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Which Dictators Produce Quality of Government?

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Abstract:

This study deals with the effects of authoritarian regimes on state capacity or the quality of government (QoG): do some types of dictatorship (military, monarchy, single-party or personalist) perform better than others? More importantly, which are the mechanisms through which different authoritarian rulers produce better government? The paper argues theoretically, first, that single-party regimes are more responsive to citizens' demands than other types of authoritarian rule because they have a structured mechanism to channel citizens' "voices" (the single party). As a consequence, they will provide QoG following societal demands, which are low in low-income countries and high in high-income ones. Second, the effect of the other relevant authoritarian types – monarchies and military regimes – is exclusively conditional on rulers' self-interests. With short-sighted rulers, monarchies and military regimes will tend to under-provide QoG. In contrast, when monarchs and military rulers have long-term horizons, these types of authoritarian regimes will have a positive effect on QoG. Employing a sample of over 70 authoritarian countries from 1983-2003, we find empirical support for these interactive effects. In single-party autocracies, the higher (lower) the average income, the higher (the lower) the QoG; while in monarchies and military regimes, the longer (shorter) the government's time horizon, the higher (the lower) the QoG.

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Opening Up the Darkest Box

The goal of this paper is to merge the theoretical and empirical developments of two contemporary comparative literatures: one aimed at explaining what produces state capacity or "quality of government" (QoG henceforth) and a second one analyzing the consequences of different types of authoritarian regimes. In short, the research questions this paper addresses are: which type of authoritarian regime produces better government? Furthermore, through which mechanism/s are different types of authoritarian regimes more effective at producing QoG?

These are important research questions because there is robust empirical evidence showing that "good governance", "state capacity" or "quality of government" foster social and economic development.[1] At the same time, dysfunctional and corrupt government institutions play a central role in many of the world's most pressing economic and social problems (Rothstein and Teorell 2008: 166).[2] As a result, there has been an increasing multidisciplinary scholarly interest in the causes of what, for the sake of simplicity, this paper calls "quality of government" (QoG).[3] In particular, there have been numerous studies analyzing the impact of different types of political regimes/institutions on QoG (e.g. Clague, Keefer, Knack & Olson 1996, Montinola & Jackman 2002, Sung 2004; Persson and Tabellini 2003, Keefer 2007, Bäck & Hadenius 2008). These studies compare, first, QoG-type outcomes of democratic countries vis-à-vis authoritarian regimes and, second, differences within democratic systems (e.g. presidentialism vs.

[1] Although there is a large literature on the two-way causality between institutions and economic development, there is also a solid body of evidence showing causality from institutions to income (e.g. Acemoglu, Johson and Robinson 2001, Rodrik and Trebbi. 2004. For a review, see Pellegrini and Gerlagh 2007).

[2] Rothstein and Teorell (2008) offer a review of the main literature on the consequences of quality of government. For a non-academic review, see *The Economist* 13-03-2008.

[3] By Quality of Government we are referring in this paper to what others in the literature have termed "State Capacity" or "Administrative Capacity" (Bäck and Hadenius 2008) –that is, the capacity a state has to perform its activities in an *efficient way and without corruption*. Thus, following this literature we are primarily concerned with accounting for variation in public sector bureaucratic performance and corruption. We borrow the term "Quality of Government" (QoG) from Rothstein and Teorell (2008), because the term "Capacity" has been more extensively used to depict the size or the level of resources –or even the capacity to raise taxes- a state has while we are more interested in how the state takes advantage of the resources it manages – that is, in its "quality". Nevertheless, as already mentioned, QoG could be interchangeable here by the standard definitions in the literature of state capacity or administrative capacity.

parliamentarism, more vs. less veto players). Given extensive studies that show that there are substantial variations in QoG indicators when comparing established democracies, it is surprising that the considerable differences among authoritarian regimes have been overlooked by the literature. For example, of the 103 countries coded as 'not free' or 'partially free' by Freedom House in 2008, such states as Jordan, Malaysia, Morocco and Singapore outperform not only many other authoritarian states but many established democracies throughout the world,[4] while other states such as Yemen, Haiti, Guinea-Bissau, Togo and Armenia remain at the lower end of the spectrum with respect to QoG scores, despite having similar rankings on levels of democracy. In other words, by classifying all non-democracies within the same category we are ignoring a good deal of the worldwide variation in QoG. The aim of this paper is to open up the black box of authoritarianism in relation to administrative efficiency and corruption.

Alongside the QoG literature, over the past several years a research program has begun to emerge in comparative politics to examine the nature of different types of authoritarian regimes (e.g. military, monarchy, single-party, personalistic) and their consequences (Ulfelder 2005: 311). In particular, there is an increasing literature trying to assess the impact of authoritarian types – or authoritarian institutions – over economic indicators, such as economic growth, and political outcomes (Przeworski 2000, Boix 2003, Geddes 1999 and 2006; Smith 2005; Gandhi & Przeworski 2006, Brownlee 2007; Wright 2008; Pepinsky 2008). In terms of the latter, the emphasis has been focused on explaining the survival of the regime and differences in democratization experiences – that is, how "different forms of authoritarianism *break down* in characteristically different ways" (Geddes 1999: 1; Ulfelder 2005: 314). Nevertheless, this authoritarian comparative literature has not explored the effects that the different types of dictatorships – and the institutions they create – may have on QoG. Although we acknowledge

[4] According to indicators such as the World Bank's Government Effectiveness indexes (Kaufmann et al 2007) and the PRS Group's International Country Risk Guide index, these four sates all receive scores well over the average in recent years, signifying high QoG. For example, all four of these states outperform India, Peru, Uruguay and Bulgaria, which all rank as highly competitive democracies in recent indexes of both Polity and Freedom House.

the importance of regime stability and economic growth, we attempt to further this literature by exploring how different forms of authoritarianism also *build up* their state apparatuses in characteristically different ways.

In addressing this question, the paper bridges the gap between the comparative literatures on QoG, which has focused mainly on democratic states, and authoritarian regimes. The paper is organized as follows. We first explain what we mean by QoG, discussing indicators and showing variation among all available states using recent data. Second, we discuss the existing (mostly supply-side) explanations on the impact of authoritarian regimes on QoG and we provide later our theoretical contribution (joining supply- and demand-side arguments). In particular, we argue that single-party regimes are more responsive to citizens' demands than other types of authoritarian rule because they have a structured mechanism to channel citizens' "voices" (the party). They will provide QoG following societal demands. As a result, in low-income countries (where demand for QoG is low), single-party regimes will tend to invest few resources in building QoG while in high-income countries (where social demand is higher), they will provide higher levels of QoG. Second, the effect of the other relevant authoritarian types – monarchies and military regimes – is exclusively conditional on rulers' self-interests. With short-sighted rulers, monarchies and military regimes will tend to under-provide QoG. In contrast, when monarchs and military rulers have long-term horizons, these authoritarian types will have a positive effect on QoG. Next, we discuss the method and data used and proceed to test the hypotheses. We conclude with a general discussion on the main findings.

Quality of Government in Authoritarian States: Definition, Measurement and Variation

We define the term 'quality of government' as an uncorrupted and efficient public bureaucracy (often known as Weberian in contrast to a patronage-based or patrimonial one), a legal system that is impartial (non-discriminatory) and enforces contracts and citizens' private property rights. Such governance has numerous benefits to society, including relatively better economic

performance (North 1981), economic growth (Knack & Keefer 1995; Evans & Rauch 1999; Kaufmann, Kraay & Mastruzzi 2007), and more social capital and generalized trust (Knack 2000; Rothstein & Teorell 2008).

As with any abstract concept in the social sciences, such as democracy or minority rights, 'hard measures' of concepts such as corruption or bureaucratic efficiency are problematic and nearly impossible to decide upon. For example, if one chooses to employ the number of tried or convicted corruption cases annually as a measure of control of corruption, one might simply be measuring the strength of the rule of law and/or the effectiveness of the media. Thus we are left with 'soft' data that rely on perception-based measures as the primary mode of comparison across countries. This is problematic because of the notion that citizens' attitudes can be embedded in their general attitudes towards their government; firms or experts can be biased towards countries with low taxes or high growth.

