Cities, Redistribution, and Authoritarian Regime Survival

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How does redistributive policy affect the survival of authoritarian regimes? I argue that redistributive policy in favor of cities, while temporarily reducing urban grievances, in the long-run undermines regime survival by inducing urban concentration. I test the argument using cross-national city population, urban bias, and nondemocratic regime survival data in the post-WWII period. The results show that urban concentration is dangerous for dictators principally by promoting collective action, that urban bias induces urban concentration, and that urban bias represents a Faustian bargain with short-term benefits overwhelmed by long-term costs.

ccording to conventional wisdom, urban residents enjoy an advantage in collective ac-Lation due to their proximity to each other and the seat of government.1 The danger large capital cities pose to nondemocratic regimes is an old story (Hobsbawm 1973; Zipf 1941). Cities bring together masses of people, improve communication links among them, and increase the ability of private grievances to accumulate and circulate. Further, cities are particularly prone to disruptions via barricades, transforming key nodes in the transportation network into strongholds for resistors. Governments have reshaped the geography of their capitals in response. The wide boulevards of Washington DC, Paris, or Beijing allow the military to operate in ways that would be impossible in their absence, negating some of the advantages cities provide to the conventionally weak side in asymmetric warfare. In addition to this practical advantage, the long open lines also symbolically reflect the power of the center (Scott 1998).

Because urbanites pose a more immediate threat to stability, self-serving regimes tend to adopt redistributive policies that are biased in favor of city residents: to reduce grievances and the likelihood of protests in these key locales (Ades and Glaeser 1995; Bates 1981). Such policies aim to maintain regime stability by taking from those who are relatively weak—rural farmers—

and transferring resources to those who are relatively strong—urban dwellers. Yet urban bias has not been universal across time and space among developing countries (Varshney 1993). For example, after 50 years of 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 reduced urban bias by subsidizing rather than taxing agriculture. The government portrays this "populist" shift as combating inequality and assisting those who have not benefited from China's recent economic growth (Yang 2006). However, this policy change has an important geographic component, influenced by concerns about rapid and concentrated urbanization. Wen Tiejun, a prominent scholar affiliated with the Chinese Communist Party, has remarked that the promotion of rural subsidies and the delay of land privatization are a response to the regime's fear of "Latin Americanization" (la mei hua), that is, the emergence of highly unequal megacities with their attendant slums, crime, and social instability (Wen 2006).²

I argue that urban bias has a long-run cost—urban concentration—that undermines its intended effect on regime stability. By taxing the countryside and dispersing the proceeds to the largest cities, governments induce farmers to leave agriculture and move to these cities where they can enjoy the benefits of urban-biased

¹An online appendix with supplementary material for this article is available at http://journals.cambridge.org/jop and at http://polisci.osu.edu/faculty/jwallace, where replication data will be made available no later than print publication.

²China's household registration (*hukou*) system represents a migration restriction scheme that limits internal movement, especially to large cities (Chan 1994; Solinger 1999).

policies. Farmers respond to incentives and are not fixed in the periphery—they can vote with their feet and exit the countryside (Hirschman 1970). Yet urban bias does not yield general urbanization but rather urban concentration—increases in the share of the urban population living in the capital city—as the proceeds of rural taxation are tilted to the capital and migrants follow (Table 4; see also Ades and Glaeser 1995; Henderson 2003).³ In the long run, urban favoritism is self-defeating because it induces migration to large urban centers that are its beneficiaries, increases the burden on city resources, and magnifies the threat of urban collective action, thereby undermining its original rationale.

Urban centers that dominate the life of a nationstate have the potential to erupt in mass protests that can lead to a dictator's swift demise, illustrated by the fall of long-standing regimes in Tunisia and Egypt in 2011. Economic development and the accumulation of wealth typically accompany the process of urbanization.⁴ But, contra the works of modernization theory, it is the shape of urbanization rather than urbanization per se that is potentially dangerous to authoritarian survival. Urban concentration, the crowding of the nation's population in a few key megacities, raises the chances of collective action and intraregime tension that can bring down dictators. Having a preponderance of the urban population reside in a few large cities, especially the capital, represents a mixed blessing: increasing the risk of turmoil along with economic development.

To test the argument, I present a cross-national analysis of nondemocratic regime survival in the post-WWII period. Taxing the countryside and giving to cities leads to higher levels of urban concentration, which in turn is linked to a shortened lifespan for authoritarian regimes. Thus, while the direct effect of urban bias appears to tamp down urban grievances and aid regime survival, its second order effect—the urban

concentration that urban bias induces—undermines regime resilience. This finding is robust across specifications, the inclusion of control variables, and for subsets of the data.

Authoritarian Survival, Redistribution, and Urban Bias

The study of nondemocratic regime survival has become a growth industry in the field of political science. Competing typologies of nondemocratic regimes and the presence of political institutions are said to account for variation in the duration and behavior of these regimes.⁵ Focusing on elite typologies and institutions as explanations for regime survival and growth, the literature on autocracies is less expansive on the subject of redistribution. In this article, I show that geographic variation in redistributive policy has an independent effect on regime survival, even after controlling for typologies and institutions. Who is taxed and who receives the benefits of taxation is the economic core of politics across regime types, yet work on connecting these geographic and distributional issues in nondemocracies to regime survival remains underdeveloped.⁶ In nondemocracies, where mass preferences are not similarly incorporated into decision making, shifts towards progressive redistribution remain puzzling.⁷ Some argue that those with an affinity for the government are bought off because their support is the cheapest to acquire (Bueno de Mesquita et al. 2003). Others suggest the opposite: that dictators direct resources to those who are discontented and able to impose costs on the regime (Fearon 2000; Oi and Zhao 2007).

