Politically-Connected Firms and the Military-Clientelist Complex in North Africa

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Abstract

In this paper I put forward a theory explaining the political reactions of businesspeople to the collapse of a corrupt regime. I show in this paper that following the collapse of such a regime, the survival of centralized rent-distribution networks post-transition is a crucial influence on business political behavior. When autonomous actors are able to quickly replace the former dictator and co-opt rents, such as occurred in post-Arab Spring Egypt with the rise of the military, businesses may be forced into a coordinated political coalition in support of regime change, while in other cases, businesspeople may create individual relationships with new elites that are much less directed at wide-scale mobilization. To establish the theory, I examine original observational and experimental survey evidence of businesspeople in post-Arab Spring Egypt and Tunisia.¹

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The collaborative relationship between authoritarian rulers and crony capitalists in much of the developing world is usually based on the provision of rents, or club goods that firms can use to achieve monopoly profits, such as access to protected markets. Rulers provide goodies to politically-connected firms, and in exchange these companies support the regime. This theory of business support for autocrats, however, makes it difficult to determine how businesspeople will behave following a regime collapse in which patronage relationships suddenly disappear. While we know that regime transitions do not always augur true changes in the underlying nature of economic and political power (Acemoglu and Robinson 2008; Houle 2009; Albertus and Menaldo 2018), it is difficult to explain precisely how corrupt elites will respond to a sudden loss of their political partners. In this article I propose a crucial variable which can help explain the political direction taken by post-transition business elites: whether or not an institutional actor is capable of quickly re-assuming control over rent distribution networks. The rise of a new gatekeeper can condition business political action post-transition and augur in a new and powerful coalition. Absent such a gatekeeper, however, business politics are likely to revolve around more pedestrian efforts to establish corrupt relationships with new power-holders on behalf of individual firms.

To test this theory, I examine original data from online surveys of businesspeople in two North African countries, Egypt and Tunisia. Business communities in both countries suffered the sudden loss of friendly regimes when the Arab Spring protests led to the collapse of the Ben Ali and Mubarak dictatorships. While businesspeople in both countries harbored latent anti-democratic preferences as a result of these abrupt changes, only in Egypt did a true coalition emerge capable of threatening democratic institutions. In Tunisia, by contrast, businesspeople rapidly adapted themselves to democratic competition, finding ways of influencing politicians without having to commit to costly and partisan political action.

As I show in this paper, the best explanation for this divergence in business political behavior between the countries centers on the economic and bureaucratic might of the Egyptian military, a powerfully autonomous political actor which survived the downfall of the dictator and quickly increased its control over rents and economic resources. As I document with original survey data, the Egyptian military's economic linkages to companies as suppliers and

consumers vastly exceed that of the Tunisian military, a difference grounded in the long-term historical trajectories of the prior dictatorships (Sayigh 2019; Abul-Magd 2017; Marshall and Stacher 2012). The Egyptian military’s hegemonic presence as both an economic and political actor provides little maneuverability to Egyptian companies, who as a result show far more interest in political support of the military than Tunisian companies do of any institution.

However, not only is this clear when comparing Egyptian to Tunisian companies, but also when comparing different types of Egyptian companies. In a conjoint experiment in which I randomize the institutions from which a company might want to seek influence, I find that it is those companies that lack existing connections to the military that were the most eager to obtain them. In other words, the military’s influence is not limited by direct relationships with companies but rather extends more broadly to companies that fear an increasing military presence in their own industries.

After surveying recent work on politically-connected firms and military enterprises, I put forward a theory of firm political engagement in developing countries following regime transitions. I then describe and validate the online survey dataset. Next, I provide a broad overview of firm political engagement in the countries studied, and I then examine pre-registered survey experimental treatments concerning the role of the military in encouraging political participation among firms.

1 Narrow Versus Broad Rent-seeking

This paper focuses on the relationship between the leaders of developing countries, particularly in the Middle East and North Africa, and the burgeoning numbers of crony capitalists in these states. In recent years the study of these relationships has generated a wide-ranging literature on politically-connected firms (Fisman 2001; Faccio 2006), which are usually defined as companies with either an owner or board member who is a politician or bureaucrat. These backward linkages between ostensibly private firms and political power can act as a form of property rights enforcement against bureaucrats who might expropriate firm assets, or in extreme circumstances, even the firm itself (Frye 2017; Markus 2015; Haber, Razo,

and Maurer 2003; Diwan and Haidar 2020). Political connections can also be a way for firms to obtain rents in terms of government contracts (Goldman, Rocholl, and So 2013; Charumilind, Kali, and Wiwattanakantang 2006) and government loans (Saeed, Belghitar, and Clark 2015; Arriola 2013; Claessens, Feijen, and Laeven 2008), as well as a useful tool to use to punish rivals by influencing bureaucratic allies to target competitors with regulatory hurdles (Diwan, Keefer, and Schiffbauer 2015).

While in many developing countries, including those in this study, relatively little is known about how and to what extent private companies undergird politicians, it has been amply demonstrated that businesspeople matter to the formation and longevity of political coalitions, whether pro-authoritarian or pro-democratic (Arriola 2013; Blaydes 2011; Bellin 2002; Reuter and Szakonyi 2019). Most theories of business support of these regimes is premised on the assumption that access to valuable rents involves a bargaining game where business owners compete for rents while rulers try to reward supporters and punish rivals by withholding rents (Sfakianakis 2004; Gehlbach and Keefer 2011).

Presumably there exists an unseen equilibrium where business owners receive the perks necessary to continue operating while rulers obtain consent from influential elites (Haber, Razo, and Maurer 2003), funds for parties in elections (Boubekeur 2013) and less tangible but nonetheless quite real social pressure on employees to support the regime (Hibou 2011; Hertel-Fernandez 2017). These bargains are likely the cause of very low firm turnover in the Middle East and North Africa, in which large firms rarely go out of business and startups are rarely successful (Schiffbauer et al. 2014). As the region is known for its long-standing authoritarian regimes, it stands to reason that these bargains have been relatively successful for both sides.

