Security Threats, Enemy-Contingent Policies and Economic Development in Dictatorships

Abstract

This paper argues, through investigating a broad set of historical cases and developing a formal theoretical model, that the type of security threat a dictatorial regime faces has implications for economic policy making, and consequently economic outcomes. Dictators who mainly face internal rivals, either contending elites or democratization movements, often have incentives to conduct policies that are harmful to economic development. However, dictators who mainly face external security threats are more likely to generate economic development-enhancing policies. Type of security threat facing a dictator thus contributes to explaining the large variation in economic development among dictatorships.

Keywords: Dictatorship, Security threat, Economic development,
1. Introduction

In “Politics”, Aristotle claimed enlightened monarchy was the best government under ideal conditions (Aristotle 2000). But, monarchy easily slides into tyranny. Aristotle thus concluded that more “balanced” forms of government than one-person rule are safer, as they more often provide decent rule under different contexts. Aristotle’s insight has empirical support when it comes to economic performance: Dictatorships exhibit far more variation in their economic performances than democratic regimes (Rodrik 2000; Besley and Kudamatsu 2007). In recent history, there have been authoritarian growth miracles, such as the East Asian Tigers. However, there have been even more dictatorial growth disasters, like Zaire and Myanmar. This paper investigates why dictatorships’ economic policies and performances vary.

Aristotle focused on the personal characteristics of rulers when differentiating between monarchy and tyranny. Jones and Olken (2005) provide solid empirical evidence that dictators’ personal characteristics matter for economic growth. However, more systemic factors are at least equally important in explaining divergence between different dictatorships. Below, we show that even if all rulers are self-interested and motivated by staying in office, some will pursue economic development-enhancing policies, while others pursue policies that lead to developmental disasters. Self-interested rulers choose different policies in different contexts; what seems like an “enlightened monarch” may very well be a self-interested dictator. More particularly, this paper argues that an external security threat, i.e. another state, induces self-interested dictators to produce development-enhancing policies. Dictators who only face internal security threats, like democratization movements or contending domestic elites, are less likely to conduct development-enhancing policies. Section 2 presents a literature review and a qualitative sketch of this paper’s argument. Section 3 discusses several historical cases that illustrate and support the main argument, including a quasi-experimental
study on how Kuomintang changed policies when moving from mainland China to Taiwan. Section 4 provides a formalization of the argument. This section also presents additional empirical implications from the model. Section 5 concludes.

2. Literature review and the basic argument

Why do some dictatorships turn out to be growth miracles, whereas others turn out to be growth disasters? One explanation is that dictatorship as a category includes several distinct political regime types, ranging from absolute monarchies to one-party states to military regimes (Hadenius and Teorell 2006; see also Linz and Stepan 1996; Wintrobe 1998; Przeworski et al. 2000). Institutional differences between different dictatorships again matter for economic policies and outcomes. One important question is whether there are institutions in place that constrain the actions of the dictator and his nearest clique, for example a relatively independent judiciary, a rule-following bureaucracy, or even a strong party apparatus. Empirical results indicate that the existence of well-functioning and relatively independent state institutions is very important for dictatorial regimes’ propensity to generate economic growth (Reference removed). Institutional variation among dictatorships can thus contribute to explaining the large variation in economic outcomes.

However, actors in power can build, reshape or restructure institutions, at least in the long run. Due to power concentration in dictatorships, institutional structures are not as difficult to change for dictators as they are for democratic governments. The “logic of organizational proliferation” is one of three main dictatorial survival strategies (Haber 2006): Building new organizations that counter the influence of existing ones can enhance the survival probability of an autocrat. Bureaucracies, courts and other institutional structures can be restructured, strengthened or weakened by the political elite to suit their preferences. In the framework developed below, rational dictators engage in different survival strategies, including the
shaping and reshaping of institutions: Institutions are partially a function of the security threat-type facing the regime, if we take a medium- to long run-view. For example, the decision to build a “Weberian bureaucracy” and other developmental state institutions may be spurred by the need to deter a foreign enemy. Let us however return to the literature, before we present the main argument.

The political economy literature has generated multiple models where dictators in self-interest promote economic policies that lead to bad macroeconomic results. Generally, dictators may, because of preferences for private consumption or political survival, have incentives to take actions that have negative consequences for their national economies. In Olson's (2003) model, dictators, especially those with short time horizons, expropriate property to maximize personal consumption, thereby reducing the incentives for citizens to work or invest. In Robinson's (2001) and Acemoglu and Robinson's (2006) models, dictators also maximize discounted utility from consumption. In these models, public investment and economic development strengthen opposition groups and reduce leaders’ survival probability. Leaders therefore reduce the overall size of the economy, among others through cutting public investment, to maximize expected utility from (discounted) private consumption. The core argument is that “while [capital] accumulation may increase total income, it may induce institutional transition which is unfavorable to the autocrat. If a dictator loses political power then he does not gain from development and will oppose it. Thus a dictator may wish to slow accumulation” (Robinson 1998, 24). Dictators have extra strong incentives to underinvest in public goods in natural resource rich economies (Robinson, 2001). Bueno de Mesquita et al. (2003) assume that political leaders are motivated by surviving in office, and show how dictators with small winning coalitions, especially when combined with a large selectorate, under-provide growth-conducive public goods.² For these leaders, it is rational to rather
redistribute resources as private goods to their relatively small winning coalitions. Wintrobe’s (1990, 1998) models highlight that certain power-motivated dictators invest heavily in repressive capacity. Investment in a repressive apparatus distorts public resources away from more productive projects. In several of the models above therefore, rational dictators concerned with maximizing private consumption or probability of political survival follow policies that are detrimental to overall economic performance. The notion that dictators may reduce internal security threats by promoting bad economic policies is core to the argument of this paper.