With no perfect indicator to capture what we intend to test in this analysis, and no two data sources measuring our concept in exactly the same way, we base our selection of the data on the following criteria: 1) The time frame of availability and country coverage, 2) the precision, internal consistency and reliability with which the researchers that provide the data can define and measure the desired concept, and 3) how accepted the measures are in the contemporary academic literature, and the frequency of publication in top journals[5]. Based on these criteria, we employ two standard measures of QoG, from the *International Country Risk Guide* (ICRG), published by the PRS Group and the *World Bank Governance Indicators* (WBI) (Kaufmann et al. 2008). The former is based on annual expert assessments, and the latter based on a composite index of a wide array of sources which are pooled together to create an index of such concepts as 'control of corruption', 'rule of law', bureaucratic effectiveness' and 'government voice and accountability'. Both indicators are used frequently in top academic journals in both political

[5] Due to space constraints, the following is admittedly a limited discussion of the pros and cons of the data sources to be employed in the analysis, for a more thorough discussion of debates on such sources of QoG, see Knack (2007) and Pellegrini & Gerlagh (2008).

science and economics (for example - Knack & Keefer 1995; Knack 1999; Keefer 2007; Adsera, Boix & Payne 2003; Bäck & Hadenius 2008; Persson, Tabellini & Trebbi 2003; Kunicova & Rose-Ackerman 2005; Sandholtz & Gray 2003; Charron & Lapuente 2009). Because they are fundamentally different in the way they are constructed, with implications for scope of the concepts that they measure, we hope that the disadvantages of one measure will be compensated by the strengths of the other.

First, the advantages to the ICRG data are that the time frame and country coverage are the most comprehensive of all available indicators. The precision with which the researchers can define and measure the desired concept is potentially higher due to the rankings being decided upon by a small number of country experts who base scoring decisions on similar criteria annually. The internally consistency of such methods imply that comparisons over time may be more reliable that surveys or composite indices, which sometimes add or subtract countries and questions from year to year, which have implications for year-to-year scoring. The disadvantages include that such a measure is of course similar to that of all expert assessment measures, such as Freedom House, in that they are less transparent in their construction, which means the researcher might be expecting to capture something significantly different than what the organization is actually measuring, potentially leading to bias in the results. Finally, the data is aimed at mainly international investors seeking to profit in potentially new countries, not academics, which could imply that QoG is more geared toward less 'red tape' and business friendly environments, not necessarily providing quality government to its citizens[6].

Second, we counter this measure with the WBI composite indices, which combine surveys of households, firms and expert surveys, employing a system of weights so that outliers for each country-year are weighed less than those sources that correlate highly with one another. The advantages to this method are of course that the composite index reduces measurement error of

[6] However, we are doubtful that this is the case, as Kaufmann et al (2007) show that there are insignificant differences in household perceptions compared with those of expert opinions catering to businesses.

any single source, the indicator will not be too narrow in what it captures, it offers a wide scope of countries (currently 191 countries), it is transparent in how the index is constructed and the weights of outliers curb potential biases of a single indicator. The drawbacks include that there is potentially a relatively high degree of imprecision and inconsistency in the measurements because different sources have different definitions of the concepts than make up QoG. Moreover, sources may not be independent from one another, in that experts or survey respondents may be 'free riding' on alternative sources of previous years. Different sources are used for countries in different years, implying less internal consistency and finally, the time frame is limited in that the data is bi-annual from 1996-2002, and then annual from there on. Figure 1 shows the ICRG distribution as a function of the Polity-Freedom House measure and figure 2 replicates figure 1 using the WBI data. For more detail on the data, see the appendix.

****Figure 1 and 2 about here****

Figures 1 and 2 demonstrate the 'J' or 'U' shaped relationship for both sets of data between regime type and QoG previously reported in the literature (Montinola and Jackman 2002; Sung 2004; Bäck and Hadenius 2008; Charron and Lapuente 2009). The data reported is from 2003. In figure 1, the two lines in the middle represent the entire 139-country sample mean (solid) and the mean QoG score for non-OECD states (dashed line). The figure shows two salient points. First that, with the exception of the strongest democracies on the Polity-Freedom House measure, such as Finland, New Zealand, Sweden and Denmark, the variation in QoG does not seem to be significantly explained by regime type. As the data reveals, many democracies, such as Italy, Greece and Bulgaria, perform on par with authoritarian states such as Morocco, UAE, Gambia and Malaysia. Relatively high ranking democracies such as Romania, Papua New Guinea and Honduras are ranked lower than Jordan, Uganda and Cuba in terms of QoG scores. Second, the range of QoG within the non-democratic sample (generally considered in the democratic peace literature to be less than 6 on Polity – e.g. see Russett and Oneal 2001) is substantial. Singapore, a one-party authoritarian country, has a QoG as high as the strongest democracies in the sample

with respect to corruption, bureaucratic efficiency and rule of law, whereas authoritarian states such as the Democratic Republic of Congo, Sudan and Somalia are among the worst performers in the entire sample. Overall, these data show that when the handful of top OECD states are removed from the sample, regime type in and of itself does not seem to be an adequate explanatory factor for QoG and that there is substantial variation within the non-democratic group of countries.

Existing Supply-side Explanations of QoG in Authoritarian Governments

As the specific comparative literature on authoritarianism has shown, different kinds of authoritarian rule may differ from each other as much as they differ from democracies (Geddes 1999: 121). Gandhi & Przeworski (2006: 1284) point out that "the authoritarian zoo exhibits bewildering variety", with autocrats bearing all kinds of possible titles, from emperor or king to first secretaries, leaders of faith or administrators of the state of emergency.

At the same time, although only recently comparative scholars have started to analyze divergences in authoritarian countries systematically, there is also significant diversity among the categories that scholars have used to classify authoritarian regimes. Nevertheless, with regard to cross-country comparative analysis, most of the studies use either Geddes' (1999) distinction of personalist, military and single-party regimes – often regarded as the seminal contribution, at least in terms of empirical guidance, to the literature on authoritarian types (Hadenius & Teorell 2007: 145) – or slight variations of this classification.

Geddes (1999) defines military regimes as those "where a group of officials decides who will rule and exercises some influence in policy"[7]; single-party regimes as those "where access to

[7] Not all regimes headed by military officers are classified as military regimes by Geddes. What defines a military regime is that it is controlled by a group of senior military officers. Some regimes where the leader may wear a uniform – such as Trujillo in the Dominican Republic, Uganda's Idi Amin, or Central African Republic's Bokassa – are considered personalist because they are personal dictatorships of a single officer.

political office and control over policy are dominated by one party."[8]; and personalist regimes as those in which the leader – who may have come to power as a military officer or leader of a single-party government – has "consolidated control over policy and recruitment in this own hands." The literature agrees that one obvious type of non-democratic rule which is not represented in Geddes' typology is monarchy (Ulfelder 2005: 314-315). Monarchies would be those regimes "in which a person of royal descent has inherited the position of head of state in accordance with accepted practice or the constitution (one cannot simply proclaim oneself a monarch)" (Hadenius & Teorell 2007: 146).

To explain authoritarian countries' differences in QoG, the literature tends to build on Olson's (1993) classical argument of the "stationary bandit". In a recent and comprehensive formulation of this general idea, Brautigam, Fjeldstad, and Moore (2008) argue that, similar to democratic leaders, authoritarian rulers in developing areas have incentives to build state capacity for one primary reason – to make it more efficient to derive taxes from citizens. A more effective bureaucracy renders this much easier to accomplish, while impartial laws and relatively low levels of corruption make citizens less skeptical about actually paying. The exceptions are states that enjoy considerable natural resources and thus do not need to worry about such tax collection measures. This is because wealth can be extracted from a single industry and hence it leaves most citizens with little to no tax responsibility. However, in the absence of significant natural resources, authoritarian leaders must derive revenue from taxation, and since a better bureaucracy makes this more efficient, there is thus an incentive for authoritarian rulers to invest in QoG. Nevertheless, this does not tell us much about the notable differences one may find among authoritarian regimes after controlling for their dependence on natural resources.

[8] Again, it is difficult to distinguish between "real" single-party regimes, where the organization exercises some power over the leader and the career paths of officials, and "nominal" ones, where the leader himself maintains a near monopoly over policy and personnel (Geddes 1999: 124). Geddes' dataset – used also in this paper – includes within the single-party category such regimes as the Partido Revolucionario Institucional (PRI) in Mexico or the Leninist parties in Eastern Europe, but regards as personalist systems regimes such as Juan Peron's in Argentina, since the single-party was more "nominal" than "real".

In the literature, single-party regimes are expected to be the ones providing better government. The implicit or explicit reason is that they tend to be more resilient than any other form of authoritarianism even in the face of severe economic crisis (Huntington 1991; Haggard & Kaufman 1995; Geddes 1999, Gandhi & Przeworski 2006). One could thus expect more long-term policies, like building a Weberian impartial administration, in a single-party regime than in the other authoritarian types. For example, Wright (2008) finds single-party regimes to lead to higher economic growth, which may lead us to believe that they are more apt to build quality government institutions compared with other types of authoritarian regimes, given the strong empirical link existing between QoG and economic growth (Mauro 1998; Gupta et al. 1998; Kaufmann et al. 2007). Wright also finds a positive effect of monarchies on economic growth, which could also point towards a positive impact of monarchical regimes over QoG. The mechanism in this case could be the same as the one pointed out by the Italian village monarchist quoted by Banfield (1958: 26) and Olson (1993: 567): "monarchy is the best kind of government because the King is then owner of the country. Like the owner of a house, when the wiring is wrong, he fixes it".

