

DID CONFLICT BREAK TRUST IN THE MIDDLE EAST AND NORTH AFRICA
(MENA)?: EVIDENCE FROM THE TUNISIAN CASE

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By

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ABSTRACT

Since the onset of the Arab Spring in 2010-11, governments in the MENA region struggle to rebuild the broken trust among their citizens and break the vicious political cycle in which the “Arab Spring keeps coming back.” Hitherto academic literature agrees that instability and institutional weaknesses in the MENA region persist, and countries will keep relapsing into conflict unless governments gain back the trust of their citizens. At the same time, little is known about how erupting conflicts and civil unrest in the MENA region further erode trust in government. Exploiting Arab Barometer (AB) survey and georeferenced data on conflict events from the Armed Conflict Locations Events Data (ACLED), I study the effect of conflict on political trust. Using individual and city-level data from Tunisia between 2011 and 2018, I find that protests have a first-order negative impact on trust in Tunisia. From a policy perspective, my findings underscore the importance of targeted institution-building measures aimed at regaining the trust of the citizenry in post-conflict nation-building efforts.

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To the exceptional community at McCourt who, despite all, made a choice to try to make the world a better place - thank you for enriching my graduate experience and teaching me how to be a better policymaker and a better person.

To my mum and my siblings, thank you for always believing in me. I would not have made it thus far without you.

Yours,
Farah Kaddah

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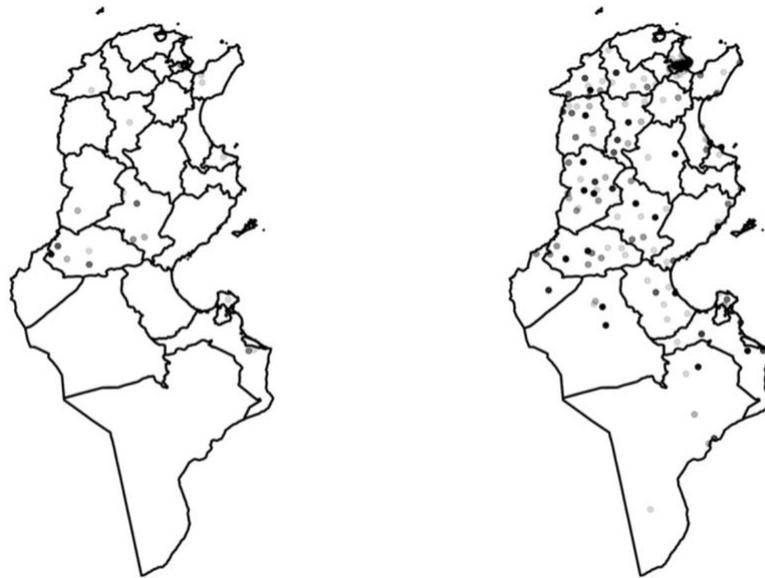
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Introduction and Background

A decade ago, the regional order in the Middle East and North Africa (MENA) broke down due to internal tensions between (and amongst) citizens and the government. The governments failed to uphold their social contract towards their people which led to deterioration in their legitimacy and triggered conflict (Sørli, Gleditsch, and Strand, 2005). Rebuilding that social contract has been continuously failing in most countries, and the “Arab Spring keeps coming back”, characterized by a vicious cycle of instability and conflict reoccurrence (Devarajan and Ianchovichina, 2018). In that process, political trust has been severely damaged; with 64% of respondents from Arab Spring countries reporting that they have little or no trust in the government in 2018. Removing outliers (Egypt and Yemen) where citizens predominantly trust the government, the collective distrust falls to more than 75% (Wittes, 2016; ‘Arab Barometer’).

For this paper, I focus on Tunisia as it provides an interesting case of a country in which the Arab Spring originated and eventually spilled over to other Arab countries. In 2010, a poor fruit seller set himself on fire to protest police officers confiscating his goods. This event unleashed a series of uprisings in Tunisia and other Arab countries leading to the fall of several autocratic rulers; referred to as the “Arab Spring” (Al-Ississ and Atallah, 2014). After ousting its long-ruling President Zein Al Abedin, Tunisia embarked on a series of political reforms that were far from smooth. A new constitution was drawn in 2014, highlighting power-sharing between institutions of the presidency and the parliament. Internal fighting over power and instability persisted and parties failed to form functional coalitions (Boukhars, 2017). This was also coupled with - or rather - caused a failure of

successive governments to make slight improvements in the sharp unemployment and economic inequalities. Meanwhile, other major crises took place like the devastating terrorist attack on foreign tourists and security forces in 2015. Aggrieved citizens, year after year, have been expressing their anger and dissatisfaction, primarily through protests and street violence. Social unrest has spread throughout all Tunisian cities; in the midst of economic stability, security risks, and failure of governance (Ibid). The map below (Figure 1) compares the aggregate conflict 3 years before the Arab Spring (2007-2010) and 3 years after (2011-2014); with conflict clearly exploding everywhere in the country.



Data source:ACLED

Figure 1. Aggregate Conflict Three years before (2007-2010) and after (2011-2014) the Arab Spring

With the mounting political conflict in Tunisia, institution building and post-conflict development became challenging, especially in a context with painfully low trust in government. Tunisians are one of the least likely citizens in the Arab world to trust their

government after the Arab Spring between 2012 and 2020. Tunisians' trust in the government has been consistently and uninterruptedly eroding on the national level (refer to Figure 2). When citizens were asked if they trusted the government in 2021; a staggering 85% of the sampled population said they have little or no trust in the government. This trend is ubiquitous across all 24 cities in Tunisia (refer to Figure 3) where trust has been clearly declining over the decade following the Arab Spring.

These findings are of policy importance as trust is widely agreed upon as being instrumental to addressing coordination and cooperation problems that are vital in peace agreements and bargains (De Juan and Pierskalla, 2016). Empirical evidence has also indicated that trust has a positive effect on economic and social development (Knack and Keefer, 1997; Zak and Knack, 2001; Henrich et al., 2010). Other scholars have also established a strong positive relationship between trust and economic growth (Bjørnskov, 2012). Further, there is a consensus in the literature that the lack of trust makes it difficult to enforce orders/rules. Citizens are less likely to comply with government rules and regulations as well as reconstruction reforms if they do not trust the government (Levi and Stoker, 2000). Low trust in government signals a lack of legitimacy and thus reduces tax compliance. This leads to a vicious cycle where the government is not able to secure a stable stream of financing to uphold its part of the social contract (i.e. provide public services), inciting even more illegitimacy (Levi and Stoker, 2000). Importantly, the lack of trust can incite renewed conflict and the cycle continues (Cassar, Grosjean, and Whitt, 2013).