⁵On types and survival, see Geddes (1999a); Hadenius and Teorell (2007). On types affecting foreign policy behavior, patterns of economic growth, likelihood of democratization, and the fates of leaders after they leave office, see Debs and Goemans (2010); Gandhi (2008); Weeks (2008); and Wright (2008), among others. On institutionalization and legislatures as abetting authoritarian rule, see Blaydes (2010); Lust-Okar (2005); Gandhi and Przeworski (2006); and Wright (2008).

⁶Exceptions include Escribà-Folch and Wright (2010); Gandhi and Przeworski (2006); Kasara (2007); Shih and Zhang (2007). Most political economy works examining redistributive policy in nondemocracies focus on public versus private goods provision rather than the geographic character of the policies (Bueno de Mesquita et al. 2003; Lake and Baum 2001).

⁷Changes in the revolution constraint (Acemoglu and Robinson 2006) and elections in nondemocracies are perhaps exceptions (Gandhi and Lust-Okar 2009).

³The phrase "urban bias" is used instead of "capital city bias" as the measure used below is derived from differences in policy across agricultural and nonagricultural sectors, not explicitly about the capital city. Yet the location of subsidies and assistance to nonagricultural sectors is likely tilted towards the capital. The results here (see Table 4) mirror the literature's findings showing that urban bias is correlated with urban concentration—the share of the urban population in the capital city—and not general urbanization.

⁴World Development Report 2009 argues that high levels of density are instrumental in metastasizing development (cf. Ades and Glaeser 1995). Przeworski et al. (2000) and Geddes (1999a) present evidence that growth and development are stabilizing rather than destabilizing for dictatorship and individual regimes, respectively.

Central to this debate is the distribution of political power within the population. Analysts agree that funds are directed to those with leverage, whether those are core supporters or potential protesters.8 The difference in political power of urban and rural residents has implications for redistributive politics in developing nondemocracies. Urban areas have high population densities, reducing the costs of large-scale collective action. Proximity to the locus of economic development and industry renders urban protest more politically relevant (Ades and Glaeser 1995; Bates 1981; Lipton 1977). Capitals are even more dangerous as protestors possess proximity to the seat of power. 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. The African regimes of Sadat, Nimeiri, Kaunda, Moi, Gowan, and Tolbert all faced pressures from urban workers due to food price escalation, and arguably all save the Moi regime fell to massive protests and elite splits brought on by such protests (Bates 1981).9 In 2011, high food prices set the stage for large-scale protests in the capitals Tunis and Cairo, toppling Ben Ali and Mubarak.¹⁰ These anecdotes underscore the threat that urban individuals, through their ability to act collectively at the political and economic heart of the regime, pose to authoritarian regimes.

Argument

I develop an argument in three parts. First, authoritarian survival is threatened by urban concentration, a factor highlighted by the older literature on states and social order but ignored in the burgeoning work on authoritarian institutions. Second, attempting to address the political complications of urban concentration, regimes placate city dwellers with redistributive policies tilted in their favor. Third, this urban bias may appease urbanites in the short run but also incentivize farmers to move cities, making cities more combus-

tible over time and undercutting the initial purpose of the policy.

First, countries characterized by high levels of urban concentration are often plagued by what Huntington terms "praetorian" politics, where different groups fight political battles through direct action—from protests and strikes to coups and assassinations (1968, 210–13). With increased urban concentration, there are more potential malcontents in geographic locations that threaten the economic and political livelihood of the regime. While the logic applies to other large cities such as China's Shanghai, urban concentration is measured in this article as the share of the population in the capital city.¹¹

Urban concentration makes collective action easier and more likely, providing the principal mechanism linking the structural factor of urban concentration with authoritarian regime collapse. Isolating the specific trigger for a given instance of collective action is next to impossible (Kuran 1991; Lohmann 1994). High levels of urban concentration represent abundant kindling upon which a spark may engulf a territory. Urban concentration is tied to a greater chance of collective action, as seen in Table 1 below.¹² The collective action data come from two sources: first, the urban social disturbance dataset describes 3,375 events in African and Asian cities from 1960 to 2006 using Keesing's World Events (Urdal 2008) and second, the Cross-National Time Series dataset, which compiles news reports of different kinds of contentious political actions (Banks 2002).13 All models report positive and statistically significant coefficients for urban concentration on the likelihood of collective action (Models 1.1 and 1.3) or the number of collective action events (Models 1.2 and 1.4). Moving from 20 to 40% of the urban population living in the capital city increases the estimated probability of collective action in a given country-year by one-third.14 These results are not due to the particular data series being used; large cities are the modal location for significant incidents of

⁸"Selectorates" for Bueno de Mesquita et al. (2003) and those "able to impose costs on the regime" for Fearon (2000) or Oi and Zhao (2007).

⁹Indeed, the Organization of African Unity defines control over the capital city as a prerequisite for being considered the leader of a country (Herbst 2000, 111).

¹⁰Tunisia's Ben Ali flees after protests which originate in the smaller city of Sidi Bouzid spread to Tunis; Egypt's Mubarrak is pushed out by a mass movement in the megacity of Cairo (Masoud 2011; Schraeder and Redissi 2011). See also Annia Ciezadlo. "Let Them Eat Bread." http://www.foreignaffairs.com/articles/67672/annia-ciezadlo/let-them-eat-bread.

¹¹All results in the article and appendix also hold when the capital city population is replaced by the largest city's population in the data, implying the construct in question is urban concentration and not capital city concentration.

¹²The data section and online appendix explain the urban concentration, regime, collective action, and all other variables.

¹³The Banks data include eight different types of collective action events—"Assassinations, General Strikes, Guerrilla Warfare, Government Crises, Purges, Riots, Revolutions, and Anti-Government Demonstrations." See the appendix for details.

