

Cities and Stability:

Urbanization and Non-Democratic Regime Survival

Jeremy Wallace
Ph.D. Candidate
Stanford University
jeremy.wallace@stanford.edu

[This piece combines elements from the first two chapters of my dissertation:
Cities and Stability: Urbanization, Migration, and Authoritarian Resilience in China.]

I would like to thank Jean Oi, David Laitin, Jim Fearon, Alberto Diaz-Cayeros, Kimuli Kasara, Alex Kuo, and Yotam Margalit for assistance. All errors remain my own.

Introduction

Why has the Chinese Communist Party been able to maintain power while the Soviet Union and most other communist states collapsed? Why do over a quarter of authoritarian regimes not survive their second year, while 15% last for 30 years and more?¹ Understanding why some authoritarian regimes endure and others collapse is fundamental to analysis of their internal and external politics. Authoritarian regimes, despite being the dominant form of rule for most of human history and until very recently the form of government for most people, are often treated as a residual category in the discipline.

I make two counterintuitive arguments regarding authoritarian regimes and their policies. First, urbanization hinders autocratic regime survival, controlling for level of development. Second, to mitigate short-term threats, most autocratic regimes enact policies that undermine their long-run stability. Fearing urban unrest, authoritarian governments give preferential treatment to cities, which induces further urbanization and increases the long-term risk to regime stability.

Political scientists have spent much effort and spilled much ink examining transitions from authoritarianism to democracy.² However, the focus on the breakdown of authoritarianism rather than the demise of particular authoritarian regimes has come at a cost: a scarcity of research on authoritarian-to-authoritarian transitions. Very recently, there has been a surge in research on autocratic regime survival (Geddes 1999a; Gandhi et al. 2003; Magaloni 2006; Brownlee 2007) yet this work has focused almost exclusively

¹ Calculations based on the post-WWII dataset used in this paper and described below.

² For recent reviews of these large literatures, see Geddes 1999b; Kalyvas 1999.

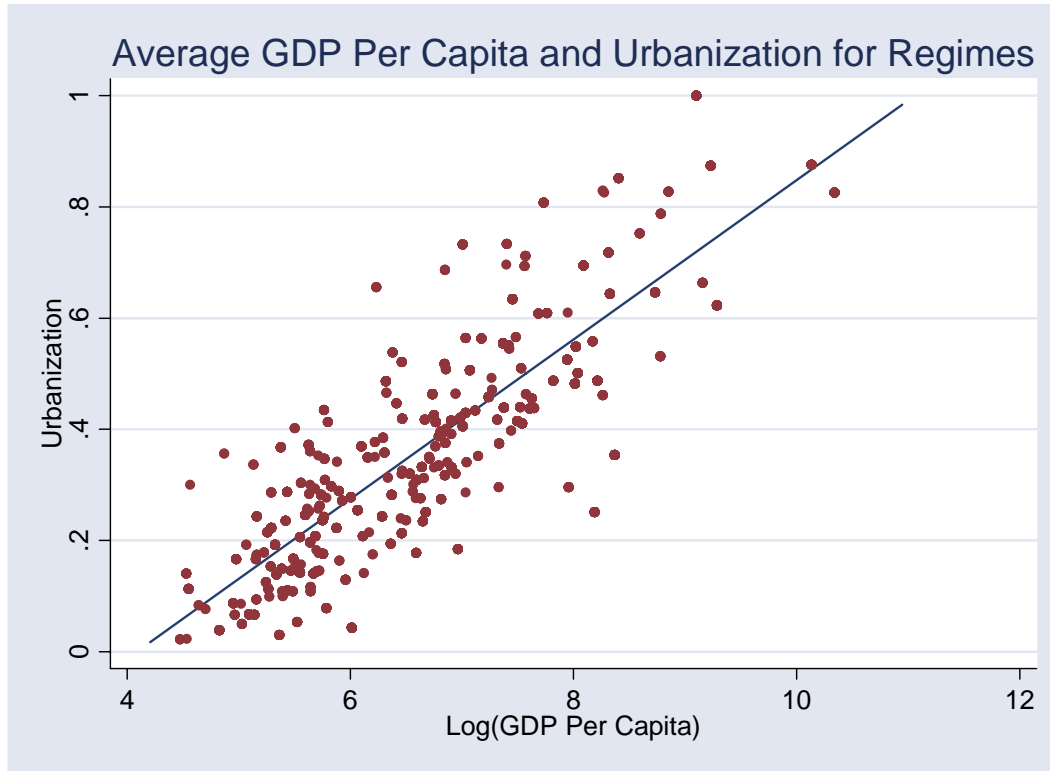
on elite dynamics. While these studies have been able to account for some of the observed variation in the duration of non-democratic regimes, much remains unexplained. My research instead delves into the political determinants and consequences of a socio-economic variable – urbanization – illuminating variation in both redistributive politics and autocratic regime survival.

