (Ba'athists)	1969 (T/G)	
			1974-75 (T/G)	
	1979-2002	Autocracy (Hussein)	1988 (T/G)	1980-1990 (B)
			1991 (T/G)	
			1991 (G)	
	2003-eos	Lack of State		
Côte d'Ivoire	1960-98	Autocracy		1960-90 (B)
		(Houphouët-Boigny, Bedié, Parti Démocratique de la Côte d'Ivoire (PDCI))		
	1999	Autocracy (Guei)		
	2000-eos	Limited Democracy (Gbagbo)		
Jordan	1953-eos	Autocracy (Hussein)		1950-65 (B)
				1966 (A)
				1967-73 (B)
				1974-83 (A)
				1984 (B)
				1985-88 (A)
				1989-90 (B)
Kazakhstan	1991-eos	Autocracy (Nazarbayev)		
Kenya	1963-2001	Autocracy		1963-90 (B)
		(Kenyatta, Moi, Kenya Africa National Union (KANU)),		
	2002-eos	Limited Democracy (Kibaki)		
Korea, North	1948-eos	Autocracy (Kim S. Il, Kim J. Il)		
Republic of Korea	1960	Limited Democracy		1960-60 (P)
	1961-78	Autocracy (Military) (Park)		1961-71 (B)
				1972 (A)
	1979-86	Autocracy (Dhun)		1973-87 (B)
	1987-eos	Limited Democracy		1988-90 (E)

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Kuwait	1963-89	Autocracy (Emir)		1963-75 (B)
				1976-80 (A)
				1981-85 (B)
				1986-90 (A)
	1990	Lack of State		
	1991-eos	Autocracy (Emir)		
Kyrgyzstan	1991-eos	Autocracy (Akayev)		
Laos	1360-1974	Autocracy	1959-61 (G)	1954-58 (P)
			1963-73 (G)	1959-1965 (B)
				1966 (A)
				1967-73 (B)
				1974-90 (A)
	1975-eos	(Lao People's Revolutionary Party)		
Lebanon	1958-74	Autocracy (General Fouad Chehab)	1958 (G)	
	1975-89	Lack of State (Civil War)	1976 (T)	
			1980-82 (T)	
			1989-90 (T)	
	1990-eos	Limited Democracy		
Lesotho	1966-69	Autocracy (Constitutional Monarchy under Moshoeshoe)		1966-69 (B)
	1970-92	Autocracy (Jonathan)		1970-90 (A)
	1993-97	Limited Democracy (Moshoeshoe)		
	1998-eos	Autocracy[42]		
Liberia	1960-69	Autocracy (Tubman)		1950-79 (B)
	1970-79	Autocracy (Tolbert)		
	1980-89	Autocracy (Doe)		1980-84 (A)
				1985-89 (B)
	1990-95	Lack of State (Civil War)	1990 (G)	1990 (A)
			1992 (G)	
	1996-2002	Autocracy (Taylor)		
	2003-eos	Lack of State (Civil War)		
Libya	1960-68	Autocracy (al-Sanusi)		
	1969-eos	Autocracy (Qaddafi)		
Madagascar	1960-71	Autocracy (Tsiranana)		1960-71 (B)
	1972-74	Autocracy		1972-76 (A)
	1975-91	Autocracy (Rasiraka)		1977-90 (B)
	1992-eos	Limited Democracy (Zafy, Ratsiraka, Ravalomanana)		
Malawi	1964-93	Autocracy (Hastings Kamuza Banda)		1964-90 (B)
	1994-eos	Limited Democracy		
		(Bakili Muluzi, United Democratic Front (UDF))		

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[42] Military intervention by South Africa and Botswana has restored momentum towards democratization.