The reverse holds for military regimes, which "contain the seeds of their own destruction": they are inherently susceptible to internal splits within the ruling military elite (Geddes 1999: 131; Ulfelder 2005: 318). Therefore, they should be less likely to undertake encompassing administrative reforms. At an even more extreme position in this continuum we would find personalist regimes where access to office to a greater extent depends on the discretion of the leader. The state thus becomes an extension of a single individual, which tends to produce state apparatuses with the most anti-Weberian or partial administrations, such as extreme forms of patrimonialism (Ulfelder 2005: 315) or so-called neo-patrimonial regimes (Bratton and Van de Walle 1994).

Theory: Supply and Demand for QoG in Authoritarian Regimes

To understand the provision of QoG in authoritarian states, we must examine who supplies QoG and the incentives they have to do so – e.g. single-party, military, monarch or personalist rulers. The incentives of rulers may change from one particular authoritarian type to another, as the existing literature has been pointing out. However, we argue here that the demands for QoG may also change from one authoritarian type to another.

This paper builds on the culturalist approach of Welzel and Inglehart (2008: 126), who argue for the inclusion of "ordinary people" in the explanations of good government. Welzel and Inglehart (2008) maintain that poor individuals demand goods of immediate consumption from their government. Yet, economic development increases individuals' resources, making them more articulate and better equipped to participate in politics. Instead of being focused on day-to-day survival, citizens will give priority to freedom of choice and, generally, to self-expression values. In those circumstances, citizens will be able to combat powerful collective action problems and place pressure on elites to provide good governance. This argument is similar to some traditional arguments in economics – e.g. that poor people tend to have a higher propensity to consume vis-à-vis invest for future consumption.[9] It is also close to some explanations of patronage-based administrations by public choice scholars. Politicians want to buy votes efficiently and votes from the poor are the cheapest. Politicians can get more support from lower than from higher income people through the delivery of clientelistic jobs and goods of immediate consumption such as "heat when they are cold, food when they are hungry, and medical care when they are sick" (Reid & Kurth 1988: 257).

The general prediction from the demand side of QoG would thus be that higher income societies will demand different policies from government institutions than lower income societies. Because investments in improving bureaucratic capacity (QoG) are costly and require patience to benefit from potential improvements, lower income societies are expected to over-value a state

[9] See Kaldor (1955: 2) for an earlier formulation of this idea and Clark (2007: 172) for a review of the evidence from experiments and anthropologists' research.

that is able to deliver goods for *immediate consumption* (e.g. patronage jobs, direct cash through clientelistic exchanges) and will under-value a state which undertakes medium-to-long term investments in administrative capacity (e.g. develop a meritocratic recruitment system, initiate legal steps for enacting and implementing rule of law, fight favoritism and corruption). Further, in a recent study employing a mixed sample of over 130 democracies and authoritarian states, Charron and Lapuente (2009) provide empirical support for the hypothesis that demand for QoG shifts as a function of economic development

Having established that societies may have different general preferences regarding QoG as a result of their level of economic development, we must now ask which type of non-democracy is most likely to be responsive to such demands. A key characteristic of an authoritarian state which could determine its degree of responsiveness to citizens' demands is the type of "ruling organization". Following Gandhi & Przeworski (2006: 1284), we assume there are three main types of authoritarian ruling organizations: *military rulers* have armed forces; *monarchs* have the royal family, or more broadly, the court; and *single-party* regimes have the party. The fourth type that we analyze in this paper, *personalist* regimes, is one in which one individual dominates the state apparatus. Instead of ruling organizations, in those regimes there are "personalist cliques", formed by networks of relatives, friends and allies that surround the leader (Geddes 1999: 130).

There is, and this is a central point of our theory, a key difference between the ruling organizations of on the one hand monarchies and military regimes and on the other hand single-party rule. As pointed out in the literature, monarchies and military regimes "have by their very nature a ready-made institution": the court and the army, respectively (Gandhi & Przeworski 2006: 1284). These pre-existing institutions, as the literature emphasizes, may pre-date both the regime as well as the modern creation of the state apparatus. The goal of these institutions, using Hirschman's (1971) *Exit, Voice and Loyalty* typology, would be to keep citizens' "loyalty" either through appealing to external sources of legitimacy (e.g. divine rights, respect to military

discipline and hierarchy) or through providing different sets of policies (being repressive measures or, quite the opposite, benevolent public goods).

In contrast, single-party regimes do not have a pre-existing organization and must create their own mobilizing popular support (Gandhi & Przeworski 2006: 1282-1284). Since this organization must be created ex novo – or, to say the least, it does not precede the regime or even the country's state building – the single-party organization will have to rely more on what Hirschman (1971) would qualify as "voice". Since they cannot rely on the loyalty that other organizations may have accumulated through decades or even centuries, their survival more critically depends on how they manage to accommodate (at least certain) voices within their societies, which of course can be fragile and prone to break-down (Smith 2005). In fact, unlike other non-democratic regimes, which tend to develop non-contractualist types of legitimacy, single-parties tend to justify their monopoly of power by claiming a social contract under which they serve on behalf of "the people" (Ulfelder 2005: 317).

Contrary to monarchs and military rulers, single-party leaders face a higher need for cooperation (Gandhi & Przeworski 2006: 1285). Single-parties answer to this necessity with an enormous capacity to collect the most diverse voices within a society. In order to do so, they tend to absorb the most heterogeneous organizations, such as trade unions, youth organizations, women's organizations, sports clubs and even stamp collectors' associations (Gandhi & Przeworski 2006: 1292). Further, single-party regimes are more open than military regimes or monarchies to "the most able, ambitious, an upwardly mobile individuals in society, especially those from peasant and urban marginal backgrounds whose social mobility might otherwise have been quite limited" (Geddes 1999: 134). As a result, there may thus be more fine-tuning of policy in single-party regimes than in other regimes (Gandhi & Przeworski 2006: 1292). The prediction regarding QoG would be the one depicted in Figure 3. Single-party regimes will provide QoG following citizens' demands in the way predicted by the culturalist and public choice theories mentioned above – that is, low QoG in lower income societies and higher in richer ones.

H_1: Single-party regimes will provide QoG according to the country's level of economic development: the higher (lower) the national average income, the higher (lower) the QoG

****Figure 3 about Here****

Since other authoritarian types (monarchy, military or personalist) are not (or, better, do not need to be) responsive to citizens' demands, it is difficult to predict an increase or decrease in QoG when moving from lower-income authoritarian states to higher-income ones. On the one hand, richer countries can be expected to afford better institutions (Pellegrini and Gerlagh 2008: 5). On the other, the richer the country, the bigger the pool of resources from which a dictator can predate without the need to undertake costly investments for the provision of public goods or the protection of property rights. Therefore, despite the fact that the technical *capabilities* to enhance QoG are expected to be higher in rich than in poor authoritarian states, the *incentives* of rulers to do so are expected to be lower. In other words, we cannot predict any significant effect of economic development on QoG for the rest of the authoritarian regimes, as shown by the flat line in figure 3.

We state that the other types of authoritarian regimes will simply follow the self-interested rational calculus of the ruling organization for providing QoG. In other words, it is in these authoritarian types, and not in single-party regimes, where the argument of the "stationary bandit" applies. It is in those autocracies whose ruling organizations lack voice (i.e. monarchies and military regimes) where the prediction of Clague, Keefer, Knack & Olson's (1996) influential supply-side only explanation should work. That is, that the incentives autocrats have to respect property and contract rights – i.e. to provide QoG – come from their interest in future tax collections and national income. This positive incentive will increase with rulers' time horizons. Rulers with short time horizons will gain from opportunistic actions – such as expropriating assets of their subjects or establishing patrimonial administrations with unqualified supporters (Olson 1993). For example, Wright (2008) demonstrates that authoritarian leaders with longer time horizons use foreign aid in more effective ways than those with short time horizons. Yet, a

self-interested autocrat who expects to rule for a long time will gain from providing high QoG, which will increase investment and future productivity and thus also his long-run tax collections. The prediction according to this theory would thus be that for those authoritarian types which lack a systematic mechanism for channel the "voice" or demands of their citizens (as argued before, monarchies and military regimes would fall into this category), the level of QoG will depend on the time horizon of the ruling organization:

H2: *The longer (shorter) the time horizon of the authoritarian government in monarchies and military regimes, the higher (lower) the QoG*.

