The Middle East and North Africa's Resilient Monarchs

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This article helps explain the variation in political turmoil observed in the MENA during the Arab Spring. The region's monarchies have been largely spared of violence while the "republics" have not. A theory about how a monarchy's political culture solves a ruler's credible commitment problem explains why this has been the case. Using a panel dataset of the MENA countries (1950–2006), I show that monarchs are less likely than nonmonarchs to experience political instability, a result that holds across several measures. They are also more likely to respect the rule of law and property rights and grow their economies. Through the use of an instrumental variable that proxies for a legacy of tribalism, the time that has elapsed since the Neolithic Revolution weighted by Land Quality, I show that this result runs from monarchy to political stability. The results are also robust to alternative political explanations and country fixed effects.

Revolution was in the air in the Middle East and North Africa (MENA) in early 2011. Popular uprisings were ignited both literally and figuratively by Muhammad Bouazizi, a Tunisian fruit vendor.[1] Bouazizi's self-immolation served as the ultimate protest against the incessant harassment he had received at the hands of corrupt municipal inspectors and police officers—as well as the ultimate rallying cry for political change. Unrest spread virally across the MENA, catalyzed by a deep reservoir of grievance and facilitated by Twitter and Facebook. An endless sea of disaffected citizens, seemingly from all walks of life, took to the streets across the region to protest against repressive and venal regimes. In virtually every MENA country there have been calls for political and economic reform.

The results shocked the world. Zine El Abidine Ben Ali, who ruled Tunisia since 1987, and Muhammad Hosni Sayyid Mubarak, who ruled Egypt since 1981, were both forced from power in quick succession, and with minimal bloodshed. In Iran, Yemen, Bahrain, Libya, and Syria, security forces responded swiftly and violently, fearful of the outcomes of the Tunisian and Egyptian Revolutions. While in Libya, a NATO air campaign succeeded in helping a group of rebels lacking in formal organization overthrow the brutal dictatorship of Muammar Muhammad AlGaddafi, the United States and the European Union have imposed sanctions on Syria in retaliation for the bloody crackdown against protestors by President Bashar al Assad.

The reported deaths across MENA countries resulting from government repression and participation in battle since the Tunisian revolt broke out in December of 2010 underscore the wide variation in the scope of the unrest.[2] Roughly 300 deaths have been recorded in Tunisia and roughly 900 in Egypt, including sporadic violence between Coptic Christians and Muslims. In Syria, the death toll has surpassed 3,500; second only to Libya, where there have been as many as 30,000 casualties. In Yemen, there have been over 250 deaths; in Bahrain, at least 30 deaths. Meanwhile, there have only been five recorded deaths in Algeria, four in Saudi Arabia and two in Oman.

What explains the variation in political stability in the MENA? One answer—obvious to the casual

[1]An online appendix for this article containing additional statistical analyses and a discussion of sources and methods is available at http://journals.cambridge.org/jop. Data and supporting materials necessary to reproduce the numerical results in the article are available at http://faculty.washington.edu/vmenaldo/MENA_DATA.csv.

[2]The following figures are as of November 9, 2011. The figures for Tunisia, Egypt, Syria, Libya, Yemen, and Bahrain were compiled by U.S. News and are based on country reports, the United Nations, Human Rights Watch, and Amnesty International. See http://www.usnews.com/news/slideshows/death-toll-of-arab-spring. The figures for all other countries were reported by the BBC News.

The Journal of Politics, Vol. 74, No. 3, July 2012, Pp. 707–722 doi:10.1017/S0022381612000436

ISSN 0022-3816

observer and documented by the media—is regime type.[3] The region's monarchies, Morocco, Jordan, Saudi Arabia, Kuwait, Bahrain, Qatar, the United Arab Emirates, and Oman, have been largely spared of violence. Republics such as Tunisia, Libya, Egypt, Syria, and Yemen have been bedeviled by the most serious political instability and violence. In three out of eleven MENA nonmonarchies, the incumbent regime has been displaced (see footnote 8 for coding criteria).

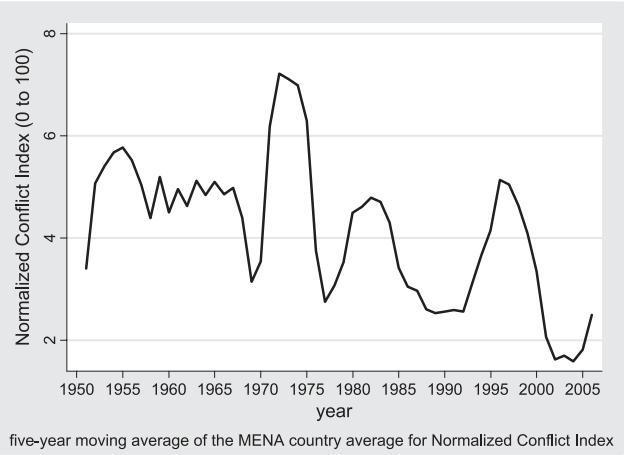
The cautious, muted nature of the protests and movements in the MENA monarchies is telling. In Jordan, protestors have called for some reforms, but not the overthrow of King Abdullah's regime. In Morocco, discontent has been channeled into a political movement based on ''transformation without violence'' and a new constitution, approved by a public referendum, which may augur greater liberalization. Kuwait, Qatar, and the United Arab Emirates (UAE) have not witnessed protests, although emir Shaikh Sabah AlAhmad AlSabah's cabinet was reshuffled in Kuwait, and in the UAE there has been some grassroots pressure to hold completely free elections for the Federal National Council. In Saudi Arabia, a strong dose of public spending has potentially mitigated discontent—though the timing and amount of spending was *not* precipitated by the Arab Spring.[4] And in Bahrain, King Hamad bin Isa AlKhalifa attempted to restore order only after protestors, having been allowed to protest for over a month, illegally blocked off Bahrain's financial district and paralyzed the capital, Manama. This was deemed a security threat by the government, triggering the decision to impose emergency rule, and, in accordance with the Peninsular Shield Defense Treaty, invite in troops from Qatar, Saudi Arabia, and the UAE, with Kuwait providing naval support.[5]

[3]The *Economist Magazine* has revisited this theme repeatedly since the onset of the turmoil.

[4]The billions of dollars pledged in 2011 by King Abdullah bin Abdul-Aziz AlSaud to social spending was a premeditated continuation of public investments in infrastructure and reflected relatively high oil prices in 2010 and a concomitant budget surplus. Moreover, public investments of this sort are a common practice in the Gulf; in Qatar, for example, the government has consistently reinvested 50% of revenue in the hydrocarbon sector and government-run industries, ranging from offshore natural gas production to the Qatar Media Corporation (the parent company of the *Al Jazeera* television network).

[5]Ultimately, although over 1,000 protestors were imprisoned, foreign troops were not involved in suffocating the protests. Instead, they were deployed to defend key public installations, including oil refineries and ministries. I thank an anonymous reviewer for bringing this to my attention.

FIGURE 1 Average Conflict Index



Does this pattern hold beyond the so-called Arab Spring? Figure 1 graphs episodes of political instability, including revolutions, in the MENA during the post-World War II period. It is a five-year moving average of the mean of Banks' (2009) Conflict Index—a weighted average of Assassinations, Strikes, Guerrilla Warfare, Government Crises, Purges, Riots, Revolutions, and Anti-Government Demonstrations.[6] The countries included in this average are Morocco, Libya, Algeria, Tunisia, Egypt, Sudan, Turkey, Lebanon, Iran, Iraq, Jordan, Saudi Arabia, Yemen, Kuwait, Bahrain, Qatar, the United Arab Emirates, and Oman.[7] Although an upsurge in political instability occurred between 1950 and 1955, the level of conflict gradually stabilized. That is, until 1971, when another, sharper upsurge commenced, peaked in 1972—the data's apex—and then plunged in 1976. This was followed by two additional spikes, in 1982 and 1996—each punctuated by collapses. In short, the MENA was not a stranger to political instability before the Arab Spring, having been visited by a host of independence movements, revolutions, civil wars, and popular protests.