Mali	1960-67	Autocracy (Kéïta, Union Soudanaise-Rassemblement Démocratique (USRDA))		1960-67 (B)
	1968-90	Autocracy (Military) (Traoré, Comité Militaire de Libération Nationale (CMLN))		1968-81 (A) 1982-90 (B)
	1991	Autocracy (Touré)		
	1992-eos	Limited Democracy		
Mauritania	1960-77	Autocracy (Daddah, Parti du People Mauritanien)		1960-77 (B)
	1978-eos	Autocracy (Taya)		1978-90 (A)
Mexico	1930-99	Autocracy (Partido Revolucionario Institucional (PRI))		1950-90 (B)
	2000-eos	Limited Democracy		
Mongolia	1952-91	Autocracy (Tsedenbal)		1950-90 (B)
	1992-eos	Limited Democracy		
Morocco	1957-eos	Autocracy	1975-80 (G/T)	1956-62 (A) 1963-64 (B) 1965-69 (A) 1970-71 (B) 1972-76 (A) 1977-90 (B)
Mozambique	1975-93	Autocracy[43]	1981-92 (G)	1975-90 (B)
	1994-eos	Limited Democracy		
Myanmar (Burma)	1960-61	Limited Democracy	1961-75 (T/G)	
	1962-eos	Autocracy (Ne Win)	1964-70 (T) 1968-78 (G) 1992 (T/G) 1994 (T)	1962-73 (A) 1974-87 (B) 1988-89 (A) 1990 (B)
Nepal	1960-89	Autocracy (Mahendra)		1960-62 (A) 1963-90 (B)
	1990-2001	Limited Democracy		
	2002-eos	Autocracy (Gayanendra)	2002-eos (G)	
Nicaragua	1936-78	Autocracy (Anastasio, Garcia, Partido Liberal Nacionalista)	1978-79 (G)	1950-70 (B) 1971-71 (A) 1972-78 (B)
	1979-89	Autocracy (Sandinistas)	1983-88 (G)	1979-83 (A) 1984-90 (E)
	1990-eos	Limited Democracy		

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[43] Samora Machel, of the Front for the Liberation of Mozambique (FRELIMO) was in power during this period; however, fighting between FRELIMO and the Mozambique National Resistance (RENAMO) persisted over most of this period (1977 to 1992).

Niger	1960-73	Autocracy (Diouri)		1960-73 (B)
	1974-86	Autocracy (Kountche)		1974-90 (A)
	1987-91	Autocracy (Ali Saibou)		
	1992-95	Limited Democracy		
	1996-98	Autocracy (Bare Mainsassara)		
	1999-eos	Limited Democracy (National Reconciliation Council)		
Nigeria	1960-65	Limited Democracy[44]		1960-65 (P)
	1966-78	Autocracy	1967-70 (G)	1966-78 (A)
	1979-83	Limited Democracy		1979-82 (E)
				1983-90 (A)
	1984-88	Autocracy (Babngida)		
	1989-97	Autocracy (Abacha)		
	1998-98	Autocracy (Abubakar)		
	1999-eos	Limited Democracy		
Oman	1932-69	Autocracy		1951-90 (A)
	1970-eos	Autocracy[45]		
Pakistan	1958-68	Autocracy (A. Khan)		1958-61 (A)
				1962-71 (B)
	1969-70	Autocracy (Y. Khan)		
	1971-76	Limited Democracy (Ali Bhutto)	1971 (G/T)	1972-76 (M)
			1974 (G/T)	
	1977-87	Autocracy (Zia-ul-Haq)		1977-84 (A)
				1985-87 (B)
	1988-98	Limited Democracy		1988-90 (P)
	1999-eos	Autocracy (Musharraf)		
Panama	1952-67	Limited Democracy		1952-67 (E)
	1968-68	Lack of State		1968-77 (A)
	1969-80	Autocracy (Herrera)		1978-1990 (B)
	1981-83	Autocracy[46]		
	1984-88	Autocracy (Noriega)		
	1989-eos	Limited Democracy		
Paraguay	1954-88	Autocracy (Stroessner)		1950-90 (B)
	1989-eos	Autocracy[47]		

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[44] After independence from the United Kingdom was gained in 1960, Nigeria was governed by a constitutional monarchy as a republic. Thus the short-lived democracy from 1979 to 1983 is referred to as the Second Republic.

[45] Qaboos bin Said al Said ousted his father in 1970 to claim the throne, suggesting a very weak autocratic legacy. Thus the two reigns are defined as two separate regimes despite the technical continuity of the monarchy.

[46] After General Herrera died in a plane crash in 1981, the government candidate won by a very small margin in a highly contested election in 1983, still there is little evidence of autocratic legacy between these two leaders, so the periods are defined as separate autocratic regimes.

[47] General Andres Rodriguez seizes power from General Stroessner in 1989 and proceeded to extend the democracy. He was replaced by Juan Carlos Wasmosy due to peaceful, public pressure in 1991, suggesting an autocratic legacy. Wasmosy resisted a coup in the attempted Barracks Revolt of 1996.