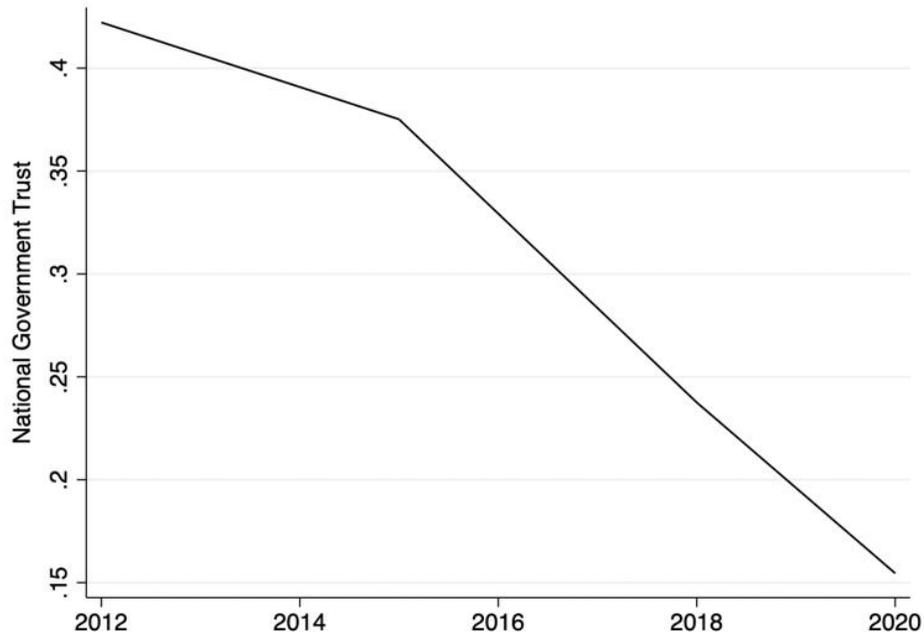


Figure 2. National Government Trust in Tunisia 2012-2020

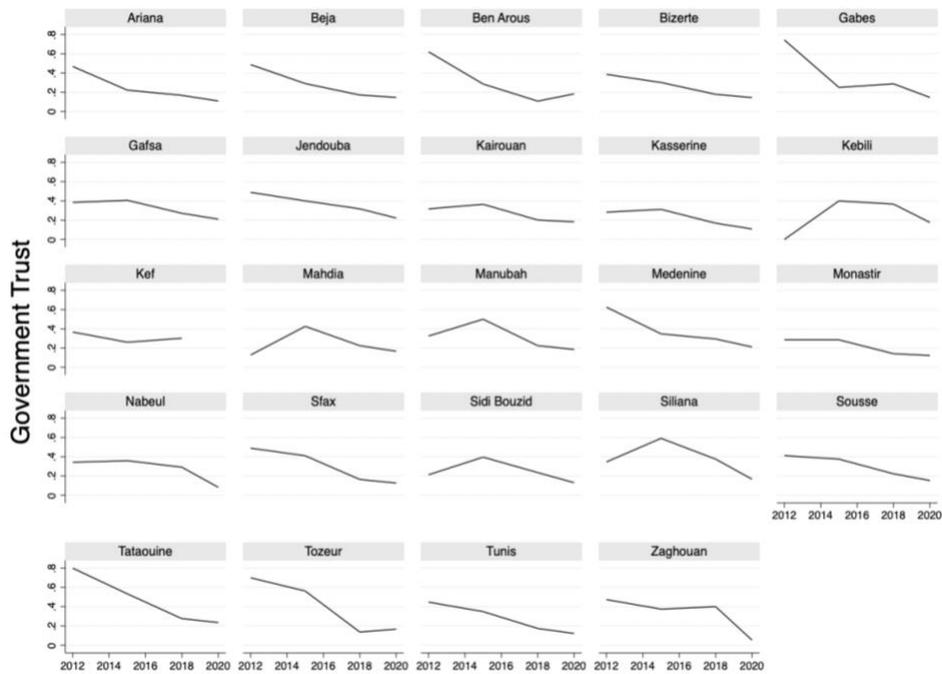


Figure 3. City Level Government Trust in Tunisia 2012-2020

That said, my paper is built on the premise that instability and institutional weaknesses in Tunisia will persist, and the country will continue in a vicious conflict cycle unless the government gains back the trust of the Tunisians. That said, my paper attempts to fill a gap in the literature linking erupting conflicts and civil unrest in the MENA region to further erosion of trust.

Theoretical Framework

Conflict as a driver of trust

Earlier research highlights the vicious developmental trap and disintegration of political, economic, and social institutions following conflicts (Collier and Hoeffler, 2002; Collier, 2004). Nonetheless, behavioral effects of conflict have received less attention in the quantitative literature. Evidence shows that exposure to conflict can shift preferences, which goes against economic theory regarding preferences as exogenous in the short term (Voors et al., 2012). In turn, it could affect norms and behavior – importantly - social and political trust (Bellows and Miguel, 2009; Blattman, 2009; Voors et al., 2010; Bauer et al., 2011). Other empirical work points out that post-war is characterized by uncertainty and volatility, which in effect reduces political trust (De Juan and Pierskalla, 2016). Nunn and Wantchekon (2011) have shown that a history of violence in Africa going back to the slave trade has negative effects on trust to this day. This shows that conflict has serious long-lasting implications on trust that could linger for hundreds of years. Other sources suggest that the memory of violence experienced during sociopolitical conflict crucially erodes trust when measured 3-4 years after the conflict. Trust in the state is believed to accumulate over decades, and frequently argued, it is also subject to great volatility. In other words, it

takes years to build trust, but little to break it (Sangnier and Zylberberg, 2017). Drivers of trust in MENA have received very little attention in the literature (Spierings, 2019), especially in the context of conflict. My research aims to provide a better understanding of the consequences of conflict by analyzing its impact on trust in Tunisia in the period between 2011 and 2018.

The literature suggests a few plausible frameworks through which political unrest and uprisings act on trust. Political unrest typically emerges in the wake of contextual events such as scandals and other events that bring to light the lack of integrity and fairness in the system (OECD^b, 2021). Further, uprisings signal that the state is unable to meet the demands of its citizens or in other words failed to contain their anger. Protests contribute to transforming the average citizen's awareness of the nature of the government. It is not that the average citizen was not aware of the bad situation in the country ex-ante but they are rather able to trace their struggle to the failure of the government to do its job and are likely to be more aware of the extent of corruption of public officials. Protests in this regard transmit private information to the rest of the society which could lead to informational cascades. In response, citizens would reevaluate their beliefs about the institutions leading to a further loss of trust (Sangnier and Zylberberg, 2017).