While the nature of state-business relations has become increasingly well-documented in developing countries, much less is known about how businesspeople adapt to situations in which the ruling regime collapses. We know that such regime collapses can have immediate adverse affects on those businesses most closely connected to the ancien regime (Acemoğlu, Hassan, and Tahoun 2017; Fisman 2001; Earle and Gehlbach 2015); however, over time businesspeople will react to the new political order. Relatively little is known about business

political engagement in these circumstances other than it is much more difficult for democratic activists to root out corruption than they claim after taking power (Chalmers and Setiyono 2012; Sung 2004). Presumably, businesses must be at least partly responsible for the perpetuation of corrupt relationships post-transition.

To clarify the decision problem facing businesses, I propose that there are two main ways that businesspeople may seek to adapt to an adverse regime change in the sense that they could lose valuable working relationships with regime officials. The first and most common type of response that businesses could adopt is what I call **broad** rent-seeking, which involves companies developing individualized relationships with power holders across the political spectrum. This strategy is often optimal following a democratic transition because policy disorder means that the number of residual claimants in the government increases. Rent-seeking is likely to diffuse across the system of government, involving many small networks of businesspeople and bureaucrats with sporadic intervention by the national executive (Markus 2015). Whatever their latent anti-democratic attitudes, established businesses can become participants in the new system, even if their willingness to overlook rules such as campaign finance regulations may contribute to the corruption of an incoming regime (Hummel, Gerring, and Burt 2019).

The net effect of broad-rent seeking on the political system is likely to result in continued corruption among the bureaucracy and political elite, though it may be difficult to pin the blame for these problems on any one actor or political actor. However, there is a different way that businesspeople could react that comes with more consequences for the political system. I contrast **broad** rent-seeking with **narrow** rent-seeking, in which companies are forced to concentrate their political action on a single political actor and its coalition. This actor would need to have considerable leverage to bargain with businesspeople over access to rents, and consequently coerce businesspeople to pay a higher price in terms of political support in order to maintain access to rents. Individualized relationships may no longer be enough to sustain business interests because such a powerful gatekeeper is able to reward or punish defectors from its coalition.

In this paper I propose that militaries are institutions capable of assuming this role by

increasing state control over the distribution of rents and privileges during the chaotic post-transition period. As military economic control increases, businesses may be forced to deal with a hegemonic actor capable of rewarding supporters and punishing opponents, changing their political engagement strategies.

Given that the movement of a military into the distribution of rents seems to conflict with the essential nature of militaries, I define the institution under study as a military-clientelist complex: a broad penetration of the military into diverse economic sectors that has little to do with providing for defense needs, although military personnel may still use that rationalization in public. This phenomenon has been observed before in case studies of the military presence in regions as diverse as Latin America (Mani 2011), sub-Saharan Africa (Moyo 2016), central Asia (Golkar 2012), the Middle East and North Africa (Marshall and Stacher 2012) and east and southeast Asia (Brömmelhörster and Paes 2003).

The military has natural advantages in the control of rents in weak state systems due to its hierarchical command structure and its premier status as the defender of a country's sovereignty. In countries with weak state institutions and low infrastructural power, military coop-proofing strategies (Grewal 2016; Izadi 2020) in addition to under-equipped regulators can create an opening for military economic penetration that overcomes principal-agent problems by concentrating access to rents in the military itself. In countries with permeable state institutions, these military-clientelist complexes are still poorly understood in terms of their influence on firms in the broader economy and political outcomes more generally. The data presented in this article represents the first such comparative quantitative information about the scope of military-clientelist complexes, building on prior research on the Egyptian military's burgeoning commercial enterprises (Marshall and Stacher 2012).

This focus on the military as an economic actor also has theoretical significance. The demands of militaries were seen as a cause of early state-building and capitalism in Europe (Tilly 1992). In states with weak property rights regimes, militaries stand apart as institutions that control the use force, which gives them a prerogative over other influential actors. As North, Wallis, and Weingast (2009) argue, it may well be that control over violence is a key precondition to the existence of stable property rights regimes. It is important to note

these connections to theoretical ideas about the nature of economic development and state power (Bates, Greif, and Singh 2002).

To examine this difference between narrow and broad rent-seeking, I further focus on a particular type of corporate political action, that of business support for parties during elections. This operationalization focuses on an important domain in which businesspeople can pay costs to political brokers, i.e. parties, to obtain rents and protection from expropriation. All of the countries in this study hold regular elections, whether in authoritarian or democratic regimes. Businesspeople in the countries under study are also known to participate by holding party rallies, running for office, and providing payments to parties for election expenses (Boubekeur 2013; Hibou 2011; Canen, Ch, and Wantchekon 2020; Szakonyi 2018). Furthermore, elections in authoritarian and democratic regimes are times during which firms are known to seek influence and obtain favors in exchange for support (Magaloni and Kricheli 2010). Businesspeople are very important players in the mobilization process due to their control over private resources, making it more likely they could defect to an opposition group (Arriola 2013). The precise meaning of elections will vary between the countries in this study, but the presence of business influence and rent-seeking does not, and so it is an important area in which to test the proposed theory.

2 Research Design

The research design is intended to capture variation between companies both within and across countries in terms of their political engagement. The outcome to be explained is firm-level political action aimed at securing crucial rents from the state. As such, the unit of analysis is the company, though the firms are clustered within two countries.