Most dictators have historically presided over economically stagnating countries, which contrasts with the decent growth record of most democracies. However, a few dictatorships have performed astonishingly well. What is the explanation? Below, I argue that external security threats may induce dictators to pursue good economic policies. However, there are situations where also dictators facing internal security threats have incentives to promote good policies. The perhaps most obvious example is when dictators’ survival depend strongly on legitimacy in broader population segments, for example because of a large probability of popular revolution. Economic crises dramatically increase the risk of regime breakdown (Przeworski and Limongi 1997). Overland et al. (2000) constructed a model where regime breakdown in dictatorships are more likely in times of economic crisis. A rational dictator with weak hold on power would therefore generate economic growth in order to survive. However, there is a difference between avoiding sudden, short-term recessions, which may lead to revolutions (Davies 1962), and generating sustained economic growth over the long term. Growth over many years, of course, alters the level of income dramatically. Empirically, a high level of income is conducive to democratization (Boix and Stokes 2003; Hadenius and Teorell 2005). A dictator may thus reduce the probability of surviving in the long-run, if he
produces consistent growth, which is recognized in for example Robinson’s model (2001). Bueno de Mesquita and Smith’s (2009) model indicate that due to conflicting mechanisms, the economic policy response to a revolutionary threat may be non-linear. Moreover, the policy response may depend on access to natural resources and aid.

There are other arguments for why some dictatorships generate good economic policy: Besley and Kudamatsu (2007) show that when a winning coalition is relatively autonomous from the dictator, it may chose to pressure the dictator into promoting growth-enhancing policies. One-party regimes with relatively strong party apparatuses and weak leaders, such as present-day China, are examples of such regimes. As Bueno de Mesquita et al. (2003) point out, dictators with relatively large winning coalitions, and especially if they have relatively small selectorates, may also follow growth-conducive strategies. However, the size and autonomy of winning coalitions may to a certain extent be endogenous. The decision to broaden the winning coalition through including new groups and the decision to build autonomous strong organizations, for example a bureaucracy dealing with industrial planning or an efficient army organization, may be spurred by the need to deter a foreign enemy. As Doner et al. (2005) show, the East Asian Tigers’ geopolitical context with severe external security threats was an important reason why these regimes extended their winnings coalition by offering side-payments to broad population segments, and was also a reason why they institutionalized their state apparatuses in the way and to the extent they did.

Let us now turn more directly to this paper’s argument: A dictator may face not only internal, but also external security threats. Furthermore, dictators are often strongly motivated by survival in office. As Wintrobe (1998) correctly points out, dictators have heterogeneous motivations. However, staying in office is generally a major concern, partially because many other potential objectives like money, fortune and fame, the promotion of specific interest groups’ welfare, and realization of ideological vision depend positively on holding office (see
Bueno de Mesquita et al. 2003). A rational dictator therefore evaluates the consequences for political survival when choosing policies. Economic policies can therefore be analyzed as political survival strategies. More specifically, the optimal survival strategy when facing a foreign (external) security threat may likely include strengthening the industrial, administrative and ultimately military capacity of the country. Dictators who face external security threats want to build up military capacity to fight off or preferably deter attacks from foreign adversaries, since a foreign invasion often leads to the demise of the ruling dictator (Bueno de Mesquita et al., 2003). In order to have a strong fighting force, the dictator needs to develop the national economy through industrialization, promotion of technological innovation and diffusion, development of a well-functioning bureaucracy and investments in public infrastructure. Thus, dictators who mainly face external security threats are likely to pursue developmentalist economic policies.

Dictators facing mainly internal security threats are not equally eager at pursuing good economic policies. The literature reviewed above indicated that promoting bad economic policies may be good politics for the dictator, as it may reduce the severity of internal security threats. If the dictator’s largest threat to staying in power is an aspiring democracy movement, he may rationally choose policies that negatively affect development. For example, as the highly educated tend to be among those with the strongest democratic values (Lipset 1959; Inglehart and Welzel 2006), a rational, survival-oriented dictator would harshly regulate and limit the content of and access to education, particularly higher education. The argument can be generalized to other internal threats than democracy-movements as well. Expropriating the property of potential opponents, pursuing clientilistic practices and investing heavily in a repressive domestic security apparatus may mitigate internal threats, but all of these strategies have negative economic effects. Conversely, granting free speech and freedom of media may
increase the opposition’s strength and coordination abilities. Therefore, dictators crack down on civil liberties. However, restricting civil liberties reduces the diffusion of new ideas and technologies into and within the economy. Dictatorships thus have slower technological change-induced economic growth (reference removed). One interesting example relates to communication technologies like the internet and cell phones, which may generate vast economic opportunities. However, as these tools also increase internal security threats, they may be heavily regulated in dictatorships (see e.g. Hachigian 2002). A dictator motivated by political survival, and facing mainly internal threats, will thus have strong incentives to conduct policies that hurt economic growth. The argument above will be clarified in Section 4 through a formal model, but let us first consider some illuminating historical examples.

3. Empirical illustrations of the security threat-type argument

3.1 External security threats

Bueno de Mesquita et al. (2003) argue that for most dictators, the threat from within is more severe than the threat from abroad. However, the severity of external security threats varies greatly; some dictators have historically had better reason to fear being toppled by an external enemy than others. The argument that external security threats may generate incentives for development is not novel. Tilly (1975) argued that the security climate in Europe, with constant threat of warfare, was one of the main reasons why this continent modernized when others did not. Crucial in this process was the development of state institutions that allowed regimes to wage wars efficiently, but which also had positive long-run effects on economic development. As Bueno de Mesquita et al. (2003) recognize, when a state loses in war, its leader’s probability of losing office increases. Leaders may thus build institutions and conduct specific economic policies to reduce the probability of losing office through losing in war, which generates economic welfare for citizens as a by-product.
One regime with incentives to modernize its country because of external security threats was Prussia’s Hohenzollern dynasty, which faced hostile states on several borders throughout much of its history (Clark 2006). Being endowed with less manpower than many of its enemies, Prussia’s Kings had incentives to modernize the bureaucracy and streamline tax-collection, in order to establish an efficient fighting force. Later, the development of mining, heavy industrialization and the railway served the same purpose. Boix (2003, 218) recognizes that “the need to modernize to prevent neighbours from amassing resources to defeat them in future wars” generates strong incentives for political elites to industrialize. Several of the best economic performers that industrialized after WWII were small, Asian autocracies that arguably faced severe threats from larger military powers with an eye to occupying or sub-ordering them. Taiwan faced a hostile China, South Korea faced a militarized North Korea and Singapore had its more populous neighbour Malaysia. For these regimes, building military capacity was important to deter neighbours from attacking. A strong and modern military apparatus requires a relatively developed economy and effective state institutions. Thus, the external threats provided incentives for these Asian regimes to develop their economies and state institutional apparatuses (Woo-Cummings 1998; Doner et al. 2005). As Doner et al. (2005) note, these incentives were strengthened due to lack of natural resources. The argument that natural resources reduce a dictator’s need to develop his economy (and thus enhance internal threats) in order to fight external threats will be discussed in Section 4. We return to Taiwan below. We now turn to Meiji-Japan and Russia under Peter the Great.