Another possible channel in which protests operate on trust is through violence and/or repression. This is in line with the literature on political mobilization showing that individuals who experienced direct and indirect violence have significantly less trustworthiness (Becchetti et al, 2011; Cassar, Grosjean, and Whitt, 2013). Research shows

that while protests play a role in trust erosion, the effect is much stronger when governments show signs of repression. Despite these rights being clearly enshrined in the constitution, 50% of respondents of the Arab Barometer (AB) question their ability to demonstrate peacefully (Arab Barometer, 2021). The old authoritarian practices in Tunisia before the Arab Spring keep resurfacing as citizens express their dissatisfaction with the government and the repressive habits of security forces and police personnel do not seem to have withered (Boukhars, 2017). The police cracked down on protestors on many occasions; resulting in violent demonstrations and even sometimes escalating into looting shops, blocking roads, and attacking public buildings (Abouzzohour, 2021; HRW, 2021; Aljazeera, 2022). Repression in this context reinforces the negative beliefs that the citizens had prior to protesting. A competing effect would be driven by pro-regime supporters who in stark contrast with the previous explanation, see protestors as a “minority” trying to block the government efforts. Government repression of this group is often an action worthy of praise rather than sanction (Passarelli and Tabellini, 2013; Sangnier and Zylberberg, 2017). This will tie with the results section later as I argue that regime supporters are diluting the magnitude of the loss of trust as a result of protests.

Furthermore, citizens who mobilize have expectations and hopes for improving their overall living conditions. Conflict weakens institutions and negatively impacts government efficiency in public service provision; and so these high expectations are more often than not let down (Brixi, Lust, and Woolcock, 2015). This is sometimes referred to as “relative deprivation”: a gap between expectations and achievement (Tripathi and Srivastava, 1981). When asked to rate the satisfaction with the current government’s

performance on a scale from 0-10, in which 0 is completely dissatisfied and 10 is completely satisfied, more than 90% of the population gave a 7 or less (Arab Barometer).

Synthesizing these insights, I hypothesize that conflict has broken trust in Tunisia which weakened the capacity of the state to rebuild institutions, implement regulations, and embark on political and economic reforms.

Empirical Strategy and Results

My main data source is the Arab Barometer (AB) survey; a nonpartisan research network aimed at providing a better understanding of the social, political, and economic attitudes and values of the population in MENA. They have been running high-quality public opinion surveys since 2006 ('Arab Barometer'). The surveys are all nationally representative and geographically distributed across all cities in each country including my country of focus Tunisia. I exploit wave V of the AB survey (2018-2019)¹ which includes 2400 Tunisians, specifically looking into the trust in government denominated by the question "Do you trust the government". Government trust is recoded as a dummy variable (1 "great and some trust, 0 "little and no trust")²

The other main data source is the Armed Conflict Locations Events Data (ACLED), which provides geo-referenced information on approximately 3,446 conflicts of various

¹ Tunisia was covered between October and December 2018

² Interpersonal trust, sometimes referred to as social trust, in Tunisia is extremely low where 90% of the population said the most people can be trusted. Interpersonal trust was not significant when regressed against all types of conflict, however it would be interesting to investigate what brought it to that low level, a topic for future research.

categories in Tunisia between 2011 and 2018. Conflict types are divided into 5 types: protests, riots, battles, explosions, and violence against civilians. For this paper, I will focus on protests as it has been the predominant form of social unrest in Tunisia since 2007.³ I constructed a protest intensity variable which is an aggregation of the number of protests in a given city from January 2011 to September 2018 and thus capturing the sum of protests from right after the Arab Spring in Tunisia started until October 2018 when respondents were asked about their level of trust in government. Protests in a given city are logged in the model⁴ to address the right-skewness in the data mainly because some cities, particularly, the capital - Tunis - experienced a disproportionately higher number of protests.

For the general specification, the combined AB-ACLED dataset is cross-sectional. Observations are on the individual level, where each row is a person with a recorded trust level in a given city linked to the aggregate number of protests specific to their city. The aim is to study the combined effect of conflict after the Arab Spring on trust during the time frame between 2011 and 2018.

Most earlier studies focus on the long-term effects of conflict, rather than the immediate aftermath behavioral effects. While the effects of trust in the long term, say 10-20 years, are important for many reasons as mentioned earlier, they are also equally critical

³ Conflict types: protest, riots, battles, violence against civilians, explosions and remote violence in Tunisia are strongly correlated. When collectively inserted on the right-hand side of the regression they absorb each other's effect on government trust and thus, I chose to focus on the most frequent type of conflict: protests.

⁴ Protests are logged +1 so as not to lose cities that had zero protests

in the immediate term when many of the institutional reforms, reconciliation, and elections are expected to take place (De Juan and Pierskalla, 2016). In this paper, I will study both short and long-term effects.

First, I analyze the relationship between government trust and protests by estimating the following cross-sectional Linear Probability Model (LPM) regression model:

$$\text{Government Trust}_i = \beta_0 + \beta_1 \text{Log(Protests)}_c + \sum \gamma_i + e_i,$$

where i denotes the individual and c cities. Trust (dependent variable) is an individual dummy variable for trust in government in 2018⁵; Protests (key independent variable) is the aggregate of conflict events after Arab Spring in a given city from 2011 to 2018⁶, and $\sum \gamma$ denotes a set of individual-level sociodemographic controls available in the survey, following the literature normally conducted on trust and conflict (Nunn and Wantchekon, 2011; Rohner, Thoenig and Zilibotti, 2013; Sangnier and Zylberberg, 2017; OECDa, 2021). Controls include standard individual characteristics such as gender, income, higher level of education, employment status, and religion to remove the effect of individual differences on trust. I also control for spatial location to absorb the variation in the level of trust that may have come about from the differences in living conditions and

⁵ I do not use 2021 trust in government despite the availability of trust data in AB wave 6 (2020-21) which I exploit later in the fixed effects model. This is because wave 6 data does not have many of the sociodemographic controls found in wave 5 which are important to include in the baseline multiple regression model to address omitted variable concerns

⁶ Unlike the fixed effects model covered in the later section, the LPM model does not use dummied protests as it is based on the combined effect of protests on trust. Almost all cities experienced protests at one point so in the 8 years of interest, there would have been no variation in protests to exploit.

norms in rural versus urban areas. And finally, I control for the number of fatalities associated with protests to isolate their reasonably negative effect on trust.

The main results are found in Table 1 (see appendix Table A1 for the detailed regression table) covering the baseline LPM model with and without controls. There is statistically significant evidence that the aggregate 8-years of protests after the Arab Spring have reduced trust in government, respectively, in specifications (1) and (2) absent and present conventional sociodemographic controls and protests fatalities. The interpretation of the exact magnitude of the negative relationship will likely be inaccurate due to data-generating issues. This is driven by concerns about how trust is measured in the survey and the dilution effect of regime supporters who could be benefiting from the status quo not to mention other aspects like the tendency of older age people to support the governing ruling group in MENA (refer to the discussion under the limitations section). As such, the estimates contribute to a broader trend of the negative relationship between political unrest captured in protests and trust in government.