The countries selected for this study are both alike in having large numbers of crony capitalists. While this forms the basis for their inclusion in the study, there is also substantial heterogeneity in terms of the types of regimes that rule each country. At the time this study was conducted in the summer of 2017, Egypt had reverted back to military dictatorship after a brief democratic interlude during 2011 to 2013, the so-called Arab Spring. Tunisia,

on the other hand, had transitioned from a long-standing dictatorship to democracy in 2011 and has remained democratic. Both countries have similar levels of wealth, corruption, and political cleavages, especially between secular and Islamist political factions. It should be noted that I define Egypt as a military dictatorship because the military remains the most influential political actor even if the president is nominally a civilian.

It is the behavior of businesses in Egypt that is the puzzling case to explain, and which is the main focus of this paper. The military regime, which had ruled four years by 2017, the date of initial data collection, had promised economic prosperity backed by infusions of capital from the Gulf. Egyptian businesspeople by and large supported the military coup, whether out of concern for the Islamist project of the Muslim Brotherhood, a desire for greater political stability, or for a concern over the rebalancing of access to rents in favor of Brotherhood supporters (Adly 2017).

While the multi-billion dollar Saudi-led aid package for the Egyptian military regime did materialize, widespread benefits of that largesse for Egypt's business community did not. The country's president, former Egyptian general Abdel Fattah El-Sisi, spent billions of dollars in cash on mega-projects like a massive expansion of the Suez canal. During field research in Egypt in late 2016, I learned that while these contracts did reward some companies, redistribution was centered on core, long-term supporters of the military and firms tied to ex-military generals. The wider business community, including influential businesspeople who supported the military coup, were left with little to show for their dedication to the military's cause.

By 2017, the military had burned through its foreign cash infusion and was instead in talks with the IMF to implement an austerity program.² The value of the Egyptian pound had collapsed and foreign investment remained dismal (Momani 2018). Furthermore, the IMF reforms, according to my interviews in Egypt, were going to fall most heavily on private businesses because military-linked firms were exempt from proposed value-added tax increases under the umbrella of the Ministry of Defense. At the same time, the military's economic

2. See Middle East Eye, Aug. 6 2019, <https://www.middleeasteye.net/news/egypt-and-imf-success-or-failure>.

penetration was increasing with new ventures, encroaching further on business' turf.

While this would seem like a ripe setting for business mobilization against the authoritarian regime, no such mobilization was occurring in 2017 (or has occurred since then). Explanations arising from the importance of single-party institutionalization cannot explain this outcome as the military has been hesitant to devolve power to the toothless parliament, preferring to concentrate decision-making in its own councils and that of the president. The military's dominance was so strong that opposition to their economic reforms has been minimal even among those businesspeople elected to parliament. This level of business compliance was remarkable in comparative terms, particularly when considering that many of the reforms that the IMF wanted had been demanded of the old pre-Arab Spring military regime but steadfastly undermined by politically-connected businesspeople. For some reason, businesspeople in Egypt appeared resigned to their fate, sensing that opposing the military would be as effective as moving the pyramids on their backs.

I argue that in Egypt, as opposed to the more open and chaotic Tunisia, the military's economic infrastructure channeled rent-seeking into a hierarchical system. This infrastructure, which I define below, helped produce a perception among businesspeople that the military was a hegemonic actor capable of controlling access to rents. This perception was not necessarily accurate, and as I show in this paper, the military-clientelist complex is of considerable size but does not account for the majority of economic activity. These perceptions very likely led to a belief among businesspeople that the military's economic and political prerogatives were growing too rapidly to be ignored.

The first hypothesis that I test using this data is to prove that the Egyptian military-clientelist complex is measurably larger than Tunisia. Documenting exactly how connected the military is across sectors is necessary to know if business perceptions of the military have some basis in reality. If the military-clientelist complex in Egypt is in fact no larger than its neighbors, then explaining business political behavior through that lens would be a futile exercise.

H1: Firms in Egypt are more likely to rely on military-affiliated companies as suppliers and consumers than firms in Tunisia.

The second empirical fact I seek to determine is whether companies do indeed seem to respond to the changing political environment when it negatively affects them. This second hypothesis should apply to both countries equally as both countries experienced regime change at the same time. If my theory holds, then companies that report negative outcomes like having to pay more in bribes or face more hostile actions from regulators should also be more willing to engage in political activity.

H2: Following regime transitions, companies that lose access to government officials are more likely to engage in political activity.

The next two hypotheses test the argument that should explain differences between these two countries as well as within them. First, if narrow rent-seeking is happening in Egypt around the military-clientelist complex, then I would expect that businesses in this country should show a willingness to focus their political engagement on this specific institution actor as opposed to others:

H3: Firms in *countries with high levels of military involvement* in the economy are more likely to focus political engagement on the military as opposed to other institutions.

However, it is not enough simply to show a higher level of political responsiveness of Egyptian businesses to the military vis-a-vis firms in Tunisia. It is also important to demonstrate that the willingness of companies to seek benefits is not restricted to those who are already enmeshed in the military-clientelist complex. As such, I also test the following hypothesis, which is core to the argument:

H4: Firms without close linkages to the military are more eager to obtain connections to the military than those without.

If support for the military as an actor is limited to those companies with close existing links to the military, then there would not appear to be any narrowing of channels of rent. The

military has only attained a truly hegemonic position vis-a-vis business if all businesses are willing to seek their support for obtaining rents. Otherwise their support is more limited to core supporters, i.e. those firms who already participate in military contracting.

It is important to note that Hypotheses 3 and 4 were pre-registered prior to data collection and are listed as Hypotheses 5 and 7 in the pre-registration plan in the appendix (re-worded for clarity).

Finally, I also consider an alternative explanation. It could be the case that higher support for the military in Egypt among a cross-section of firms is better explained by the military's ability to employ coercion rather than as a result of the narrowing of channels of rent. To test this alternate explanation, we can consider whether firms' willingness to respond to appeals for election support vary with a firm's belief that it is likely to be expropriated:

H5: Egyptian firms will be more likely to respond to appeals for support if the offer of rent is protection from expropriation by the military as opposed to other rents.