Have monarchies been less likely than the republics to experience political tumult?[8] While only 31 out of 409 monarch country years exhibit a revolution

[6]The index is normalized from 0 to 100. The online appendix has definitions and weights.

[7]Yemen is North Yemen until 1990 when South and North Yemen united. Each country contributes to the data since either 1950 or its first year of independence.

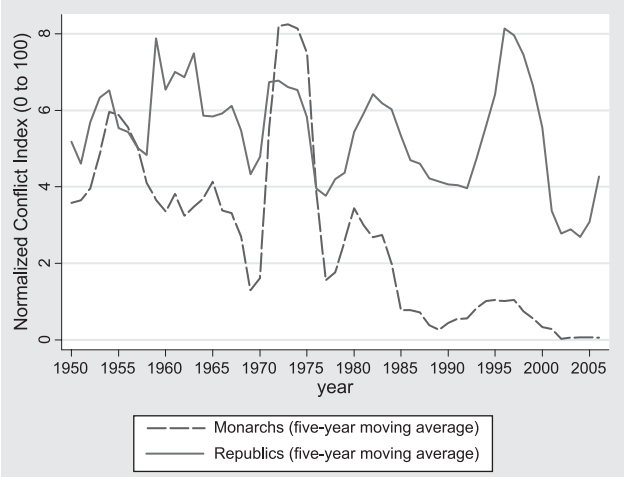
[8]A country-year is coded monarchy if the ruler observed that year is not elected, there is a succession mechanism codified for selecting new rulers based on kinship or bloodline, and the country's constitution or basic laws prescribe a succession process by which the ruler must be from a recognized ruling family. See the online appendix for each country's classification.

(7.6%)—using the Revolutions subcomponent of the Banks' (2009) index—134 out of 512 republican country years do so (26.2%). Figure 2 graphs both the five-year moving average of the Conflict Index for the Monarchs and the five-year moving average of the Conflict Index for the Republics.[9] Clearly, monarchs have been less likely to experience political instability. While the trend is similar across regimes, political instability for the MENA monarchs is considerably less frequent than for the republics. The only exception is 1955 to 1957 and 1972 to 1975.

What explains why the MENA monarchs have been far less likely to be riven by political instability than the republics—both during the Arab Spring and historically? This article argues that the region's monarchs have been particularly well-suited to deter political unrest. Through the strategic use of constitutions, formal political institutions, Islamic principles, and informal norms, MENA monarchs have ''invented'' a political culture that has helped introduce a stable distributional arrangement and self-enforcing limits on executive authority. A monarchic political culture has promoted cohesion among regime insiders, such as ruling families and other political elites, and bolstered their stake in the regime. Moreover, this unique political culture has provided the region's monarchs with legitimacy: regime outsiders have benefited from the positive externalities associated with secure property rights for the political elite—sustained economic growth and increased economic opportunities. This has helped monarchs consolidate their authority and foster political stability. Conversely, the region's nonmonarchs have relied on a divide-and-conquer strategy and terrorized potential opponents into submission, gutting their societies of rival institutions and creating layers of militias and secret police.

Using a time-series cross-sectional dataset of the MENA countries from 1950 to 2006, I adduce several novel findings that are consistent with the theory of monarchic political culture introduced in this article.[10] Not only are monarchies far less likely than republics to suffer from political instability, but monarchical rulers are more likely to survive in office. Moreover, monarchies are more conducive to the rule of law and less corruption; exhibit more secure property rights; have bigger financial systems; and experience faster economic growth. And while monarchy is negatively associated with violent conflicts whose escalation can threaten the regime, monarchy is not systematically associated with civil protest that serves as a relief valve for popular discontent. These results hold after controlling for oil rents, other possible confounders, and country fixed effects. Finally, they appear to be causal: they hold after isolating the exogenous variation in the MENA's regime types via the use of an instrumental variable that captures countries' legacy of tribalism, measured as how much time has elapsed since the Neolithic Revolution weighted by a country's land quality. The logic behind this instrument is that in MENA countries where settled agriculture has historically been difficult, if not impossible, tribal social structures have been more likely to survive. By extension, so have monarchies.

FIGURE 2 Conflict Index by Regime Type



The Political Economy of Nondemocratic Rule

Researchers who study the political economy of nondemocratic regimes argue that dictators must secure the loyalty of a core group of insiders if they hope to survive in office. Bueno de Mesquita et al. (2003) aver that an insider's loyalty is inversely related to the size of the group of regime insiders; therefore, a dictator's best strategy is to curtail the size of the ''winning coalition'' by buying off supporters with targeted private goods. Geddes (2003)

[9]The region's republics include several former monarchies. In Libya, Qaddafi overthrew King Idris in 1970; in Iran, Ayatollah Khomeini ousted the Shah, Mohammad Reza, in 1979; in Iraq, Karrim Kassem overthrew King Faisal II in 1959; in Egypt, a cadre of officers overthrew King Naguib in 1952; and in North Yemen, AlBadr unseated Ibn Yahya Hamid in 1962.

[10]In a separate article, I formalize this theory and provide qualitative support by way of a case study of the Qatari monarchy (see Menaldo 2012).

argues that the size and cohesion of a dictator's support group differs by regime type—whether it is a military junta, single party state, or personalistic dictatorship. For example, military regimes tend to be unified, interested in securing favorable posttenure terms, and thus tend to return to the barracks quickly.

Other researchers focus upon *the process* by which dictators gain and sustain their supporters' loyalty upon coming to power. They have identified several tools. Albertus and Menaldo (forthcoming) theorize that new dictators who destroy the preexisting elite are better able to gain the trust of the organization that launches them into office. Gandhi and Przeworski (2006) aver that legislatures help dictators coopt challengers and cooperate with allies. Magaloni (2008) argues that "hegemonic" political parties are dictators' best hope for consolidating their rule.

Still other researchers stress that the dictators who survive are those that adopt institutions that curb their discretion and, thus, credibly commit to their supporters (Magaloni 2008; Myerson 2008; Weingast 1997). Myerson, in particular, argues that by introducing or sustaining institutions that make him vulnerable to overthrow, a nondemocratic leader cultivates his supporters' trust and legitimizes his rule. This is because such institutions provide self-enforcing limits on executive authority. Therefore, courts, legislatures, and political parties that underpin executive constraints have implications for economic development. Weingast (1997) shows that constitutional limits on the power of the crown in seventeenth-century England lowered borrowing costs and spurred the development of capital markets. Others have shown that political parties and legislatures help dictators extend a credible commitment to elites and therefore boost growth (Wright 2008).

Herb (1999) draws heavily on the logic of elite collective action and rulers' credible commitment and provides perhaps the most illuminating account of the political economy of the MENA monarchies. His seminal book argues that the persistence of monarchy in the MENA, despite the region's endemic political instability and the spread of antimonarchical thought, is due to a dynastic political structure predicated on institutionalized methods of competition for power between relatives inside ruling families. This differs from extant explanations based on rentierism, coercion, and absolutism. Herb shows that while nondynastic monarchies—such as Iran before 1979—succumbed to revolution because rulers' relatives were barred from serving in the government and therefore had little stake in the regime's survival, dynastic monarchies survived. Members of the ruling family were able to colonize government ministries and state bureaucracies; by facilitating the distribution of rents, this fostered cooperation and consensus.

In seeking to shed light on a slightly different question, why the MENA's monarchies—both ones that failed and ones that survived—have exhibited greater political stability than the republics, I agree with Herb's claim that the lasting monarchies have managed to consolidate a credible commitment to key members of the ruling family. I argue that monarchs' strategic implementation and dissemination of cultural practices and institutions is the linchpin of the consensus-based rule identified by Herb. Therefore, I also draw on Brown (2002): the MENA's monarchic constitutions have imposed "loose constraints" on rulers by prescribing succession processes and introducing ruling councils in which rulers' relatives have secure representation and political clout. I trace how this process has been made self-enforcing by informal norms.