Figure 1 plots the average level of development, measured by gross domestic product (GDP) per capita, and urbanization, the percentage of population living in urban areas, for all authoritarian regimes over the period 1960-2000. Also included is a regression line linking the two variables.³ As the regression line shows, development and urbanization are strongly and positively correlated. That is, more developed regimes tend to be more urbanized.⁴ Despite this strong association, the figure also makes clear that there remain substantial differences in urbanization rates between countries at the same level of GDP per capita. Regimes below the regression line in figure 1 can be classified as “under-urbanized” when compared with the full sample; 23 regimes have urbanization rates that at least 10% below the value we would expect given their level of economic development. Similarly, those regimes above the regression line can be classified as “over-urbanized;” 37 regimes have urbanization rates that are at least 10% greater than their predicted values.⁵

³ More details on the data and coding rules are in the data section below.

⁴ As the figure makes clear, GDP per capita data is logged here. As mentioned below, urbanization rates are based on World Development Indicators data which accept national level estimates and hence are not necessarily consistent across countries.

⁵ Regimes surviving only one year are dropped from these counts.

Figure 1.

I argue that although urbanization and development are correlated, their effects on regime survival point in opposite directions. Whereas modernization theorists argue that a slew of variables such as literacy, industrialization, and urbanization work in concert to undermine autocracy,⁶ I suggest that these components of modernization have independent effects on the resilience of autocratic regimes, in particular, I argue that development abets autocratic regimes, while urbanization undermines them. Wealthy regimes have more resources to spread to their supporters; this rentier effect buttresses their chances at long-run survival (Ross 2001). Urbanization, in contrast, reduces survival rates by increasing the number of potentially significant malcontents. In accordance with

⁶ See, for example, Przeworski, Alvarez, Cheibub, and Limongi 2000.

these predictions, the median duration of the “under-urbanized” regimes discussed above is 14 years, this exceeds the median of the “over-urbanized” regimes by 5 years.⁷

In a seminal work, Bates (1981) suggested that urban residents, due to their proximity to each other and the seat of government, can more easily threaten regime stability than people in the countryside (Bates 1981).⁸ As a result, most governments in developing countries bias policies in favor of cities to mollify potential urban unrest (Lipton 1977; Bates 1981). However, the literature on urban bias has neglected the benefits of keeping people out of cities as a strategy of regime survival. Whereas some regimes utilize pro-urban policies to pacify urban unrest, other regimes may try to prevent the flow of potential malcontents into cities from the countryside.

Indeed, urban bias has not been universal across time and space among developing countries (Varshney 1993). For example, after 50 years of substantial policy favoritism towards cities and migration restrictions that kept farmers in the countryside, the government of the People’s Republic of China (PRC) has recently shifted away from urban bias and has begun subsidizing rather than taxing agriculture. This “populist” shift has been portrayed by the government as an effort to combat inequality and to assist those who have not benefited from China’s recent economic growth (Yang 2006). However, this account misses another potential cause of this policy change. I suggest that the government’s recent adoption of policies towards rural areas is part of a strategy for regime survival aimed at slowing the pace of urbanization and mitigating urban unrest. Remarks by Wen Tiejun, a prominent scholar affiliated with the Chinese Communist Party, have suggested that experts close to the government share this perspective. Wen

⁷ The means also show this pattern, but the gap is reduced to 16.1 versus 13.3.

⁸ See the next section for a more detailed account.

has described the promotion of rural subsidies as a response to the government's fear of "Latin Americanization" (*la mei hua*), that is, the emergence of highly unequal megacities with their attendant slums, crime, and social instability (Lang 2006). In a nutshell, I argue that by sending money to the countryside, the government reduces the incentives for farmers to leave rural areas, dissipating pressure on urban centers.

The theory developed below has broader implications for the study of urban bias and redistribution in developing non-democracies. In particular, I argue that urban bias has a secondary effect that has been ignored in previous work, namely, that pro-urban policies hurt the long-run survival of authoritarian regimes even as they reduce the short-term risk of urban unrest. Taxing farmers and giving the benefits disproportionately to city dwellers in order to quell potential urban unrest has the long-term effect of inducing further urbanization. We know, for example, that farmers will switch away from planting a highly taxed crop in favor of one that is taxed lightly or not at all (Bates 1981). Similarly, rural residents will move away from the countryside and into cities if extraction levels are oppressive. Rather than suffer the burdens of urban bias, farmers will move to cities to reap its rewards. This leads to larger cities in the future and increases the probability that future unrest will undermine the regime. However, bias towards cities remains endemic in developing non-democracies, as most governments do not have the luxury of avoiding these long-term costs due to short-term threats.