If repression is what firms fear, then they should respond more positively to military-linked appeals for support when offered protection from expropriation as opposed to other rents.

To test these hypotheses, I use both observational and experimental data from an employee survey in both countries. While the first two hypotheses can be answered with observational data—reported levels of company involvement with military contracting and reported levels of company political action—the rest of the hypotheses make reference to difficult-to-observe counterfactuals, namely measuring support for the military within an election. In an actual election, such as the most recent in Egypt under the military government, only candidates approved by the government were allowed to participate. In Tunisia there is a more open democratic system, but nonetheless, there is still a missing counterfactual because our ability to learn about business' support for parties is limited by recent political history.

For these reasons, it can be difficult to divine the reasons why a company may or not be politically involved in an election. It could be that the parties lack infrastructure to effectively canvass businesses for support, such that only some businesses receive such requests.

Parties may also target businesses they believe would support them, such that requests for support are correlated with prior support or personal connection with the party/candidate. Some business owners may have a stronger taste for politics, whether others prefer to remain a-political, another factor that will determine how many requests or offers for political support they receive. If we really want to know whether a business is interested in supporting the military through some kind of tangible manner in an election, then we would want to know whether the business would prefer to back the military as opposed to a counterfactual in which they receive *the same request*, albeit on behalf of a different political actor. Furthermore, as discussed earlier, we have a strong prior from existing research that a company's interest in political action is heavily conditioned by the particular needs of that company's business model. Importers prefer assistance with customs, whereas financial firms need assistance with regulators, etc.

To provide inference over these missing counterfactuals, I implemented a form of a conjoint experiment. In a standard conjoint experiment, respondents often choose between two alternatives which have randomized attributes, such as choosing between two political candidates in a hypothetical election. I modified this design so that the alternatives are instead requests for electoral support from two different political parties to a company in which the company's CEO must decide whether to respond positively or negatively. The pairing of requests encourages respondents to think hard about the difference between the two offers, reducing survey satisficing (Hainmueller, Hangartner, and Yamamoto 2015). For the purposes of this study, the experiment enables me to control the offers that firms receive in a hypothetical election and also the potential rents they would obtain from political action. Because the types of offers made to a given company are randomized, the offers do not depend on a company's prior political connections, industry, or sectarian/ideological proclivity.

The experimental vignette is as follows:

A member of a political party calls your CEO's office. The representative says that the party is in need of funding for their upcoming electoral campaign for the parliament. How likely do you think it is that your CEO would provide funding to each of these parties because of this appeal?

The party will ensure that ACTOR1 APPEAL1.

The party will ensure that ACTOR2 APPEAL2.

The ACTOR and APPEAL texts represent different attributes of the offers that were independently randomized. Each of the possible treatments are shown in Table 1. The actors represent institutions that could provide crucial rents to the firm whether at the national or local level. The various rents a firm might desire are represented by the different appeals. By independently randomizing these parts of the party’s offer to the firm, I can estimate a broad range of counterfactuals in which a company receives offers that will be more or less relevant to the company’s industry and allow me to test whether the company is interested in “broad” rent-seeking, or only those institutions/rents most relevant to its industry, or in “narrow” rent-seeking, a certain institution that acts as a gatekeeper. The party in this context represents the broker who is arranging for a transfer of influence for electoral resources.

For the ACTOR treatment, I include a generic “government” actor that is used as a baseline because it does not signal any specific political institution. Because I am interested in estimating rent-seeking behavior, I included in the APPEALS attributes a baseline macro-economic reform message that would not provide any rents to the firm. Companies more responsive to this treatment would presumably be companies with little interest in obtaining rents as opposed to larger policy concessions. It is important to note that changing the baseline attribute only shifts the treatments by a constant (the baseline treatment effect), and as such does not define the strength of the treatments per se. But it is also important to keep in mind that the null hypothesis is defined by the baseline. In other words, an effect of 0 represents a treatment attribute that is statistically indistinguishable from the government/macro-economic reform offer from a party to a firm.

After the offer, each respondent is to answer three questions about their boss’ reaction to each offer on a scale of 1 to 10:

How likely do you think it is that your CEO would instruct employees in your firm to vote for this party because of this appeal?

Table 1: Treatment Profiles for Conjoint Survey Experiment

Number	Types of agencies	Types of benefits
1	military	does not try to take control of your firm
2	Ministry of Interior	does not try to take your firm's profits
3	President	helps your company secure permits from regulators to do business
4	Ministry of Justice	helps your company secure contracts to supply goods
5	parliament	helps your company export its goods & services
6	municipality	helps your company import necessary materials
7	government	will implement reforms that encourage economic growth and lower unemployment.

Note: Reproduced from survey pre-registration.

How likely do you think it is that your CEO would use your company’s resources to hold rallies or distribute advertisements for this party because of their appeal?

How likely do you think it is that your CEO would provide funding to each of these parties because of this appeal?

I use these 1 (least likely) to 10 (most likely) outcomes to evaluate the rest of the hypotheses. To test hypothesis 2 concerning aggregate political engagement by firms across countries, I estimate an OLS model on each 1-10 outcome with country dummies as regressors along with the full range of treatments.³

What is particularly important about this design is that the effect of institutions is separate from the effect of the rents a company might obtain from those institutions. This separation will allow me to determine if an institution has a separate effect apart from rents, or whether the importance of a certain institution to a business is limited to particular rents the business requires.

3 Data

Collecting data on firm political behavior in low-capacity states is a challenging endeavor. Part of the definition of low-capacity is that states have difficulty in controlling and collecting information on powerful elite actors (Soifer 2008; Slater, Smith, and Nair 2014). In addition, low state infrastructural power means that the information necessary to construct a representative sample, such as a firm census, may either be unavailable or of low quality. Most recently, the World Bank Enterprise Surveys have massively expanded the data available on firms in developing countries by surveying representative samples of firms in over a hundred countries (“Enterprise Surveys” 2018).