Important to note, the loss of trust due to protests– the trust penalty- is more pronounced for some groups compared to others (see appendix Table A2). Conflict affects trust differently when it comes to gender, income, and employment status. Disaggregating gender results, I find that women’s trust in the government is disproportionately affected by protests as women seem to show greater losses in the trust-protests relationship compared to men. Additionally, housewives have also shown a greater magnitude of trust penalty compared to the full group. This seems to support the majority of literature that

highlights the gendered effects of conflict; where women typically experience these events disproportionately (Bardall, Bjarnegård, and Piscopo, 2020). In addition, removing respondents with incomes above the median from the regression heightened the trust penalty – suggesting that the trust loss for those who have incomes below the median is larger. This is in line with most literature showing that people with higher incomes are likely to trust the government more and *vice versa* (OECD, 2021).

Additionally, I ran a feature selection model using LASSO on all AB survey questions to identify the determinants of trust out of more than 100 variables. Out of the variables available in wave V of the AB, the results (see appendix Table A3 for regression table) suggest that the highest level of education, perceptions of government performance in terms of creating job opportunities, the extent to which government is tackling corruption, views about citizens supporting the government, frequency of sexual harassment and years lived in the neighborhood are the most important predictors of trust in the government. I use these variables as additional controls in my model to partially eliminate some omitted variable bias concerns. As seen in specification (3) the protests coefficient maintains its negative relationship with trust and is statistically significant.

Table 1. LPM Model - Effect of (logged) Protests on Government Trust

	(1) LPM	(2) LPM	(3) LPM
Logged Protests	-0.186**	-0.194*	-0.172*
Sociodemographic controls		YES	YES
Protests Fatalities		YES	YES
Additional controls			YES
Constant	0.289*** (0.0367)	0.299*** (0.0626)	0.639*** (0.0786)
Observations	2,245	2,091	1,785
R-squared	0.002	0.042	0.150

The unit of observation is on the individual and city level. Trust in government is a dummy variable coded as 1 “great and some trust” 0 “little or no trust”. Protests were transformed into logged protests to normalize data such as $\text{Logged Protests} = \text{Log}(\text{Protests}+1)$ so as not to lose observations with 0 protests. Sociodemographic controls include gender, the highest level of education, employment status, religion, and income below median. Additional controls are all the variables in the AB surveys that were selected by the LASSO model as predictors of trust. Regression results are adjusted based on survey weights. Significance levels: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Additionally, I also constructed a panel structure of the dataset to investigate whether yearly protests starting in 2011 affected government trust years later in 2018. Through running 8 separate regressions⁷ with yearly logged protests against trust in 2018 (see appendix Table A4), the findings confirm the literature that studies the long-term impact of conflict on trust levels of the population; highlighting the difficulty of regaining trust once it is lost. For the most part protests in 2011-2018 resulted in a trust penalty in 2018, seen in Figure 4. The results have a wide confidence interval that is predominantly to the left of zero; meaning that although varied, the negative effect of protests on trust is

⁷ Similar to the baseline regression above, the individual regressions control for sociodemographic characteristics and protests fatalities

significantly different from zero at conventional significance levels. This is true for all the studied years except for 2012 and 2014; where results maintain their negative relationship albeit not significant. This is likely due to focusing events that happened one year before 2012 and 2014. In 2011, Tunisia was governed by an interim government, preparing for parliamentary and presidential elections after the ousting of former President Ben Ali. In 2011-12, there was a wave of hope with the first democratic elections in years, and thus the nature of the relationship between protests and trust in government was different. Similarly, the year 2013 witnessed a few extreme shocks including the killing of an anti-Islamist leader, Salafi clashes with the police, and the assassination of opposition politician, Brahmi. Protests exploded as a result however the context was slightly different compared to the years under investigation (BBC, 2017; Abouaoun, 2019).

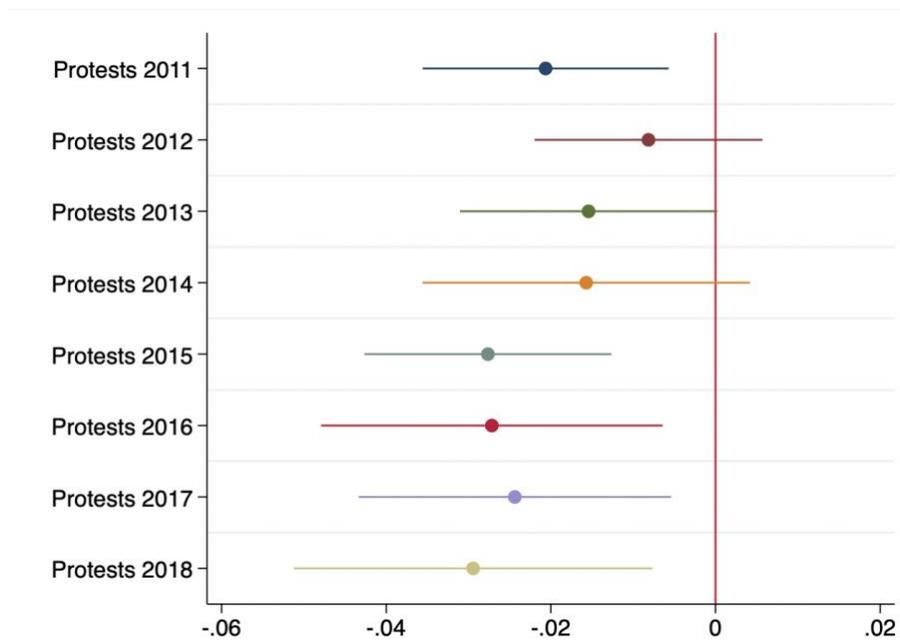


Figure 4. The Effect of Individual Year Protests (2011-2018) on Trust in 2018

Robustness Checks

To address reverse casualty and further omitted variable bias concerns, I adopt a fixed-effects model strategy that exploits the variation in trust across cities and over time using 4 waves of the Arab Barometer Survey in Tunisia in the years 2013, 2016, 2018, and 2021.

The model specification is as follows:

$$\text{Government Trust}_{c,t+1} = \alpha_0 + \alpha_1 (\text{Protests})_{c,t} + \text{i.city} + \text{i.year} + e_i,$$

where c denotes cities, t years, Trust is government trust dummy, i.city is city fixed effects, and i.year is year fixed effects. In the fixed-effects model, trust in a given year is linked to the sum of protests happening 12 months before the survey took place. For example, for the trust level collected in wave III of the AB survey in February 2013, the corresponding protests would have taken place in the period between February 2012 and January 2013. In this model, I test for both the effect of protests intensity (sum of protests) and the occurrence of the protests (protests dummy) on government trust. Running a fixed-effects model with city fixed effects will ensure that my results are not biased by city-specific unobserved factors that may affect trust levels; this could include cultural aspects, ethnic and religious composition, neighborhoods, etc. I also use year-fixed effects to capture shocks that are impacting all cities in a given year. Tunisia has experienced several political and economic shocks since the Arab Spring, most notably, the terrorist attack in 2015 and the Covid-19 pandemic (Abouaoun, 2019; Teyeb, 2021).