This chapter proceeds as follows. First, I discuss the relevant literature on redistributive politics and develop the argument. I then describe the cross-national dataset of autocratic regimes used to test the claim that urbanization and regime duration are linked. The cross-national results show that urbanization has a clear negative effect on the

survival rates of autocratic regimes. I conclude with a discussion of additional tests of the argument that are developed in other chapters, in particular, a number of tests using Chinese national and subnational data collected during 15 months of field research.

Redistributive Politics & Regime Survival

Who is taxed and who receives the benefits of taxation is the economic core of politics. Social scientists have proposed and tested numerous explanations for the nature of redistribution in democracies, yet the work on non-democracies has lagged.⁹ It has long been argued that democracies enact redistributive policies that favor the poor as the poor outnumber the rich and with one-person-one-vote schemes, policy-makers in democracies should favor policies of the poor majority.¹⁰ Yet even here scholars differ as to whether parties support their core constituencies or the marginal voter.¹¹ In non-democracies, there is no similar incorporation of mass preferences into decision-making and thus redistributive politics, especially progressive redistribution, remains puzzling. Some argue that those with an affinity for the government are bought off because their support is the cheapest to acquire.¹² The opposite position – directing resources to those discontented able to impose costs on the regime – has proponents as well.¹³

Central to this debate is the distribution of political power within the population. Whether they believe that governments aid core supporters or pay off the potential protesters, analysts agree that the funds are directed towards those with political power or

⁹ For a review of the literature on democratic macroeconomic and redistributive politics, see Iversen and Soskice 2006.

¹⁰ de Tocqueville 1835. Related arguments are formalized by Meltzer and Richard 1981.

¹¹ Cox and McCubbins 1986; Stokes 2005.

¹² e.g. Bueno de Mesquita, Smith, Siverson, and Morrow 2003.

¹³ Fearon 2000; Oi and Zhao 2007.

leverage.¹⁴ The difference in political power of urban and rural residents has implications for redistributive politics in developing non-democracies. Urban residents have both high population density and proximity to the seat of government on their side, reducing collective action costs and making them politically relevant (Olson 1965; Lipton 1977; Bates 1981). A commonly recounted story is food price inflation leading to a riot in the capital city followed by a military coup, elite defections, or regime breakdown of some other sort. In Africa alone, the regimes of Sadat, Nimeiri, Kaunda, Moi, Gowan, and Tolbert all faced pressures from urban workers due to food price escalation, and some regimes did not survive (Bates 1981). Urban workers ability to act collectively brought about conditions that created “a climate in which a military coup d’etat could be carried out” in Ghana in 1972 (Libby 1976). These and other examples are evidence that urban individuals, through their ability to act collectively at the seat of power, have more political power than do individuals who reside outside of cities.

There remains one significant caveat to the argument that urban dwellers are comparatively powerful and thus receive the attention of a redistributing, self-interested authoritarian: the case of civil wars. Insurgency, the dominant technology of civil wars, is aided by remote, difficult terrain (Fearon & Laitin 2003). Civil wars do not overwhelm the above analysis for two reasons. First, they remain relatively rare. Fearon and Laitin 2003 find “127 civil war starts in a sample of 6,610 country years, a rate of 1.92 per 100.” Obviously, this overall rate underestimates the likelihood of a civil war starting in a country with poor socio-economic and geographic preconditions, but insurgencies are a low probability concern for most governments. Second, insurgents are not likely to be

¹⁴ See fn 7 and 8. “Selectorates” for Bueno de Mesquita et al and those “able to impose costs on the regime” for Fearon or Oi and Zhao.

paid off. It is difficult to broker peace deals between guerrillas and states as states face a commitment problem once the rebels have disarmed (Fearon 1998). Redistributing to potential insurgents follows a similar logic. The state would not like to subsidize a potential group of insurgents in time t only to find that the group used the funds to further arm itself and increase demands from the state in period $t + 1$ and into the future. Thus, even if conditions are ripe for rural insurgency, insurgents remain unlikely targets for redistributive policy.

