

Render Unto Caesar: Taxes, Charity, and Political Islam*

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Abstract

Using an original, nationally representative survey of 600 Tunisians, we show that support for the Islamic party in the first post-Arab Spring election came from wealthier districts and individuals. We demonstrate that standard public finance arguments explain this voting pattern better than other available explanations. Our model predicts that a voter's probability of voting for a religious party: (i) increases with income for the poorest voters, but possibly decreases with income for the richest; (ii) is greater for voters in richer districts; and (iii) increases with the voter's religiosity. Our empirical results align with our predictions and suggest that individual and district wealth were key drivers of support for the Islamic party, to levels perhaps comparable to religiosity itself. We test for other possible factors affecting voting, such as economic disgruntlement, migration, access to media, or attitudes towards gender parity or towards the West. Finally, we document similar patterns in other key elections in the Muslim world.

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“Should we pay [taxes to Caesar] or should we not?” But knowing their hypocrisy [...] he said to them “Render to Caesar the things that are Caesar’s. And to God the things that are God’s.” Mark 12:14–17

1 Introduction

Religious organizations influence the economic and social development of a country (Fukuyama, 2011; Weber, 2013[1905]). They shape values and beliefs (McCleary and Barro, 2006), coordinate collective actions (Clark, 2004a; Iannaccone, 1992; Norenzayan, 2013), and often provide basic public goods and services (Clark, 2004b; Wickham, 2002). In the Middle East, Islamic charities—a central economic institution of Islam—may have contributed to the long-term economic and political underdevelopment of the region by substituting for state institutions (Kuran, 2004, 2012, 2013). Religious parties, in particular, can directly control policies, from the imposition of traditional law to the size and level of decentralization of the state. In some cases, such as in the Arab Spring countries, religious parties promote values and policies that are commonly believed to threaten basic rights (the Economist, 2012). Yet, there is scarcely any consensus as to what determines their electoral success.

In seeking to explain support for religious parties and political Islam in particular, existing studies point to either preferences (religiosity and anti-Western sentiments) (Garcia-Rivero and Kotzé, 2007; Jamal and Tessler, 2008; Robbins, 2009; Tessler, 2010) or the clientelism of charitable organizations associated with religious parties (Cammatt and Luong, 2014; Flanigan, 2008; Ottaway and Hamzawy, 2007). These explanations suggest that support for traditional values and religious parties comes from poorer voters, as they are often both more religious and more likely to depend on charitable organizations (Huber and Stanig, 2011; Chen and Lind, 2015). Yet this prediction is not supported by electoral results. From Egypt to Morocco, scholars have been puzzled by the fact that electoral support for Islamic parties comes from wealthier districts (Elsayyad and Hanafy, 2014; Pellicer and Wegner, 2014).

In this paper, we put forward a theory of how income—both at the individual and at district level—affects support for Islamic parties. We find empirical support for our predictions using an original individual survey of Tunisian voters. Our focus—as well as the main inspiration for our theory—is the rise of the Islamic party *Ennahdha* in the first democratic election in Tunisia following the Arab Spring. This election offers a unique opportunity to study the roots of popular support for religious parties. As we discuss in Section 2, Islamic parties and charities had been effectively muted by the previous

regime (and to a greater extent than in neighboring countries). Furthermore, no party in the election represented the former ruling regime or other organizations previously active in Tunisia. Therefore, unlike in most elections, the election we study enables us to observe voting preferences and individual characteristics unadulterated by the results of past elections or by the work of religious organizations. In addition, the homogeneous composition of the Tunisian society enables us to observe party support clean of the influence of ethnic or religious divides.

We study a model of electoral competition between a secular and a religious party. We model the religious party as the political arm of a religious charitable organization (Berman, 2009; Clark, 2004b; Levitt, 2008). Both the state and the charity provide welfare to the poor, but they differ in their ability to redistribute across regions and in the composition of the goods they provide—secular or religious goods. Both the secular and the religious party cater to the median voter, but the religious party also cares about the charity’s budget, for example because it cares about the production of religious goods. We also assume that, if elected, the religious party imposes lifestyle restrictions that disproportionately affect the richer voters. In equilibrium, the religious party chooses lower state taxes, as they reduce disposable income that is otherwise available for donations to the charity. Poor voters prefer the secular party, as it offers greater redistribution. Meanwhile, the richest voters also vote for the secular party because they are more affected by the lifestyle restrictions. Between these two groups, an intermediate “middle class” supports the religious party. In addition, the secular party’s policies generate more inter-regional redistribution, which is preferred by voters in the poorer districts. The religious party is thus supported by a greater share of the voters in the richer districts.