The results of the fixed-effects model are reported in Table 2. Specification (1) controls for city-level fixed effects and shows a negative significant relationship between protests intensity and government trust. The results clearly confirm the baseline LPM model findings where there is a trust penalty incurred by cities that experienced protests. Similar to the LPM specification model, the interpretation of the exact magnitude will not be accurate and thus, the results point to a general negative trend between protests and trust. Specification (3) controls for city-fixed effects where protest occurrence - captured by protests dummy - has shown substantially greater effect on trust and is also easier to interpret since the units are more straightforward. The existence of protests in a given city has deteriorated trust by 20% with city fixed effects. Adding year fixed effects to specifications (2&4) for conflict intensity and occurrence, respectively, maintains the negative penalty on trust but is not significant at conventional levels. The insignificance of the year fixed effects here is arguably due to the nature of year dummy controls; frequently reported as taxing to similar models (De Boef and Keele, 2008). Overall, the fixed-effects model shows a trust penalty associated with protests and confirms the LPM findings. It is suggestive that whether or not protests occur is more important to trust than their frequency.

**Table 2. Fixed Effects (FE) Model - Effect of Protest Intensity and Occurrence
(dummy) on Government Trust**

	(1)	(3)	(3)	(4)
	Logged Protests	Logged Protests	Protests dummy	Protests dummy
	-0.0769***	-0.0232	-0.195***	-0.0641
	(0.0153)	(0.0351)	(0.0305)	(0.0374)
Constant	0.476***	0.449***	0.381***	0.428***
	(0.0352)	(0.0623)	(0.0129)	(0.0312)
Observations	95	95	95	95
R-squared	0.356	0.561	0.303	0.568
Number of cities	24	24	24	24
City FE	YES	YES	YES	YES
Year FE		YES		YES

The unit of observation is on the city level. Logged Protests are logged(Protests +1) and are the sum of the frequency of protests events 12 months before trust was measured in the survey. Protests dummy is coded 1 for cities in which protests were greater than or equal to 10 in a given year. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Conclusion and Discussion

With the onset of the Arab Spring, the Tunisian government struggled to rebuild the broken social contract with its citizens. This resulted in a continuous spiral of conflicts that lasted for more than a decade. At the same time, trust in the government has been consistently and severely eroding over the years. Empirical evidence shows that trust has major socioeconomic implications and is key to the enforcement of regulations and reforms. Although little is known about the effect of conflict on behavior, the literature points out that exposure to conflict transforms perceptions and attitudes which in turn affects trust. Years of conflict such as in the case of Tunisia can shape behavioral elements

like collective awareness, grievances, and expectations which are tied to measures of government trust. My analyses of the relationship between government trust and the main form of expression for political disagreement in Tunisia (i.e. Protests) address a clear gap in MENA research on the indirect consequences of conflict. I find that there is a significant negative effect of protests on government trust over the period between 2011 and 2021. These results are robust to different models and verify that conflict has both an immediate and a long-term trust penalty. Supported by previous literature, the findings also help in understanding the effects of conflict on trust on different groups. Women (and housewives) and below-median income earners have shown greater trust penalties as a result of the conflict.

Although my research design controls for a large set of individual-level and city-level controls and has passed a few robustness checks addressing endogeneity concerns, the findings remain preliminary. Econometric strategies used cannot perfectly substitute for the unseen counterfactuals: what would have happened if there were no conflict. Future research will need to provide additional evidence on conflict implications on trust. First, using additional point estimates that are likely to capture trust more accurately than survey questions. In particular, modern tools such as a systemic analysis of social media feeds and content point to a promising direction in capturing different types of behavior like trust. Other future areas of research could look into the mechanisms or channels through which conflict acts on trust. To address this, more data points are required. Moreover, this paper's analysis relies on a specific type of conflict, notably protests. Future studies could take up comparable analyses on the effects of other forms of conflict on government trust. Second,

my findings rest on one single case study. Protests in Tunisia display specific characteristics that are not necessarily true for other contexts. Finally, studying political trust can also be operationalized in a way that differentiates between types of institutions or other trust indicators such as confidence in policies which could enhance our understating of the relationship between conflict and political trust. Further analysis could also cover the effect of conflict on other forms of trust like interpersonal trust, which has not been quantitatively studied in the context of MENA.

It is imperative that the government restores or rather introduces a new social contract with its citizens. Tunisians will however refuse to enter into a new contract if they do not trust the government (Ianchovichina and Devarajan, 2021). Trust is widely agreed to be the foundation for government legitimacy which is key to functioning institutions. As mentioned earlier, trust is important for the success of most public policies and reforms that need a behavioral response from the public like compliance with regulations and taxes (Levi and Stoker, 2000). Understanding what it means to put trust in a government is critical to the country's prospects in the future and is different from one nation to the other. Scholars have consistently referred to two key complementary aspects of public trust: i) government competence: which is concerned with the institutional capacity to deliver good policy as well as operational efficiency. Here, trust is derived from outcomes, ii) trust in intentions: values such as integrity and transparency that guide government actions. In essence, understanding how people interpret what is right and fair, as well as the perceived performance of the government, will be key to regaining trust in Tunisia (Nooteboom, 2006; Choi and Kim, 2012; Van de Walle and Migchelbrink, 2020). This enhanced

awareness of how people perceive trust will help focus the mechanisms to restore it. Importantly, it can help surpass obstacles to reforms, specifically, through government efforts to share information and evidence signaling the credibility of expected outcomes. This is likely to induce cooperation among members of the society and lessen resistance from groups that might incur some losses. Further, the Tunisian government will need the trust of its citizens to embark on inevitable reforms that will have some negative distributional outcomes. Research has shown that such reforms are easier to implement in environments characterized by high trust (Heinemann and Tanz, 2008). This will also necessitate a transparent and systematic process of power-sharing. Higher degrees of political participation in a checked political environment have been shown to increase the level of trust (OECDa, 2021). It has also been evidenced to strengthen the legitimacy of government which is key to government trust (Putnam, 2000). Finally, it is important to acknowledge that the trust levels have been continuously eroding for more than a decade in Tunisia and the wider MENA region since 2011. Therefore, when addressing the distrust issue, the government should operate on the basis that trust is dynamic and that it evolves over time. Hence, trust-building policies should be approached as a long-term goal rather than a one-off initiative (OECDb, 2021). This will also require the complementary use of qualitative methods which will help in designing processes to regain trust in the government (Ibid).