These factors make urban residents more politically powerful and hence their support comparatively valuable to a regime. This discrepancy in power leads regimes to bias policies in favor of urban areas and those who inhabit them (Bates 1981). Urban bias, often in the forms of a price ceiling for foods and high levels of taxation for export-oriented cash crops, is endemic to developing countries across regime types.¹⁵

Substantial differences exist in the urbanization patterns of autocracies and democracies, despite the link between development and urbanization. The pace of urbanization is slower in democracies (Fay & Opal 2000). Dictatorships have higher population concentrations in their largest cities than do democracies, holding per capita income constant (Ades & Glaeser 1995). Ades and Glaeser propose that rent-seeking accounts for the disproportionately high urban concentration of non-democracies. Such concentration is negatively related to expenditures away from the city, such as road density, as well as poor public health outcomes in cities other than the capital (Henderson et al. 2001). These theories support the notion of strategic urbanization; that is, in the absence of migration restrictions, individuals choose to locate themselves based on

¹⁵ Bates 1981. For a book on exceptions to the norm, see Varshney 1993. Especially relevant is a chapter on China, Oi 1993.

economic and political factors. But these arguments fail to consider the impact of urbanization upon autocratic survival. They do not address how the political power of individuals varies with their urban versus rural status nor the political implications of such differential power.

Against the backdrop of most poor countries tilting policy to favor cities, the Chinese shift in fiscal policy towards rural areas looks particularly anomalous. Indeed, the shift is anomalous even for China, where pro-urban policies have been the rule since the founding of the PRC. Housing and price subsidies were part of the “iron rice bowl” that urban workers were entitled to and migration restrictions kept these benefits in urban areas (Bernstein 1984; Oi 1989). Even slogans used to advertise the fiscal shift such as “Industry Feeding Agriculture in Turn” and “Cities Supporting the Countryside” make reference to the fact that the reverse has been the norm until the last few years. The Chinese for “feeding in turn” (*fanbu*) is the same used with parents and children; when they are small, parents take care of their children, and when they age, children feed their parents, “in turn.” Similarly, resources were extracted from agriculture to help its growth and now the favor is being returned. I revisit to the discussion of the Chinese case in the next chapter, “Directing Urbanization, Defining Unrest, and Distributing Transfers in China.”

Argument

In this section I lay out a general argument regarding redistribution, urbanization, and autocratic regime survival based on the Chinese case. One result of urban-biased policies is to induce increased movement of individuals to cities. If agriculture is taxed at high rates – either through direct taxes or indirect ones such as mandated prices – and the

benefits of those taxes are going to urban residents, this urban-biased policy gives the farmer an incentive to move to the cities to receive the fruits of urban bias rather than suffer economically in the countryside.

The original intent of favoring cities with public policy is to mollify potential urban protesters. Inducing urbanization is a secondary effect of such bias. More specifically, it is a secondary effect that undercuts the primary motivation for the policy preference in the first place. Larger cities with more marginal migrants are more expensive to appease. It is more expensive both because there are more mouths to feed and because wages are likely lower. The wage in the countryside – the shadow wage for an urban migrant – is lower with high agricultural taxes. As the shadow wage declines, the wage in the city is likely to decline as well (Harris & Todaro 1970). Second, an expansion of urban labor supply should also drive down wages. These effects are moderated the more that labor in the agricultural sector follows the logic in Lewis's surplus labor model (Lewis 1963).

Most significantly, with increased urbanization there are more potential malcontents in cities. If unrest occurs in an enlarged city, it can expand farther and attract a larger proportion of the population. Urbanization is not only a move for individuals from the countryside to cities, from low to high density areas; in political terms, it is a move from low power to high power. Using the voice metaphor of Hirschman, it represents a move from out of hearing range to (sometimes literally) right next door to the executive (Hirschman 1970). The larger the urban population, the smaller the proportion needed to participate for a large riot to occur.

Given all of these difficulties, why is the developing world rife with urban bias? I argue that the long-term risks and costs of urban bias are simply not as pressing as short-term threats. Governments that very well might lose power in the next week if they increase gas prices or allow the cost of grain to appreciate are not in a position to avoid the long-term problems associated with over-urbanization. Le Vine's description of the collapse of the Busia regime in Ghana is an excellent example:

The Government's next – as it turned out, its final – move was a courageous and extraordinary economic package, announced in December 1971, which included the devaluation of the *cedi* by 44 per cent, the abolition of surcharges on imported goods, a 20 per cent rise in the price paid to producers of cocoa and other export crops, and an increase in the minimum wage. Again, in the long run, these policies might have worked; but the immediate effect of the devaluation was to lift prices on almost all goods including, notably, staple foods – to such levels as to offset any salutary effects that the other items in the package might have had on the economy. Finally, it need hardly be added, as prices rose to new, unwelcome levels, the regime's political credit sank correspondingly. The next move was made by Colonel Acheampong.¹⁶

The Chinese government, due to its heretofore successful economic development, has the resources and the confidence in its present situation to look towards the long term and move away from urban bias. Similarly, other governments that are secure in the present have an incentive to distribute resources in ways that avoid overly inducing urbanization.