Theory

Ex ante, there are myriad ways to divide the pie within any political regime: to specify property rights, distribute rents, allocate political status and power, and provide opportunities for upward mobility. In democracies, institutions that define agenda control, gatekeeping power, and veto power mitigate this complexity. In nondemocracies, however, this is typically not the case. Instead, a political culture serves these roles, where political culture denotes focal points—epistemological and institutional points of reference—and common knowledge that foster coordination, and agreed upon punishments that enforce social norms.

The political culture makes the politics of nondemocracy more stable by making the boundaries of the ruling group less fluid and by delineating the benefits that these elites are entitled to. Thus, the political culture serves to distinguish regime insiders from outsiders. It also institutionalizes a particular distribution of benefits and opportunities. This makes the political culture in a nondemocracy a very valuable device.

Nondemocratic rulers will therefore attempt to monopolize the creation and diffusion of their regime's political culture. There are two specific reasons for this. First, the three elements of the regime's political culture that allows elite coordination to occur are public goods: the regime's focal points, common knowledge shared by regime insiders, and agreed-upon punishments that

enforce social norms (Myerson 2008; Weingast 1997). Second, the regime's political culture has clear distributional consequences. To a significant degree, the ruler will retain the upper hand: because elites are compelled to coordinate on the status quo set of norms sustained by an incumbent ruler—not alternative norms awaiting creation and consolidation—the ruler will enjoy the greatest share of the rents and benefits associated with holding power.

To generate, disseminate, and sustain a political culture in nondemocracies, three things must happen. First, clear rules about who qualifies as a member of the ruling group in the first place have to be established. Second, regime norms that regulate who is entitled to what share of the rents, and the codification of institutions that allow these norms to gain full expression, must be established. Third, elites must be able to monitor the ruler's actions in order to enforce these norms. The MENA monarchies have been able to satisfy these prerequisites.

MENA monarchies provide focal points that enable ruling families and economic elites to coordinate their behavior. In conjunction with constitutions (basic laws) and political institutions such as consultative assemblies, these focal points help elites discipline monarchs and safeguard their interests. Monarchic structures of accountability also benefit commoners—often abetted by monarchs' politicization of the Islamic faith.

How have the region's monarchical political cultures come about and what continues to sustain them? Settling the boundaries regarding who qualifies as a member of the ''royal family'' in the MENA monarchies has been an endogenous, political process that has evolved over time. These regimes have relied, both politically and economically, on tightly knit family structures reinforced through intermarriage. Control of the executive branch has often cycled back-and-forth between different factions of the royal family. Detailed norms about who among the royals can serve in the cabinet, bureaucracy, and military, are a staple of the MENA monarchies. Hereditary succession and clear rules about who qualifies as a member of the royalty, and what their political role is, has encouraged members of the royal family to develop a stake in the regime.

The region's monarchic political cultures disseminate a predictable sense of how the regime is to be governed and how rulers will deal with future contingencies; they also prescribe a political succession mechanism. These features have not only allowed political elites to make long-term plans, but have helped render monarchs' promises credible, securing the political elites' trust and loyalty in the process.

The successful dissemination of political culture by MENA monarchs has been made possible by their ability to publicize their regimes' norms and information about adherence to them. The region's monarchs continue to do this, in part, by furnishing collective gathering places. Such gathering places have included advisory councils and legislatures with appointed assemblymen—if not, as in the case of Kuwait, elected legislatures. Shared acknowledgment of the ruling group's members and its norms, together with the existence of institutions that make it easier for the elites to gather, be seen, and observe the monarch's actions, allow the elites to generate common knowledge (Myerson 2008). These mechanisms have therefore enabled elites to monitor adherence to the regime's norms and enforced limits on monarchical authority.

The benefits of monarchical political culture in the MENA have gone beyond securing the rights and interests of the elite. Monarchs have also relied on their regime's culture and institutions to cultivate trust and legitimacy amongst commoners. They have often done so by appealing to ethical and legal principles inspired by Islam. These include the *Shura*; enshrined in the *Qur'an*, it exhorts rulers to consult with their subjects on important political and policy issues. They also include the *Fiqh* (understanding), the interpretation of *Shari'a* (Islamic Jurisprudence) in the realm of citizens' everyday behavior and interactions. It is protean, open to modification, and has engendered several different legal schools (*madhhab*). In Saudi Arabia, for example, a school of *Fiqh* known as *Hanbali* informs and justifies all royal decrees. Appeals by monarchs to these political and legal principles have been deployed as a relief valve to mollify grassroots movements that may otherwise agitate for political change through insurgency and revolution.

In short, by aligning the incentives of monarchs and political elites in the MENA, monarchic political culture has underwritten relative political stability. It has also fostered legitimacy and curried a modicum of political support from citizens. Furthermore, an indirect reason why monarchs have fostered political stability is economic development. Elites have had clear incentives to invest their rents in a productive manner. This has stimulated sustained economic growth. Therefore, MENA monarchs have been able to consistently generate a larger pie while safeguarding their share of the pie.

Why has monarchical political culture engendered more stability in the MENA than the nationalist and socialist ideologies employed by republicans

in Algeria, Egypt, and Libya and exemplified most stridently by the Baathists in Iraq and Syria? The main reason is that these anti-imperialist and secular ideologies have been very polarizing and exclusive: used to define regime insiders in a way that brands outsiders as implacable enemies. These ideologies have therefore encouraged competing political elites allied with military factions to coordinate on mutually exclusive political visions and platforms. In turn, this has fueled zeros-sum contests over political power and increased the stakes of politics, inducing regime outsiders to try to defend their rights, interests, and lives by seeking recourse outside the system. Contrariwise, the monarchies have been able to appeal to, and balance between, different social groups, even though the region's salient political divide has evolved over time: the nationalist versus conservative cleavage supplanted by the liberal versus Islamist one (Herb 1999, 247).

Empirical Implications

The theory introduced above offers several testable hypotheses. These hypotheses can be tested via statistical analyses conducted on a time-series cross-section dataset of the MENA that covers the post-World War II period. They can be divided into two types. The first type is about the relationship between monarchy and political stability. The second type is about the relationship between monarchy and political economy outcomes.

The hypotheses about the relationship between monarchy and political stability are as follows. First, there should be a negative relationship between monarchy and the omnibus measure of political instability discussed and analyzed in the introduction, the Conflict Index. Second, this relationship should be partially accounted for by economic growth, such that monarchy should have both a direct and indirect positive effect on political stability. Third, the effect of monarchy on political stability should vary by the type of conflict; and these different types of conflict can be operationalized by using the subcomponents that make up the Conflict Index—each of which will be elucidated further below. While monarchy should be negatively associated with violent conflicts that draw in key political elites and whose escalation can threaten the regime, monarchy should not be systematically associated with popular demonstrations that serve as a relief valve: incentivize citizens to refrain from seeking violent means to effect change. Civil activities of this sort should not be any less likely in monarchies.

Four hypotheses about the relationship between monarchy and political economy are also implied by the theory outlined above. A monarchic political culture increases the odds that the elite will coordinate to impose self-enforcing constraints on a ruler's authority and therefore enforce their rights and interests. This should have a direct effect on four important outcomes. First, monarchy should be associated with the rule of law and the absence of corruption. Second, monarchy should also be positively associated with property rights. Third, monarchy should be associated with a healthy financial system and credit market because secure property rights will (1) encourage depositors and shareholders to invest in commercial banks; (2) stimulate collateral based lending based on banks' right of repossession in the case of default; and (3) lower interest rates. Fourth, monarchy should be associated with faster economic growth.

Why does monarchy translate into greater economic growth? For several interconnected reasons. First, given the emergence of a stable political culture, the ruler and elites have settled on a self-enforcing distributional arrangement that forecloses open-ended rent seeking. By extension, elites' property rights will be secure. In turn, elites and citizens will be encouraged to protract their planning horizons due to longer executive tenures and an institutionalized succession process. Both elites and citizens will be more likely to make the investments in physical and human capital that encourage capital accumulation and increases in productivity.