I am hoping that through the findings of this paper, more emphasis will be given to the human experience and its effect on perceptions. Perceptions – importantly trust - drives individual behavior which determines institutional performance and public outcomes.

Oftentimes, we ignore the internal complex workings of the individual experiences and how those shape perceptions in policymaking. Before devising policy, we need to understand what is the story that the people in MENA are telling themselves since the Arab Spring? And how that explains the loss of trust. Regaining government trust is all about changing that narrative.

Appendix: Supplementary Tables

Table A1. LPM Model - Effect of (logged) Protests on Government Trust

	(1)	(2)	(3)
Logged Protests	-0.186** (0.0808)	-0.204** (0.103)	-0.177* (0.0986)
Male		0.0526** (0.0246)	0.0270 (0.0257)
Highest level of education (base: no education, elementary)			
Basic and Secondary		-0.101*** (0.0241)	-0.0581** (0.0254)
Tertiary Education		-0.0880*** (0.0308)	-0.0337 (0.0324)
Urban		-0.0562*** (0.0217)	-0.0336 (0.0212)
Employment Status (base: unemployed)			
Employed/Self-employed		0.0543* (0.0289)	0.0309 (0.0298)
Other		0.0346 (0.0401)	0.0128 (0.0423)
Student		0.0271 (0.0441)	-0.0143 (0.0454)
Retired		0.141*** (0.0445)	0.0408 (0.0426)
Housewife		0.149*** (0.0358)	0.0847** (0.0375)
Religion (Base: Muslim)			

Table A1. (Cont.)

Atheist		0.0120 (0.187)	-0.145 (0.116)
Other		0.116 (0.206)	0.116 (0.207)
Refused		-0.0970 (0.180)	-0.0906 (0.238)
Income below median		0.0204 (0.0244)	0.0280 (0.0241)
Citizens Must Support the Government			0.128*** (0.0233)
Sexual Harassment (Base: Never)			
Rarely			0.0282 (0.0485)
Sometimes			-0.126*** (0.0467)
Often			-0.0476 (0.0965)
Protests Fatalities		0.000423 (0.00165)	0.000358 (0.00160)
Years lived in neighborhood			0.00130** (0.000641)
Evaluate government performance in job provision (1-10)			-0.135*** (0.0140)
Constant	0.289*** (0.0367)	0.272*** (0.0631)	0.620*** (0.0787)
Observations	2,245	2,091	1,785
R-squared	0.002	0.046	0.152

Protests were transformed into logged protests to normalize data such as Logged Protests = $\text{Log}(\text{Protests}+1)$ so as not to lose observations with 0 protests.
 Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Table A2. Subgroup Analysis: Male, Income below Median Employment Status

	(1) Female	(2) Male	(3) Income above median	(4) Income below median	(5) Employed and self- employed	(6) Housewife	(7) Other	(8) Retired	(9) Student	(10) Unemployed
Logged Protests	-.337** (.148)	-.089 (.144)	-.033 (.184)	-.27** (.124)	.082 (.175)	-.499** (.201)	-1.05*** (.36)	-.011 (.39)	.512 (.598)	.037 (.207)
Male			.084** (.036)	.037 (.032)	.069* (.037)	.876*** (.031)	.04 (.068)	.191** (.077)	.005 (.089)	.002 (.058)
Highest level of education (base: no education, elementary)										
Basic education(basic and secondary)	-.118*** (.033)	-.086** (.035)	-.099 (.071)	-.099*** (.026)	-.129*** (.046)	-.14*** (.039)	-.069 (.07)	.091 (.08)		-.119* (.066)
Tertiary education	-.15*** (.046)	-.04 (.043)	-.044 (.072)	-.111*** (.038)	-.096* (.053)	-.128* (.068)	-.078 (.151)	.244** (.116)	-.042 (.074)	-.153** (.07)
Urban	-.096*** (.033)	-.015 (.028)	-.024 (.05)	-.068*** (.024)	.042 (.035)	-.138*** (.042)	-.145** (.071)	.076 (.08)	.115 (.088)	-.121** (.05)
Employment Status (base: unemployed)										
Employed and self-employed"	.014 (.057)	.072** (.034)	-.006 (.07)	.065* (.033)						
Other	-.007 (.075)	.059 (.047)	-.07 (.089)	.046 (.044)						
Student	.05 (.086)	.012 (.053)	-.057 (.08)	.049 (.06)						
Retired	-.012 (.076)	.185*** (.052)	.064 (.085)	.163*** (.057)						

Table A2. (Cont.)

Housewife	.093*	.897***	.175**	.134***						
	(.052)	(.031)	(.089)	(.041)						
Religion(base: Muslim)										
Atheist	.341	-.19***	-.17***	.234	-.182***	.355	-.312***			
	(.293)	(.038)	(.039)	(.265)	(.035)	(.289)	(.064)			
Other	-.096		-.086**	-.103	.316	-.339***				
	(.192)		(.042)	(.213)	(.309)	(.081)				
Refused	-.02	.048			.047	-.058	.07	.191**	.024	-.08
	(.04)	(.029)			(.037)	(.057)	(.074)	(.074)	(.07)	(.072)
Protests	0	0	0	0	-.001	.002	.004	-.001	-.014	-.001
fatalities	(.002)	(.002)	(.003)	(.002)	(.003)	(.004)	(.005)	(.007)	(.012)	(.003)
Constant	.453***	.194**	.181	.335***	.128	.674***	.634***	-.125	-.151	.363***
	(.096)	(.082)	(.134)	(.065)	(.09)	(.103)	(.202)	(.196)	(.223)	(.138)
Observations	1015	1076	532	1559	670	691	182	205	93	250
R-squared	.071	.035	.041	.048	.03	.062	.112	.075	.061	.062

Standard errors are in parentheses *** p<.01, ** p<.05, * p<.1

Table A3. LASSO Regression – Determinants of Trust

Selected Variables	Government Trust
Educational Level	
Masters+	- 0.0774
Evaluation government of government performance: creating jobs	
very bad	-0.000775
Corruption: extent tackled by the government	
no extent	-0.0976
Citizens must support the government	
strongly disagree	-0.0734
Physical Sexual harassment frequency	
often	-0.0774
Years lived in neighborhood	-0.0774
Constant	0.264

Table A4. The Effect of Individual Year Protests (2011-2018) on Government Trust in 2018