¹⁴In Model 1.3, the relevant probability increases from 42% to 56% holding GDP per capita and GDP growth at their means and the year and country fixed effects in place.

TABLE 1 Urban Concentration Linked to Collective Action

	PRIO Data		Banks Data	
Variables	Model 1.1 Logit	Model 1.2 Negative Binomial	Model 1.3 Logit	Model 1.4 Negative Binomial
Urban Concentration	1.90*	2.92***	4.60***	2.59***
	(1.14)	(0.79)	(0.84)	(0.46)
GDP Growth	-2.38***	-2.83***	-1.40***	-1.97***
	(0.77)	(0.53)	(0.48)	(0.27)
Real GDP per Capita (logged)			-0.84***	
			(0.16)	
Constant	-0.17	-0.37	5.19***	-0.03
	(0.78)	(0.55)	(1.30)	(0.36)
Ln α		0.07		0.19***
		(0.08)		(0.04)
Observations	1,585	1,654	3,675	3,775
Year Fixed Effects	YES	YES	YES	YES
Country Fixed Effects	YES	YES	YES	YES

Note: Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

collective action in other datasets as well (Salehyan and Hendrix 2011).¹⁵

The larger the population in a city, the smaller the proportion needed to participate for a large riot to occur. In a city of ten million, a riot of 100,000 workers requires only the extreme 1% of the city's population distribution to participate. In a city of one million, the proportion of the population that must participate for the riot to reach the same size is an order of magnitude larger: 1 in 10 rather than 1 in 100. Protest magnitude tends to be measured by the total number of participants in the streets, not by the number of protestors as a share of the area's population. In this way, megacities are more likely than smaller communities to produce large-scale unrest.

The possibility of protests in large cities is also more politically damaging. The political tide in a megacity that contains a third of the country's urban population tends to be decisive more often than in a country with 10 large cities, each of which houses only a narrow slice of the population. A popular up-

¹⁵The Social Conflict in Africa Database (SCAD) of collective action is dominated by events in capital cities and other major urban areas. Using capital city population instead of urban concentration in models akin to Table 1 yields similar results. Although these databases may capture a greater percentage of collective action events that occur in capital cities than in peripheries (Schedler 2012), the results below point out that the measured collective action events have a strong influence in terms of regime survival (Tables A19 and A20). In this way, any potential bias in the reporting of events may reflect the real political importance of large cities. To wit, if a tree falls (or protest happens) and no one sees it, did it really matter?

rising in a first-tier city sends a signal of a different order than a similar protest in a third- or fourth-tier city. This is particularly the case when, as in over 90% of countries, the largest city is also the political capital of the regime. Protests in the capital are more likely to be observed—by regime insiders, the masses, and foreigners—and are harder to disperse than multiple smaller protests in many different places that add up to the same population of protestors. 16 When riots rock the capital, regime collapse can come about through a number of different channels: physically pushing the dictator out of office by storming the leadership compound, generating or exacerbating elite splits, and creating the opportunity for a military coup or external actor to end the regime (Magaloni and Wallace 2008). Even before mass riots break out, the specter of slum dwellers or formal sector workers rising up might create opportunities for fissures to develop, breaking apart a regime's political coalition.¹⁷ Of course, regimes do not cede power when the statistical service reports the capital city's population has grown, but regimes with large capital cities are beset by political difficulties that may lead to shorter reigns. Urban concentration can add stress that might fracture a regime, making it prone to subsequent collapse.

¹⁶Table A15 in the online appendix shows that neither urbanization nor overurbanization—the percentage of the population living in cities above the normal level for a given national income per capita—is linked to regime collapse.

¹⁷On political coalitions in dictatorships, see Pepinsky (2009).

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Second, authoritarian regimes address the dangers associated with urban concentration with redistributive policy. 18 The conventional wisdom on redistribution and urban unrest argues that survival-oriented autocrats should bias policy toward urban residents, because city dwellers are more politically powerful than rural farmers. Urban-biased policies, which are paid for by rural extraction, should have short-term benefits: mollifying potential urban protestors with policy payoffs such as food and housing subsidies. While every regime faces unique circumstances based on its political history and that of the country it rules, consider that regimes face threats across locations, rural and urban, with the threat's size a function of both policy and the population in a given locale. Net transfers from rural areas to the capital city might minimize the regime's total risk initially. However, in the next period if this transfer has pushed some from the periphery to the center, the overall level of threat in the system might increase. Moreover, such a policy could spiral with ever more extraction from the countryside required to quell potential unrest in the city.

Dictators are not unaware of threats that they face from rural areas. In fact, civil wars are thought to be aided by the presence of large, remote populations and rough terrain (Fearon and Laitin 2003). Rural insurgency does not overwhelm the analysis as it is a relatively rare phenomenon, infrequently ousts dictators, and commitment problems make potential rebels unlikely beneficiaries of government largess (Fearon 1998; Fearon and Laitin 2003). In fact, as redistributive policy that provides net benefits to urbanites necessarily entails net costs to the countryside, high levels of urban concentration may lead dictators to economically oppress rural areas in an attempt to raise funds to appease city dwellers. In this way, urban concentration through urban bias may even generate collective resistance to regimes in the countryside.

Urban bias is overdetermined and endemic in poor nondemocracies, although not universal and varying over space and time. Some prorural policies have been enacted owing to political and personal economic connections to the countryside (Varshney 1993). Collecting tariffs is administratively easier than constructing a tax bureaucracy, particularly on cash crops grown for export that the domestic population does not consume (Bates 1981). Countries attempting to develop economically are loath to tax the industrial future and instead extract from the agricultural past (Lipton 1977). Taxing infant industries threatens to

kill them before they can stand on their own. Regimes tend to be based in urban centers, increasing awareness of the plight of urbanites more than distant farmers. The political weakness of small-scale farmers, atomized with little ability to communicate or coordinate, makes them an attractive target for nondemocratic regimes even if farmers represent a plurality or majority of the population (Bates 1981). Urban bias is often indirect in its form. Exchange rate manipulation, export restrictions, or other price distortions lead to effective taxation without the political difficulties entailed by officials going to villages collecting a "support the cities" tax. The coexistence of general taxes and particularistic allocation of subsidies in the countryside decreases the likelihood of collective action against a regime (Bates 1981, 109), as dissidents can be punished and supporters rewarded.