Testing Hypotheses about the Relationship between Monarchy and Political Stability

To test these hypotheses, I return to the dataset represented by Figures 1 and 2: a time-series cross-section dataset from 1950 to 2006 that includes Morocco, Libya, Algeria, Tunisia, Egypt, Sudan, Turkey, Lebanon, Iran, Iraq, Jordan, Saudi Arabia, Yemen, Kuwait, Bahrain, Qatar, the United Arab Emirates, and Oman since 1950 or their first year of independence. The full dataset has 921 observations. I begin by using Banks's (2009) Conflict Index as the dependent variable, which I log to reduce the data's right-skew and mitigate the influence of outliers.[11] The mean value of log(Conflict Index) is -3.078, with a standard deviation of 4.29,

[11]Because the Conflict Index is zero for some country years I add .001 before logging.

TABLE 1 Determinants of Political Instability

	1	2	3	4	5
Monarch	**-2.664**	**-2.419**	**-1.814**	**-2.382**	**-2.116**
	[12.78]***	**[7.73]*****	**[5.36]*****	**[7.64]*****	**[6.75]*****
Economic Growth				-0.019	-0.037
				[1.91]*	[2.92]***
log(Total Fuel Income PC)		-0.364		-0.367	-0.276
		[4.07]***		[4.06]***	[3.14]***
log(Petroleum Reserves)			-0.017		
			[0.80]		
log(Population)		0.04	0.044	0.039	0.705
		[0.18]	[0.18]	[0.18]	[3.29]***
log(Area)		0.29	0.231	0.294	-0.017
		[2.14]***	[1.87]*	[2.44]**	[0.16]
Percent Muslim		0.043	0.031	0.044	0.01
		[1.70]	[1.20]	[1.72]	[0.41]
Ethnic Fractionalization		5.324	5.601	5.273	4.154
		[4.94]***	[5.42]***	[4.84]***	[3.89]***
log(Per Capita Income)		-0.198	-0.937	-0.201	0.078
		[0.76]	[4.92]***	[0.76]	[0.30]
Persian Gulf		0.848	-0.076	0.832	0.713
		[2.42]**	[0.23]	[2.39]**	[2.01]*
Democracy		1.632	2.157	1.651	0.956
		[2.53]**	[3.43]***	[2.58]**	[1.67]
Constant	-1.894	-12.216	-3.532	-12.276	-15.074
	[8.77]***	[3.51]***	[1.13]	[3.51]***	[4.37]***
Year Dummies	No	No	No	No	Yes
Observations	921	921	921	921	921
Countries	19	19	19	19	19
r-squared	0.1	0.25	0.23	0.25	0.33

Notes: Ordinary Least Squares (OLS) Pooled Regressions with Driscoll-kraay Standard Errors (DKSE) and Newey West Adjustment (NW). Dependent Variable is log(Normalized Conflict index). Heteroskedasticity and Autocorrelation consistent t statistics in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%.
This analysis is conducted on the MENA between 1950 to 2006. These are pooled regressions estimated via OLS with DKSE to address heteroskedasticity and spatial correlation. A NW adjustment of the error term with a one lag length is made to address first-order serial correlation. Results robust to Panel Corrected Standard Errors with Prais-Winsten Transformation (AR1); results robust to robust standard errors clustered by country; results robust to robust standard errors clustered by year.

and ranging from −6.91 to 4.61. As for Monarch, there are 409 country years (12 countries) coded as monarchies in the dataset and 512 country years (11 countries) coded as republics.

Because the Conflict Index is continuous and the data has a panel structure, I begin by estimating a series of pooled Ordinary Least Squares (OLS) regressions where the error term is assumed to be random, i.e., the independent variables are not assumed to be correlated with the unit-specific effects. I later relax this assumption (Table 2) in order to address unobserved heterogeneity and reverse causation. Because the level of political conflict in a country during any given year may be susceptible to geographically clustered shocks and contagion effects, contemporaneous/spatial correlation is a concern. I address this issue by estimating Driscoll Kraay standard errors (DKSE), a nonparametric technique designed for panel data that also addresses serial correlation (via a Newey West adjustment with one lag length) and heteroskedasticity. The results are robust to using alternative estimation strategies such as Panel Corrected Standard Errors (PCSEs) and robust standard errors clustered by either country or year; while most of these robustness tests are included in online appendix, all are available upon request.

Column 1, Table 1 reports the results of a bivariate regression. Monarchies are far less likely to suffer from political instability: the Conflict Index is reduced by 266% for the monarchies versus the republics at the highest level of statistical significance (p-value $<$ .001). Column 2 controls for other

determinants of political instability. Log(Total Fuel Income Per Capita)—in real, 2007 dollars from Haber and Menaldo (2011)—operationalizes the rentier state hypothesis (see Herb 1999): that autocrats can use oil rents to buy-off and/or repress the opposition and therefore squelch dissent and conflict. Because Wright (2008, 326) finds that Ethnic Fractionalization, log(Population Size) and the Percent of Population that is Muslim are statistically significant correlates of monarchical rule, and because the omission of these covariates may confound the results, I control for each of these variables.[12] I also control for log(Per Capita Income)—in real, 2000 international dollars from Haber and Menaldo (2011)—to address the modernization thesis: that wealthier countries will be more likely to transition to democracy and, therefore, are more likely to experience some political instability during this process. I also control for log(Surface area) from the World Bank Development Indicators to address the fact that it might be the case that monarchy is proxying for small countries in which there are fewer sources of conflict that can escalate into political violence. Moreover, I control for a country's strategic importance via a dummy variable that captures whether the country is located in the Persian Gulf. The logic of coding strategic importance in this way is that the Strait of Hormuz is the major transit point for oil emanating from the oil rich states in the MENA to the Indian Ocean and beyond: to the oil importing countries in both the West and East. The reason is because the U.S. Navy—and the British Navy before it—have been able to effectively police the Persian Gulf's strategically vital sea-lanes. Finally, I also control for democracy by using the binary measure from Cheibub et al. (2010), because democracies may be more legitimate than dictatorships and therefore less likely to experience political instability.[13] Column 2 shows that the statistical and substantive significance of Monarch is robust to adding these controls. This intimates that Monarch is not proxying for rentierism—which is perhaps obvious if one considers that Iraq, Iran, and Libya are three very oil rich republics, and Morocco and Jordan are two oil poor monarchies.

In Column 3 I substitute log(Total Fuel Income P.C.) with log(Proven Oil Reserves)—in billions of barrels, from Haber and Menaldo (2011)—as a robustness check. Unlike Total Fuel Income, which is negatively associated with political conflict and statistically significant in Column 2, Proven Oil Reserves is not statistically significant. Monarch remains materially the same, however. The theory of monarchical political culture outlined above implies that monarchy should have a positive effect on political stability that is indirect: by creating self-enforcing limits on executive authority, the monarchical form of government should stimulate private investment and economic development, which enhances the stake that both elites and citizens have in the regime. In Column 4, I test this hypothesis by adding the growth rate of Per Capita Income to the regression estimated in Column 1 (see online appendix for coding and sources) and return to measuring rentierism as log(Total Fuel Income Per Capita) instead of log(Proven Oil Reserves). While Economic Growth has the predicted, negative sign, and is statistically significant at the 10% level, Monarch attenuates both in terms of its substantive effect and statistical significance. This suggests that, even after controlling for the indirect effect made through higher economic development, a monarchical form of government still exerts a direct, positive effect on political stability. In Column 5, I add year dummies to address secular trends. The coefficient on Monarch attenuates slightly, and is still highly statistically significant.

Because monarchy is not a randomly assigned variable, it is possible that factors that make monarchical government more likely may also make political instability less likely. Indeed, the fact that several MENA countries switched at some point from monarchy to republican rule, but none have ever switched from republican rule to monarchy, raises the question of whether the surviving monarchies are driving the results in Table 1. Are the surviving monarchies particularly robust regimes: inherently less likely to suffer from political instability? Could Monarch be unwittingly proxying for a high level of underlying robustness, rather than capturing a set of unique political institutions that foster self-enforcing stability?