The “Meiji-restoration” in Japan started in 1868, with the removal of the feudal Tokugawa rule. Although the new regime was more liberal than the previous, it was still at least semi-authoritarian. The biggest threat to the new government came not from within Japan, but from Western countries. Japanese leaders feared that Japan would be colonized, or at least
subjected to strong political influence from foreign powers. The so-called “unequal treaties” imposed on Japan by the Western powers were disliked, but they were feared to be only the first step of Western domination over the country. How could the regime guarantee Japan’s, and thus its own, continued existence? The answer to Japanese leaders, including Prime Minister Ito Hirobumi (Murphey 2000, 308-9), was modernization and economic development. The leaders “were quick to realize that if Japan was not to become a colony or semicolonial like the rest of Asia, it would have to adopt Western technology… Japan also saw that military technology could not be separated from overall industrialization” (Murphey 2000, 304-5). The Japanese political elite promoted industrialization through various active industrial policies, enhanced technological diffusion through economic openness, and engaged in building competent political and military institutions.

Another illuminating historical example is Peter the Great, who around 1700 presided over early modernization efforts in Russia. This process involved the deliberate reshaping of the Russian bureaucracy, fiscal structures and improving the Russian educational system. These policies arguably increased prosperity at least in parts of the country. The main motivation for Peter to “partially dismantle the patrimonial state”, according to Pipes (1995), was to improve the organizational capability and fighting strength of the Russian army so that it could fight off future attacks from richer European neighbors and expand the Russian empire. Russia bordered several less populous states to its West, but had nevertheless suffered military defeats to these countries. As a response, “Russia launched a process of internal reform ... First to be reformed was the army. But it soon became evident that the mere copying of western military techniques was not enough, because the more fundamental sources of the west’s strength lay in the social, economic and educational base; this too then had to be emulated” (Pipes 1995,113). Peter wanted a large standing army to fight external enemies,
but “[F]or a country as poor as Russia, the maintenance of such an armed force represented an immense burden. To enable it to carry the load, Peter had to re-vamp the country's fiscal, administrative and social structures, and, to some extent, transform its economic and cultural life as well” (p.120). It was to a large extent the threat from Western countries that spurred the early modernization efforts in Russia.

3.2 Internal security threats

Mobutu Sese Seko once infamously claimed when addressing then Rwandan President Habyarimana on RPF-guerrillas threatening Habyarimana’s regime: “I’ve been in power in Zaire for thirty years, and I never built one road. Now they are driving down your roads to get you” (Sundstøl Eriksen 2004, 4). It seems that Mobutu was well aware of the threats to his power stemming from different guerrilla groups in the Zairian periphery, and how these threats could be enlarged by investing in public infrastructure. Needless to say, the lack of infrastructure in Zaire negatively affected the economic prospects of that country. However, survival strategies are not restricted to infrastructure investment and other public spending. Survival strategies can also relate to restricting economic openness, as for example is the case in Kim Jong Il’s North Korea. North Korea is sealed off socially, politically and economically from the outside world. While such policies probably are constructed with an eye towards prolonging the Kim Jong Il’s regime, they are ruining the economy (Nanto 2006).³ Foreign ideas and influences (often Western) are generally feared by many dictators, since they often entail notions about democracy and human rights. Dictators are therefore often willing to restrict the flow of information into the country by enforcing bans on internet usage and cell phones, as was the case in for example Cuba and Turkmenistan. Such restrictions on information technology again negatively affect diffusion of ideas and technology conducive to economic growth (Reference removed).
Many of the worst-performing economies in the post-colonial era have been African dictatorships. African dictators have not had to fear external invasion as much as internal groups seeking to grab political power. The main threat to most of Africa’s strongmen has come from within the juridical borders of their own states. On a war-torn continent, only a small number of wars have been traditional inter-state wars (Lemke 2003; Reference removed), and “[I]n only one case did the direct invasion of one African state by another lead to the overthrow of the regime in power and its replacement by a government acceptable to the invading state. This was the Tanzanian invasion of Uganda” (Clapham 1996, 123). The Organization for African Unity (OAU) contributed strongly to the non-intervention policies followed by African rulers, by establishing explicit norms of non-intervention on the continent, by providing a coordination-forum for African rulers, and by multi-lateralizing African security policy: Different leaders may have had short-term incentives for invading smaller neighboring countries, but feared that a breach of non-intervention norms would backfire by enabling other countries to later intervene in their own domestic affairs (Herbst 1989; Reference removed). Predominantly, the African dictator’s worst security threats have been internal, and African dictatorships dominate among the last decades’ worst economic performances. One particular survival strategy that has contributed to bad economic results in African dictatorships is African “Big Men’s” extensive use of clientilism to maintain political control in the face of internal opposition (Chabal and Daloz 1999). Certain groups may be considered as essential backers for a dictator in his quest to maintain power, and the allocation of private goods to these groups for political support is imperative (Bueno de Mesquita et al. 2003). A dictator may secure the continued support from these groups through what Haber calls the logic of co-optation (2006). Co-optation could be achieved through distribution of economic rents or passing of specific policies that benefit one group at the cost of others.
Clientilism may bolster the power of dictators, but it is harmful to the overall economy (Miquel 2007), as experienced in Africa (Moss 2007).