Research Design and Data

To test empirically the aforementioned hypotheses we employ a cross-section, time series model using generalized least squares, correcting for first order autocorrelation (AR 1) and panel controlled standard errors (Beck and Katz 1995). Though cross-sectional analysis is common in the corruption and QoG literatures, we select a time series model because of the possibility of a change in regime in the key independent variable as well as variations in the dependent variable and other explanatory variables in the model. Although we cannot completely solve this potential problem of two-way causality between QoG and a number of the variables on the right hand side of the model, we follow previous literature (Bäck and Hadenius 2008; Charron and Lapuente 2009) and lag all independent variables by one year, which also helps to answer any questions about endogeneity and directional causality, modeling the impact of the independent variables occurring before the event of the dependent variable diachronically.

The dependent variables used are the ICRG 'QoG' indictor and the World Bank's 'Government Effectiveness' measure, as previously discussed. Figure 4 displays the variation of the two variables among the different classifications of authoritarian regimes from 1996-2003. While showing initial distinctions in the aggregate scores, with single party and monarch regimes certainly appearing to outperform military and personalist regimes, Figure 4 also demonstrates the high correlation of the two indicators, with the ICRG slightly higher in all cases. This

suggests that, despite the many aforementioned problems with such data, they are externally consistent.

****Figure 4 about here****

To distinguish the effects of the four different types of authoritarian regimes discussed earlier, we take data from Geddes (1999) from 1980 to 1990 and then use Joseph Wright's updated data thereafter until 2003 (Wright 2008b: 50). Thus we have a typology of four distinct authoritarian regimes: *single party, military, monarchy* and *personalist*. As discussed in the previous section, "personalist" regimes have uncertain "ruling organization" and we use these groups as the omitted variable in our analysis: we compare different types of ruling organizations (*military, monarchy, single-party*) against the benchmark of a non-organized (or, at least, less systematically organized) rule.

There is a fair degree of variation along the lines of regime type in two ways. First, an authoritarian regime might fall and become some alternative type of non-democratic regime. For example Algeria, once a single party state, has been coded as a military regime since 1993 after their civil war. Belarus, once a single party regime from 1991-1994, has been coded as a personalist regime since 1995, when Alexander Lukashenko came into power. Second, other newly democratic states, such as Poland or Hungary, are coded as single party regimes up to 1989, and then dropped from the analysis, marking their democratic transition. These two aspects make the time component of the analysis all the more salient.

Regarding the additional independent variables, we aim to demonstrate not only differences among the four types of authoritarian governments with respect to QoG, but mostly potentially important contextual effects – in particular, with the level of *economic development* and with the ruling organization's *time horizon*[10]. The first measure interacted with the authoritarian regimes is *gross domestic product per capita* (log GDP per capita). This measure is intended to demonstrate if any of the four types of authoritarian regimes exhibit higher or lower QoG depending on

[10] Which Wright defines as the "predicted probability of authoritarian regime failure" (Wright 2008: 972)

whether they are relatively poor or wealthy, thus testing H1. The data are taken from the *World Development Indicators* database from the World Bank.

As a proxy for *time horizon* we use the risk or probability of government failure in each authoritarian government annually, taken from Wright's (2008) innovative index of predicted probability of regime failure (Wright 2008a: 17, 47). Wright generates this measure based on a number of factors: Log(GDPpc), economic Growth(t-1), percentage of population that is Islamic, Civil War (t-1), foreign occupation, regime type, area controls and Time Splines to control for regime duration. The measure at higher values indicates higher likelihood of regime failure.[11] This measure is less problematic than other measures of *time horizons*, such as the age of the regime (Clague and Olson 1996) or the number of changes in the chief executive and number of coups (Ghandi and Przeworski 2006) because it does not assume that all leaders share the same risk of failure as a function of time while simultaneously capturing variation within a single authoritarian regime over time (see Wright 2008a). The primary problem with this measure is of course multicollinearity with other variables in the model, such as *GDP per capita*, or growth, which would make the estimates less efficient, but of course does not bias the results. Due to the theoretical expectations that each of these variables is a potentially significant determinant of variation of QoG, we include each of them in the models as control variables as well as interacting each of them with the various authoritarian regimes to test for context.

Additional control variables include *population, oil reserves, ethnic fractionalization* and regional area control dummy variables. *Log*(*Population)* is taken into account to control for the additional resources, on average, that a larger population would be able to produce, thus allowing the government more options for investing in state capacity, *ceteris paribus*, relative to a smaller state. The data are taken from the *World Development Indicators* and logged. We suspect that states that are more resource endowed will, on average, produce lower QoG, thus we take *Log*

[11] For a full description of this measure and logit estimations for all variables in constructing the measure, see Wright (2008a: 47)

(Oil reserves). It is a measure taken from Humphreys (2005) which measures resource dependence that takes into account fluctuations in world oil prices. It improves upon previous dichotomous measures of oil dependence (Folch 2003), which grouped states according to whether they had more than 50 percent of their total exports as oil, or less. This measure allows for much more variation; however due to the extreme values of small, Middle Eastern states, we take the logged value. We employ the Alesina et al. (2003) measure of *ethnic fractionalization*, a measure which has been shown to have a negative impact on both economic growth (Easterly and Levine 2000) and quality of government indicators (Alesina et al. 2003; Charron 2009). Because it is plausible that authoritarian regimes are not randomly distributed throughout the world, we include area dummies which indicate that a country is located in *sub-Saharan Africa, Latin America* or the *Middle East*. Previous empirical research has shown that there are significant systematic effects on QoG indicators for the Middle East (Norris 2008), Latin America (Rodrik 2000; Treisman 2000) and Sub-Saharan Africa (Treisman 2000)[12].

Additionally, due to the time series nature of the data, we include a *time count* trend that begins with the first year that ICRG began to code their international risk assessments. We do this for two reasons. First, as it is common in TSCS data, the count variable helps to avoid problems associated with spurious correlation when both the dependent variable and the primary independent variables vary independently, but in a constant trend over time (Tavits 2005). This is the case with the dependent variable (ICRG), democracy and GDP data, thus the count variable would be necessary to control for this tendency. Secondly, since the dependent variable is based on subjective perceptions, the time count variable is expected to help us correct for potential year-to-year differences in the administration of the PRS Group's surveys (e.g. one can expect cross-time changes in the composition of the respondents or in the way questions are framed) and trends in the systematic diachronic changes.

[12] For the sake of space in the model, we present only the results of the oil reserves and population consistently. For the results of the other variables, such as ethnic fractionalization, the year count and area dummies, please contact the authors.

Results

To test the supply side of the theory, we run a baseline model with no interaction to simply test for initial variation among the four types of authoritarian regimes. We then move on to test H1 and. Additionally, all models in Table 1 are run with and without *oil reserves* in order to capture the extent to which the models without this control variable might be reporting misleading results. Oil is regarded in the literature as decisively affecting policies in authoritarian regimes. Put simply, autocrats with more natural resources – and in particular oil – need less cooperation from the productive economy and thus they have less encompassing interest in providing public goods (Przeworski & Gandhi 2006; Wright 2008). As mentioned above, all the models use *personalist* regimes – the ones in which the nature of the ruling organization is less susceptible to be affected by the theoretical predictions in H1 and H2 – as the comparison group. We report the baseline findings in models 1 Table 1 and Table 2 for each data source.

****Table 1 about here****

With the exception of the control variable *Log (population)* there is no substantial difference between the models in Table 1, when controlling for *oil reserves, ethnic fractionalization* and regional variations. The most relevant result is that *single party* regimes and *monarchies*, on average, produce higher QoG than *personalist* regimes. However, models 2-5 reveal that the level of QoG in these authoritarian regimes is highly contextualized.

In models 4 and 5 we test our first hypothesis (H1): whether any of the regimes' impact on QoG is conditioned by economic development, proxied by the *Log (GDP per capita)*. Again we find that only certain regimes are conditioned by the interaction variable in question. The strongly positive and robust impact of *single party* regimes on QoG from the previous models is substantively conditioned by the level of economic development. Actually, now it has a significant negative impact – that is, *single party* regimes provide lower QoG in poorer countries. Conversely, *single party* regimes provide significantly higher QoG in wealthier countries. For the sake of simplicity, we provide a number of visuals for additional clarity. Following the advice of

Brambor, Clark and Golder (2006), Figure 3 shows the marginal impact of *single party* regimes on QoG conditioned by *GPD per capita.* The two dashed-lines around the marginal effect of *single party* indicate a 95% confidence interval according to the regression, where a statistically significant effect on QoG exists whenever the upper and lower bounds of the confidence interval are both above (or below) the zero line. Interestingly, neither *military* regimes nor *monarchies* improve the outcome of the dependent variable relative to *personalist* regimes as a function of economic development, corroborating our hypothesis that they are less likely to the changing demand for QoG by citizens.