I argue that a causal chain linking urbanization and autocratic regime survival exists. Urban bias, often a necessary measure to ensure short-term social stability in cities, encourages urbanization. This leads to higher future levels of urban unrest as there are more potential protesters in cities, reducing support for regimes and increasing their chances of failure in the future. I test this argument with cross-national data on regime survival described in the next section.

¹⁶ Le Vine 1987.

Hypotheses & Data

This analysis focuses on the main hypotheses of the argument: all else equal, autocratic regimes should last longer in wealthier countries but shorter in more urbanized ones.¹⁷

H1: Hazard to autocratic regime survival decreases as per capita income increases, all else equal.

H2: Hazard to autocratic regime survival increases as the share of the population in urban areas increases, all else equal.

As this study is interested in causes of autocratic regime failure, it uses survival analysis rather than other statistical methods. Survival analysis was developed for use by epidemiologists to study survival rates of patients; it has since been used broadly in engineering and has been used in political science.¹⁸ The primary method of analysis is a Cox proportional hazard model. This tool is used because of the inclusion of time-varying covariates. While most methods of survival analysis are parametric – that is they assume that the hazard rate follows a particular distribution – the Cox proportional hazard model is semi-parametric.¹⁹ The baseline hazard function can take any form and follows the data rather than conforming to a particular distribution by assumption (Box-Steffensmeier & Jones 1997; Beck et al. 1998). A positive coefficient for an independent variable indicates an increased hazard rate or instantaneous probability of failure, while a negative coefficient indicates a reduction in the hazard rate.²⁰

The autocratic regime survival data are originally from Geddes (1999a).²¹ Geddes

¹⁷ Future versions of the chapter will incorporate additional tests of the causal chain, namely that urban bias is associated with increased urbanization; that urbanization is associated with increased unrest (strikes, riots, etc); and that unrest is associated with decreased regime survival.

¹⁸ See, for example Bienen and van de Walle 1989; 1992; Geddes 1999a.

¹⁹ Sometimes referred to as the Cox Regression Model which allows for time-varying covariates.

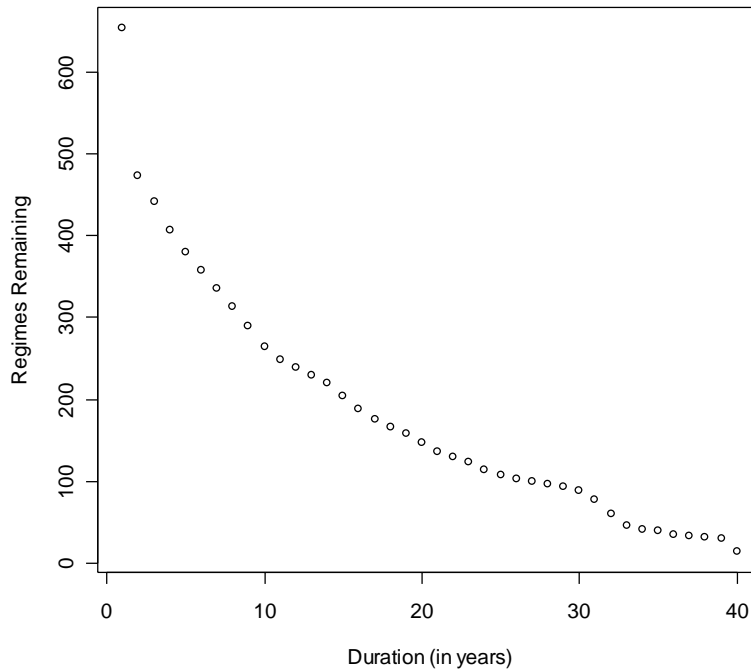
²⁰ The transformation is not linear but exponential.

²¹ Future iterations of the cross-national analysis will use other codings of regimes, particularly Boix 2003.

offers a typology of autocratic governments and codes autocratic country-years into four types: single-party, military, personalist, and hybrids. She argues that different types of authoritarian regimes have different elite politics, respond differently to crises, and shows that the types have power to account for some of the variation in regime duration. I control for type of autocracy. However, the Geddes data is missing substantial numbers of observations as monarchies and non-consolidated regimes are omitted. The set of omitted observations are those country-years coded as not democratic by Polity IV which are unassigned to types by Geddes. These country-years are added to my analysis and coded as monarchies if the regime has hereditary succession. The residual excluded observations are added as “other” autocracies. This includes regimes in transition – that have not been in office for 3 years – as well as individual countries such as Iran since 1979 and the post-Soviet republics. Additionally, an autocratic leader may remain in office despite the subtype of regime changing. For example, the leader of a military regime takes on the characteristics of a personalist ruler in a way that leads to change in regime type. Transitions – changes in type or subtype of regime – were removed if the same leader remains in office through the transition. Goemans and Gleditsch (2005) provide the leader-year data.