Dictators who want to secure continuation in office, or who are interested in personal consumption, may also have incentives to violate or selectively enforce property rights, despite negative economic effects (North 1990; Olson 1993). There is an especially strong incentive to even violate the property rights of opposition groups or potential adversaries, as this may weaken these groups. Robert Mugabe’s 2005 “clean-up” in the Zimbabwean capital Harare is a good example. Mugabe’s government demolished the homes and shelters of about 700,000 poor, and moved many of them to the country-side (BBC 2005). The government claimed aesthetic reasons were behind the operation. However, most revolutions originate in the large cities, and particularly the capital. Mugabe had fewer disgruntled subjects in the capital to worry about, after the “clean-up”, and was probably safer as a result.4

Summing up, a vast amount of specific survival strategies undertaken by a dictator and his backers may hurt the economy. Generally, if a ruler believes his survival probability is negatively affected by economic development, a power-motivated, rational dictator would try to slow development. As Evans puts it, “Generating an entrepreneurial class with an interest in industrial transformation would be almost as dangerous as promoting the political organization of civil society. For predatory states, "low-level equilibrium traps" are not something to be escaped; they are something to be cherished” (1995, 248).

3.3 A quasi-experiment: Kuomintang and strategy-change on the boat
The behavior of the Kuomintang before and after defeat in the Chinese civil war highlights the mechanisms proposed above. The Kuomintang went from a situation in the mid-40s where they largely faced an internal security threat to a situation in the early 50s, where the main security threat was external. This constitutes a very interesting “quasi-experiment”, since the
same actor, the central elite in the Kuomintang, was operating in two different contexts. We can therefore exclude explanatory factors related to differences in actor-capabilities, motivation and preferences, and isolate the variation that is due to change in security-context. My model predicts that the Kuomintang would engage in different survival strategies and conduct different economic policies in the two different contexts.

The Kuomintang, led by Chiang Kai Shek, was engaged in a bloody civil war with the Communists, led by Mao Tse Tung, (before and) after the Japanese occupation of China. As time passed, the Kuomintang was losing ground on the mainland to the Communists, and eventually retreated to Taiwan where they established their new base. About 2 million Kuomintang supporters moved over the Taiwan Strait in the late 1940’s, among them 600 000 soldiers (Roy 2003, 76). When the Kuomintang fought on the mainland, they were engaging an internal security threat. The Kuomintang controlled relatively large parts of China and could for analytical purposes be treated as a sitting regime facing an internal threat. When the Kuomintang retreated to Taiwan the Communist threat changed from an internal to an external threat. The Kuomintang faced a possible security threat from Taiwanese inhabitants as well, illustrated by the fact that, at a point in time, approximately 500 000 people worked part-time as government informers on Taiwan (Roy 2003, 91). Nevertheless, the main security threat was perceived to be Communist China, with its armies on the mainland. This was especially true after 1951: During purges in the preceding years “the KMT crushed most of the potential leadership of Taiwanese nationalist movements; most of those activists not killed were co-opted by the party or forced to flee the island” (Roy 2003, 72).

How did the Kuomintang conduct its policies in the two different contexts? When based in mainland China, the Kuomintang “had been largely predatory, based on rent-seeking” (Cho and Kim 1998, 137). The Kuomintang’s officers and officials were notoriously known for
their corruption, stealing and looting, which were perceived as the best way to provide resources to fight the Communists in the civil war. It was a strategy for the short term, but it also made sense since it did not build economic capacity that could later be utilized by the Communists if they could gain control over it. After the arrival of Kuomintang troops on Taiwan in 1945, they “were expected to make their living by scrounging and plundering among the local civilian community, following the pattern of Chiang[ Kai Shek]’s armies on the mainland” (Roy 2003, 59). And so they did, as even doorknobs were stripped off buildings! The looting was in some instances also very organized, and in some cases, whole factory plants were dismantled and sent to mainland China. Weak protection of property rights thus characterized Kuomintang rule of both Taiwan and the mainland around 1945. Chiang Kai Shek assigned the rule of Taiwan to one of his commanders, Chen Yi, whose administration became “infamous for its widespread corruption and nepotism” (Roy 2003, 61). The economy was also organized through state-run monopolies in several sectors, allowing the Kuomintang to extract the maximum share of the generated income. In these early days, the internal security threats in Taiwan itself was larger than it would be a few years later, illustrated by the takeover of the nine largest cities in Taiwan in 1947 by more or less organized crowds of Taiwanese inhabitants (Roy 2003, 68). Kuomintang armies had to be sent from the mainland to eventually crush the uprising.

The Kuomintang’s economic strategies some years later might therefore look as a puzzle to many observers of the regime’s earlier economic policies, but is perfectly understandable according the logic of the argument presented here. “[B]y late 1948 it was apparent that the ROC regime would have to evacuate to Taiwan and make the island its new base. This involved a reversal of policy from stripping down Taiwan to building it up” (Roy 2003, 76). The reversal of economic policies in Taiwan is arguably among the largest turnabouts in
modern history. The “KMT enforced a series of reform measures with the purpose to reconstruct Taiwan as a base for the eventual recovery of the mainland. These measures included not only registration of the members of the KMT, strict application of discipline, consolidation of the central leadership for its renovation, but also economic reforms” (Cho and Kim 1998, 137). Policies on land reform, industrialization and good education policies produced spectacular economic growth on the island in the 1950’s and 60’s (Wade 1990), and policies in all of these fields were conducted with an eye towards improving the fighting capacity of Taiwan (Dorn et al. 1995). “During the decades of 1950s and 1960s, Taiwan’s primarily agricultural economy developed into a semi-industrialized economy, domestic consumption demand greatly increased, and unemployment faded as a serious problem. Through the 1950s, Taiwan’s annual gross national product (GNP) grew at a rate greater than 8 percent. In the 1960s the growth rate rose to nearly 10 percent, while inflation was kept below 5 percent” (Roy 2003, 103).