However, the political science literature ignores the self-undermining second-order effect of urban bias: inducing urban concentration. Subsidized food and other benefits might buy off city residents and reduce grievance levels in the near term, but over time cities will grow due to the incentives these preferential policies create. Eventually, engorged cities may become powder kegs that ignite and destroy the regime. An implicit assumption of urban-bias theory is that *people* are immobile, so the policy of urban bias does not affect migration or urbanization. However, taxing the countryside and spreading the spoils in cities should not be neutral with respect to the population distribution within a country. In fact, urban bias induces urban concentration. Capital cities are disproportionately likely to receive the benefits of urban bias, so migrants will tend relocate to the capital (Ades and Glaeser 1995; Davis and Henderson 2003). Economic activity concentrates in capitals in dictatorships, which tend to have a variety of advantages: proximity to the dictator, better access to regulatory agencies, and better public goods provision (Henderson and Kuncoro 1996).

Over time, larger cities with more marginal migrants become increasingly expensive for the government to appease. The expense increases both because there are more mouths to feed and because average wages in the city tend to decrease with the influx of migrant labor. High agricultural taxes lower the wage in the countryside, which is also the shadow wage for an urban migrant. As the shadow wage declines, the wage in the city also tends to drop (Harris and Todaro 1970).

¹⁸Redistributive policy is not alone; development and maintenance of a security and policing apparatus also play clear roles.

¹⁹The expansion of the urban labor supply drives down wages. These effects are moderated the more that labor in the agricultural sector can be described as surplus (Lewis 1954).

The depression of urban wages harms not only migrants themselves but also existing city residents that work outside the protected formal sector.²⁰

Given these difficulties, why is the developing world rife with urban bias? The risks and costs of urban bias accrue over years and are not as pressing as short-term threats for vulnerable regimes. Governments with a tenuous grasp on power or fragile coalitions fear that if grain or gas prices rise, the resulting tumult could lead to their ouster. The accumulation of risk inherent in an immense capital city that towers over the political landscape represents a combustible situation but comes with a long fuse. Dictatorial regimes arise from different origins and have differing coalitions at their founding; over time these coalitions can change. Even without the majorities needed to win elections, dictatorships require some subset of the population to support or at least refrain from objecting to their rule (Bueno de Mesquita et al. 2003; Geddes and Zaller 1989). The makeup of these coalitions can shift as political demands, the whims of leaders, or international or domestic economic circumstances change over time. Some coalitions will be in favor of greater (or lesser) degrees of extraction from the countryside and spending in cities.²¹

The causal chain of the argument connects urban concentration to regime survival through potential and realized collective action. Urban bias, which regimes use to address these urban threats, may be effective in the short-run but is self-undermining as it induces further urban concentration. Table 1 connects urban concentration with collective action. The other links are connected below.

Cross-National Analysis

The cross-national analysis provides an empirical examination of three different claims. The first, the danger of concentration hypothesis, is that as urban concentration increases, nondemocratic regime duration will decrease. The second, the induced concentration hypothesis, states that urban bias should be associated with increased levels of urban concentration. The third, the Faustian bargain hypothesis, is that

urban bias strengthens regimes in the short-term but subverts them in the long-term. Redistributive policy favoring cities temporarily abets regimes but also induces urban concentration, which undermines them.

As this study examines the causes and correlates of autocratic regime failure, it uses survival analysis rather than other statistical methods (e.g., Box-Steffensmeier and Jones 1997; Geddes 1999a). A principal advantage of survival analysis is its ability to accept redundant country-years, which is critical when considering country-years with multiple regimes and regimes surviving less than a full year. The primary method of analysis is a Cox proportional hazard model, although the results are robust to other modeling choices, such as log-logistic or Weibull distributions.²² In a Cox model, a positive coefficient for an independent variable indicates an increased instantaneous probability of failure, while a negative coefficient indicates a reduction in the hazard rate.

Data

I analyze nondemocratic regimes from the post-World War II era, 1946–2004.²³ The regime data come from two primary sources: dichotomous regime type codings from Cheibub and Gandhi (2004), which update the Przeworski et al. (2000) project, and leader data from Archigos 2.9 by Goemans, Gleditsch, and Chiozza (2009), which collect information on leaders and their entries and exits.²⁴

The universe of nondemocratic country-years is delineated by these coding rules following the Cheibub and Gandhi data (Cheibub, Gandhi, and Vreeland 2010).²⁵ The next step is to identify authoritarian

²⁰On the other hand, the increased amount of urban labor could reduce the cost of living for critical potential protestors: formal sector workers and perhaps students who are not in competition with migrants for work.

²¹This article examines the effects of urban bias as an independent variable on survival and urban concentration and leaves for future research changes in urban bias and the domestic political coalitions of these regimes.

²²Results using other models as well as other robustness checks for the results presented in the tables of the article are available in the online appendix. Cox proportional hazard models utilize a baseline hazard function that is shifted depending on the covariates for each case, making the calculation of explained variance, such as an R² value in OLS, essentially meaningless (Box-Steffensmeier and Jones 1997).