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Protests 2011	Protests 2012	Protests 2013	Protests 2014	Protests 2015	Protests 2016	Protests 2017	Protests 2018
Male	-.021*** (.008)	-.008 (.007)	-.015* (.008)	-.016 (.01)	-.028*** (.008)	-.027** (.011)	-.025** (.01)	-.03*** (.011)
	.01 (.027)	.012 (.027)	.011 (.027)	.011 (.027)	.009 (.027)	.009 (.027)	.01 (.027)	.01 (.027)
Highest level of education (base: no education, elementary)								
Basic education(basic and secondary)	-.072*** (.027)	-.071** (.028)	-.071** (.028)	-.071** (.028)	-.072*** (.027)	-.072*** (.027)	-.071** (.027)	-.074*** (.027)
Tertiary education	-.051 (.035)	-.053 (.035)	-.052 (.035)	-.053 (.035)	-.052 (.034)	-.052 (.035)	-.051 (.035)	-.052 (.035)
Urban	-.035 (.023)	-.039 (.024)	-.036 (.024)	-.036 (.024)	-.039* (.023)	-.042* (.023)	-.043* (.023)	-.032 (.023)
Employment Status (base: unemployed)								
Employed and self-employed"	.033 (.032)	.037 (.032)	.035 (.032)	.035 (.032)	.032 (.032)	.032 (.032)	.032 (.032)	.034 (.032)
Other	-.001 (.043)	.006 (.044)	.004 (.043)	.005 (.044)	.001 (.043)	.003 (.043)	.002 (.043)	-.001 (.044)
Student	-.041 (.039)	-.036 (.039)	-.038 (.039)	-.037 (.039)	-.043 (.039)	-.043 (.039)	-.043 (.039)	-.038 (.038)
Retired	.034 (.048)	.038 (.047)	.039 (.048)	.037 (.048)	.038 (.047)	.039 (.047)	.039 (.047)	.035 (.047)
Housewife	.085** (.039)	.089** (.04)	.088** (.04)	.087** (.04)	.084** (.039)	.084** (.04)	.085** (.04)	.084** (.039)
Religion(base: Muslim)								

Table A4. (Cont.)

Atheist	-.126*	-.113	-.113	-.11	-.129*	-.109	-.12	-.11
	(.068)	(.082)	(.083)	(.084)	(.075)	(.077)	(.075)	(.076)
Other	.113	.111	.106	.11	.104	.121	.118	.13
	(.214)	(.217)	(.217)	(.215)	(.207)	(.208)	(.214)	(.21)
Refused	-.301	-.319	-.312	-.313	-.321	-.314	-.318	-.293
	(.447)	(.441)	(.448)	(.445)	(.46)	(.451)	(.453)	(.445)
Income Below Median	.034	.035	.034	.034	.031	.033	.034	.032
	(.026)	(.026)	(.026)	(.026)	(.026)	(.026)	(.026)	(.026)
Government performance: job opportunities	.004***	.004***	.004***	.004***	.004***	.004***	.004***	.004***
	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)
Interpersonal trust	.172***	.172***	.171***	.171***	.171***	.17***	.169***	.172***
	(.047)	(.047)	(.047)	(.047)	(.047)	(.047)	(.047)	(.047)
Citizen Must Trust the government	.161***	.162***	.162***	.162***	.159***	.162***	.162***	.162***
	(.026)	(.026)	(.026)	(.026)	(.026)	(.026)	(.026)	(.026)
Physical Sexual harassment frequency (base: never)								
Rarely	.019	.013	.015	.013	.019	.019	.018	.021
	(.051)	(.051)	(.051)	(.051)	(.051)	(.051)	(.051)	(.051)
Sometimes	-.074***	-.076***	-.079***	-.077***	-.075***	-.075***	-.068***	.067***
	(.024)	(.025)	(.025)	(.022)	(.025)	(.022)	(.023)	(.022)
Often	-.043	-.05	-.05	-.05	-.049	-.047	-.05	-.045
	(.108)	(.108)	(.108)	(.107)	(.106)	(.108)	(.108)	(.107)
Years lived in neighborhood	.001**	.001**	.001**	.001**	.001**	.001**	.001**	.001*
	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)
Constant	.115**	.076	.087	.09	.133**	.152**	.139**	.123**

Table A4. (Cont.)

	(.058)	(.056)	(.056)	(.056)	(.058)	(.064)	(.062)	(.059)
Observations	1543	1543	1543	1543	1543	1543	1543	1543
R-squared	.131	.127	.129	.128	.135	.131	.13	.132

Protests were transformed into logged protests to normalize data such as $\text{Logged Protests} = \text{Log}(\text{Protests}+1)$ so as not to lose observations with 0 protests. Robust standard errors are in parentheses *** p<.01, ** p<.05, * p<.1

Bibliography

- Abouaoun, E. (2019) *Tunisia Timeline: Since the Jasmine Revolution, United States Institute of Peace*. Available at: <https://www.usip.org/tunisia-timeline-jasmine-revolution> (Accessed: 9 March 2022).
- Abouzzohour, Y. (2021) 'Caught in transition: Tunisia's protests and the threat of repression – European Council on Foreign Relations', *ECFR*, 23 February. Available at: <https://ecfr.eu/article/caught-in-transition-tunisias-protests-and-the-threat-of-repression/> (Accessed: 21 February 2022).
- Al-Ississ, M. and Atallah, S. (2014) 'Diffusion of Dissidence in the Arab Republic OpinionAljazeera (2022) *Tunisia's democracy is in crisis: Timeline of key events*. Available at: <https://www.aljazeera.com/news/2021/7/26/sacking-of-tunisian-parliament-latest-step-along-bumpy-road-since> (Accessed: 21 February 2022).
- Arab Barometer (2021) 'Tunisia_ArabBarometer_Public-Opinion-2021'. 'Arab Barometer'. Available at: <https://www.arabbarometer.org/> (Accessed: 21 February 2022).
- Bardall, G., Bjarnegård, E. and Piscopo, J.M. (2020) 'How is Political Violence Gendered? Disentangling Motives, Forms, and Impacts', *Political Studies*, 68(4), pp. 916–935. doi:10.1177/0032321719881812.
- Bauer, M. *et al.* (2011) *Warfare during ontogeny increases egalitarian and parochial motivations*. Working paper.
- BBC (2017) 'Tunisia profile - Timeline', *BBC News*, 1 November. Available at: <https://www.bbc.com/news/world-africa-14107720> (Accessed: 24 March 2022).