To address this concern, I now turn to the estimation of a series of country fixed effects (FE) models. These models allow me to control for country specific and time-invariant heterogeneity that is correlated with regime type and which remains unobserved. Most specifically, the regressions that follow allow me to expunge the effect of any underlying factor that may jointly determine the preservation of monarchical rule and political stability. This feature of the FE models helps address the possibility that the results are driven by selection bias.

[12]See online appendix for the coding rules/sources used for these and other variables.

[13]Seventy-five country years are coded as democratic between 1950 and 2006: Turkey, 1961 to 1979 and 1983 to 2006, Sudan, 1956 to 1957; 1965 to 1968; and 1986 to 1988, and Lebanon, 1950 to 1974.

Table 2 Determinants of Political Instability

	1	2	3	4 (first stage)	4 (second stage)	5
Specification	**DKSE-NW FE**	**VD FE**	**Hausman-Taylor**	**2S TE-IV**	**2S TE-IV**	**Pooled DKSE-NW**
Dependent Variable	**log(conflict index)**	**log(conflict index)**	**log(conflict index)**	**Monarch**	**log(conflict index)**	**log(conflict index)**
Monarch	**-1.127**	**-4.006**	**-1.42**		**-2.385**	
	[2.19]**	**[2.21]****	**[2.38]****		**[5.09]*****	
Counterfactual Monarch						**-1.679**
						[3.40]***
Agricultural legacy				-4.439		
				[6.08]***		
Economic Growth	-0.026	-0.026	-0.024	0.011	-0.019	-0.021
	[2.46]**	[1.59]	[1.62]	[0.55]	[1.28]	[2.01]*
log(Total Fuel Income PC)	-0.105	-0.105	-0.146	-2.842	-0.367	-0.035
	[0.80]	[0.39]	[1.34]	[5.73]***	[4.50]***	[3.48]***
log(Population)	-1.352	-1.352	-1.033	-8.637	0.039	0.205
	[4.16]***	[1.43]	[3.91]***	[6.65]***	[0.23]	[1.00]
log(Area)		0.797	0.703	1.362	0.294	0.272
		[1.75]*	[2.48]**	[3.98]***	[3.07]***	[2.37]**
Percent Muslim		0.101	0.023	1.154	0.044	0.026
		[1.57]	[0.31]	[6.82]***	[1.97]**	[1.21]
Ethnic Fractionalization		8.271	5.039	51.574	5.275	4.63
		[2.98]***	[1.58]	[6.71]***	[5.92]***	[4.45]***
log(Per Capita Income)	-0.687	-0.687	-0.892	2.601	-0.201	-0.283
	[1.55]	[1.02]	[2.55]**	[3.72]***	[0.88]	[0.95]
Persian Gulf		-0.603	-0.637	-1.841	0.833	0.944
		[0.40]	[0.50]	[2.08]**	[2.16]**	[2.27]**
Democracy	0.806	0.806	1.07	-4.339	1.65	1.756
	[0.97]	[0.66]	[1.70]*	[0.02]	[3.25]***	[2.62]**
Constant	24.339	2.699	8.043	-31.94	-12.281	-12.252
	[4.22]***	[0.26]	[0.85]	[3.87]***	[3.48]***	[3.14]***
Observations	921	921	921	921	921	921
Countries	19	19	19	19	19	19
r-squared	0.06	0.33		0.91		0.23

Notes: Regressions on log(conflict Index) that address Omitted Variables Bias and Simultaneous Causation; t/z statistics in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%.
This analysis is conducted on the MENA between 1950 to 2006. Model 1 is a country Fixed Effects (FE) specification estimated via OLS with DKSE and a NW adjustment of error term with a one lag length. Model 2 is a Vector Decomposition Fixed Effects (VD-FE) estimation. Model 3 is a Hausman-Taylor estimation as alternative way to address unobserved heterogeneity. Model 4a is the first stage, probit estimation of a two-stage Treatment Effects, Instrumental Variables (2S TE-IV) model to address simultaneous causation. Model4b is the second stage. OLS estimation of the 2S TE-IV model. Agricultural Legacy is Time Elapsed Since Neolithic Revolution Weighed by Land Quality, an instrumental variable. For Model 1, r-squared is Within R-squared. For Model 4a, r-squared is Pseudo R-squared.

Table 2 reports the results of these regressions. Column 1 is a standard FE regression in which the within-transformation demeans the data. Because the regression focuses attention exclusively on the data's time-series variation, I omit log(Area), Percent Muslim, Ethnic Fractionalization, and Persian Gulf from the equation. Monarch continues to be negatively associated with political instability and is significant at the 5% level. In other words, among the countries that switch from monarchy to republic, the period under monarchic rule is less prone to political conflict than the period under republican rule. Column 2 is a Three-Stage Panel Fixed Effects Vector Decomposition estimator that allows for both time-invariant variables and more efficiently estimates the effect of almost time-invariant variables. In this case, the time-invariant variables that are now included are those that were omitted from Column 1; moreover, I can now

designate Monarch as an almost time-invariant variable because its time-series variation is limited to the countries that switch from monarchical to republican rule. Monarch is again negative and statistically significant at the 5% level; impressively, its magnitude increases by an order of four. Column 3 is a Hausman Taylor Random-Effects estimator; Monarch is assumed to be correlated with the unobserved individual-level random effect, but the other control variables are assumed uncorrelated with this effect. Therefore, although this approach only addresses the bias introduced by omitted variables that are not orthogonal to Monarch, it also allows for the estimation of time-invariant variables. And it exploits the data's between and within variation. Although its magnitude is reduced, Monarch is still negative and statistically significant at the 5% level.

Could there be reverse causation running from political stability to monarchy? Specifically, could it be the case that it is the MENA countries that have been blessed with greater political stability that can afford to cling to an antiquated and peculiar form of government such as monarchy? To address this concern, I now turn to an instrumental variable (I.V.) approach designed to capture the exogenous variation in regime type. A valid instrumental variable must satisfy the so-called exclusion restriction: its effect on the dependent variable of interest should be indirect. It should work exclusively through the potentially endogenous right-hand side variable. In this case, the instrument must be correlated with the dependent variable in a first-stage regression, Monarch, but not correlated with the error term of a second-stage regression, where the Conflict Index is the dependent variable.

A great candidate for such an instrument is a country's historical legacy of tribalism. Tribalism and, most particularly, pastoral nomadism, had a crucial role in both instaurating and sustaining monarchy in the MENA after the death of the Ottoman Empire. Monarchism has tended to emerge out of "weak pre-oil state structures in which bedouin have a relatively greater demographic weight" (Herb 1999, 246). I follow Hibbs and Olsson (2004), and Chanda and Putterman (2007) and measure the degree to which there is a historical legacy of tribalism as the timing of the transition to agriculture, which varies by as much as 7,000 years between Syria, where the Neolithic Revolution occurred 10,450 years ago and Morocco, where it occurred only 3,450 years ago (the standard deviation is 2,293 years). The Neolithic Revolution, the transition from a nomadic hunter-gatherer lifestyle to sedentary agriculture, set in train a modernization process that culminated in secular nation-states. Settled agriculture made it possible to store food surpluses and gave birth to specialized classes, technological innovations, such as engineering and writing, and political centralization. In countries where these developments occurred relatively early, beginning about 10,000 years ago, tribalism was eventually displaced by nationalism and cleavages unleashed by capitalism based on social class. Conversely, in countries where the transition to settled agriculture was delayed because of inauspicious geographic and biogeographic factors, a tribal social structure has persisted into the present day.