Different industrial policies were put in place to boost export production in particular (Wade 1990). One reason was that exports would generate foreign currency that could be used to buy arms from abroad (e.g. Doner et al. 2005). In the late 1960s and early 1970s, the US was preoccupied with Vietnam, and Taiwan also became more isolated diplomatically. Taiwanese leaders, as South Korean leaders facing the North Korean threat, responded with “efforts at military self-sufficiency through the development of domestic arms and related industries and, in the early 1970s, with heavy industrialization projects in steel, chemicals, metal, machine-building, plastics, shipbuilding, and electronics” (Dorn et al. 2005, 344). Although not all industrial policies were equally successful, for example the electronics industry in Taiwan blossomed, and is today a very productive industry.
Also a program of institution building was intentionally promoted by the Kuomintang leadership, underscoring the point that in the long run, institutions and institutional qualities are endogenous to the strategies of autocratic political elites. Chiang Kai Shek founded an institute for training party cadres in 1949, threw out incompetent or corrupt statesmen, and refurnished party structures and the bureaucracy. “These years of reform and reorganization saw growth in discipline, efficiency and morale” (Roy 2003, 81). A competent Taiwanese bureaucracy became vital for the island’s economic modernization (Evans 1995, 54-60; Wade 1990), and Chiang Kai Shek was acutely aware of this.

The fact that the same actor changed its economic strategy from predatory to developmentalist with the change in security-context, lends credibility to the argument developed above: self-interested and power motivated autocratic elites will conduct different economic policies in different contexts. The Kuomintang-case can be interpreted as a quasi-experiment: We have the same actors combined with a clearly specified difference on the “treatment variable” (main security threat). Kuomintang faced internal threats both in Taiwan and on the mainland before the end of the civil war. The major security threat after the end of the civil war was the People’s Republic of China’s (PRC) forces on the other side of the Taiwan Strait, an external threat. After the Korea-war ended, the PRC’s appetite for an adventure in Taiwan was temporarily low after taking losses in that war, and the US was at the time eager to guarantee the security of Taiwan’s regime. Kuomintang officials could however not rely on a US security guarantee in the long run (Roy 2003), and needed to develop a modern and well-functioning fighting force of its own. This was gradually achieved, thanks in large part to the booming economy. In conclusion, the greatly diverging economic policies followed by the Kuomintang before and after the exit from mainland China are well in line with the predictions from the argument above.
4. Formalizing the argument

4.1 A formal model

In order to clarify the argument above, I propose a fairly simple formal model with two time periods and three actors: a dictator, D, a domestic opposition, O, and a foreign government, S. We will not specify whether O will impose democracy or autocratic rule if gaining power. D has a simple utility function that depends only on personal power, p:

\[ U_d = U(p), \text{ with } U'(p) > 0 \]

D wants to keep his power through holding office in the second period. O and S are motivated by taking over power in the country, but they are sensitive to the costs of fighting, c, with D:

\[ U_o = U(p, c) \quad \text{with} \quad \frac{dU}{dp} > 0 \text{ and } \frac{dU}{dc} < 0 \]

\[ U_s = U(p, c) \quad \text{with} \quad \frac{dU}{dp} > 0 \text{ and } \frac{dU}{dc} < 0 \]

It is reasonable to assume that the utility increase of gaining power in the country is higher for O than for S. As Machiavelli (1999) noted, holding on to foreign territory is costly and difficult business. Let us model this through c, and for simplicity assume the cost of contending power is positive for S and 0 for O.

Let us now model the economy: Industrial output, Y, is a function of public investment, g:

\[ Y = Y(g) \quad \text{with} \quad Y'(g) > 0 \text{ and } Y''(g) < 0 \]

It is D who invests in public capital. D can lend at an interest free rate to invest in as much capital as he likes, given that he can repay it after his revenue has been realized. The economy also contains some natural resources, R, and these can be tapped directly by D without any further investments. The opposition, O, cannot obtain any income from the natural resources. The total output, W, of this two-sector economy is:

\[ W = Y + R \]
We assume that D appropriates a fixed, and exogenous, share of industrial output, equal to $\alpha$.

The net incomes for D and O are then:

$$I_d = \alpha Y + R - g$$

$$I_o = (1 - \alpha)Y$$

The foreign government’s income is equal to a fixed share, $\beta$, times foreign output, $Y^*$:

$$I_s = \beta Y^*$$

All actors can convert their resources into fighting capabilities, given specified technologies of transforming income to arms and organizational ability. When it comes to a democratic opposition, “fighting capability” need not be interpreted militarily, but can also indicate how well O organizes effective non-military democratization challenges to D.

$$F_d = F_d(I_d)$$

$$F_o = F_o(I_o)$$

$$F_s = F_s(\mu I_s)$$

The amount of income that will be used to generate fighting capacity depends on the utility functions of the actors. In accordance with the utility functions posted above, we assume that O and D transform all their income into fighting capacity, since their only objective is to hold power in the second period. For the sake of simplicity, we assume that S allocates a constant share of its income, $\mu$, to military expenditures.

The probability of any of the groups fighting for and winning power depends on the relative distribution of fighting power. This again depends on relative income between D and the other actors, and on the F-functions. The probabilities of O and S winning power (after having decided to fight), $P_o$ and $P_s$, are given by the equations below:

$$P_o = P_o\left(\frac{F_d}{F_o}\right) \text{ where } 0 < P_o < 1 \text{ and } P'(\frac{F_d}{F_o}) > 0$$

$$P_s = P_s\left(\frac{F_s}{\mu I_s}\right) \text{ where } 0 < P_s < 1 \text{ and } P'(\frac{F_s}{\mu I_s}) > 0$$
We further assume that O and S cannot form a military coalition, and further that the probability of one of the contending actors winning is independent of the other actors’ actions. \( R, Y^* \) and the F-functions are exogenously given.