****Figure 5 about here****

In models 2 and 3, we test H2 – that is, whether the impact of authoritarian regimes is conditioned in any significant way by the *time horizon*, or the probability of regime failure. When taking into account the conditional effects of *time horizons*, however, we observe that the impact of *military* regimes and *monarchies* on QoG is conditioned by the likelihood of regime failure. As one can see in Figures 6 and 7, *military* regimes produce lower values of QoG as the probability of failure of the regime increases, while the positive effect of *monarchies* relative to *personalist* regimes becomes insignificant as *time horizons* increase.

****Figure 6 about here****

****Figure 7 about here****

However, regarding *single-party* regimes, there are no conditional effects based on the level of *time horizons*. We suggest two potential explanations for this finding. First, following the theoretical hypothesis of this paper, rulers' *time horizons* should affect *single party* regimes less than other authoritarian forms because *single party* regimes must respond relatively more to citizens' demands. Second, it can also be argued that regime change is not the end of the world for *single party* cadres, who, thanks to their numerous societal ties, frequently remain important in political life after the demise of the authoritarian regime (Geddes 1999: 141). Unlike what may happen in the other authoritarian regimes, *single party* elites can imagine a political future for

themselves after a regime breakdown or transition to competitive democracy (Ulfelder 2005: 317). Monarchs and military officers may find accommodation in a democracy, but only single-party officials can reasonably expect to be rulers again in a democratic setting. Thus, since they may expect life as they know it to continue after regime change, *time horizon* should exert a less powerful incentive for providing QoG in *single party* regimes.

A brief examination of the control variables in the models shows that the most robust determinant of QoG is economic development, which is significant at the 99 percent level of confidence in all models. *Democracy* remains positive throughout the 10 models, with a one unit increase in this variable resulting in between a .003 and .005 increase in the ICRG QoG score, which is roughly between one sixth and one fourth of a full standard deviation of the dependent variable. Further, democracy lies between 90 and 95 percent significant in all models. *Time horizons* alone, without their interaction effects on certain types of authoritarian regimes, account for no significant change in the dependent variable, while *population* is only significant with the inclusion of the area dummies and *oil reserves* variables. When we control for resource dependence, in particular *oil reserves*, we found that the variable was significant at the 99 level of confidence and negative in each of the five models we applied it, supporting our prior assumption of the relationship between resource dependence and QoG.

****Table 2 about here****

Table 2 checks the robustness of the initial findings in Table 1, using the WBI data. Models 1-3 use standard OLS, while models 4-5 employ *feasible generalized least squares* (FGLS) regression to correct for heteroskedasticity and autocorrelation. Though the number of observations is significantly lower than Table 1, we find quite similar results[13]. The baseline model indicates that both *single party* regimes and *monarchies* outperform *personalist regimes,*

[13]Unfortunately, when the oil variable is included in the analysis, the number of observations drops to approximately 90. We report only tables without the oil control, yet continue to control for middle east states.

while the difference between *military* regimes and the comparison group is negligible. The robust check of H1 is run in models 3 and 5. Similar to Table 1, the conditional impact of economic development on QoG in *military regimes* and *monarchies* is negligible, while the level of QoG in *single party* is affected substantially by the level of wealth, as shown by the significant interaction term in both models (99%). Again, the coefficient for *single parties* in these two models is negative and significant, indicating at very low levels of economic development, such regimes have in fact lower QoG than *personalist* regimes. H2 is re-tested in models 2 and 4. With respect to military regimes, it appears that there is not strong, robust evidence for the results in Table 1 that such regimes will decrease QoG as a function of time horizons, as the interaction term is insignificant in model 2 and reaches only the 90% level of confidence. However, as regards to *monarchies*, the results are strongly robust. *Monarchies*, as shown in Table 1, outperform *personalist* regimes when time horizons are low, yet as they increase, such regimes are much less apt to invest in state capacity.

Conclusions

Geddes (1999: 142) considered that while scholarship on dictatorships had been successful in amassing large amounts of data – mostly in the form of case studies – it had been less successful in finding general comparative patters. One decade later we argue that the same holds true when it comes to analyzing the consequences of different types of authoritarian regimes over the type of administration or more broadly the quality of government in a country: we are unable to predict how different authoritarian regimes build up their state apparatuses in characteristically different ways.

In order to fill that gap, this paper follows Wright's (2008) pioneering analysis of the interactions among different authoritarian characteristics – instead of the previous approaches to authoritarian regimes which focused on one specific feature (mostly, the nature of the rule). Similar to him, we claim that differences among authoritarian regimes may explain variations in important political and economic outcomes just as it has been shown for differences amongst

democratic political institutions. Unlike Wright (2008), who studies economic growth and investment, we look at an intermediate variable which comparative literature has pointed out as an essential bridge between a political system and economic performance: state capacity or the quality of government.

This paper makes several contributions to the literature. Previous studies on the impact of authoritarian regimes over QoG focused almost exclusively on supply-side factors, such as the nature of the rule. We argue that single characteristics of authoritarian regimes can only tell us a part of the story, yet we need more comprehensive hypotheses that combine both features of the supply side of QoG together with characteristics of the demand side.

The paper has argued theoretically and shown empirically that there is an interaction effect between the *supply* of QoG, determined by the incentives for rulers to provide QoG (e.g. the type of authoritarian rule) and the *demand* for QoG from ordinary citizens on their government to make mid-to-long term investments in bureaucratic capacity. As a country's standard of living increases, so do the demands from citizens for future investments in the state. Yet this relationship is only relevant for single-party regimes, since they are more responsive to citizens' demands. Following Hirschman, these regimes, although preventing citizens from exerting an "exit" option (i.e. voting an alternative party), do allow a certain degree of "voice" – to a larger extent than in monarchies or military regimes. At low levels of economic development, single-party regimes have a negligible or even negative effect on QoG, given than citizens' demands for QoG in low-income countries, as predicted by Welzel and Inglehart (2008) among others, is low. On the contrary, at higher levels of economic development single-party regimes have a positive effect on QoG. Additionally these findings are robust to multiple data on QoG.

The second relevant finding of this paper is that the effect of the other authoritarian types – military regimes and in particular monarchies – will be conditional to rulers' time horizons. With short-sighted rulers, monarchies and military regimes will tend to under-provide QoG. In contrast, when monarchs and military rulers have long-term horizons, they will significantly

provide higher levels of QoG. In sum, contrary to the prevailing view in the authoritarian literature, this paper shows that time horizons do not affect all authoritarian rulers equally, but only those (monarchs and military rulers) who do not seem to respond so clearly to countries' socio-economic conditions when designing their administrative apparatus. Similarly, unlike the prevailing view among culturalist or public choice scholars, the paper shows that the level of economic development does not affect all rulers equally, but only those (single-party leaders) who most critically depend on the integration of citizens' voices while building their bureaucracies.