However, the Enterprise Surveys have limits that make them less than ideally suited for this research. The first limit is the basic challenge of building representative firm samples. For

3. All of the conjoint estimations were done using the `cjoint` package in R (Hainmueller, Hopkins, and Yamamoto 2014).

Table 2: Percentage of Total Annual Sales Paid as Informal Payment from World Bank Enterprise Surveys

Country	Year	Average % Total Sales	% Missing
Egypt	2013	0.56	13.50
Egypt	2016	1.45	12.40
Tunisia	2013	0.28	30.07

example, the most recent Enterprise survey in Tunisia failed to obtain a firm census and had to rely on web-scraping a public directory web site where the majority of company records turned out to be incorrect or out of date (“Enterprise Surveys: Tunisia 2013 Implementation Report” 2013). Second, and most importantly, the survey questions are restricted in terms of their reach into firm-government relations because the World Bank needs to maintain cordial relations with the host government. For example, questions about whether firms lobby the government were included in the first waves of the survey but later dropped (Weymouth 2012).

Finally, even for the questions about politics and corruption that we do have from the Enterprise Surveys, non-ignorable missing data is a problem. Figure 1 shows missing data rates and average responses for a key corruption question from the Enterprise Surveys for Tunisia and Egypt: the percent of total sales that an enterprise pays annually in bribes. This is one of the most direct questions about corruption asked in the survey, and as can be seen, missing data rates are never lower than 12%. It is highly likely that at least some of this missing data is non-ignorable, i.e., firms willingness to report the information is correlated with the amount that the firm paid in bribes. The number also displays some possible measurement issues, as the reported average paid in bribes surprisingly tripled in Egypt between 2013 and 2016.

To make matters worse, Egypt strictly controls survey research, and doing further surveys on any kind of political topic is verboten under the military dictatorship. As a consequence, if data collection were only permitted in more open countries, it could risk an important sample selection bias in only including countries that are more transparent and consequently less crony-ist.

For these reasons, instead of employing a standard firm survey design, I instead recruited an online panel of employees and managers from all three countries using Facebook advertisements. This method of online panel recruitment is similar to what online panel providers like Qualtrics and Yougov employ, except that in this case the advertisements were targeted at a very specific sample rather than trying to form a nationally representative panel.

Facebook was chosen as the media of recruitment because of its widespread usage in the Middle East. Regional survey data from 2017 show that internet usage has increased dramatically in the last five years, and more than 50 percent of the population own smart phones capable of accessing the internet. For individuals older than 25 with a secondary education or higher, i.e. likely professionals, 64% of Egyptians and 69% of Tunisians use Facebook (67% and 81% if only considering those with a university degree). These high and rising numbers make Facebook the most popular medium in the country besides television.⁴

This remarkably direct method of recruitment, though, does not guarantee by any means that all respondents will have good or perfect knowledge of political activities. A large number of respondents was recruited precisely because it is assumed there will be considerable measurement error in how respondents' evaluate their companies political connections. A thorough simulation-based power study of this experiment was conducted prior to launching the survey (see Appendix B), which included measurement error in the treatment. Even given a relatively modest treatment effect and measurement error, a sample size of approximately 2,000 has greater than 80% power. The obtained sample of 1,607 responses ensures that although respondents will vary in the quality of information they have about their firm's political connections, the results should be able to average over this idiosyncratic measurement error.

In the appendix I provide more detail about Facebook sampling and analyze the survey demographics relative to national labor market surveys. The results show that the survey proportions are remarkably close to population proportions, and the exceptions are in those categories that have a low number of formally incorporated companies, such as agriculture. Furthermore, as I show in the appendix, the survey was able to recruit a large number of

4. See <http://www.mideastmedia.org/survey/2017/> for more information

Table 3: Percentage of Total Annual Sales as Informal Payment from Facebook Surveys

Country	Average % Total Sales	% Missing
Egypt	2.45	6.50
Tunisia	3.14	6.75

^a Ordinal scale converted to numeric scores by assigning midpoint of the ordinal category as a numeric value. For those who chose the top category, a value of 50% was assigned.

managers, even at large firms, while missing data rates for the experimental outcomes were very low.

As a final point of comparison, Table 3 shows a tabulation of data for a very similar question to the World Bank’s bribery as a percentage of sales question shown in Table 2. As can be seen, missing data rates for this question are at least twice as low as the World Bank survey. Furthermore, the reported numbers do not vary nearly as much, and cluster within a much more reasonable range of 2-3% of firm sales. For sensitive questions like these where non-response is a potentially serious problem, anonymous online surveys have considerable advantages.

4 Results: Observational Findings on Politically-Connected Firms

To test the first two hypotheses, I examine historical reporting about firm political activity from the two surveys. As such, all of the results in this section come from employees’ and managers’ experiences of firm political activity in the past, whereas in the next section I examine the conjoint experiment to ascertain how these firms would respond if I could equalize their exposure to offers for political connections. All of the results in this section also marginalize over missing-data imputation uncertainty.

I first look descriptive statistics from a question that employees answered concerning their firm’s political activities: whether their firm had contributed funds to parties, told employees

how to vote, organized a campaign rally or distributed campaign information in the previous round of elections. The average responses for each of these survey questions are shown in Figure 1 for respondents at domestic companies. The starkest difference for domestic firms is the rate of firms ordering employees to vote for a specific candidate. The highest rate, at approximately 13%, can be found in Egypt, while the lowest rate, at approximately 7%, can be found in Tunisia. Given that the other reported political activities are relatively similar across countries, the clearest finding from self-reported political behavior is that the rate of employee vote coercion by employers in Egypt is twice the rate of Tunisia. While this finding is descriptive, it provides important evidence that companies in Egypt appear to be engaging in a type of politicking, ordering employees to vote for particular candidates, that is more associated with national-level electoral politics due to its explicitly partisan nature. By contrast, it is quite possible to give funds to parties across the political spectrum without having to make any political commitments, as appears to be quite common in Tunisia.