Country	Years	Regime		
Peru	1932-67	Autocracy (Alianza Popular Revolucionaria Americana (APRA))		1950-55 (B) 1956-61 (E) 1962 (A) 1963-67 (E)
	1968-74	Autocracy (Alvarado)		1968-79 (A)
	1975-78	Autocracy (Bermudez)		
	1979-91	Limited Democracy	1981-85 (G) 1988-93 (G)	1980-89 (Pres) 1990 (B)
	1992-2000	Autocracy[48]		
	2001-eos	Limited Democracy		
Philippines	1946-71	Limited Democracy	1946-54 (G)	1958-64 (E) 1965-71 (B)
	1972-85	Autocracy (Marcos)	1978 (G/T) 1981 (G/T)	1972-77 (A) 1978-85 (B) 1982-86 (G)
	1986-eos	Limited Democracy (Aquino, People Power Revolt)	1989 (G) 1991-92 (G) 2000 (G/T)	1986-90 (Pres)
Poland	1945-88	Autocracy		1950-88 (B)
	1989-eos	Limited Democracy[49]		1989-90 (M)
Portugal	1932-68	Autocracy (Salazar)		1950-75 (B)
	1969-74	Autocracy (Caetano)		
	1975-eos	Limited Democracy[50]		1976-90 (M)
Qatar	1971-94	Autocracy (bin Hamad Al Thani)		1971-90 (A)
	1995-eos	Autocracy (bin Khalifah)		
Romania	1948-64	Autocracy (Georghiu-Dej, Stalinists)		1950-90 (B)
	1965-89	Autocracy (Ceausescu)		
	1990-eos	Limited Democracy[51]		
Russia	1992-eos	Limited Democracy	1995-96 (T/G) 1999-2001 (T/G)	1950-90 (B)
Rwanda	1962-72	Autocracy (Kayibanda)		1962-72 (B)
	1973-93	Autocracy (Habyarimana)	1991-92 (G)	1973-80 (A) 1981-90 (B)
	1994-eos	Autocracy[52]	1998 (G) 2001 (G)	

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[48] Though President Fujimori was elected democratically in 1990, his suspension of the constitution, Congress and judiciary in 1992 and resort to authoritarian measures recommends coding the first few years of his presidency apart from the autocratic rule from 1992 to 2000 (when he was ousted by a newly reconstituted Congress). A caretaker government oversaw the transition back to democracy with elections of Alejandro Toledo in 2001.

[49] Contract parliament began the transition from Soviet authoritarianism.

[50] After coup attempts by Movimento das Forças Armadas (MFA) and failed countercoup by General Antonio de Spinola and revolutionaries, New Constitutional Regime held elections in 1975.

[51] Following a violent uprising during which Ceausescu was executed, the weak democracy was dominated by former members of the Communist party until other parties formed in the mid-1990's.

[52] After Habyarimana's plane was shot down in 1993, civil violence erupted in the country claiming the lives of more than 800,000 Tutsis and moderate Hutus. The Rwandan Patriotic Front formed a new government after defeating the Hutu regime.

Country	Period	Regime		
Saudi Arabia	1932-eos	Autocracy (Monarchy)		1950-90 (A)
Senegal	1960-eos	Autocracy		1960-90 (B)
Sierra Leone	1961-66	Limited Democracy		1961-66 (P)
	1967	Autocracy (Military) (Stevens)		1967-67 (A)
	1968-91	Autocracy (All People's Congress (APC))		1968-90 (B)
	1992-95	Autocracy (National Provisional Ruling Council (NPRC))		
	1996	Autocracy[53]		
	1997-2001	Autocracy	1998-99 (G)	
	2002-eos	Limited Democracy		
Singapore	1965-eos	Autocracy		1965-90 (B)
Somalia	1960-68	Limited Democracy		1960-68 (M)
	1969-90	Autocracy	1989-92 (G)	1969-78 (A)
		(Siyad Barre, Supreme Revolutionary Council (SRC))		1979-90 (B)
	1991-eos	Autocracy[54]		
South Africa	1961-90	Limited Democracy[55]	1980-83 (G/T)	1950-90 (B)
			1986-88 (G/T)	
	1991-eos	Limited Democracy		
Spain	1939-74	Autocracy (Franco)		1950-76 (A)
	1975-eos	Limited Democracy (Constitutional Monarchy)		1977-90 (P)
Sri Lanka	1948-eos	Limited Democracy	1971 (G/T)	1950-76 (P)
			1989-2001 (G/T)	1977-90 (B)
Sudan	1958-63	Autocracy	1963-72 (G/T)	1958-64 (A)
	1964	Lack of State (Intifahda)		
	1965-68	Limited Democracy		1965-68 (P)
	1969-84	Autocracy	1983-92 (G/T)	1969-84 (B)
	1985	Lack of State[56]		1985-85 (A)
	1986-88	Limited Democracy		1986-88 (P)
	1989-eos	Autocracy	1995-2002 (G/T)	1989-90 (A)
			2003-eos (G)	
Swaziland	1968-eos	Autocracy (Monarchy)		1968-72 (B)
				1973-77 (A)
				1978-90 (B)

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[53] Though the officers that came to power in 1996 promised peace and civil rule, these promises were short-lived; they were replaced in the next year by the Armed Forces Revolutionary Council (AFRC), prompting further fighting and the battle for Freetown.