Figure 2 below depicts the raw autocratic regime survival data.²² There are 653 regimes that last at least a year. After ten years, only 265 remain. Only 88 remain in power for at least thirty years.

²² The data are “raw” in that right censoring is ignored. There are 30 regimes that survive to 39 years and only 15 that survive to forty. But this is not due to a sudden collapse, but that the data collection stops with the regime surviving. The regime survival analysis described above takes into account the problem of right-censored data.

Figure 2: Regimes Survival Patterns

The two key independent variables are urbanization and level of development, measured as logged per capita GDP. Descriptive statistics for these variables as well as various controls are presented in Table 1 below.

Table 1. Descriptive Statistics

Continuous Variable	Mean	Std. Dev	Min	Max
Urbanization	0.375	0.226	0.022	1.000
Logged Per Capita GDP	6.690	1.259	4.207	10.947
Lagged Per Capita Growth	0.014	0.072	-0.439	0.768
Logged % Mountainous	2.172	1.404	0.000	4.557
Ethnic Fractionalization	0.521	0.268	0.002	0.953

Dichotomous Variable	0	1
War	2897	629
Oil	2928	598
Monarchy	3264	458
Others	3010	712
Single Party	2748	974
Military	3444	278

Most of the independent variable data comes from the United Nations' World Development Indicators (WDI). Variables from the WDI include total and urban population, per capita GDP²³, per capita GDP growth, and geographic region. Urbanization, ranging from 0.02 to 1.0 in the data, is the proportion of the population that lives in urban areas. The WDI data takes each country's own definition of urban. While the lack of a universal definition for what constitutes an urban area or urban population adds noise to the data, it is unclear that any bias should be expected.²⁴

Civil war, terrain, oil, and ethnic fractionalization data come from Fearon and Laitin 2003. Civil war is coded as 1 if a civil war begins or is ongoing in the country-year. As civil war and level of economic development are likely endogenous, the analysis requires an exogenous factor that is likely to affect regime survival only through civil wars. Fearon and Laitin use a measure of the ruggedness of terrain as an explanatory variable in their analysis of civil wars, arguing that difficult terrain makes insurgency less costly and thus more likely. This variable of mountainous terrain is used as an exogenous instrument for civil wars. Mountainous terrain is not a perfect instrument as it could reduce autocratic survival through non-civil war-related mechanisms such as increasing the cost of public good provision; however, the insurgency mechanism seems the most plausible. Oil, it has been suggested in the literature, has a particular ability to improve the longevity of autocracy independent of its affect on wealth (Ross 2001). I include a dummy variable which takes on a value of 1 for those states whose oil exports exceed 35% of GDP. Ethnic fractionalization could be expected to affect non-democratic regime

²³ Constant 2000 dollars.

²⁴ Even the assumption that level of economic development should correlate with higher noise – i.e. poorer countries should have worse population estimates – does not imply bias unless there is an expectation that these estimates systematically undercount rather than misestimate (undercount and overcount) urban populations.

survival either positively – by increasing costs to collective action – or negatively – by increasing the stakes of the game.

Analysis

Urbanization is consistently statistically significant and positive providing confidence in *Hypothesis 2*. Similarly, the coefficient on the measure of economic development, log(GDP per capita) is statistically significant and negative, allowing one to reject the null hypothesis that it has no effect and providing confidence in *Hypothesis 1*. The results from the first set of tests are displayed below in Table 2.

Table 2. Hazard Analysis of Non-Democratic Regime Survival

Independent Variable	Model				
	1	2	3	4	5
Urbanization	1.41**	0.99	1.92**	1.92**	2.38***
(range: 0.02 to 1.0)	0.72	0.76	0.79	0.86	0.86
GDP Per Capita	-0.34**	-0.25	-0.35**	-0.29*	-0.44***
(Logged)	0.15	0.16	0.15	0.16	0.16
Economic Growth		-2.84			
(1 Year Lag)		1.75			
Monarchy			-1.99**	-1.74*	-2.07**
			1.01	1.01	1.01
Other			-0.98***	-0.91***	-1.02***
			0.22	0.22	0.22
Single Party			-1.03***	-1.01**	-1.14***
			0.37	0.40	0.40
Civil War				0.71***	
				0.22	
log(% mountainous)					0.13*
(Instrument for civil war)					0.07
Observations	2758	2624	2758	2673	2673

Note: Cox proportional hazard model run in R 2.5.1. Coefficients in boldface, standard errors below. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Model 1 shows the effects of the two key independent variables without controls. The effects point in the directions expected by Hypotheses 1 and 2 and are statistically significant. The magnitudes of the two effects are roughly similar. Moving from the mean level of urbanization, 37.5% to the third quartile at 51.1%, holding all else equal, increases the expected hazard rate by 21.1%. Similarly, a move from the mean to the third quartile in the logged gross domestic product translates into an expected decrease in the hazard rate of 22.8%.