Our assumption on the connection between the charity and the religious party reflects the typical structure of religious charities and parties in the Islamic world. Furthermore, the equilibrium platform of the religious party in our model is consistent with Ennahdha’s economic program (see Table D.1, which presents the different platforms of the major political parties in the election). Ennahdha singles itself from other major parties by opposing redistribution transfers from rich to poor regions. In the words of Achcar (2013), Ennahdha “professes the Islamic version of the neoliberal credo, which looks to private initiative for economic development and *substitutes the activity of religious charitable organizations for welfare rights guaranteed by the state*” (emphasis added). Ennahdha also supports social and economic policies that disproportionately affect the economic elites, such as a tax on the super wealthy and restrictions on free speech (Feuer, 2012) and alcohol consumption (Marks, 2012).

We test our model’s predictions on the support for Islamic parties using individual-

level data on voting in the 2011 Tunisian elections. We collect original data on voting behavior, political preferences, and socio-economic characteristics from a nationally representative sample of 600 individuals in 30 districts. We establish that individual and district-level economic conditions played a role consistent with our predictions and were a major driver of the outcome of the election. The effect of income on the probability of voting for Ennahdha is positive for poorer voters, but negative for the richest ones. Controlling for individual religiosity, a small increase in socio-economic status for the poorest voters, such as the ownership of one additional domestic asset (e.g., a refrigerator), increases the probability of voting for the Islamic party Ennahdha by more than 8 percentage points. Furthermore, living in a district richer than the median district increases the probability of voting for Ennahdha by a further 16 percentage points. As a comparison, a voter who prays every single day is 19 percentage points more likely to vote for Ennahdha than one who never prays.

We test for alternative explanations for the systematic pattern between wealth and support for Islamic parties that we document in this paper. These can be broadly structured into three categories. First, economic disgruntlement—dissatisfaction with unemployment, inequality, and government corruption, in particular among the most educated, fuels demand for radical change, either directly,¹ or indirectly through an increase in religiosity.² Second, migration—voters might self-select to specific areas as a function of their wealth and political preferences, or the experience of migration itself might affect both wealth and preferences. Third, values, attitudes towards the West, and information—more conservative values, particularly towards women, negative views towards the West, or access to different media, may reflect voting behaviors as much as membership to a given social class. While we find that some of these explanations (namely, conservative values towards women) contribute to the distribution of the vote for Ennahdha in our sample, they barely affect the relationship between wealth and vote for Ennahdha.

Our paper contributes to the theoretical literature on electoral competition when voters differ both in their income and their ideological preferences (Lindbeck and Weibull, 1987).³ Close to us, Krasa and Polborn (2014) study spillovers from exogenously given ideological platforms into economic platforms (see also Krasa and Polborn, 2012; Xefteris,

¹For example, Campante and Chor (2012) argue that the protest movement of the Arab Spring was fueled by the mismatch between educational investments and economic opportunities.

²In a similar way as relative deprivation (and in particular frustrated aspirations) may have spurred the increase in religiosity in recent decades in Egypt (Binzel and Carvalho, 2017).

³Aragonès, Castanheira and Giani (2015) and Dragu and Fan (2016) study how parties may strategically select which dimensions are most salient during a campaign.

2017). In their model, a party's ideological position exogenously determines its comparative advantages in the provision of public goods at different tax levels. Thus, in equilibrium more (ideologically) conservative parties run on more economically conservative platforms. In contrast, in our model the parties have access to the same technology, but they differ in whether they derive utility from the production of religious goods by the charity (or directly from the charity's budget). Since the charity is funded by donations, both more religious voters and the religious party have a preference for lower taxes. This creates a tradeoff between ideological and economic preferences which is absent in Krasa and Polborn (2014)—in their model, two voters with the same income but differing ideologies have bliss points at identical tax rates.