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Figure 1

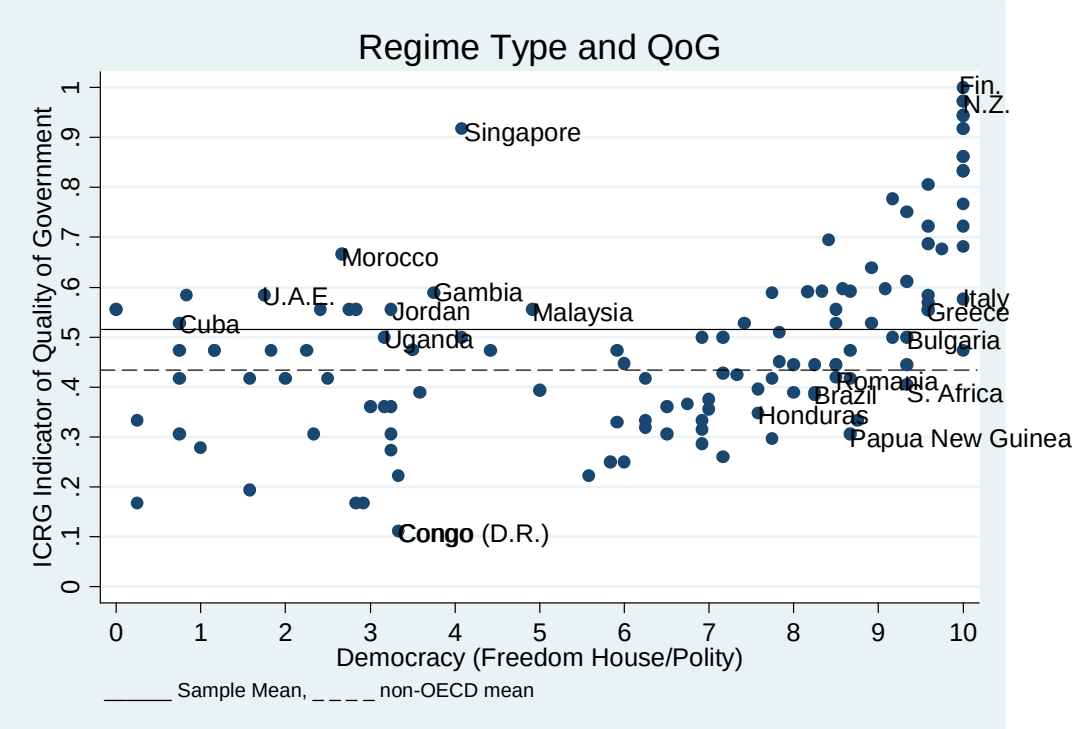


Figure 2

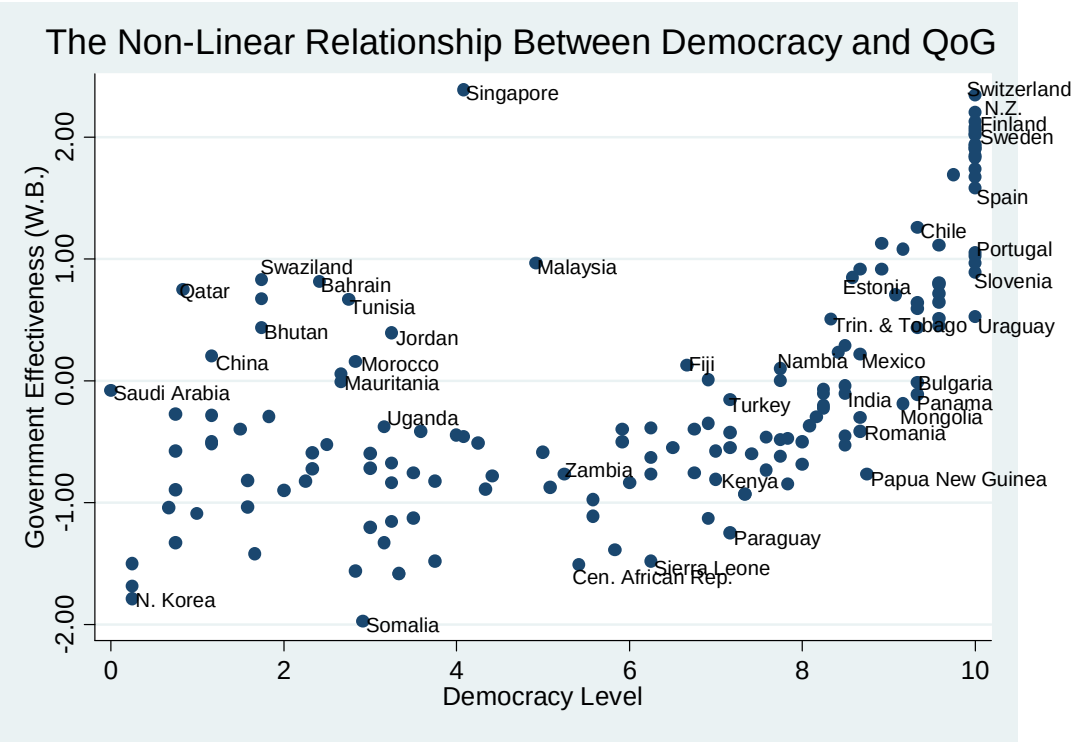


Figure 3

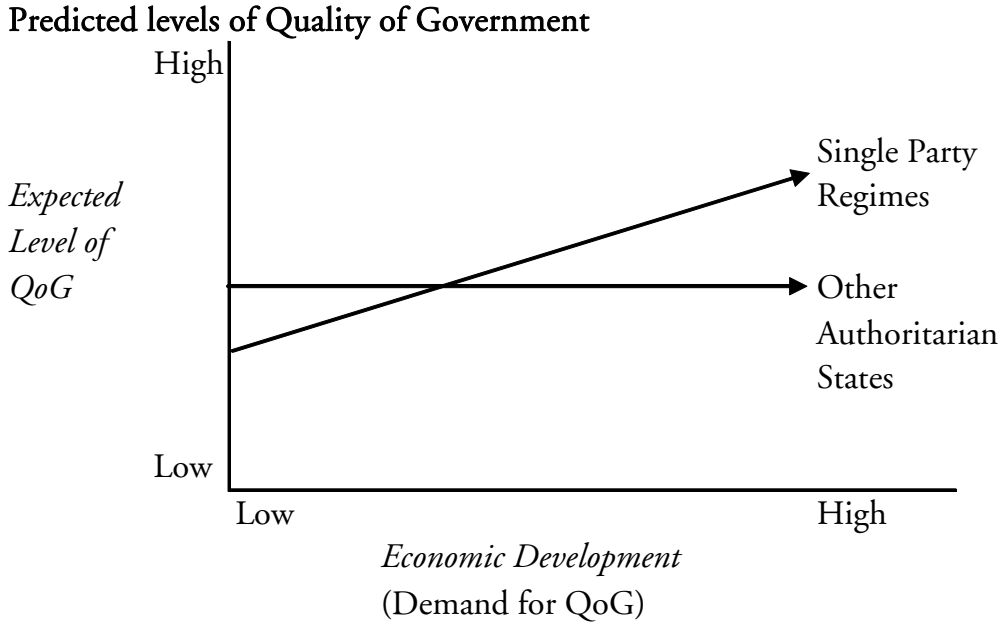
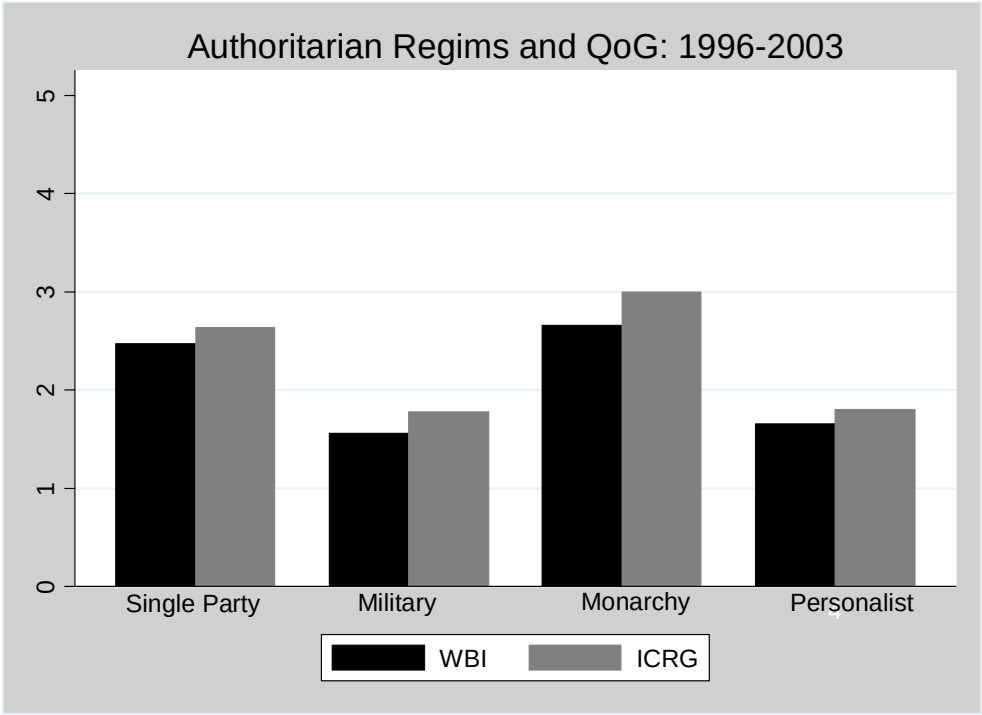


Figure 4



Notes: WBI stands for the World Bank 'Government Effectiveness' measure, while ICRG is the combined data on corruption, bureaucratic efficiency and rule of law from the PRS Group. Each has been re-scaled so that they range from 0-5, with higher scores implying better QoG. Mean scores are taken from 1996 on, due to a lack of data for the WBI prior to this data. Authoritarian regime types from Geddes (1999) and Wright (2008).