Figure 1: Reported Firm Political Activity by Country

Next I examine questions from the survey concerning the size of the military-clientelist complex. The intention here is to understand whether the hypothesized military-clientelist is much larger in Egypt than in other countries in Tunisia. Measuring this complex is no easy task. While the anonymous survey gives me the ability to ask sensitive questions about firm relationships with the military, I am also limited in that I cannot ask respondents to poke around their firm to collect detailed data on transactions. Instead, to measure firm connections to the military I asked respondents to rank the top suppliers and consumers to the firm in descending order: state-owned enterprises, military-owned enterprises, domestic companies, households, in-house, and imported/exported from/to third country. I can then calculate average ranks of military-owned enterprises relative to these other categories of suppliers and consumers, the results of which are shown in Figure 2 by different firm sectors.

Figure 2: Ties between Military-Linked Firms and North African Companies

Figure 2 clearly shows that the military-clientelist complex is far larger in Egypt than Tunisia as measured by firm reliance on military-affiliated companies as either consumers or suppliers.

On the whole, the military has more connections to companies as a consumer than a supplier, though it still ranks as the 4th most important supplier across Egypt’s sectors. In Tunisia, by contrast, only in one sector (finance) is the military the 4th most important relative to other economic actors. While descriptive, these plots provide compelling evidence of the breadth and scope of the military-clientelist complex as expressed H1. It is straightforward to document the surprising size of the Egyptian military clientelist complex, confirming prior work on its expansion over the past ten years (Sayigh 2019; Marshall and Stacher 2012; Abul-Magd 2017).

To examine H2 concerning whether businesses respond to adverse political shocks by engaging in more political activity, I fit a Bayesian logistic regression model to predict domestic firms’ attempts to coerce employees to vote for a specific candidate. I include the rank of the military as a consumer and a supplier as an independent predictor, along with a series of controls, including firm sector, size, whether the respondent is a CEO, manager or an employee, firm performance, whether the firm is part of a conglomerate, the number of times a firm was inspected by government regulators, whether the firm obtains Islamic loans (a marker of potential religiosity), the percentage of firm income paid in bribes, and whether a firm’s bribe payments have increased since the Arab Spring in 2011. The model is fit separately to each country and the results are shown in Table 4.

In both countries, it is clear that indicators of a loss of government influence, namely whether bribe payments have increased and the level of inspection activity in the past year, are positively associated with ordering employees to vote for specific candidates. The count of inspections is positively related to vote coercion, though the effect appears to be linear rather than quadratic. Bribe payments has the largest substantive effect, although vote coercion appears to rise linearly with the number of times inspected, suggesting that both factors have a strong relationship as a firm could be inspected as many as 100 times (though the average is much less). Interestingly, though not perhaps surprisingly, respondents who are managers are less likely to report employee vote coercion than the employees themselves in Tunisia.⁵

5. It is not clear absent further research why this is the case. It could be due to social desirability bias, although another plausible explanation is that the higher up a respondent is in the company, the less likely

Table 4: Model Predicting Firm Employee Vote Coercion by Country

Variable	Egypt	Tunisia
Rank Military Customer	-0.106 (-0.276, 0.061)	-0.056 (-0.34, 0.233)
Rank Military Supplier	-0.07 (-0.248, 0.103)	-0.134 (-0.425, 0.15)
No. Times Inspected	0.064 (0.029, 0.1)	0.07 (0.01, 0.132)
No. Times Inspected ²	-0.001 (-0.001, 0)	-0.001 (-0.002, 0)
Percent Bribes Paid	0.056 (0.005, 0.106)	-0.067 (-0.156, 0.014)
Bribes Increase	0.668 (0.183, 1.571)	0.811 (0.273, 1.729)
Islamic Loans	0.016 (-0.61, 0.61)	-1.075 (-2.366, 0.096)
Conglomerate	0 (-0.487, 0.474)	0.64 (-0.249, 1.504)
Firm Performance	-0.01 (-0.091, 0.073)	-0.04 (-0.196, 0.114)
No. Firm Employees	0.172 (0.081, 0.267)	-0.097 (-0.269, 0.067)
Manager	0.025 (-0.41, 0.466)	-0.76 (-1.581, 0.051)
Construction	-0.26 (-1.259, 0.749)	122.857 (7.43, 389.154)
Finance	0.178 (-0.981, 1.333)	123.389 (7.983, 389.349)
Manufacturing	-0.143 (-0.994, 0.766)	123.711 (8.277, 389.946)
Mining	0.863 (-0.732, 2.415)	123.416 (8.025, 389.499)
Services	-0.152 (-0.964, 0.718)	122.384 (6.979, 388.446)
Intercept	-5.502 (-9.193, -3.209)	-127.183 (-393.648, -11.741)
R ²	0.11 (0.071, 0.152)	0.15 (0.077, 0.233)
N Obs	706.46 (688.95, 728.05)	412.1 (400, 424)

Note:

Estimation of Bayesian logistic regression using Markov Chain Monte Carlo with Stan to handle issues of perfect separation. 5% - 95% HPD intervals in parentheses. The number of observations has an uncertainty interval due to imputation uncertainty in the number of domestic firms.

It is important to note that it is whether bribes have *increased* that is most strongly related to political activity, not the total amount of bribes paid. The percent of bribes is weakly related to increased political activity in Egypt, but is negatively related to political activity in Tunisia. By contrast, increases in bribe payments is strongly related to vote coercion in

they are to know everything that occurs at lower levels. In any case, this association shows why it is important to include both employees and managers in the sample.

both countries. This over-time relationship lends credence to H2 that those firms who are most politically active following a regime transition are those that suffered some kind of setback in terms of their access to government officials and the provision of valuable rents. In other words, companies have different structures to engage with in both countries, but they have the same imperative to do so.