Our model also allows us to make comparative predictions as to when and where religious parties will have greater influence. We show that the vote share for religious parties peaks at intermediate levels of political development and average religiosity. When state institutions become more developed or average religiosity becomes more extreme, religious parties can survive only by moderating their restrictive policies. Thus, we provide a new mechanism for the "inclusion-moderation" hypothesis.⁴

Our focus is on the role played by economic conditions in determining voters' support for Islamist parties. We view our contribution as complementary, rather than as substitute, to those explaining individual support for income redistribution among Muslim voters based on moral and theological grounds (Davis and Robinson, 2006). The first election in Tunisia is the motivation for our theory and the object of our empirical analysis. Nevertheless, we provide *prima facie* evidence that the poor did not vote for the Islamic party in other elections in Muslim democracies, namely in Egypt after the Arab Spring and Turkey in the 1990s (see Appendix C).

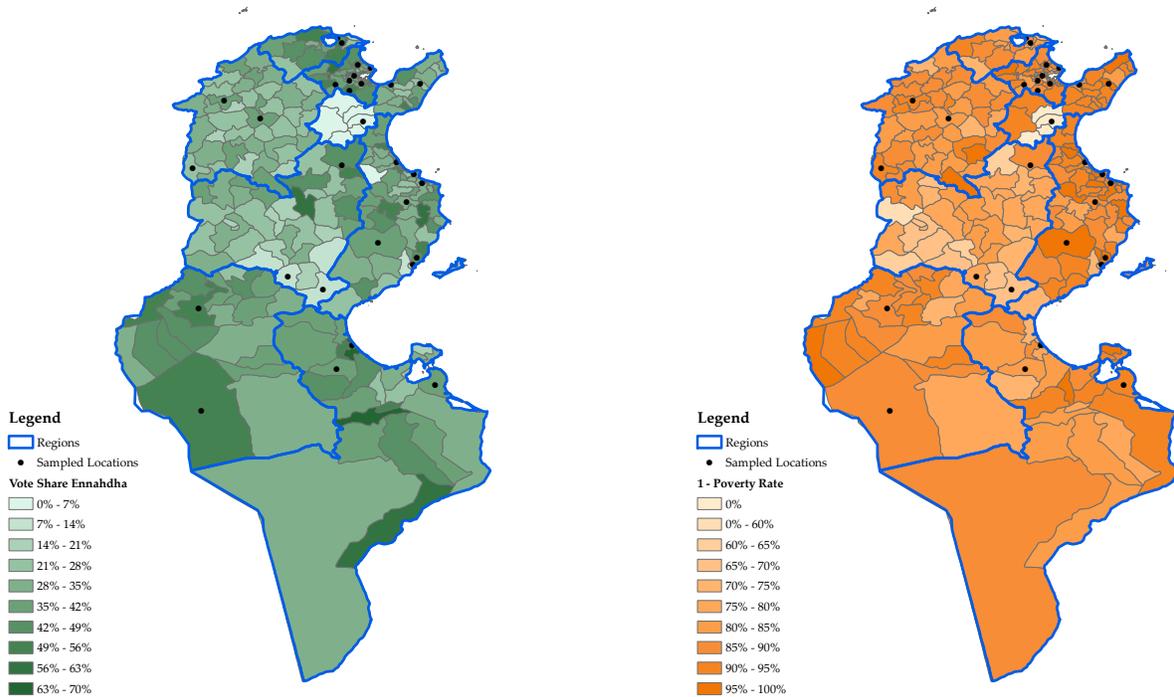
The remainder of the paper is organized as follows. Section 2 provides a discussion of the context of the 2011 elections in Tunisia and its political contenders. We use these facts to inform our model in Section 3. Section 4 provides an overview of our data and discusses our empirical methodology. Section 5 presents the results. Section 6 concludes and discusses how our findings relate to the literature on the impact of religious values on economic development.

⁴The hypothesis that political groups, and especially religious parties, moderate their positions as a result of their inclusion in democratic politics. For a review, see Brocker and Künkler's (2013) introduction to the "Special issue on religious parties and the inclusion-moderation thesis," *Party Politics*, 19 (2). See also Schwedler (2011), who discusses the inclusion-moderation hypothesis for Islamic parties.