The data show some support for growth's effect on non-democratic regime survival. A model explaining survival solely by lagged economic growth finds the predicted negative effect with statistical significance.²⁵ However, this result is vulnerable to the inclusion of other covariates, as seen in Model 2 and in other specifications below. As seen in Table 2, the effect is in the predicted (negative) direction; however, it remains indistinguishable from zero. Additionally, the magnitude of the effect is small given the range of the values. The mean of the data is 1.4% growth, and moving from there to the third quartile (4.7%) decreases the hazard by less than 9%. Including the lagged growth variable also diminishes the statistical significance of other variables, as seen in Model 2. Including it in other models tends to reduce the magnitude of coefficients but not eliminate their statistical significance, hence it is omitted in the other models from Table 2.²⁶ Attempts were made to see if particularly poor growth years had the anticipated effect. Dummy variables were constructed that had a value of 1 for those country years with lagged growth less than 0, -0.05, and -0.1. Although all pointed in the expected positive direction, none were consistently statistically distinct from zero at

²⁵ Additional tables will be available in an online appendix, located at <http://www.stanford.edu/~jeremyw/research.html>.

²⁶ These tables will be available in the online appendix.

conventional levels of significance.

The results show substantial support for differences in the types of autocratic regimes affecting their survival rates. Monarchies, single party regimes, and regimes coded as “others” all outlive the remaining types (personalist, military, and hybrid) regimes by substantial margins. The coefficients in Model 3 imply that hazard rates are lower for monarchies, single party regimes, and “others” by 86%, 64%, and 62% respectively compared with the baseline. The inclusion of the dummy variables for regime type strengthens rather than diminishes the effects of urbanization and level of economic development. The magnitude of both effects increase while their standard errors remain at approximately the same levels. A move from the mean to the third quartile of urbanization increases the hazard by 29.8%, while a similar move in terms GDP per capita decreases the hazard by 23.4%.

Civil war has a strong negative effect on autocratic regime survival, as seen in Model 4. Presence of a civil war more than doubles the hazard rate for a regime while the effects of the variables described above are not affected in either magnitude or statistical significance. Yet there remains a possible endogeneity problem. In addition to civil wars inducing regimes to collapse, regimes that are likely to collapse might be more likely to also see the emergence of civil wars. Replacing civil war with the logged value of mountainous terrain, the instrument suggested by work on civil wars in Model 5 supports the contention that civil wars have a negative effect on autocratic regime survival. The more mountainous the country, the shorter lived the autocratic regime. The magnitude of the effect of increasing mountainousness is not as dramatic as the presence of civil wars but is statistically significant; even a move from a non-mountainous country to the

maximum value in the dataset does not equal the size of the estimated effect from a change in status to having a civil war. Moving from the mean to the third quartile of the variable implies an increasing the hazard rate 16%.

In addition to structural and regime type variables, scholars have argued that regional effects might account for differences in the durability of autocracy. Model 6 shows that regions do have different patterns of resilience, with Latin America and Sub-Saharan African regimes failing faster than regimes in other parts of the world. However, these results are mostly diminished when urbanization, level of economic development, and other controls are included in the analysis. Model 7, for instance, shows that none of the regional dummies add explanatory power to a model which includes both urbanization and GDP per capita. Similarly, in Model 8 the regional effects are statistically indistinguishable from zero save for Sub-Saharan Africa, whose regimes do seem to be more fragile than others even after controlling for urbanization, level of economic development, type of autocracy, and mountainousness.

The final two control variables, oil and ethnic fractionalization, do not have statistically significant effects on non-democratic regime survival. The resource curse arguments find little support in this analysis. Model 9 shows that the effect is in the expected negative direction, but the coefficient is dwarfed in size by its standard error and thus is indistinguishable from zero. The coefficient on ethnic fractionalization estimated in Model 10 is positive but is also much smaller than its standard error and thus cannot be differentiated from zero.