I measure tribalism in this way, rather than as a contemporary, demographic snapshot, because the time that has elapsed since the Neolithic Revolution should be exogenous to contemporary politics. Hibbs and Olsson (2004) demonstrate empirically that the variation across countries in the timing of the transition to settled agriculture was determined exclusively by exogenous geographical and biogeograhical factors. Geographic factors include precipitation levels and their variance, the atmospheric and surface temperature, and the soil's depth, texture, composition, and nutrient content. Biogeographical factors include locally available wild plants and wild, terrestrial animals suited to domestication. In extremely dry places, such as Morocco, Qatar, or Bahrain, the transition to settled agriculture was considerably delayed; and even after the Neolithic Revolution occurred in these countries, agriculture remained relatively underdeveloped and unimportant because of extreme aridity and a lackluster endowment of cereals and animals suited for domestication (Hibbs and Olsson 2004, 3716). In turn, these societies have been composed, since time immemorial, of nomadic and semi-nomadic pastoralists organized into tribes and clans that have had an outsized role in brokering long-distance trade. While the Bedouin tribes have dominated the caravan trade across the Arabian Peninsula, the Berbers have controlled the trans-Saharan trade between the Magreb and the Sahel.

Across these tribal social structures, and long before the advent of modern states in the MENA, a single ruling family gradually arrogated the role of political hegemon. This role has yet to be usurped. In Bahrain it is the Al Khalifa; in the UAE it is the Al Nuhayyan in Abu Dhabi, the Al Nuaimi in Ajman, the Al Sharqi in Al Fujayrah, the Al Maktum in Dubayy, the Al Qasimi in Ras al Khaymah and Sharjah, and the Al Mualla in Umm al Qaywayn; in Kuwait it is the Al Sabah; in Qatar it is the Al Thani; and in Oman it is the Al Said. Over time, these families came to view themselves as royalty and adopted the titles and trappings of monarchical rule.

Beginning in around 350 AD, the MENA's isolated and fiercely independent tribal populations were loosely incorporated by different imperial powers. First absorbed under the Sassanid Empire, they were subsequently conquered by the Ottomans, and then came under the umbrella of the British Empire during the nineteenth century. Great Britain created protectorates over the tribal monarchies of the Persian Gulf because those areas were on the way to India: had another power controlled them, Britain's trade to its most valuable colony could have been interdicted. London therefore dispatched a bevy of ''political residents'' throughout North Africa and the Persian Gulf—including agents who resided in Egypt and Somalia and what is now modern-day Yemen, Bahrain, Kuwait, Oman, Qatar, and the United Arab Emirates. Rather than threaten the fledgling monarchies that had emerged in the shadow of the Ottoman Empire, the British empowered them—London favored up the dominant tribes and the dominant families within those tribes, helping to prop them up with political, economic, and military support. While Jordan and Iraq were creations of the British in the 1920s, treaties between the British and the main emirates of what is today the United Arab Emirates date back to the 1820s and treaty relationships with Kuwait date to 1899. This is how tribal chiefs became monarchs.

Contrariwise, the MENA countries with semi-arid environments and narrow strips of fecund land clustered near the Mediterranean Sea, such as Algeria and Lebanon, and those with rolling, fertile plains, such as Turkey, Syria, and Southwest Iran, have supported ''pockets of agriculture'' for close to 10,000 years. These regions have therefore produced agricultural surpluses, which underwrote trade and supported large population centers, for millennia. In turn, this process weakened or displaced tribalism, replacing it with centralized states and empires.

To capture the historical importance of tribalism I generate a variable called Agriculture Legacy, the time elapsed since the Neolithic Revolution (in thousands, from Chanda and Putterman 2007) weighted by soil quality. This transformation addresses the fact that countries that underwent the Neolithic Revolution at identical times, yet possess different agricultural capabilities, have not undergone the same scope and pace of modernization associated with settled agriculture.[14] For the 19 MENA countries in the dataset, the mean value of Agricultural Legacy is 2.19, with a standard deviation of 2.23, and ranging from 1 to 9.22.

Agricultural Legacy values for the majority of the MENA republics are considerably greater than for the monarchies, implying that today's republics are the societies in the MENA that have had the deepest experience with centralized states and have been least influenced by tribalism. Yet, consistent with the logic outlined above, the exceptions to this rule are most of the republics that were formerly monarchies. Out of today's republics, Libya—one of the driest countries in the world, with only the narrow coastal region receiving more than 100 mm of precipitation a year—and Yemen are ones with the lowest Agricultural Legacy values. The legacy of settled agriculture in these former monarchies bears a greater resemblance to the surviving monarchies than it does to the countries that have always been republics. This suggests that some of the erstwhile monarchies and the surviving ones may share a legacy of tribalism.

Column 4 reports the results of a Treatment-Effects Instrumental Variables (TE-IV) model estimated through a two-stage process. A TE-IV model considers the effect of a possibly endogenous binary variable, the ''treatment variable,'' on a continuous dependent variable, conditional on other independent variables. Column 4a reports the results of a first-stage probit regression in which Monarch, the treatment variable, is the dependent variable. The chief explanatory variable is Agricultural Legacy, the instrumental variable. Other independent variables include the control variables that have been used so far to explain variation in the Conflict Index. Including these controls in the first stage allows me to partial out alternative channels by which Agricultural Legacy may affect political stability other than Monarch, making it more likely that this instrument will satisfy the exclusion restriction. For example, countries with a longer history of settled agriculture are more likely to sustain larger populations today, and a larger population may be more conducive to political instability. Column 4b reports the results of the second-stage OLS regression where log(Conflict Index) is the dependent variable. The chief explanatory variable in this regression is the predicted values of Monarch estimated from the first stage. I also include the other independent variables from the first stage.

Column 4a reveals that the first-stage probit model is quite successful at predicting regime type; Column 4b suggests that the causal arrow runs from Monarch to political stability. Consistent with the theory outlined above, Column 4a reports that a legacy of tribalism as proxied for by Agricultural Legacy is negatively

[14]The coding rules/sources used to conduct this transformation are in the online appendix.

correlated at high levels of statistical significance with monarchy (p-value $<$ .001). Moving from the lowest value of Agricultural Legacy to its highest value decreases the probability of observing monarchy by 51%. Most of the other independent variables are highly statistically significant determinants of Monarch and the model's fit is quite good: the pseudo r-squared is 0.90. Column 4b reports that the coefficient on instrumented Monarch is negative and similar in magnitude to its counterparts in the pooled regressions in Table 2. Finally, this result is robust to entering the original Time Elapsed Since Neolithic Revolution and Land Quality in the model separately (see online appendix).

Is there a more direct way than the FE models to assess whether the MENA countries that switched from monarchical to republican rule are driving the results? The results from the first stage of the TE-IV model suggest that there is: this first-stage model is quite good at explaining Monarch. This allows me to construct a "counterfactual" version of Monarch in a way that biases against finding a positive relationship between Monarch and political stability. I construct Counterfactual Monarch in two steps. First, using the equation represented by Column 4a, I calculate the predicted probabilities of observing monarchical rule in each year for Iran, Iraq, Libya, Yemen, and Egypt, the countries that switched from monarchy to republicanism (these predicted probabilities are graphed in the online appendix). Second, I code a country year as Counterfactual Monarch when the predicted value of observing a monarchy is merely above 0.1 (with the range varying from 0 to 1). This means that four out of the five regime switchers—Iran, Iraq, Libya, and Yemen—are coded as monarchies for several years after they transitioned to republican rule. Specifically, Counterfactual Monarch is coded as a "1" for the regime switchers during several years in which the observed values of Monarch are coded as a "0." Namely, Iran is coded as a counterfactual monarchy between 1981 and 2006; Iraq is coded as a counterfactual monarchy between 1978 and 2006; Libya is coded as a counterfactual monarchy between 1973 and 2006; and Yemen is coded as a counterfactual monarchy between 1973 and 2006. In short, several country years are coded as monarchic in years in which the probability of observing a monarchy is relatively low, therefore making it harder to find an association between Monarch and political stability if the reason for this association is because the surviving monarchies are particularly robust regimes that are inherently less likely to suffer from instability.

In Column 5, I report the results of a reestimation of the pooled model represented by the regressions reported in Table 1 using Counterfactual Monarch. Counterfactual Monarch is negative and highly substantively and statistically significant. The Conflict Index is reduced by 212% for the monarchies versus the republics (p-value $<$ .001). This suggests that the surviving monarchies are not driving the results because of some unobserved feature that makes them both more likely to remain monarchies and less likely to suffer from political conflict.