Figure 1: Vote for Ennahdha and Wealth

(a) Vote for Ennahdha

(b) District wealth: 1 minus the poverty rate



Notes: The dots indicate our survey sites. Source: Census of Tunisia, 2005 and Instance Supérieure Indépendante pour les Elections, 2011.

2 Institutional Background

2.1 Tunisia and the Arab Spring

After more than 50 years of authoritarian rule first under President Habib Bourguiba and then (from 1987) Zine El-Abidine Ben Ali, widespread protests in 2011 led, in a mere 28 days, to the fall of the regime and the first democratic elections of independent Tunisia. Our empirical analysis focuses on voting patterns in this crucial election.

The most salient outcome of the election was the overwhelming success of the Islamic Party, Ennahdha. Ennahdha won 37 percent of the vote share and a plurality of the parliamentary seats: 89 out of 217. As a result, Ennahdha's general secretary Hamadi Jebali became prime minister. A distant second, the centre-left secular Congress for the Republic (CPR) won 29 seats with 8.71 percent of the vote. Then came the left-leaning Ettakatol and the Aridha party, led by a TV magnate with populist tendencies who namely promised free health care and an allowance for every unemployed person. Each won around 7 percent of the vote. The rest of the vote was split between several minority parties.

All the main contenders in the 2011 elections were parties either previously banned or founded after the revolution. No party represented the former ruling regime. The leaders of the two parties with highest vote shares were, in fact, living in exile before the revolution, while the leader of the third party still lives abroad. While Ennahdha was originally inspired by the Muslim Brotherhood of Egypt, repression of Ennahdha under Ben Ali was more effective than the repression of the Muslim Brotherhood under Mubarak, with the result that “no formal al-Nahda (Ennahdha) organization existed before the revolution.”⁵ Consequently, “Ennahdha [...] played no part in the overthrow of the authoritarian regime.”⁶ This enables us to rule out that voters’ income or religious preferences were determined by the past influence of political parties, or their influence during the Revolution.

The homogeneous Tunisian demography also allows us to separate the roles of political and economic factors from the roles of potentially confounding ethnic and religious affiliations and divisions. Almost all Tunisians identify themselves simply as Arabs (98 percent) and Tunisian Arabic is the only official language of the country.⁷ Islam is the official state religion, with Sunni Muslims representing 99.76 percent of the population (US Department of State, 2007).

There is, however, substantial regional variation in income. The average poverty rate along the northeastern coast is 10 percent; in the southern and central-western regions, it rises well above 30 percent in places (Figure 1b).

Figure 1a depicts the Ennahdha vote share in the 264 Tunisian electoral districts. Support for Ennahdha was more pronounced in the Southern regions, as well as in the rich coastal regions. Within the South, support for Ennahdha came from relatively richer regions.

2.2 Background on Islamic political parties

In Tunisia, as elsewhere in the region, religious parties emanate from religious charities. In Egypt, for example, the Muslim Brotherhood founded and directly controls the Freedom and Justice Party. Similarly, Hamas and Hezbollah are both charitable organizations and political parties (Berman, 2009). In the Tunisian case, Ennahdha has strong connec-

⁵Marc Lynch, Foreign Policy, June 29, 2011, accessed online 8/19/2016: <http://foreignpolicy.com/2011/06/29/tunisias-new-al-nahda/>.

⁶Rajaa Basly, secretary-general of Génération Tunisie Libre, in “The Future of Ennahdha in Tunisia,” Carnegie Endowment for International Peace (2001). Accessed online 8/19/2016, <http://carnegieendowment.org/2011/04/20/future-of-al-nahda-in-tunisia/ic>.

⁷CIA World factbook 2007 (Tunisia): <https://www.cia.gov/library/publications/the-world-factbook/geos/ts.html>.

tions with local charities⁸ and links with the Muslim Brotherhood of Egypt.