- Becchetti, L., Conzo, P. and Romeo, A. (2011) 'Violence and social capital: Evidence of a microeconomic vicious circle', *ECINEQ Society for the study of economic inequity*, 197, pp. 1–41.
- Bellows, J. and Miguel, E. (2009) 'War and local collective action in Sierra Leone', *Journal of public Economics*, 93(11–12), pp. 1144–1157.
- Bjørnskov, C. (2012) 'How does social trust affect economic growth?', *Southern Economic Journal*, 78(4), pp. 1346–1368.
- Blattman, C. (2009) 'From violence to voting: War and political participation in Uganda', *American political Science review*, 103(2), pp. 231–247.
- Boukhars, A. (2017) 'The fragility of elite settlements in Tunisia', *African Security Review*, 26(3), pp. 257–270. doi:10.1080/10246029.2017.1294093.
- Brixi, H., Lust, E. and Woolcock, M. (2015) *Trust, Voice, and Incentives: Learning from Local Success Stories in Service Delivery in the Middle East and North Africa*. The World Bank. doi:10.1596/978-1-4648-0456-4.
- Cassar, A., Grosjean, P. and Whitt, S. (2013) 'Legacies of violence: trust and market development', *J Econ Growth*, p. 34.
- Choi, S.O. and Kim, S. (2012) 'An exploratory model of antecedents and consequences of public trust in government', in *International Institute of Administrative Science, Study Group Workshop on Trust in Public Administration and Citizen Attitude*. Seoul, Korea: Seoul National University.
- Collier, P. (2004) 'Development and conflict', *Centre for the Study of African*, pp. 1–12.
- Collier, P. and Hoeffler, A. (2002) 'On the incidence of civil war in Africa', *Journal of conflict resolution*, 46(1), pp. 13–28.

- De Boef, S. and Keele, L. (2008) 'Taking Time Seriously', *American Journal of Political Science*, 52(1), pp. 184–200. doi:10.1111/j.1540-5907.2007.00307.x.
- De Juan, A. and Pierskalla, J.H. (2016) 'Civil war violence and political trust: Microlevel evidence from Nepal', *Conflict Management and Peace Science*, 33(1), pp. 67–88. doi:10.1177/0738894214544612.
- Devarajan, S. and Ianchovichina, E. (2018) 'A broken social contract, not high inequality, led to the Arab Spring', *Review of Income and Wealth*, 64, pp. S5–S25.
- Heinemann, F. and Tanz, B. (2008) 'The impact of trust on reforms', *Journal of Economic Policy Reform*, 11(3), pp. 173–185. doi:10.1080/17487870802405375.
- Henrich, J. *et al.* (2010) 'Markets, religion, community size, and the evolution of fairness and punishment', *science*, 327(5972), pp. 1480–1484.
- HRW (2021) 'Tunisia: President's Repressive Policies Abrogate Rights', *Human Rights Watch*, 11 September. Available at:
<https://www.hrw.org/news/2021/09/11/tunisia-presidents-repressive-policies-abrogate-rights> (Accessed: 21 February 2022).
- Ianchovichina, E. and Devarajan, S. (2021) *Why Does the Arab Spring Keep Coming Back?* Available at:
<https://thedocs.worldbank.org/en/doc/8215471cb2c756b0908a67de4e0d9ca8-0050022021/original/Why-Does-the-Arab-Spring-Keep-Coming-Back.pdf>
(Accessed: 12 March 2022).
- Knack, S. and Keefer, P. (1997) 'Does social capital have an economic payoff? A cross-country investigation', *The Quarterly journal of economics*, 112(4), pp. 1251–1288.

- Levi, M. and Stoker, L. (2000) 'Political trust and trustworthiness', *Annual review of political science*, 3(1), pp. 475–507.
- Nooteboom, B. (2006) 'Social Capital, Institutions and Trust', *SSRN Electronic Journal* [Preprint]. doi:10.2139/ssrn.903747.
- Nunn, N. and Wantchekon, L. (2011) 'The Slave Trade and the Origins of Mistrust in Africa', *American Economic Review*, 101(7), pp. 3221–3252.
doi:10.1257/aer.101.7.3221.
- OECD (2021a) *An updated OECD framework on drivers of trust in public institutions to meet current and future challenges*. OECD Working Papers on Public Governance 48. doi:10.1787/b6c5478c-en.
- OECD (2021b) *Government at a Glance 2021*. OECD (Government at a Glance).
doi:10.1787/1c258f55-en.
- Passarelli, F. and Tabellini, G. (2017) 'Emotions and Political Unrest', *Journal of Political Economy*, 125(3), pp. 903–946. doi:10.1086/691700.
- Putnam, R.D. (2000) 'Bowling alone: the collapse and revival of American community', in *Proceedings of the 2000 ACM conference on Computer supported cooperative work - CSCW '00. the 2000 ACM conference*, Philadelphia, Pennsylvania, United States: ACM Press, p. 357. doi:10.1145/358916.361990.
- Rohner, D., Thoenig, M. and Zilibotti, F. (2013) 'Seeds of distrust: Conflict in Uganda', *Journal of Economic Growth*, 18(3), pp. 217–252.
- Sangnier, M. and Zylberberg, Y. (2017) 'Protests and trust in the state: Evidence from African countries', *Journal of Public Economics*, 152, pp. 55–67.

- Sørli, M.E., Gleditsch, N.P. and Strand, H. (2005) ‘Why Is There So Much Conflict in the Middle East?’, *Journal of Conflict Resolution*, 49(1), pp. 141–165.
doi:10.1177/0022002704270824.
- Spierings, N. (2019) ‘Social Trust in the Middle East and North Africa: The Context-Dependent Impact of Citizens’ Socio-Economic and Religious Characteristics’, *European Sociological Review*, 35(6), pp. 894–911. doi:10.1093/esr/jcz038.
- Teyeb, M. (2021) *How Tunisia reached financial meltdown*. Available at:
<https://www.aljazeera.com/news/2021/10/24/how-tunisia-reached-financial-meltdown> (Accessed: 9 March 2022).
- Tripathi, R.C. and Srivastava, R. (1981) ‘Relative deprivation and intergroup attitudes’, *European Journal of Social Psychology*, 11(3), pp. 313–318.
- Van de Walle, S. and Migchelbrink, K. (2020) ‘Institutional quality, corruption, and impartiality: the role of process and outcome for citizen trust in public administration in 173 European regions’, *Journal of Economic Policy Reform*, pp. 1–19. doi:10.1080/17487870.2020.1719103.
- Voors, M. *et al.* (2010) ‘Does conflict affect preferences? Results from field experiments in Burundi’, *Results from Field Experiments in Burundi (January 3, 2010)* [Preprint].
- Voors, M.J. *et al.* (2012) ‘Violent Conflict and Behavior: A Field Experiment in Burundi’, *The American Economic Review*, 102(2), pp. 941–964. Available at:
<https://www.jstor.org/stable/23245440> (Accessed: 15 March 2022).
- Wittes, T.C. (2016) ‘Want to stabilize the Middle East? Start with governance’, *Brookings*, 22 November. Available at:

<https://www.brookings.edu/blog/markaz/2016/11/22/want-to-stabilize-the-middle-east-start-with-governance/> (Accessed: 2 November 2021).

Zak, P.J. and Knack, S. (2001) 'Trust and growth', *The economic journal*, 111(470), pp. 295–321.