Finally, I note that the rank of the military as a customer or supplier is negatively related to these kinds of political actions in Egypt, though the effects are modest and the 5% - 95% interval includes zero. This implies that, to the extent that there is a relationship, companies with stronger links to the military were more likely to tell their employees to vote for a specific candidate in the last elections.

However, as I show in the next section, the weak observational relationship between political action and military connections is confounded by likely selection mechanisms for which we cannot control in this analysis. The companies that already had closer connections to the military prior to taking partisan actions were very different from companies that did not have them. Many more companies would very likely have wanted to opt in to these arrangements if they were given the option, but we cannot go back in time and equalize those opportunities. For these reasons, the effect of connections to the military-clientelist complex is not causally identified in this analysis. To provide clearer inferences, in the next section I randomize political offers to firms to see how they might respond if offered a bargain with the military in exchange for valuable rents.

5 Results: Narrow vs. Broad Rent-seeking

As mentioned, the role of this section is to provide crucial insight into an unobserved counterfactual: how would companies respond if they could obtain a wide variety of rents from a wide variety of institutions from political brokers? We can never observe this counterfactual as parties craft messages to be the most appealing to companies and certain companies are much more likely than others to receive appeals. I first present the sample ATEs for all the treatment types, both rents and political actors, in Figures 3 and 4, by country and by

outcome type (i.e., whether the CEO would give funds to a party, tell employees to vote for the party, or hold a rally for the party). These baseline treatments help us understand the extent of within and across-country diversity in how companies respond to political appeals for support.

For the rents offered in treatments, it appears that there is relatively little systematic differentiation, though companies prefer defined benefits like government contracts and licenses than less defined benefits like protection from government expropriation. Figure 3 shows that the baseline (dotted line) treatment, the macro-economic reform message, in fact performed quite well, as well or better than most of the rent-based treatments, and definitely out-performed the treatments related to control or confiscation of the firm. We do not expect substantial differentiation across firms for these treatments on average as there is widespread heterogeneity in which rents a particular firm might prefer. The preference for defined benefits versus protection from expropriation is an interesting finding, but not central to the study at hand.

Similarly, we can use the ATEs in Figure 4 to understand the level of differentiation in institutions providing rents to companies. Figure 4 shows that companies in Egypt are much more responsive to appeals from national institutions like the Ministry of Interior, the Ministry of Justice, and in particular the military. On the other hand, we see relatively little institutional differentiation among the preferences of Tunisian companies, as we would expect in a broad rent-seeking system. In fact, Tunisians prefer the MOI and the military less than the baseline treatment (the government), and for one outcome, holding political rallies, they prefer municipalities the most. As such, this Figure 4 shows clear differences in how companies evaluate institutions, with specific institutions much more prominent in Egypt, a form of narrow rent-seeking due to the gatekeeping role of these institutions.

While the ATEs for the sample as a whole provide some initial evidence for H3 that Egyptian companies are more politically responsive to the military compared to other institutional actors, I also have the ability to probe much deeper into these relationships by examining inter-firm exposure to the military-clientelist complex. As I described previously, I have a theory that the military-clientelist complex in Egypt has had a significant role in encouraging

Figure 3: AMCEs for Rent Treatments (Appeal Types) by Country and Dependent Variable

Figure 4: AMCEs for Political Actor Treatments by Country and Dependent Variable

firm ;political action, although at the stage at which I am implementing the survey, four years after the 2013 military coup, support for the military should have broadened beyond those firms with a close economic relationship with the military if my theory is correct. Firms should now be very aware that the military has become a gatekeeper with control over a wide array of rents. Consequently, support for the military should be uncorrelated or even anti-correlated with existing economic relationships with the military. This is the hardest test for the theory to pass as it implies a seeming contradiction: businesses with greater economic dependence on the military-clientelist complex may be less likely to respond to political appeals offering benefits from the military compared to those without connections to the military.

To test H3 and H4 regarding the type of firm political activity, I interact the military as a treatment in the conjoint experiment with the relative rank of military-affiliated companies as a supplier or consumer to the firm. This test is straightforward: if H4 is true, then firms without close economic relationships to the military should be the most likely to respond to an offer of rent from the military as an institution.

To test this hypothesis precisely, I estimated an OLS model for each outcome with the military-appeal treatment interacted with the relative rank of military-affiliated companies. These ranks, which were shown in average values in the descriptive section, range from 1 as the highest value and 6 as the lowest given that there were six options offered to respondents to rank. I estimate two sets of models, one for each type of connection to the military (consumer or supplier). Figure 5 shows the military customer interaction broken out by country and dependent variable, while Figure 6 shows the military supplier interaction by country and dependent variable.

If hypothesis 4 is correct, then the dots should slant to the left for the military treatment, i.e., firms with reportedly higher level of dependence on military-affiliated companies should show greater preference for receiving rents from the military as opposed to the baseline actor (the government). While Tunisia has conflicting patterns, in Egypt the interaction always slopes to the left or is a straight line. In fact, Figure 6 shows that Egyptian firms with the lowest dependence on military-affiliated companies as suppliers are actually *more* likely to

respond to an offer of rents from the military. In other words, in the Egyptian sample this hypothesis is supported, while the other sample show either little variation or conflicting patterns, as we might expect given that we have do not have theory that predicts clear results for Tunisian companies' relationship with the military.

These results provide strong support that companies in Egypt, are 1) appearing to act collectively at higher rates and 2) no longer doing so with a purely rent-seeking agenda, at least with regard to how rents are conventionally understood. However, there is an important alternative explanation to consider, that of military repression (hypothesis 5). Perhaps the political action targeted at the military is more out of fear of the military's coercive capabilities versus its rent-seeking apparatus.