We have a game between the three actors. D moves first by setting economic policy through choosing \( g \). Y is then realized. The three actors’ incomes, the \( I_s \), are then realized and subsequently transformed into fighting power, represented by the Fs. O and S then decide on whether they should contend power or not. O will always contend power since \( c_o=0 \), but S will not always wage war, since \( c_s>0 \). S weighs the expected utility of war against the costs before deciding whether to attack. We make some restrictions on the game: Maximally one of the actors grab power in the second stage. D cannot lose his office to both O and S, even if he loses to an internal revolt and an external invasion simultaneously. In the case of both O and S defeating D, the parties decide who will grab power through a coin toss.

How do the probabilities of D losing power to O and S depend on the size of \( g \), and the subsequently realized Y? First, consider \( P_s \). Since \( Y^* \) is exogenous, and thereby also \( F_s \), it is the military capacity of D that determines this probability. An increase in \( g \) increases Y and further \( I_d \), and thereby the military capacity of D. This makes it less likely that D will lose a war, and when the probability becomes sufficiently small, \( P_s \leq P^* \), the utility maximizing foreign government will not wage war since the cost exceeds expected utility.

When it comes to \( P_o \), the sign of \( dP_o/dg \) is not straightforward. It partly relies on the specification of the military capability transformation functions. If the Fs are concave, that is an increase in military capability is higher for the first dollars used, and O receives a small fraction of the national income, then \( dP_o/dg>0 \). Another argument for the claim that \( dP_o/dg>0 \), is that the probability of democratization increases with industrial output. A higher Y, following a higher \( g \), leads to the democratic opposition improving its effective organizational
capability relatively more than D’s increased ability to suppress. More generally, we saw above that several types of bad policies, here represented by a low level of g, could reduce the severity of internal security threats to the dictator.

A more technical argument is that Y(g) is concave, whereas the cost of providing more g is linear. At a high level of g, the returns from an increase in g becomes smaller for D (and also for O), but the cost for D of providing g is constant. Additionally, if the regime controls a large base of natural resources, a higher Y will tend to even out the disparities in welfare between D and O, relatively. All these considerations would lead us to believe that dP_o/dg>0: An increase in public investment, with a subsequent increase in Y will lead to an increased probability of O gaining power in period 2. Some of the arguments presented, like the concavity of Y(g) combined with linear cost of g, could perhaps also lead us to believe that d^2P_o/dg^2>0. Figure 1 sums up how P_s and P_o are likely to depend on g.

**FIGURE 1 HERE**

4.2 Optimal policy in different contexts
If D, faces only an external threat, D would according to the logic of this model increase g to increase Y, and thereby his fighting capability. D would at least increase g until he reached P*, given full information. The subgame perfect Nash-equilibrium of this game consists of D investing an amount of g that is higher than or equal to g* (the g that achieves P*) in the first stage combined with S’ strategy to invade in the second stage if g<g* and not invade if g ≥g*. S will therefore not invade in the second stage in equilibrium. If S is very strong however, P* might not be reached. D will then maximize his income in order to later obtain the maximal amount of fighting power. D’s income is given by:

\[ I_d = \alpha Y(g) + R - g \]
This gives us the optimality condition:

\[ \frac{dI_d}{dg} = \alpha Y'(g) - 1 = 0 \Rightarrow Y'(g) = \frac{1}{\alpha} \]

D will set \( g \) so that the marginal increase in production from a unit increase in \( g \) multiplied by the share of the production he gets is equal to the marginal cost of investing in \( g \), which is 1.

What if D faces only a domestic opposition, \( O \)? As mentioned above, the important factor here is the nature of \( dP_o/dg \). If \( P_o(g) \) is non-monotonic, we would have to differentiate and find the minimum point by setting \( dP_o/dg = 0 \), and check for appropriate second order conditions. D will select the amount of \( g \) that minimizes his probability of losing an internal conflict with the opposition, given public investment’s effects on incomes and thereby fighting capabilities of \( O \) and D. \( O \) will choose to fight, and “nature” determines whether \( O \) or D has power in period 2. If \( P_o(g) \) is monotonic and increasing, the dictator will set \( g \) equal to zero, since this is the amount of \( g \) that optimizes his probability of survival. If the specific prediction of \( g=0 \) seems to strong, the qualitative interpretation of the result is that dictators will intentionally set public investment very low.

Let us sum up, and compare the implications for development from the type of security threat D faces. Let us assume that \( S \) is not extremely much stronger than D, and that \( P_o(g) \) is monotonic and increasing. If so, D sets \( g=g^* \) when facing an external security threat and \( g=0 \) when facing an internal threat. What is the output of these two hypothetical economies? In the first case we will have \( W_e = Y(g^*) + R \), whereas we in the second case will have \( W_o = Y(0) + R \). Since \( dY/dg > 0 \) and \( g^* > 0 \), we will have that \( W_e > W_o \). That is, the model economy will have a larger per capita income due to higher public investment in the case where the dictator faces an external security threat than when facing an internal threat.
A dictator can however face both internal and external threats. D does not care whether he is overthrown by an internal opposition or an external invading army; he just wants to minimize the probability of being overthrown. Let us call the event of overthrow by foreign forces $s$, and overthrow by domestic opposition $o$. The dictator then wants to minimize $P(s \cup o) = P(s) + P(o) - P(s \cap o)$. $P(s)$ is known as $P_s$ and $P(o)$ as $P_o$. Since we assumed that these probabilities were independent, the dictator will minimize the expression $P_s + P_o - P_s \cdot P_o$ by setting $g$.

$$P_s + P_o - P_s \cdot P_o = P_s \left( \frac{F_s}{F_d} \right) + P_o \left( \frac{F_o}{F_d} \right) - P_s \left( \frac{F_s}{F_d} \right) \cdot P_o \left( \frac{F_o}{F_d} \right)$$