Figure 5

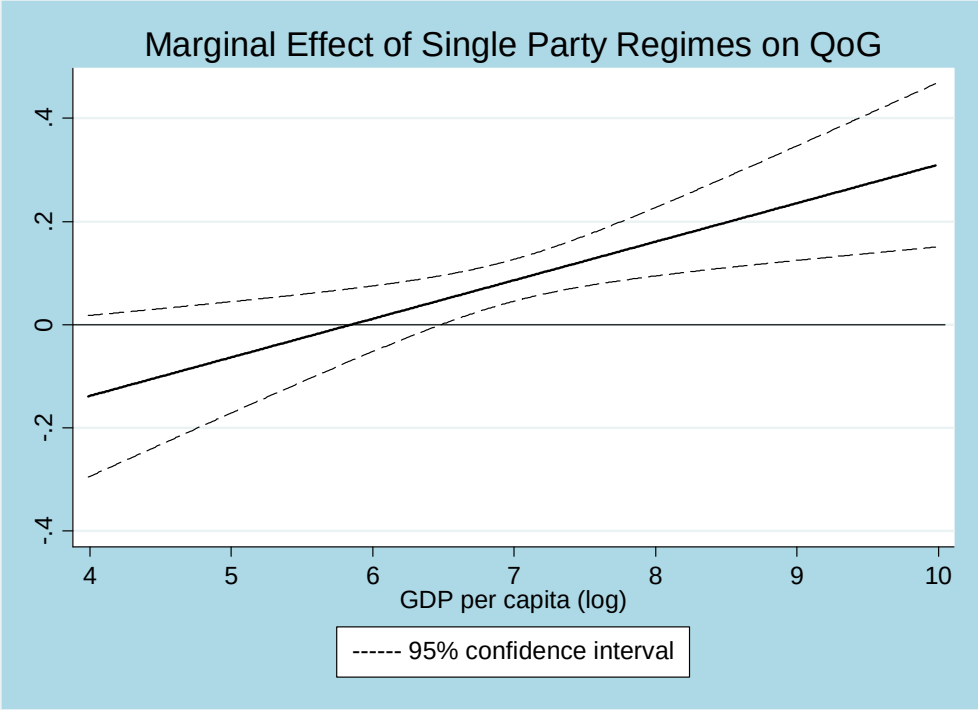


Figure 6

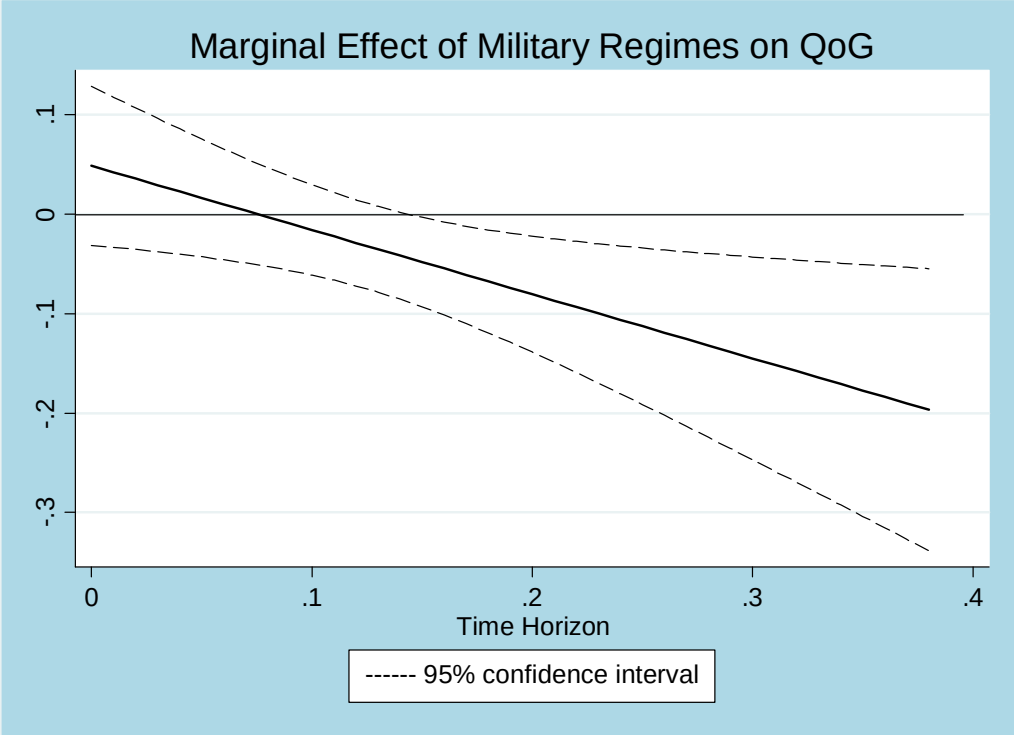


Figure 7

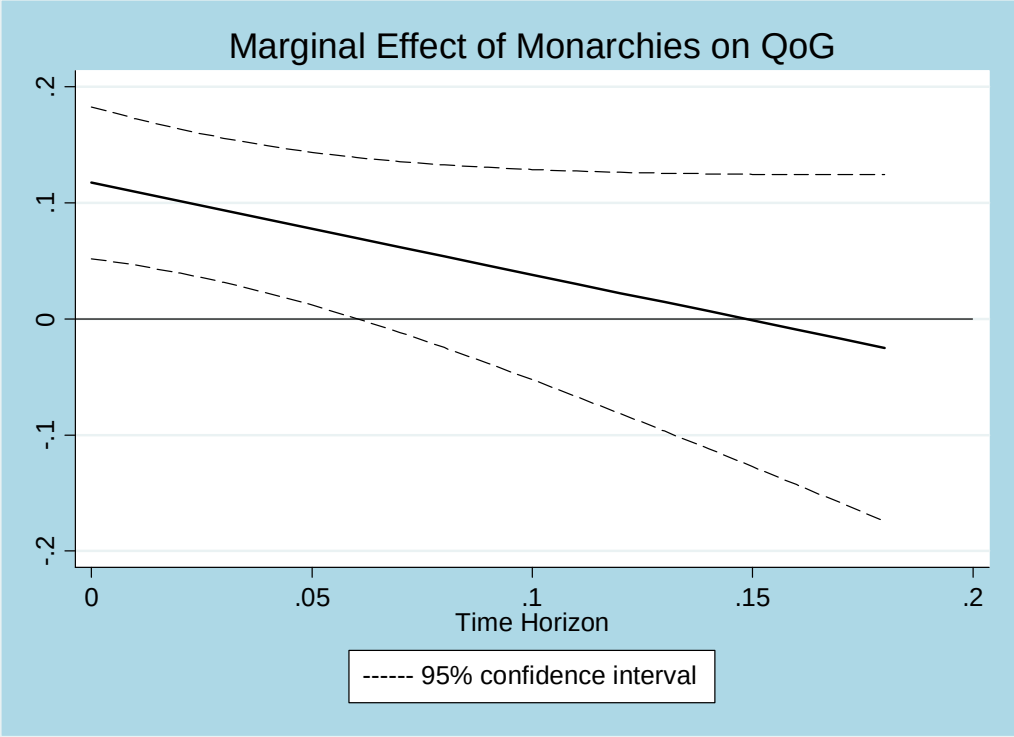

Marginal Effect of Monarchies on QoG
.2
.1
0
-.1
-.2
0
.05
.1
.15
.2
Time Horizon
------ 95% confidence interval

Table 1: Authoritarian Regimes, Time Horizons and Economic Development

Model	1	2	3	4	5
Single Party	.125***	.108***	.116***	-.419***	-.436**
	(0.016)	(0.027)	(0.028)	(0.159)	(0.181)
Military Regime	-0.021	0.046	0.048	-0.390	-0.373
	(0.02)	(0.039)	(0.041)	(0.318)	(0.321)
Monarchy	.058***	.091***	.117***	0.397	0.383
	(0.008)	(0.029)	(0.033)	(0.286)	(0.341)
GDP (log per cap.)	.081***	.103***	.122***	.067***	.083***
	(0.003)	(0.013)	(0.013)	(0.016)	(0.021)
Democracy	.005*	.0038*	.004**	.0032*	.0037*
	(0.003)	(0.002)	(0.002)	(0.0018)	(0.0019)
Time Horizon	-0.034	0.123	0.131	-0.007	-0.003
	(0.098)	(0.092)	(0.113)	(0.096)	(0.108)
Population (log)	.002n	-0.008	.013*	0.005	.013*
	(0.002)	(0.008)	(0.007)	(0.008)	(0.007)
Fractionalization	-.180				
	(0.151)				
Oil reserves			-.0007***		-.0006***
			(0.0002)		(0.0002)
Year	.0038**	.006***			
	(0.0015)	(0.001)			
*Single*TimeHorizon*		-0.068	-0.215		
		(0.244)	(0.256)		
*Military*TimeHorizon*		-.639**	-.644**		
		(0.265)	(0.271)		
*Monarchy*TimeHorizon*		-.763*	-.791*		
		(0.402)	(0.444)		
*Single*GDP*				.071***	.074***
				(0.021)	(0.024)
*Military*GDP*				0.051	0.049
				(0.042)	(0.042)
*Monarchy*GDP*				-0.03	-0.025
				(0.031)	(0.04)
Constant		-.533***	-.749***	-0.248	-.448**
		(0.178)	(0.171)	(-0.193)	(0.208)
Rsq.		0.42	0.44	0.43	0.46
Observations		927	751	927	751
Countries		71	68	71	68
Regional Dummies		no	yes	no	yes

note: Dependent variable is ICRG QoG scaled so that higher scores indicate better QoG
All models OLS and corrected for AR(1) correlation with panel corrected standard errors in parentheses (xtpcse). p<.10, p**<.05, p***<.01*