The state and religious charities both supply welfare to the lower classes, but they do so in ways that differ in three crucial aspects. First, the activities of religious charities are more local, and they are more limited in their ability to redistribute income and wealth at the national level. In the Arab world, Binzel and Carvalho (2017) and references therein show that Islamic charities provide health-care, education, and financial aid centered around individual private mosques. The protection of the local mosque, or religious foundation (*waqf*), gives them “access to charitable donations collected and distributed through networks away from government supervision” (Wickham, 2002, p. 100).⁹

Second, religious charities rely on donations as opposed to the imposition of taxes. This aspect is particularly evident in Islamic societies, where donations to the poor are highly codified in the *zakat* system. As this system obligates all Muslims to donate a predefined percentage of their disposable income (see also Kochuyt, 2009), the budget of religious charities is larger when state taxes are lower.

Third, religious charities also provide religious goods, such as teachings, prayers, and the advice of a priest or an imam. These goods are valuable as they provide economic and psychological benefits that can be a substitute for the welfare state (Scheve and Stasavage, 2006), but only for those voters who are religious themselves.

As religious charities and state welfare offer substitute services and compete for resources, religious parties are relatively less in favor of redistributive state policies. This is reflected in Ennahdha’s economic vision and its 2011 electoral program. Table D.1 presents the platforms of the major political parties in the 2011 election. Ennahdha clearly distinguishes itself by its opposition to redistributive transfers from rich to poor regions, and its stance in favor of a free market economy with minimal state involvement. Perhaps the only exceptions to Ennahdha’s commitment to a typical neo-liberal platform (Achcar, 2013; Boughzala, 2013; Chamki, 2015; Habibi, 2012) are its support for a tax on the super wealthy and its opposition to some laws typical of contemporary liberal democracies, such as equal inheritance between sons and daughters.

In the next section, we incorporate these characteristics of religious parties into a standard model of political competition.

⁸For example the *Association tunisienne de coopération et de communication sociale (Attawyn)*.

⁹In an extreme example, Dorman (2009) tells of Islamic organizations in the Egyptian capital Cairo operating in “‘informal’ neighborhoods developed without official authorization, planning or public services” in which they form a “state within the state.”

3 A Theory of Political Support for Religious Parties

We wish to model the competition between a secular party and a religious party which stylizes the key features of *Ennahdha* described in Section 2.2.

We model an economy with a mass 1 of voters, indexed by $i \in [0, 1]$ and divided into two districts, H and L , where $H \cup L = [0, 1]$. We denote by $\gamma \in (0, 1)$ the measure of voters living in district H .

Each voter i is endowed with income $y_i \in Y = [0, y_{max}]$ and religious preferences $\phi_i \in \Phi = [0, \phi_{max}]$. Let $F_D : Y \rightarrow [0, 1]$ be the (marginal) cumulative distribution function of income in district $D \in \{H, L\}$ and $G : \Phi \rightarrow [0, 1]$ be the (marginal) national cumulative distribution of religious preferences. We denote by $\bar{y}_D \equiv \int y dF_D(y)$ the average income in district D and assume that district L is poorer than district H in the sense that $\bar{y}_L < \bar{y}_H$. National average income is $\bar{y} \equiv (1 - \gamma) \bar{y}_L + \gamma \bar{y}_H$. Notice that we allow for—but do not require— y_i and ϕ_i being correlated. In practice, as we shall see later, poorer voters are more likely to be highly religious, so that y_i and ϕ_i are inversely correlated.

Each voter casts a vote in favor of one of two parties, *Religious* or *Secular*. We denote by σ the national share of votes for the religious party. After the votes are counted, the party with the largest share of votes chooses a tax rate $\tau \in [0, 1]$.

Taxes and public goods. Voter i 's disposable income is given by $y_i(1 - \tau)$; the per capita quantity of public goods produced by the state is $g \equiv \tau \ell \bar{y}$, where $\ell \in \mathbb{R}_+$ is the level of efficiency of national bureaucracy. Taxation is otherwise non-distortionary, as there is no production in our economy. Thus, when $\ell < 1$, this can be interpreted alternatively as the national bureaucracy being inefficient or as taxation being distortionary and reducing aggregate income.