What about the relationship between Monarch and alternative ways of measuring political instability? While monarchy should be negatively associated with violent conflicts that can threaten the regime, it should not be associated with civil actions that may serve as a relief valve that keeps citizens from seeking violent means to elicit political change. Specifically, although Monarch should be negatively associated with Revolutions, Government Crises, Guerilla Wars, Purges and Assassinations, it should not be systematically associated with Antigovernment Demonstrations, Riots, and Strikes. Each of the latter is an example of either civil disobedience or criminal matters involving conflict between private citizens (e.g., riots).

Fortunately, I can address these hypotheses because these types of political conflict are coded separately by Banks (2009); indeed, they are the building blocks of the Conflict Index that I have employed thus far (the online appendix includes the definitions and coding rules for each of these subcomponents). Each of these variables is originally a count variable; I transform them into binary variables by recoding a country-year as a "1" if one or more episodes of political conflict are observed in any given year. I then estimate a series of Probit models that include linear, quadratic, and cubic terms for leader tenure to address temporal dependence (see Carter and Signorino 2010).[15] The results are also robust, however, to using Banks' original count versions of these variables and estimating Poisson models (see online appendix).

In Table 3, I reproduce the results of these regressions. As theorized, Monarch is negatively associated with Revolution, Government Crises, Guerrilla War, Purges and Assassinations at the highest level of statistical significance (p-value $<$ .001). Ceteris paribus, moving from nonmonarchy to monarchy reduces the probability of revolution by 16% (Column 1), the probability of a government crisis

[15]These estimations are robust to contemporaneous correlation and heteroskedasticity because the robust standard errors are clustered by year. If they are instead estimated with the standard errors clustered by country and year dummies, the results are similar (see online appendix).

TABLE 3 Determinants of Political Instability

	1	2	3	4	5	6	7	8
Dependent Variable	**Revolutions**	**Government Crises**	**Guerrilla War**	**Purges**	**Assassinations**	**Antigovernment Demonstrations**	**Riots**	**Strikes**
Monarch	**-0.763**	**-0.699**	**-0.494**	**-0.712**	**-0.632**	**-0.216**	**0.086**	**0.679**
	[4.76]* **	**[3.73]*** **	**[3.05]*** **	**[3.62]*** **	**[3.48]*** **	**[1.15]**	**[0.45]**	**[1.82]***
Economic Growth	-0.011	-0.014	-0.001	-0.013	-0.007	-0.0155	-0.012	-0.024
	[1.88]*	[1.97]**	[2.01]**	[1.81]*	[0.89]	[2.55]**	[2.02]**	[2.71]***
log(Total Fuel Income PC)	-0.049	-0.105	-0.102	0.017	-0.173	-0.04	0.028	-0.002
	[1.78]*	[3.13]***	[3.07]***	[0.44]	[4.20]***	[1.29]	[0.96]	[0.02]
log(Population)	-0.097	0.129	0.079	0.14	0.351	0.361	0.416	0.541
	[1.21]	[1.52]	[0.85]	[1.30]	[3.15]***	[3.25]***	[4.27]***	[3.13]***
log(Area)	0.167	-0.065	0.047	0.033	-0.102	-0.107	-0.143	-0.253
	[3.04]***	[1.46]	[0.83]	[0.46]	[1.63]	[1.61]	[2.45]**	[2.55]**
Percent Muslim	-0.002	0.026	-0.001	0.041	0.011	0.025	0.007	-0.031
	[0.25]	[2.53]**	[0.10]	[3.28]***	[1.15]	[2.23]**	[0.60]	[1.80]*
Ethnic Fractionalization	1.334	1.241	1.471	2.33	0.536	1.543	0.988	-0.064
	[3.85]***	[3.13]***	[4.81]***	[5.05]***	[1.03]	[3.32]***	[2.35]**	[0.07]
log(Per Capita Income)	-0.178	0.164	-0.067	-0.247	0.342	0.134	-0.048	0.13
	[2.37]**	[1.81]*	[0.74]	[1.99]**	[2.77]***	[1.41]	[0.51]	[0.58]
Persian Gulf	0.28	-0.035	-0.298	-0.038	0.619	-0.267	-0.474	-1.215
	[2.15]**	[0.17]	[1.86]*	[0.18]	[2.75]***	[1.92]*	[2.97]***	[2.14]**
Democracy	-0.017	0.428	0.242	-0.265	-0.034	0.239	0.273	-0.14
	[0.08]	[2.33]**	[1.26]	[0.97]	[0.17]	[1.09]	[1.66]*	[0.43]
Constant	-10.157	-4.357	-2.825	-35.456	4.913	-12.671	-9.704	58.326
	[1.39]	[0.39]	[0.31]	[2.96]***	[0.46]	[1.31]	[0.83]	[3.46]***
Cubic Time Trend	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	921	921	921	921	921	921	921	921
Countries	19	19	19	19	19	19	19	19
Pseudo R-squared	0.15	0.19	0.16	0.31	0.13	0.11	0.15	0.24

Notes: Probit Regressions on different subcomponents of the Conflict Index robust z statistics clustered by year in brackets.
* significant at 10%; ** significant at 5%; *** significant at 1%.
This analysis is conducted on the MENA between 1950 to 2006. These are pooled regressions estimated via maximum likelihood with robust standard errors clustered by year to address heteroskedasticity & spatial correlation. Linear, Quadratic and Cubic Time Trends estimated to address temporal dependence but not reported. Results robust to estimating robust standard errors clustered by country and year dummies to address temporal dependence and spatial correlation, respectively.

by 11% (Column 2), the probability of guerrilla war by 49% (Column 3), the probability of a purge by 5% (Column 4) and the probability of assassination by 8% (Column 5). Also as theorized, Monarch is not systematically associated with Antigovernment Demonstrations (Column 6) or Riots (Column 7) and is actually positively associated with Strikes (Column 8).

Readers may still wonder, however, if these results are systematically biased because both the Conflict Index and its subcomponents rely on media reports compiled by western sources and, particularly, the *New York Times*. Events reported in newspapers face a space constraint and are subject to other news of the day; moreover, events in small/less strategically important countries are less likely to be reported. To address said concern, I evaluate the relationship between Monarch and leadership survival. Drawing on the ARCHIGOS (2006) dataset, I construct a dataset with the leader-year as the unit of observation and code the variable Exit, which identifies whether a leader remains in power or loses power in any given year.[16] Using probit models with year polynomials and robust standard errors clustered by year, I estimate the odds of leadership failure/termination as a function of Monarch and the control variables used thus far. Monarch protracts leadership survival and is highly statistically significant. Ceteris paribus, moving from non-Monarchy to Monarchy reduces the probability of losing power by 7%.

[16]I right-censor this variable if the leader dies of natural causes, as the result of an accident, or if he is displaced by a foreign invasion. The results are reported in the online appendix.

Testing Political Economy Hypotheses

According to the theory of monarchic political culture introduced in this article, the relationship between Monarch and several political economy outcomes should be positive. The first is the rule of law and the absence of corruption. The second is the security of property rights. The third is the size of the financial system. The fourth is the growth rate of Per Capita Income.

To test the first hypothesis, I operationalize the rule of law/lack of corruption as the Quality of Government (QOG) Index from the International Country Risk Guide. This is the average of a "Corruption," "Law and Order," and "Bureaucracy" index and based on subjective perceptions about the prevalence of corruption in the public sector, respect for the rule of law, and the bureaucracy's professionalism. While each of these components is measured on a 6-point scale, the QOG index is normalized to run from 0 to 1, with 1 denoting the best institutions. The QOG index (n = 429) varies between 0.11 to .81 with a mean of 0.48 and a standard deviation of 0.14.

To test the second hypothesis, I follow Clague et al. (1996) and measure property rights as contract-intensive money (CIM). As Clague et al. summarize, "Those forms of money, such as currency, that rely least on the fulfillment of contractual obligations by others will be preferred when property and contractual rights are insecure, whereas other forms of money are more advantageous for most purposes in environments with secure contract-enforcement and property rights" (1996, 254). CIM is measured as the ratio of (M2-M1) over M2, where M2 is "money and quasimoney" and M1 is money outside the banking system. Data are from the World Bank's World Development Indicators. CIM varies between 2.9% and 96% (n = 775; mean = 44.1; standard deviation = 25.1).