²³Thirty-seven regimes are left-censored by at least one year, although only 25 of them have urban concentration data. All of these save Bhutan, Saudi Arabia, and Jordan failed by the end of the period under study. Dropping all left-censored regimes has no effect on the results (see Table A14 in the online appendix).

²⁴The merging process is described in the online appendix.

²⁵To be considered democratic, multiparty elections must select the executive and legislature and a turnover must have taken place. Country-years that fail any of these qualifications, including some country-years without consolidated control of territory (e.g., contemporary Somalia), are the nondemocratic cases under examination here.

regimes in the set of nondemocratic country-years. The simplest method to distinguish regimes treats each leader change as a regime change. However, this practice inflates the number of transitions by ignoring the political continuity of many party-led states. Yugoslavia's annual rotation of ruler following Tito's death or the Jiang Zemin to Hu Jintao transition in the PRC, I argue, is substantively different than Mao Zedong (CCP) ousting Chiang Kai-shek (KMT) in China in 1949. To address this concern, I treat all leader transitions as regime transitions unless the new leader's entry is coded in Archigos as being "regular." An exception to this rule is made in the case of democratic transitions, where Archigos codes initial leaders following a democratic transition as entering through a regular process. These regime type transitions are also included as the end of a nondemocratic regime as long as the change in regime type is accompanied by a change in leader.²⁶ This change reduces the number of regimes from 792 to 436.27

I analyze regime changes with all manner of irregular removals—including mass uprisings, coups, and democratic transitions—as urban concentration acts as a political stressor that makes a regime-ending collapse more likely even if protests are not coded as the proximate cause of the regime's death.²⁸ For example, in Peru's 1975 bloodless coup, Gen. Morales replaced Gen. Velasco as government chief. Although the transition is coded as a military coup not specifically involving collective action, violent riots, strikes, and student demonstrations in Lima built political tension in the weeks and months leading up to the coup (Hofmann 1975). These pressures were part of the political calculus behind the military throwing its support to Morales over the ailing Velasco.

The principal independent variable in this analysis is *urban concentration*, that is, the capital city's share of the total urban population of a country.²⁹ Urban

concentration presages political tensions inherent to praetorian politics that undermine regime survival, not only protests themselves but the possibility of protests, the pressure to extract from the periphery in ways that can decimate authoritarian coalitions, the rise of rural dissident groups, and the military inserting itself politically, among others. Measuring the size of an urban population is not a trivial task, as it requires both a count of the population in an area and a demarcation of the territory of the city in question. This analysis uses data from the United Nations Population Division's World Urbanization Prospects 2009 Revision (UN 2010). The measure for urban concentration takes this population estimate for the capital city as the numerator and the total urban population of the country as the denominator. One complication is that a number of nations have moved their capital cities over time.³⁰ It is interesting to note—and consistent with the broader argument of the article that large capital cities are dangerous for autocratic regimes—that each of these cases entailed moving the capital from a larger city to a smaller one.31

Cross-national measures of policies associated with geographic redistribution are difficult to collect. This study utilizes a new dataset on distortions to agricultural markets to proxy for rural-urban redistributive policy (Anderson and Valenzuela 2008). The World Bank's Distortions to Agricultural Incentives project attempts to measure systematically the biases in governmental policy dealing with agricultural markets across 75 countries. For our purposes, the data contain estimates for 836 regime-years across 35 nondemocratic countries. The measure used here, the *relative rate of assistance* (*RRA*), reflects the extent of government assistance to agriculture *relative* to other sectors of the economy.³²

I also control for the type of authoritarian regime, the presence of formal institutions, and the level of economic development, which scholars have shown to correlate with authoritarian resilience. For *autocratic regime type*, I use the codings from two different typologies: Geddes (1999b), which Wright (2008) updates, and Cheibub and Gandhi (2004). The original Geddes

²⁶For example, the KMT regime in Taiwan is coded as ending in 2000 when the party loses power, not in 1996 when the first competitive elections take place as the party won that election.

²⁷Counting each leader change as a regime transition (similar to Escribà-Folch and Wright 2010) rather than the using the regime definition above does not affect the results (see Tables A3–A6).

²⁸Urban concentration thus plays a role similar to that of decay in Kalyvas's treatment of the decay and breakdown of the European Communist regimes (Kalyvas 1999).

²⁹Creating a Herfindahl-like index is both difficult due to data limitations and redundant because most variance in overall urban concentration is based on the size of the largest city, as city sizes within a territory tend to follow Zipf's law (Henderson 2003). While for 91.8% of cases the capital city is in fact the country's largest, this pattern is not universal.

³⁰Yangon to Nay Pyi Taw (Myanmar) in 2006, Lagos to Abuja (Nigeria) in 1991, Dar es Salaam to Dodoma (Tanzania) in 1986, Almaty to Astana (Kazakhstan) in 1999, and Karachi to Islamabad (Pakistan) in 1969.

³¹This is, of course, not always the case historically. For instance, the capital's move from the smaller St. Petersburg to the larger Moscow in the USSR occurs outside of the time range of the analysis.

³²As RRA counts support for rural agriculture, I flip its sign to have positive values represent higher levels of urban bias.

typology consisted of four different sorts of autocratic regimes: single-party, military, personalist, and hybrids of these three. The various types of authoritarian regimes differ in their elite politics, respond differently to crises, and have been shown to differ in regime duration (Geddes 1999b). Wright (2008) extends the data to include monarchies and nonconsolidated regimes. In an alternative typology, Cheibub and Gandhi (2004) distinguish between monarchic, civilian, and military dictatorships based on succession policy, the personal characteristics of both leaders themselves and other regime elites (its "inner sanctum").