Table 2: Robustness Checks - Alternative Data and Specifications

	WBI data			GLS (WBI)	
Model	1	2	3	4	5
Single Party	0.584***	0.664***	-3.79***	0.679***	-3.41***
	(0.081)	(0.124)	(0.57)	(0.091)	(0.673)
Military Regime	0.151	0.036	0.803	0.081	-.240
	(0.110)	(0.147)	(1.36)	(0.158)	(2.32)
Monarchy	0.529***	0.757***	-2.02**	0.753***	1.57
	(0.093)	(0.104)	(0.66)	(0.069)	(1.28)
GDP (log p.c.)	0.473***	0.489***	0.173***	0.423***	0.175**
	(0.056)	(0.062)	(0.051)	(0.037)	(0.063)
Democracy	0.111***	0.130***	0.103***	0.129***	0.063**
	(0.020)	(0.021)	(0.022)	(0.014)	(0.024)
Time Horizon	1.74	2.38	0.056	2.71	0.572
	(1.61)	(0.714)	(0.74)	(0.546)	(0.707)
Population (log)	-.006	0.008	-.003	0.003	-0.026
	(0.023)	(0.023)	(0.023)	(0.015)	(0.028)
Fractionalization	-.041	-.028	-.027	-.178*	-.131
	(0.134)	(0.137)	(0.131)	(0.100)	(0.165)
Year	-.016	-.017	-.012	-.006	-.011
	(0.010)	(0.011)	(0.009)	(0.006)	(0.009)
*Single*TimeHorizon*		-2.09		-1.81	
		(1.78)		(1.47)	
*Military*TimeHorizon*		-0.981		-.780*	
		(1.32)		(1.78)	
*Monarchy*TimeHorizon*		-13.45***		-12.67***	
		(3.86)		(3.21)	
*Single*GDP*			0.573***		0.529***
			(0.075)		(0.087)
*Military*GDP*			.081		0.057
			(0.179)		(0.314)
*Monarcy*GDP*			0.329		0.277
			(0.185)		(0.171)
Constant	29.31	31.53	26.53	11.27	
	(19.45)	(20.93)	(18.54)	(13.29)	
Rsq.	0.59	0.61	0.68		
Prob. X^2				0.00	0.00
Observations	306	306	306	306	306
Countries	71	71	71	71	71
Regional Dummies	no	yes	yes	yes	yes

note: Dependent variable is World Bank 'Government Effectiveness' scaled so that higher scores indicate better QoG Models 1-3 are OLS, models with robust standard errors. Models 4-5 replicate models 2-3 with GLS correcting for heteroskedasticity and AR1 autocorrelation. p<.10, p**<.05, p***<.01*

Appendix: Summary Statistics and Sources

Variable	Obs	Mean	S.D.	Min	Max	Source
Single Party	1844	.50	.50	0	1	Geddes (1999), Wright update (2008)
Military	1844	.13	.33	0	1	Geddes (1999), Wright update (2008)
Monarch	1844	.12	.33	0	1	Geddes (1999), Wright update (2008)
Personal	1844	.25	.43	0	1	Geddes (1999), Wright update (2008)
Log(oil reserves)	1726	6.67	27.03	0	261.5	Humphreys (2003)
Democracy Lvl.	2134	3.61	2.71	0	9.75	Polity/ Freedom House
Log(GDPpc)	2219	7.56	.91	5.23	10.29	WDI (2007)
Log(population)	2414	9.08	1.35	5.44	14.07	WDI (2007)
Time Horizon	1782	.049	.049	.0004	.363	Wright (2008)
Ethnic Fractionalization	2411	.53	.249	.039	.93	Alesina et al (2003)
Legislature	1541	.79	.41	0	1	Przeworski et al (2000), Wright update(2008)

Construct of Certain Variables

1. ICRG - The annual mean value of the ICRG variables "Corruption", "Law and Order" and "Bureaucracy Quality"are weighted equally and combined, then scaled 0-5. Higher values indicate higher quality of government.

A. Corruption

This is an assessment of corruption within the political system. The most common form of corruption met directly by business is financial corruption in the form of demands for special payments and bribes connected with import and export licenses, exchange controls, tax assessments, police protection, or loans. Such corruption can make it difficult to conduct business effectively, and in some cases my force the withdrawal or withholding of an investment.

Although the measure takes such corruption into account, it is more concerned with actual or potential corruption in the form of excessive patronage, nepotism, job reservations, 'favor-for-favors', secret party funding, and suspiciously close ties between politics and business. According to ICRG, these insidious sorts of corruption are potentially of much greater risk to foreign business in that they can lead to popular discontent, unrealistic and inefficient controls on the state economy, and encourage the development of the black market. The greatest risk in such corruption is that at some time it will become so overweening, or some major scandal will be suddenly revealed, so as to provoke a popular backlash, resulting in a fall or overthrow of the government, a major reorganizing or restructuring of the country's political institutions, or, at worst, a breakdown in law and order, rendering the country ungovernable.

B. Bureaucratic Effectiveness

The institutional strength and quality of the bureaucracy is another shock absorber that tends to minimize revisions of policy when governments change. Therefore, high points are given to countries where the bureaucracy has the strength and expertise to govern without drastic changes in policy or interruptions in government services. In these low-risk countries, the bureaucracy tends to be somewhat autonomous from political pressure and to have an established mechanism for recruitment and training.

Countries that lack the cushioning effect of a strong bureaucracy receive low points because a change in government tends to be traumatic in terms of policy formulation and day-today administrative functions.

C. Law and Order

Law and Order are assessed separately, with each sub-component comprising zero to three points. The Law sub-component is an assessment of the strength and impartiality of the legal system, while the Order sub-component is an assessment of popular observance of the law. Thus, a country can enjoy a high rating – 3 – in terms of its judicial system, but a low rating – 1 – if it suffers from a very high crime rate / if the law is routinely ignored without effective sanction (for example, widespread illegal strikes).

2. WBI - These indicators ('control of corruption', 'voice and accountability, 'rule of law' and 'regulatory quality') are based on several hundred individual variables measuring perceptions of governance, drawn from 31 separate data sources constructed by 25 different organizations. These individual measures of governance are assigned to categories capturing key dimensions of governance. An unobserved component model is used to construct six aggregate governance indicators. Point estimates of the dimensions of governance, the margins of error as well as the number of sources are presented for each country.

"Government Effectiveness" (range from 0-5) combines into a single grouping responses on the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies. The main focus of this index is on "inputs" required for the government to be able to produce and implement good policies and deliver public goods.

3. **Freedom House/Polity** - Scale ranges from 0-10 where 0 is least democratic and 10 most democratic. Average of Freedom House (originally 1-7, see www.freedomhouse.org) is transformed to a scale 0-10 and Polity (see www.cidcm.umd.edu/inscr/polity/index.htm) is transformed to a scale 0-10. These variables are averaged into one score annually for each country. The imputed version has imputed values for countries where data on Polity is missing by regressing Polity on the average Freedom House measure. Hadenius & Teorell (2005) show that this average index performs better both in terms of validity and reliability than its constituent parts.

List of States

Afghanistan	El Salvador	Libya	Singapore
Albania	Eritrea	Madagascar	Somalia
Algeria	Ethiopia	Malawi	South Africa
Angola	Gabon	Malaysia	South Yemen
Argentina	Gambia	Mali	Soviet Union
Armenia	Georgia	Mauritania	Spain
Azerbaijan		Mexico	Sudan
Bangladesh	Ghana	Moldova	Suriname
Belarus	Guatemala	Mongolia	Swaziland
Benin	Guinea	Morocco	Syria
Bolivia	Guinea-Bissau	Mozambique	Taiwan
Botswana	Guyana	Nepal	Tajikistan
Brazil	Haiti	Nicaragua	Tanzania
Bulgaria	Honduras	Niger	Thailand
Burkina Faso	Hungary	Nigeria	Togo
Burma	Indonesia	Oman	Tunisia
Burundi	Iran	Pakistan	Turkey
Cambodia	Iraq	Panama	Turkmenistan
Cameroon	Ivory Coast	Paraguay	UAE
Central African Rep	Jordan	Peru	Uganda
Chad	Kazakhstan	Philippines	Uruguay
Chile	Kenya	Poland	Uzbekistan
China	Korea North	Portugal	Vietnam
Congo Brazzaville	Korea South	Qatar	Yemen
Congo Kinshasa	Kuwait	Romania	Yugoslavia
Croatia	Kyrgyzstan	Rwanda	Zambia
Cuba	Laos	Saudi Arabia	Zimbabwe
Czechoslovakia	Lebanon	Senegal	
Dominican Rep	Lesotho	Serbia and Montenegro	
Egypt	Liberia	Sierra Leone	