To test the third hypothesis, I take Private Credit (% GDP) from the Financial Structure Database (it varies between 1.7% and 99.9%; n = 417; mean = 29.8; standard deviation = 22.7), and to test the fourth hypothesis, I measure economic growth as the real (logarithmic) growth rate of Per Capita Income (2000 international dollars) on a yearly basis and expressed in percentage terms (for coding and sources see online appendix). The mean growth rate across MENA between 1950 and 2006 (for 969 observations) is 1.5% (with a standard deviation of 8.7, a maximum value of 57 and a minimum value of −95.4).

Table 4 reports the results of these tests. Because there is a paucity of solid empirical findings on the determinants of the Rule of Law, Property Rights and Private Credit, I take a conservative approach and control for all of the independent variables included in Tables 1 through 3. Monarch is positively associated with the QOG Index at the highest level of statistical significance (Column 1). Ceteris paribus, moving from nonmonarchy to Monarchy increases the index by almost one standard deviation (0.13 points). Monarch is also positively associated with secure property rights at the highest level of statistical significance (Column 2). Ceteris paribus, moving from nonmonarchy to Monarchy increases CIM by 6.19 percentage points. Monarch is also positively associated with Private Credit at the highest level (Column 3). Ceteris paribus, moving from nonmonarchy to Monarchy increases Private Credit by 19.2 percentage points.

Economic Growth is the dependent variable in Column 4. This regression includes Monarch and several control variables from the literature on growth. Log(Total Fuel Income) is added to address the resource curse. Several covariates suggested by Barro (1998) are also added: log(Per Capita Income), since a larger market implies greater demand for goods and services; Trade Openness (Total Trade as a % of GDP from the Penn World Tables 6.2), which should be positively associated with growth; the Government Share of GDP (in percentage terms from the Penn World Tables), since higher government spending may crowd out investment and lower growth; Democracy, because many researchers hypothesize that democracies grow faster than autocracies; and Ethnic Fractionalization, because Alesina and LaFerrara (2005) find that ethnic diversity lowers growth. Monarch is positively associated with growth at the 5% level.

One might wonder, however, if MENA monarchies experience higher growth rates because they adopt procyclical policies—not because they foster greater savings and investment; one might also wonder if these results suffer from endogeneity bias. Therefore, Column 5 reports the results of a regression that controls for the Consumption share of GDP (in percentage terms from the Penn World Tables), which should be higher when the government loosens monetary and fiscal policies. Monarch is still positive and statistically significant. Ceteris paribus, monarchies grow 1.7 percentage points faster than republics. Finally, in the online appendix I report TE-IV two-stage regressions where, as in Table 2, Column 4, I instrument Monarch with Agricultural Legacy. Monarch is still positive and retains its significance.

Table 4 Testing other Empirical Implications

	1	2	3	4	5
Dependent Variable	**QOG Index**	**CIM Ratio**	**Private Credit**	**Economic Growth**	**Economic Growth**
Monarch	**0.132**	**6.194**	**19.196**	**1.692**	**1.628**
	[10.93]* **	**[3.66]*** **	**[6.82]*** **	**[2.28]** **	**[2.19]** **
Economic Growth	0.002	-0.05	-0.405		
	[2.63]**	[0.61]	[3.22]***		
log(Total Fuel Income PC)	0	-1.328	-4.905	-0.238	-0.18
	[0.18]	[3.20]***	[8.85]***	[1.45]	[1.28]
log(Population)	0.035	15.288	13.022		
	[3.97]***	[17.58]***	[10.65]***		
log(Area)	-0.022	-9.583	-7.071		
	[7.08]***	[27.15]***	[8.48]***		
Percent Muslim	0.003	-1.107	0.305		
	[4.34]***	[12.87]***	[2.31]**		
Ethnic Fractionalization	-0.123	-32.203	-5.45	-2.759	-2.547
	[5.99]***	[11.00]***	[0.72]	[1.82]*	[1.47]
log(Per Capita Income)	0.052	16.172	17.973	-0.674	-0.619
	[4.62]***	[17.36]***	[14.60]***	[0.98]	[0.81]
Persian Gulf	-0.044	15.412	-8.224		
	[3.75]***	[6.69]***	[3.13]***		
Democracy	0.017	0.758	-38.054	1.283	1.293
	[0.98]	[0.33]	[10.08]***	[1.71]	[1.73]
Government Spending				-0.086	-0.08
				[3.14]***	[3.26]***
Trade Openness				-0.001	-0.001
				[0.10]	[0.15]
Consumption % GDP					0.011
					[0.38]
Constant	-0.493	-112.57	-278.204	8.359	7.177
	[3.33]***	[14.49]***	[12.80]***	[1.42]	[0.90]
Observations	429	775	417	786	786
Countries	19	19	19	19	19
r-squared	0.48	0.65	0.55	0.03	0.04

Notes: Ordinary Least Squares (OLS) Polled Regressions with Driscoll-Kraay Standard Errors (DKSE) and Newey West Adjustment (NW). Heteroskedasticity and Autocorrelation consistent t statistics in brackets.
* significant at 10%; ** significant at 5%; *** significant at 1%.
This analysis is conducted on the MENA between 1950 to 2006. These are pooled regressions estimated via OLS with DKSE to address heteroskedasticity and spatial correlation. A NW adjustment of the error term with a one lag length is made to address first-order serial correlation. Results robust to Panel Corrected Standard Errors with Prais-Winsten Transformation (AR1); robust to a two-stage Treatment Effects, Instrumental Variables (2S TE-IV) Model instrumenting Monarch with Agricultural Legacy.

Are the results concerning political stability, the rule of law/absence of corruption, property rights, private credit, and economic growth robust to controlling for other dimensions of institutional variation among autocratic regimes? For example, Geddes (2003) stresses the importance of whether the autocracy is a single-party regime, military dictatorship, or a personalist regime. And Bueno de Mesquita et al. (2003) focus on the size of the winning coalition and the selectorate. In the online appendix, I report the results of a series of regressions in which I control for Single Party, Military Regime, and Personalist, as well as the size of the Winning Coalition and Selectorate. Monarch always retains its substantive and statistical significance.

Conclusion

This article helps us to gain purchase on the variation in political turmoil we observed in the MENA in early 2011. The obvious pattern, noted by both ocular

regression and journalists, is that the region's monarchies have been largely spared of violence—with the exception of Bahrain—while the "republics" have not. A theory about how a monarchy's political culture solves a ruler's credible commitment problem, therefore boosting the elites' support of his rule by promoting the rule of law, securing their property rights and fostering economic growth, makes sense of this pattern. Using a time-series cross-section dataset of the MENA countries observed between 1950 and 2006, I corroborate this theory and show that monarchs are less likely than nonmonarchs to experience several types of political conflict. I use an instrumental variable that proxies for the legacy of tribalism, the time that has elapsed since the Neolithic Revolution, to show that this result is causal, and runs from monarchy to political stability. I also show that monarchy is positively associated with the rule of law, property rights, private credit, and growth.

These results suggest an interesting paradox. While the MENA regimes that have best weathered the Arab Spring are the least modern, in terms of possessing a legacy of nomadism, tribalism, and monarchical rule, they are also those that have better approximated a liberal capitalist order. Whether they are also likely to experience political liberalization that will one day culminate in democracy—as perhaps recent reforms in Morocco, Kuwait, and the UAE augur—remains to be seen.

Acknowledgments

I thank Michael Albertus, David Laitin, Stephen Haber, Margaret Levi, Nimah Mazaheri, Jennifer Noveck, Maggie Peters, and Jessica Weeks for comments on earlier versions of this article. I also thank three anonymous reviewers for their terrific feedback and the editors of the *Journal of Politics* for their consummate professionalism.

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