I can test this alternate mechanism by seeing if firms are more likely to take offers of protection from expropriation from the military as opposed to other kinds of rents, such as export/import permissions and licenses. In other words, I can examine if appeals that have the military and protection from expropriation together in the treatment do better than treatments with the military and other kinds of rents. Figure 7 shows the interaction of the military treatment for the Egypt sample with each rent treatment where the baseline is the neutral reform message. The two rents that relate to expropriation—Control for the government seizing control of a firm and Confiscate for the government confiscating firm income—are highlighted in red. While there are differences in terms of which rents tend to encourage more responses when paired with the military, the overall dispersion is modest. The only two interaction that are significantly different than zero (i.e., different than the baseline reform message) are contracts and import licenses, and this only holds for one of the outcomes, holding party rallies. The Control rent is one of the larger effects but the differences between treatments are not statistically distinguishable. On the whole, there is little evidence to suggest that fears over expropriation as opposed to other incentives, such as obtaining government contracts or obtaining licenses, are the underlying reason for firm political engagement with the military in Egypt. In fact, it would seem that the military treatment is relatively effective given virtually any rent offered to the company, which is strongly supportive of the narrow rent-seeking hypothesis.

Figure 5: Interaction of Military Customer Rank and Military Treatment by Country and DV

Figure 6: Interaction of Military Supplier Rank and Military Treatment by Country and DV

Figure 7: Interaction of Military Treatment and Rents: Egypt Sample

6 Discussion

While effort has been put forward in this paper to substantiate the underlying mechanism—the reactions of companies to changes in the distribution of rent—most of the evidence presented so far is quantitative and behavioral. To provide some additional qualitative evidence of how the respondents in the survey interpreted the treatments in their own words, I include here some quotations from open-response questions that were included with each of the conjoint survey experiments. While these quotations do not constitute a separate formal test of the hypotheses, they do offer evidence that the interpretation assigned to the results in this study does match with what respondents themselves said. The following quotations show Egyptian respondents’ responses mentioning the military:

Under military-ruled countries, bribery is the dominant feature of the business sector.

The army is the one that has the reins of the country.

Working in a state ruled by army general with tyranny, this facilitates the spread of bribery in the country which puts investors in a constant state of fear from being bullied and the [risk of the military] taking over his money and companies.

The CEO [of our company] is a former major-general at the Administrative Control [unit], he isn’t easily influenced by anyone or easily dominated by anyone.

By contrast, respondents in Tunisia see the military as a marginal actor:

The army doesn’t intervene in politics in Tunisia.

The ministry of interior and the army do not assist anyone, unless there is a guaranteed benefit for them.

In our opinion, the army is unlikely to interfere in our field.

These quotations, while limited in terms of their ability to formally test hypotheses, provide some descriptive evidence that at least some survey respondents do have beliefs that match with the theory put forward in this article. Egyptian respondents do see the military as a remarkably hegemonic actor, while Tunisians are willing to ignore the military or see it as an irrelevant actor. The most plausible explanation is that the military's growing control over the dispersal of rents, documented in this article both with survey data and prior studies, is creating a climate in which they are seen in Egypt as an actor that every business must come to terms with.

In summary, these results provide illumination into the inner workings of these Middle Eastern regimes that are each experiencing political stress. Tunisia, the only democracy, has struggled with ongoing issues of corruption, and firm employees report higher rates of party finance from firms in previous elections compared to other countries. However, rates of employer voter coercion are much higher in Egypt. This finding suggests that regime type may play a role in how politically-connected firms engage with regimes. Employer vote coercion may be higher in authoritarian countries because democratic institutions penalize such behavior more strongly. Identifying regime type differences in politically-connected behavior is a subject for future research.

It is interesting to note that the higher level of firm collective action in Egypt helps explain the military regime's remarkable durability. After coming to power in 2013, the Egyptian military has presided over faltering economic growth, increased corruption, repression of powerful political actors, and a growing insurgency in the Sinai delta. Businesspeople have suffered as the regime acquiesced to IMF-backed tax increases even as military-affiliated companies were exempt. Despite this dismal performance, business and other elites have remained lock-step in support of the military, and these results help explain why businesspeople have stuck with the regime even if it would not appear to be in their immediate self-interest.

7 Conclusion

By exploiting a novel online survey technique to recruit businesspeople, I put forward the first experimental study of politically-connected firms in the Middle East and North African region. Employees reported that their firms engaged in a range of political activities from providing funds to parties in elections, hosting campaign rallies, and ordering employees to vote for particular candidates. The most politically active companies tended to be ones that paid at least some bribes and faced increasing numbers of inspections from government regulators, ramifications of the regime transitions in both countries.

I also employed an experimental technique to test a theory that explains how firm rent-seeking has changed in Egypt since the military's coup in 2013. While existing theories based on rent-seeking models of firm behavior would predict that firm political engagement should vary by industry, firm size and asset specificity, I show that firm political activity also responds to the cohesiveness of structures governing access to valuable rents. I provided tests that showed that these firm-level differences were driven by Egypt's powerful military-clientelist complex, representing a broad penetration of military-affiliated companies into diverse economic sectors.

While the most straightforward explanation based on existing theory would argue that those firms with the closest linkages to the military should be politically engaged, I show that in Egypt in fact the opposite occurs: firms that are more distant from the military as either a consumer or supplier are at least as or more likely to respond to offers of rent from the military. The fact that support for the military is not limited or concentrated among those firms most highly enmeshed in the military-clientelist complex suggests that firms are facing a dilemma in which they must engage with the military or risk losing access to property right protections and other privileges.

In general, this research stresses the importance of understanding the mechanisms through which rents are distributed in developing countries with large numbers of crony capitalists. In countries with narrow rent-seeking, powerful actors may be able to control a larger share of the disbursement of perks, creating incentives for businesspeople to coordinate around

a central actor. In countries where bureaucracies have more freedom from central actors, political engagement is more conditional and directed at each firm's idiosyncratic needs.

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