By inserting the income functions as arguments into the $F$-functions, we obtain:

$$P_s \left( \frac{F_s}{F_d} \right) \cdot \left( \frac{\beta \mu Y^s}{\alpha Y(g) + R - g} \right) + P_o \left( \frac{F_o}{F_d} \right) \cdot \left( \frac{(1 - \alpha) Y(g)}{\alpha Y(g) + R - g} \right) - P_s \left( \frac{F_s}{F_d} \right) \cdot P_o \left( \frac{F_o}{F_d} \right) \cdot \left( \frac{(1 - \alpha) Y(g)}{\alpha Y(g) + R - g} \right)$$

If we want to solve and find the optimal amount of $g$, we have to differentiate the expression with respect to $g$ and set the resulting expression equal to zero.\(^7\)

$$P_s \left( \frac{F_s}{F_d} \right) \cdot \left( - \frac{\frac{df_s}{dg}}{F_d^2} \right) + P_o \left( \frac{F_o}{F_d} \right) \cdot \left( \frac{\frac{df_o}{dg}}{F_d^2} \right) - \left( P_s \left( \frac{F_s}{F_d} \right) \cdot \left( \frac{\frac{df_s}{dg}}{F_d^2} \right) \right) + P_s \left( \frac{F_s}{F_d} \right) \cdot \left( \frac{\frac{df_o}{dg}}{F_d^2} \right) = 0$$

If we simplify, we get:

$$-(1 - P_o) P_s \left( \frac{F_s}{F_d} \right) \left( \frac{df_s}{dg} \right) + (1 - P_s) P_o \left( \frac{F_o}{F_d} \right) \left( \frac{df_o}{dg} \right) = 0$$

This implies that:

$$(1 - P_s) P_o \left( \frac{F_o}{F_d} \right) \left( \frac{df_o}{dg} \right) - (1 - P_o) P_s \left( \frac{F_s}{F_d} \right) \left( \frac{df_s}{dg} \right) = 0$$
What does this expression tell us? The right-hand side shows the marginal effect on the probability of being ousted from an external actor when the dictator increases \( g \) with a small amount. This effect is in optimum equal to the marginal effect on probability of being ousted by the domestic opposition when \( g \) increases. The rational dictator therefore balances these threats at the margin by setting an “intermediate” value of \( g \). An increase in \( g \) from this point would increase the severity of the internal security threat more than it reduced that of the external threat. A decrease in \( g \) from this point would increase the gravity of the external threat more than it reduced that of the internal.

There are some assumptions that must hold for this condition to represent the optimal solution. We might have so-called corner solutions that \( D \) prefers. If the threat from \( O \) increases more with the first unit increase in \( g \) than the external threat drops, \( D \) will choose \( g=0 \). The second corner solution is \( g=g^* \), the point where \( S \) decides not to go to war. \( D \) chooses \( g^* \) if the external threat is grave, and the increase in domestic threat is not much affected by the increase in \( g \), which may be the case in a homogenous population with no rebel movements and with low aspirations for democratization. This could also be the optimal choice in cases where the relative strength of \( D \) and \( O \) changes little when \( g \) increases, for example because \( D \) is able to appropriate most of the resulting industrial outcome, \( Y \).

A helpful, but neither necessary (one of the functions could have very strong concavity or convexity properties) or sufficient (corner solutions) condition, for the first order condition above to be the optimum, is that \( d^2P_o/dg^2>0 \) and that \( d^2P_s/dg^2<0 \): An extra unit \( g \) increases \( D \)’s ability to fight off the neighboring country’s army more when \( D \) initially presides over a poorly developed industrial economy. But, a unit’s increase in \( g \) reduces \( D \)’s probability of defeating the internal opposition more, when the industrial economy is well developed. Figure 4 shows how the optimality condition is determined in the case where these “helpful”
conditions above are satisfied. The optimal amount of g, $g^\text{opt}$, in this case lies between the two extreme cases where the dictator faced only an internal or only an external threat.

**FIGURE 2 HERE**

4.3 Comparative statics and additional empirical implications

How do other contextual variables interact with the nature of the security threat to produce economic outcomes in the model? Let us engage in some comparative statics. Throughout, we assume that the initial size of g is determined by the optimality condition above when D faced two simultaneous security threats ($g=g^\text{opt}$). I will not perform calculations here, but only describe the model’s implications qualitatively.

What happens according to the model if we have an exogenous increase in the amount of natural resources, R? Since D receives all income from R, he will get extra revenue “for free” which he can use to invest in fighting capability. From the model we see that D will then choose to reduce g. The underlying logic is that since D is better suited to fight S without creating the conditions for industrial development, he can afford to reduce g in order to diminish the threat from O. Besides the alteration in relative strength between the D and O stemming from the reduction in g, D will also benefit from the extra R. The model predicts greater survival probability for dictators with access to natural resources. The model also predicts the so-called resource curse, related to economically poor-performing countries with natural resources, when limited to dictatorships. Rational dictators do simply not need to invest in industrial development to fight off foreign enemies. Natural resources give them easy access to income that can be transferred into fighting power, and they do not have to risk the by-products of modernization: a well-endowed and organized opposition fighting for control over the polity, for example through democratization.
What if the parameters $\beta$ or $\mu$, or the foreign GDP, $Y^*$, increase? This could be interpreted as a military build-up in the foreign country, or as representing the impact of facing a larger or more militarized neighbor rather than a smaller and less militarized. These increases would increase D’s probability of losing power to S, thereby providing an incentive for D to increase $g$ in order to boost his own fighting capabilities. This will however come at the cost of increased probability of losing power to O, and this effect will restrain increase in $g$. We can however conclude that $dg/dY^*$, $dg/d\beta$ and $dg/d\mu >0$. Both $P_o$ and $P_s$ will increase relative to the old situation, and the dictator’s probability of survival will be lower. $Y$, income from the industrial sector, will be higher in the new situation.