Table 3. Hazard Analysis of Non-Democratic Regime Survival

Independent Variable	Model				
	6	7	8	9	10
Urbanization (range: 0.02 to 1.0)		2.89*** 0.83	3.43*** 0.9	3.45*** 0.91	2.35*** 0.87
GDP Per Capita (Logged)		-0.51*** 0.18	-0.49*** 0.19	-0.49*** 0.19	-0.41** 0.17
Monarchy			-1.99* 1.03	-1.99** 1.03	-2.06** 1.02
Other			-0.79*** 0.21	-0.79*** 0.21	-1.02*** 0.22
Single Party			-1.13*** 0.4	-1.13*** 0.4	-1.15*** 0.4
Log(% mountainous)			0.19** 0.07	0.19** 0.07	0.14** 0.07
Oil				-0.04 0.33	
Ethnic Fractionalization					0.2 0.4
Sub-Saharan Africa	0.46* 0.25	0.43 0.32	0.56* 0.33	0.56* 0.33	
Latin America	0.55** 0.27	0.47 0.32	0.24 0.33	0.23 0.33	
N. Africa/Middle East	-0.23 0.38	0.21 0.46	0.23 0.46	0.25 0.47	
Observations	3209	2584	2584	2584	2673

Note: Cox proportional hazard model run in R 2.5.1. Coefficients in boldface, standard errors below. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Conclusion

This chapter puts forward a novel argument linking urbanization, redistributive policy, and autocratic regime survival. Regimes favor the interests of urban dwellers because of their ability to easily threaten to bring down a government, yet this favoritism is self-undermining in the long-term as it encourages further urbanization. I then test one implication of this argument, namely, that urbanization should have a negative effect on

non-democratic regime duration, and find support.

While there is a strong link between urbanization and declines in authoritarian regime survival, more evidence is needed to demonstrate the validity of the argument. Future versions of this analysis will include cross-national statistics establishing the causal chain from urban bias leading to increased urbanization, higher levels of urbanization leading to increases in the number of collective action events, and these events negatively affecting regime survival. However, even after adding these further analyses, isolating the mechanisms at work using only cross-national tests is difficult.

In-depth analysis of China's management of urbanization and fiscal policy are used in the next chapter to clarify the mechanisms linking urbanization and regime instability. The government of the PRC has used laws to restrict labor mobility and control urbanization for much of its tenure. A detailed narrative of the China's management of urbanization reveals the extent to which the possibility of urban unrest was the driving force behind these policy decisions. Recently, moves have been made to replace these legal restrictions with financial incentives to reduce pressures for urbanization. Analysis of Chinese fiscal and social stability statistics reveals that the government has directed resources towards areas that are unstable and that export labor.

I suggest that we need to improve our understanding of the survival of non-democracies for two principal reasons. First, identifying patterns in the complete set of transitions away from authoritarianism may allow us to predict more accurately when transitions to democracy will occur. Second, recognizing the structural conditions that threaten autocrats may allow us to grasp better the logic behind their policy choices. My dissertation research takes us a step closer to these goals.

Appendix

What is urban bias? Separating a piece of territory into “urban” and “rural” areas is not an insignificant task. Urban areas are defined as areas – demarked either by subnational administrative borders or geography – that have a population density greater than some threshold.²⁷ Bias implies some deviation from a normative baseline, a prejudice.²⁸ As normative baselines are subjective, I focus on changes of policies that can be unambiguously interpreted as a shift in the direction or magnitude of bias and comparisons across countries where relative levels of bias can be observed. Thus, urban bias is the use of redistributive policy to favor individuals of densely populated areas over those in less densely populated areas.

I define urban bias in terms of incentives rather than outcomes. As is clear from the above discussion, I am interested in policy shifts – most obviously in fiscal policy – that favor a particular region relative to another. This choice is potentially controversial. Lipton (1977) argues that differences in economic outcomes between urban and rural regions are sufficient evidence of urban bias. However, a host of other variables that account for variation in economic outcomes correlate with difference in economic location.²⁹ The economic geography literature has argued that the agglomeration of economic activity and wealth in cities is a natural market process (Hirschman 1958; Krugman 1991). Additionally, higher skill individuals tend to go to locations where others with matching skill sets live (Easterly 2001). Finally, individuals could be willing to trade income and other economic outcomes for non-economic benefits of living in the countryside regardless of the policy structure. These reasons suggest that seeing differences in average incomes across rural and urban areas does not necessarily imply policy bias, and thus argues for viewing urban bias in terms of incentives rather than outcomes.

²⁷ For this paper, I take the World Development Indicators data on urban populations.

²⁸ OED. B. 3.

²⁹ e.g. education level, language ability, training, technological capability, etc

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