Authoritarian regimes of different types vary in their duration. In particular, military regimes are comparatively short-lived, as military leaders are believed to care about the military's integrity and relatively less about maintaining power than other kinds of autocrats. Single-party regimes are especially long-lived; monarchies are also seen as relatively stable. While succession battles may rage in these systems, the conflict is circumscribed by intrigue over which party or family member will be the next ruler rather than whether a party or family member will lead the country. Tied to the regime's eponymous person, personalist regimes endure compared to military regimes but crumble with the departure of the paramount leader. Hybrid regimes, unsurprisingly, contain facets of their component regimes and exhibit varied survival rates.

Legislatures amongst other formal institutions normally seen in democracies, appear to enhance the durability of nondemocratic regimes (Gandhi 2008; Wright 2008). Legislatures allow for safer negotiation between core members of the regime and outsiders, co-opting potential adversaries into the regime. When paired with elections, legislatures also can provide regime-enhancing information on both public preferences and candidate quality (Blaydes 2010; Malesky and Schuler 2011).

Level of economic development is seen to abet autocratic regime survival, contra the classic works of modernization theory. Wealthier regimes have greater ability to act as rentier states and with lower stakes in their politics are less prone to revolution (Ross 2012); both should aid a regime's chances of enduring. Level of economic development data come from Gleditsch (2002), which fills in much of the missing data from the Penn World Tables and other datasets by inter- and extrapolation as well as examining electricity usage and other statistics.³³ Whereas

modernization theorists posited that rapid development might weaken stability (Huntington 1968), more recent studies have shown that *GDP growth* is linked with regime survival and recessions with regime collapse (Geddes 1999a).³⁴

The presence of civil or interstate conflict may also be expected to harm regime survival. Civil wars tend to be fought in the periphery (Fearon and Laitin 2003), although the dominance of insurgency-in-the-periphery as the technology of civil wars is on the decline following the end of the Cold War (Kalyvas and Balcells 2010).³⁵ Nonetheless, conflicts might hasten regime demise, whether they are intra- or interstate in nature. *Conflict* is a dummy variable that takes the value of one in all cases where the UCDP dataset count of current conflicts is nonzero. There are 1,192 regime-years with conflict.

Analysis

Is urban concentration hazardous to authoritarian regime survival? For the 237 regimes with urban concentration levels above the mean level in the data, the mean duration is 8.6 years and the annual regime death rate is 9.2%. For the 198 regimes characterized by low levels of urban concentration, the incidence rate is only 5.6% and the mean duration is 12.4 years. Regimes with capital cities that dominate the urban landscape fail nearly four years sooner and face 60% greater death rates. Figure 1a depicts this difference using a Kaplan-Meier Survivor Graph, where regimes with high levels of urban concentration fall off at a much quicker rate than do their compatriots with lower levels.

The inclusion of control variables does not affect these key results, showing support for the danger of concentration hypothesis.³⁷ Table 2 shows a substantively and statistically significant positive coefficient for urban concentration across all specifications.³⁸ The coefficient for 0.981 for the urban concentration variable from Model 2.1 translates into an increased risk of collapse of 47% when moving from one standard deviation below to one standard deviation

³³The wider coverage of the Gleditsch data allows 800 additional observations into the analysis. The main results are unchanged if Penn World Tables GDP data is used (Table A7).

³⁴GDP growth is measured using changes in per capita GDP using the Gleditsch 2002 data.

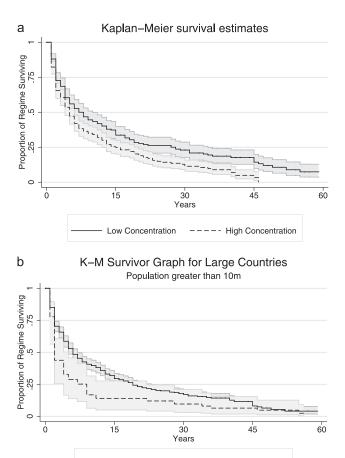
³⁵The results presented here are not a Cold War artifact (Table A8).

³⁶Using medians rather than means yields almost exactly the same results.

³⁷The models use a small number of explanatory variables to minimize problems of collinearity (Achen 2002).

³⁸Stratifying by country produces virtually identical estimates, as seen in Appendix Table A22.

Figure 1 Authoritarian Regime Survival Patterns



Note: Figure 1 presents two simple Kaplan-Meier Survivor Graphs displaying (in 1a) the differences in regime duration between regimes with and without high levels of urban concentration and (in 1b) for those large countries (population greater than 10 million) with and without capitals of over five million residents with 90% confidence intervals.

Capital city > 5m

Capital city < 5m

above the mean level of urban concentration, controlling for autocratic regime type and other factors.

The control variables mostly have effects in the expected directions. When compared with the baseline of personalist and hybrid regimes, monarchies and party regimes are relatively resilient whereas military regimes are short-lived. Legislatures, consistent with previous findings, are associated with durability. GDP growth stabilizes regimes rather than altering societies in ways that might undercut their support. On the other hand, wealth is not associated with an independent effect enhancing regime survival. This surprising nonfinding comes from three sources. First, including monarchies as a separate category of regimes absorbs much of the explanatory power of wealth as monarchies tend to be both lasting and rich. Second, legislatures are more prevalent in richer regimes, as evidenced by the

size of the coefficient for wealth increasing when legislatures are omitted from Model 2.3. Finally, the greater coverage of the Gleditsch GDP data includes many relatively poor but resilient regimes that are dropped when using the Penn World Tables data.³⁹

Even though urban concentration and regime collapse are correlated, the possibility exists that the relationship is not directly causal. Urban concentration is a structural factor that has no agency to overthrow regimes itself. Urban concentration and regime collapse are linked through the mechanism of collective action, which is more likely, and the mere possibility thereof is more politically dangerous for nondemocratic regimes in locales with high levels of urban concentration. Table 1 shows urban concentration to be associated with greater likelihood and number of social disturbances using a variety of datasets; urban concentration and social disturbances jointly undermine regime survival as presented in Tables in the appendix. 40 Yet even with collective action included in a survival analysis, urban concentration is associated with shorter regime durations. This suggests that while much of the explanatory power of dominant capital cities comes from protests, the stress of urban concentration has an independent effect on survival absent realized events. The collective action incidents in Lima in 1975 in no way forced the subsequent coup, but they—and what they presaged might occur without a coup—set the stage for regime collapse. Urban concentration both makes collective action events more likely and the task of holding onto a political coalition more difficult.