Each voter i donates a fraction $\rho \in (0, 1)$ of her disposable income to the religious charity. In Appendix B.3 we relax the assumption that ρ is a fixed donation rate and allow it to depend on religiosity. The charity provides two types of public goods: *local secular* goods and *religious* goods. The per capita quantity of local secular goods in district D and religious public goods are respectively given by

$$\begin{aligned} s_D &\equiv (1 - x) \rho \bar{y}_D (1 - \tau); \\ r &\equiv x \rho \bar{y} (1 - \tau) \end{aligned}$$

where x is the fraction of the charity budget which goes to religious goods.¹⁰ Notice that

¹⁰One could argue that the charity might choose this strategically after the election or commit to a frac-

religious goods are not local because voters value religious teachings even when they are not preached in their district.¹¹ Given voters preferences (see (1) below), the level of efficiency of the charity is given by $\ell_R \equiv x \int \phi dG(\phi) + (1-x)$. Thus, we allow for both state bureaucracy and the religious charity to be inefficient, with the charity being less efficient whenever $\ell_R < \ell$.

Preferences. Voter i in district D has utility given by $u_D^i(\tau, \sigma; y_i, \phi_i) = u_D(\tau, \sigma; y_i, \phi_i)$:

$$\begin{aligned} u_D(\tau, \sigma; y_i, \phi_i) &\equiv v(c(\tau; y_i, \phi_i)) - \delta(y_i) \mathbb{I}\left(\sigma \geq \frac{1}{2}\right) \\ c(\tau; y_i, \phi_i) &\equiv (1-\rho)y_i(1-\tau) + g + s_D + \phi_i r. \end{aligned} \quad (1)$$

The first term is voter i 's utility from her consumption of private and public goods. The function v is strictly increasing and concave. Notice that religiosity in our model only determines whether voter i consumes religious public goods. The last term, $\delta(y_i) \geq 0$, is the cost associated with a victory of the religious party. Because Ennahdha's platform includes a proposal for an additional tax on the "super rich" and is widely perceived to be opposed to the lifestyles of the country's richer voters, we assume that $\delta : \mathbb{R}_+ \rightarrow \mathbb{R}_+$ is strictly increasing and (weakly) convex.¹²

Each voter's consumption of state public goods is increasing in the tax rate τ while her consumption of public goods produced by the charity is decreasing in the tax rate τ . In practice, the donation rate imposed by the *zakat* system is quite small (customarily 2.5%). To capture this feature, we impose that each voter's maximum (i.e., when $\tau = 0$) consumption of public goods produced by the charity is not greater than her maximum (i.e., when $\tau = 1$) consumption of state public goods: $\rho[\phi_{max}x\bar{y} + (1-x)\bar{y}_H] \leq \ell\bar{y}$.

Parties. Lemma 1 below establishes that, for any share of votes for the religious party $\sigma \in [0, 1]$, voters have single peaked preferences over the tax rate τ and the identity of the median voter and her bliss point are independent of σ . There exists therefore a uniquely

tion before the election. As long as x remains strictly positive (i.e., the charity allocates some funds to religious goods), all our predictions would remain unchanged as they rely only on the religious party preferring lower state taxes than the secular party and the religious charity providing relatively more religious goods than the state.

¹¹For simplicity, in our model the religious charity cannot redistribute secular goods across districts. Nonetheless, our results hinge only on the assumption that the religious charity's propensity or ability to redistribute resources across districts is less than that of the state.

¹²Since more religious voters may be less prone to the behaviors restricted by the religious party (or even approve of the restriction), the cost δ is likely to be decreasing in the religiosity of a voter ϕ_i . This would reinforce our result that more religious voters are more likely to vote for the religious party for all income levels, without affecting our results about the relation between income and voting behavior.

defined median voter with respect to the only policy variable τ . If elected, the secular party maximizes the utility u_m of such median voter. The religious party maximizes $\pi(u_m, r)$ such that π is (weakly) increasing in both arguments and

$$\lim_{r \rightarrow 0} \left(\frac{\partial \pi(u_m, r)}{\partial r} / \frac{\partial \pi(u_m, r)}{\partial u_m} \right) = \infty \text{ for all } u_m > 0.$$

That is, the marginal rate of substitution between religious goods and the utility of the median voter goes to infinity as religious goods go to 0.¹³ Notice that the religious party does not attempt to cater to the median voter as much as the secular party. As summarized by Brocker and Künkler (2013), religious parties are “more influence-seekers and message-seekers than vote-seekers or office-seekers [and] they are not—or not to the same extent—subject to the centrist moves once prognosticated by Downs.” All our qualitative results are unchanged as long as, all else equal, the religious party values the charity budget more than the secular party.