[54] Coding as autocracy in the post-Barre period may be generous as conflict in Mogadishu has resulted in dissolution of any kind of national state while warlords have consolidated power and provided local security, laws and even governance.

[55] Despite Apartheid and the State of Emergency from 1985 to 1990, South Africa barely qualifies as an autocracy during the Apartheid period with a polity score of 4.

[56] The military government was overthrown by popular uprising leading to the subsequent short-lived democracy.

Syria	1961-65	Autocracy (Ba'ath)		1961-69 (A)
	1966-69	Autocracy (Salah Jadid, Ba'ath Party)		
	1970-eos	Autocracy (Hafiz al-Asad, Ba'ath Party)	1982 (G)	1970-90 (B)
Taiwan (China)	1949-95	Autocracy		
	1996-eos	Limited Democracy[57]		
Tajikistan	1991-eos	Autocracy[58]	1992-93 (G)	
Tanzania	1961-eos	Autocracy[59]		1961-90 (B)
Thailand	1958-70	Autocracy (Thanarat, Kittikachorn)		1957-68 (A)
				1969-70 (B)
	1971-72	Autocracy [60]		1971-74 (A)
	1973-75	Autocracy [61]		1975 (P)
	1976-90	Autocracy		1976 (A)
				1977-82 (B)
				1983-90 (P)
	1991	Autocracy		
	1992-eos	Limited Democracy[62]		
Togo	1960-62	Autocracy (Olympio)		1960-66 (B)
	1963-66	Autocracy		
	1967-eos	Autocracy (Eyadama)		1967-78 (A)
				1979-90 (B)
Tunisia	1959-86	Autocracy (Bourguiba)		1956-90 (B)
	1987-eos	Autocracy (Ali)		
Turkey	1960	Autocracy		1950-60 (B)
	1961-70	Limited Democracy		1961-79 (P)
	1971-72	Autocracy[63]		
	1973-79	Limited Democracy		
	1980-82	Autocracy		1980-82 (A)
	1983-eos	Limited Democracy	1992-97 (G)	1983-90 (P)
Turkmenistan	1991-eos	Autocracy (Niyazov)		
United Arab Emirates	1971-eos	Autocracy (Al Nuhayyan)		1971-90 (A)

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[57] Direct elections after the lifting of the state of emergency in 1994 eventually elected President Li through fair and free elections in 1996.

[58] Civil war from the period 1992 to 1997 and limited state capacity suggest that this could be coded as state failure during this period.

[59] Nyerere retired in 1985 paving the way for slow democratic transitions.

[60] Kittikachorn abolished constitution and parliament and seized power in 1971.

[61] Thammasak was appointed prime minister by King Phumiphon after student demonstrations and violence toppled the Kittikachorn military regime.

[62] Phumiphon deposed generals and called for elections leading to limited democracy.

[63] Following massive popular uprising including worker demonstrations, strikes and acts of urban terrorism, the military consolidated power, creating a short-lived autocratic regime.

Uganda	1962-65	Limited Democracy		1962-70 (B)
	1966-70	Autocracy (Obote)		
	1971-79	Autocracy (Amin Dada)	1979 (G)	1971-79 (A)
	1980-85	Autocracy (Obote)	1981-88 (G)	1980-84 (Pres)
	1985	Autocracy (Okello)		1985-90 (A)
	1986-eos	Autocracy (Musoveni)	1989 (G)	
			1991 (G)	
Uruguay	1952-65	Limited Democracy (Council of Governments)		1950-72 (E)
	1966-70	Limited Democracy (Areco)		
	1971-84	Autocracy (Bordaberry)		1973-84 (A)
	1985-eos	Limited Democracy		1985-90 (E)
Uzbekistan	1990-eos	Autocracy (Karimov)		
Vietnam	1976-eos	Autocracy (Vietnam Communist Party)		
Yemen	1990-eos	Autocracy (Personal)	1994 (G)	1967-77 (A)
				1978-90 (B)
Zambia	1964-90	Autocracy (United National Independence Party (UNIP))		1964-90 (B)
	1991-eos	Limited Democracy		
Zimbabwe	1965-79	Autocracy		1965-90 (B)
	1980-eos	Autocracy (Robert Mugabe)		