Another possible confounding factor is regime strength. Weak regimes might be prone to both urban concentration and collapse—through an inability to project power and provide services outside of the capital city. Yet this concern is unfounded. First, urban concentration is uncorrelated with weakness using standard measures of state capacity, and, second, inclusion of one such measure, GDP per capita, in the analysis does little to change the estimated effect of urban concentration on collapse as shown in Models 2.2 and 2.3. Third, changing the key independent variable from urban concentration to the capital city's population yields similar results. Capital city population captures the danger of concentrated masses but is less likely to

³⁹See Table A7 in the online appendix for detailed results.

 $^{^{40}\}mathrm{See}$ Tables A19 and A20 in the online appendix for detailed results.

 $^{^{41}}$ The bivariate correlations of urban concentration with logged GDP per capita is -0.01 and with Polity score is 0.05.

TABLE 2 Urban Concentration Harms Regime Survival

	Model 2.1	Model 2.2	Model 2.3	Model 2.4
Urban Concentration	0.981***	0.987***	0.883**	0.929**
	(0.369)	(0.367)	(0.361)	(0.367)
Military Regime	0.787***	0.803***	0.802***	0.859***
	(0.160)	(0.167)	(0.167)	(0.172)
Monarchic Regime	-1.018***	-0.988***	-0.871***	-0.954***
-	(0.327)	(0.326)	(0.323)	(0.329)
Single-Party Regime	-0.889***	-0.878***	-0.871***	-0.797***
	(0.211)	(0.209)	(0.210)	(0.211)
Legislature	-0.374**	-0.371**		-0.451***
	(0.164)	(0.165)		(0.167)
Real GDP per Capita (logged)		-0.038	-0.046	
		(0.073)	(0.074)	
Civil/Intl. Conflict				0.264*
				(0.149)
GDP Growth (%)				-2.460***
				(0.580)
Observations	3,677	3,677	3,677	3,585
Regimes	337	337	337	330
Failures	246	246	246	240
Pseudo Log-Likelihood	-1160	-1160	-1163	-1107

Note: All models in this table are Cox Models. Positive coefficients reflect estimated effects that increase hazard rates of collapse. Baseline nondemocratic regime type is personalist. Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

proxy for regime strength as it is not affected by the presence or absence of other cities in a country. As seen in Table 3, after controlling for the size of the national population, larger capital cities are associated with brief regime tenures. The increase in risk from having a capital city with a population one standard deviation below the mean to one with a population one standard deviation above it is 63%, using Model 3.1. Figure 1b shows that in countries with populations over ten million, regimes faced with large capital cities collapse comparatively rapidly. As above, these results are robust to the inclusion of covariates (i.e., Model 3.2). Urban concentration and capital city size are sources of collective action and stress factors that undermine political coalitions, not simply proxies for weakness.

A third concern is that urban concentration is a proxy not for weakness but for small states. States with large populations might be more stable than states with small ones. However, analyzing only regimes with populations of over ten million, large capitals are shown to be tremendously dangerous, while total population size and other controls lose their explanatory power (Models 3.3 and 3.4); a similar shift from one standard deviation below the mean to one above increases the hazard rate by 112%.

The second claim to be tested, the induced concentration hypothesis, argues that urban bias leads to

urban concentration. The RRA data used here corroborate the prior findings of scholars who use different measures of urban bias (Ades and Glaeser 1995; Davis and Henderson 2003). As seen in Table 4, the lagged value of urban bias is positively associated with urban concentration, even in the presence of country and year fixed effects. Controls for regime type strengthen this association. The share of the urban population in a country that resides in the capital is relatively static, yet the more dynamic urban-bias measure changes in line with it. Long-run analysis also buttresses the finding. Conforming to our expectations of a long-run effect, the relationship between the urban-bias level 10 years prior and subsequent levels of urban concentration is stronger than its value one year prior (Models 4.3 and 4.4). As much of the variation is absorbed by the country fixed effects, the estimated effect size is not massive; a one standard deviation increase in urbanbias levels is associated with an additional 1% of the urban population residing in the capital (Model 4.1). For a country with an urban population of five million, this translates into an estimated 50,000 additional residents in the capital instead of other cities. These results support the findings elsewhere in the literature that urban bias induces urban concentration.

Third, the Faustian bargain hypothesis predicts that urban bias will aid regime endurance in the short-run

TABLE 3 Large Capitals are Dangerous for Regimes

	Model 3.1	Model 3.2	Model 3.3 10 million +	Model 3.4 10 million +
Capital Population (logged)	0.193***	0.134*	0.298***	0.281**
	(0.064)	(0.074)	(0.114)	(0.131)
Total Population (logged)	-0.157**	-0.181**	-0.066	-0.064
-	(0.066)	(0.073)	(0.138)	(0.145)
Royal Dictatorship		-1.528***		-0.634
,		(0.512)		(0.718)
Military Dictatorship		0.186		-0.120
		(0.174)		(0.267)
Legislature		-0.259*		0.161
-		(0.146)		(0.234)
Civil/Intl. Conflict		0.342**		0.057
		(0.140)		(0.217)
GDP Growth (%)		-1.777 ***		-2.193***
		(0.519)		(0.806)
Observations	4,306	4,155	1,929	1,863
Regimes	381	372	144	140
Failures	318	306	115	109
Pseudo Log-Likelihood	-1601	-1497	-465.4	-429.6