Another empirical implication comes from looking at D’s response to a strengthened opposition, O. Let us assume that the transformation function, $F_o$, improves, in the sense that O can generate more fighting power from the same amount of income. If $F_o$ is interpreted broadly, such an improvement could come from some exogenous shock that increased the willingness of a large amount of the citizenry to fight for democracy, perhaps spurred by a successful democratization in a neighboring country. Since $F_{\text{new}}(I_o)> F_{\text{old}}(I_o)$, $P_s$ increases. This would, ceteris paribus, lead D to lend more concern to O as a security threat. In this model, D does so by reducing $g$. This comes at a cost however, as a reduced $g$ increases S’ opportunity of successfully invading in the game’s second stage. D’s survival probability decreases and $Y$ is also lower in the new situation.

What happens if D is able to increase the income-share he can appropriate from the industrial sector, $\alpha$? Let us assume an exogenous increase in $\alpha$. D’s income increases and O’s income goes down, when looking only at the direct effects. The effect on D’s survival probability is unambiguous: $P_o$ will decrease, and D is safer. However, what will D’s response be in terms of optimal $g$? This turns out to be ambiguous as we have two different effects operating at the
same time. First, D can now turn to reducing $P_s$, since the internal threat is reduced by the direct effect, and D will according to this mechanism set a higher $g$ (substitution effect). However, there is another but not equally obvious effect: Since D has become richer, a rise in $\alpha$ implies a rise in $I_d$, there will be a decrease in $P_s$ even if D does not change $g$ from the previous situation (income effect). This effect by itself would actually encourage D to reduce $g$, since he faces a less dangerous external threat. It is not unequivocally given which of these effects that will dominate, as this depends on the specifications of functions and parameters. It is thus ambiguous from the model whether D will increase or decrease $g$ when $\alpha$ increases. It seems intuitive however that for many specifications, the first effect will dominate; when it comes to the internal threat, an increase in $\alpha$ both increases D’s fighting strength and reduces O’s. When measured against S however, D’s strength increases, whereas that of S stays constant. However, if we assume that the increase in income tilts $P_s$ below $P^*$, the dictator can now forget about the foreign actor and reduce $g$, as long as his income is not reduced sufficiently to bring $P_s$ above the threshold again. This is maybe one of the least intuitive results from the model: An increase in the share of the industrial income for the dictator may in some cases lead him to set policies so as to reduce the overall industrial output.

5. Conclusion

Aristotle (2000) laid out a basic claim of this paper, namely that one-man rule in different empirical contexts can have dramatically divergent effects for citizens. However, Aristotle focused on the ruler’s personal characteristics. Dictators do of course differ in their capabilities and motivations empirically, but I have here left these issues out: I have shown that even if we consider two dictators with similar personal characteristics, the economic outcomes in two countries could still differ dramatically, if certain contextual factors diverge. I have focused on the less virtuous rulers, those motivated by personal power. Some of these
dictators will produce development-conducive policies and help their nations’ economies grow, some will produce policies that are economically disastrous, and some will choose “intermediate policies”. Especially the security threat to the dictator, but also the existence of natural resources and the share of national income appropriated by the dictator, were identified as key contextual variables that drive economic divergence. The model presented here contributes to explaining why dictatorships show widely diverging economic growth rates.

Robinson (1998, 2001) and Acemoglu and Robinson (2006) have also showed that one can expect economic divergence if dictators are motivated by wealth instead of power. Bueno de Mesquita et al. (2003) and Besley and Kudamatsu (2007) have shown that the size and autonomy of a survival-oriented dictator’s winning coalition also matter for economic policies and outcomes. Olson (2003) has shown that the time horizons of rational dictators matter for divergence in economic outcomes. A general conclusion from all these studies is that dictatorship often leads to poor economic outcomes. However, another general conclusion is that when good economic outcomes occur, they are not necessarily the result of an altruistic ruler doing the right thing for the right reasons. Economic development can be the result of a dictator doing the right thing for the wrong reasons. According to Barro “history suggests that dictators come in two types: one whose personal objectives often conflict with growth promotion and another whose interests dictate a preoccupation with economic development” (1997, 50). Barro then went on to claim that “the theory that determines which kind of dictatorship will prevail seems to be missing”. This article has sketched out one plausible theory.
6. Literature


BBC News. 2005. Harare homeless in ‘very bad’ way: 

http://news.bbc.co.uk/2/hil/africa/4495438.stm


Figure 1: Probability of losing power to external (left) and internal (right) threats as functions of public goods spending.
Figure 2: Optimal solution when facing two security threats
1 This result is already well established. However, I conducted a Goldfeld-Quandt test of heteroskedasticity on a global panel data set from 1973 to 2005, controlling for log GDP per capita, log population, log regime duration, plurality religion, colonizer, and region and decade dummies. The regimes were divided according to the Freedom House Index (democratic implies a score ≤3.5; but, the results are robust to threshold-choice and also hold up when using the Polity Index). The dictatorial country-years had significantly (0.01%) higher variation in growth rates than the democratic. The results are available on request.

2 A winning coalition is the set of actors a dictator relies on to stay in office. The selectorate is the set of actors that may potentially be part of a winning coalition.

3 Arguably, the Kim-regime also faces severe external security threats. However, North Korea has its nuclear arsenal, which gives it a “cheap” way of deterring foreign adversaries, without having to modernize its economy and military.

4 The insight that revolutionary threats emanate from the capital might also be the reason why the North Korean regime forbids entry for North Koreans to Pyongyang without permit (Nanto 2006), which arguably hurts economic efficiency.

5 As argued above, survival strategies are not restricted to manipulation of public investment, so the g-variable can be interpreted more widely as policies that affect industrial output.

6 If we introduce uncertainty into the model, for example related to the military capacity of S or the exact position of P*, D would certainly invest in a higher amount of g than his best estimate of g*, in order to be certain that he will stay in power in the second period.

\[ \frac{df}{dg} = \frac{df}{dg} \cdot \frac{dg}{dg} \cdot (\alpha Y'(g) - 1), \quad \frac{df}{dg} = \frac{df}{dg} \cdot \frac{dg}{dg} \cdot (1 - \alpha) Y'(g) \]