Note: (1) All models in this table are Cox Models. Positive coefficients reflect estimated effects that increase hazard rates of collapse. (2) Models 3.3 and 3.4 are run only on regimes with populations greater than 10 million on average during their reign. (3) Baseline nondemocratic regime type is civilian. Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

but also induce urban concentration, harming survival rates. The hypothesis is supported by the results shown in Table 5. When urban bias and urban concentration are placed together into a survival model, as seen in Model 5.1, the first- and second-order effects of urban bias are pronounced. Urban bias is associated with

TABLE 4 Urban Bias is Positively Correlated with Urban Concentration

	Model 4.1	Model 4.2	Model 4.3	Model 4.4
Urban Bias (1-year lag)	0.026*	0.030*		
	(0.015)	(0.015)		
Military (1-year lag)		0.032		
		(0.022)		
Single Party (1-year lag)		0.029**		
		(0.013)		
Urban Bias (10-year lag)			0.021***	0.023***
			(0.007)	(0.007)
Military (10-year lag)				0.021***
				(0.006)
Single Party (10-year lag)				0.022***
				(0.003)
Constant	0.267***	0.246***	0.252***	0.236***
	(0.011)	(0.019)	(0.002)	(0.004)
Observations	757	708	446	425
R-squared	0.230	0.247	0.043	0.073
Number of Countries	35	34	30	29
Year Fixed Effects	YES	YES	NO	NO
Country Fixed Effects	YES	YES	YES	YES

Note: All models are regression models with fixed effects as designated in the table. Robust standard errors in parentheses *** p < 0.01, ** p < 0.05, * p < 0.1.

TABLE 5 Urban Bias and Concentration Have Opposite Effects on Hazard

	Model 5.1	Model 5.2	Model 5.3	Model 5.4
Urban Bias	-1.041***	-0.881***		-0.265
	(0.283)	(0.284)		(0.526)
Urban Concentration	2.063***		1.582**	1.885*
	(0.739)		(0.782)	(0.987)
Single-Party Regime				-1.006*
				(0.544)
Military Regime				1.224***
				(0.345)
Observations	836	836	1,159	761
Regimes	77	77	100	73
Failures	61	61	81	49
Pseudo Log-Likelihood	-188.4	-190.8	-277.7	-136.5

Note: All models in this table are Cox Models. Positive coefficients reflect estimated effects that increase hazard rates of collapse. Baseline nondemocratic regime type is personalist. Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

endurance, and urban concentration is linked with collapse. When included separately, as seen in Models 5.2 and 5.3, these patterns still emerge. Despite the positive correlation between urban bias and urban concentration, the two variables show effects on survival rates in the expected opposite directions. When including control variables, however, the second-order effect of urban bias-induced concentration-dominates the direct effect of assuaging urban grievances, consistent with the Faustian bargain hypothesis. When including nondemocratic regime types, the magnitude of the direct effect of urban bias on regime survival evaporates, as seen in Model 5.4. The second-order effect of urban bias, that is, urban concentration, only suffers a 10% attenuation in explanatory power with these controls added. This difference is not due to the change in the number of observations between models 5.1 and 5.4. Rather, the regime-type variables absorb much of the variation previously accounted for by the urbanbias measure, suggesting an avenue for future research.

Conclusion

The survival of dictatorial regimes varies dramatically across cases. While some of these differences are explained by elites, mass politics also play a role. This article demonstrates support for an old idea—capital cities are critical for regimes—and points to difficulties regimes face in appeasing urban grievances. Biasing policy in favor of the urban masses stabilizes cities in the short term. Over time, however, this bias reshapes the urban-rural dynamics of countries, increasing the level of urban concentration. Overly concentrated city systems—proxied here by the share of the urban pop-

ulation living in the capital city—are tied to brief regime tenures. As such, urban bias represents a Faustian bargain. Leaders facing immediate threats may implement such policies to maintain their grasp on power in the short term. By inducing mass migration to favored cities, however, the policy feedbacks undo these benefits as the level of urban concentration grows and with it the threat of urban protests.

These results point to clear avenues for future research. First, the findings look at the downstream effects of redistributive policy across space, both in the short and long run. Yet the argument advanced here has implications for the determinants of urban bias as well. Given the short-term advantages and the long-term of costs of tilting policy towards cities, regimes facing crises may turn to urban bias in hopes of making it through the storm and risk the consequences afterwards. Regimes with longer time horizons or more resources, such as China in recent years, may reverse course and move away from urban bias to steer away from urban concentration and potential urban instability in the future. Second, rather than alter redistributive policy, regimes may enact policies that allow them to reap the advantages of urban bias without also harvesting the problems associated with overcrowded capital cities. Internal passport systems, such as China's hukou system or Vietnam's ho khao, may allow an authoritarian regime to pursue urban-biased policies while preventing a flood of farmers to favored cities.

These findings show the relevance of place and political geography in the study of comparative politics. It has long been understood that nondemocratic regimes have incentives to atomize their populations to restrict their ability to mobilize in resistance (Arendt 1958). The advantages of atomization for

dictatorships are not solely found in organizational or ideological dimensions but also in the more prosaic geographic distribution of the population. When distance divides the masses from each other and the political leadership, destabilizing collective action becomes more difficult. In such cases, regimes endure.

Acknowledgments

The author thanks Gary Cox, Alberto Diaz-Cayeros, Jim Fearon, Beatriz Magaloni, Irfan Nooruddin, Jean Oi, Jessica Chen Weiss, the audience of the CRITICS Workshop at Georgetown University, and three anonymous reviewers for excellent comments and assistance.

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