Timing and elections. The timing of the model is as follows: 1. each voter casts a vote in favor of either the religious or the secular party; 2. the party with the highest share of votes sets τ ; 3. after-tax disposable income is divided between private consumption and public goods according to ρ and x .

We assume sincere voting and resolve indifferences in favor of the secular party. That is, let τ_R and τ_S be the tax rates respectively chosen by the religious and the secular party. Voter i in district D votes for the Religious party if and only if

$$u_D^i(\tau_R, 1; y_i, \phi_i) > u_D^i(\tau_S, 0; y_i, \phi_i).$$

3.1 Analysis

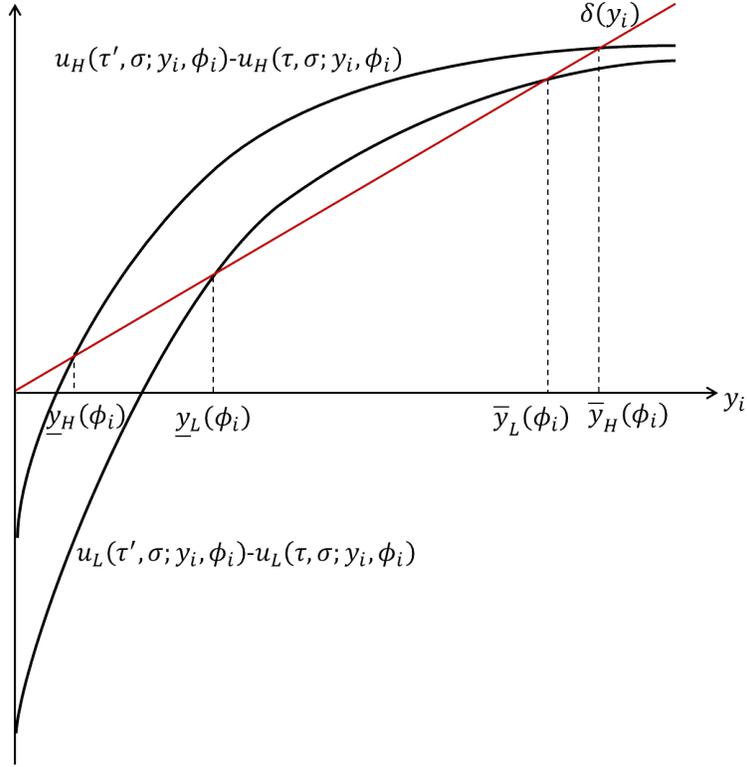
We begin by deriving the optimal tax rate τ for voter i in district D . Differentiating $u_D^i(\tau, \sigma; y_i, \phi_i)$ with respect to τ we get

$$\frac{\partial u_D(\tau, \sigma; y_i, \phi_i)}{\partial \tau} = \frac{\partial v(c)}{\partial c} \cdot [\ell \bar{y} - (1 - \rho) y_i - \rho(1 - x) \bar{y}_D - \phi_i \rho x \bar{y}].$$

The above expression is decreasing in y_i . This immediately implies:

¹³For example, this assumption would be satisfied if the religious party exhibits Cobb-Douglas preferences such that $\pi(u_m, r) = u_m^\alpha r^\beta$ for some $\alpha \geq 0$ and $\beta > 0$.

Figure 2: Voters' preferences over national redistributive tax τ . When the two parties are expected to implement differing policies, in each district $D \in \{L, H\}$, and for each level of religiosity ϕ , voters between $\underline{y}_D(\phi)$ and $\bar{y}_D(\phi)$ vote for the religious party.



Lemma 1. *Voter i in district D prefers tax rate τ to $\tau' < \tau$ if*

$$y_i \leq y_D^*(\phi_i) \equiv \frac{1}{1-\rho} [\ell \bar{y} - \rho (\phi_i x \bar{y} + (1-x) \bar{y}_D)]$$

and prefers τ' to τ otherwise.

Figure 2 shows the difference in payoff between tax rate τ and $\tau' < \tau$ for voters with different incomes in the two districts. Poorer voters prefer higher taxation, but the threshold level of income at which a voter would prefer less state redistribution is greater in the poorer district compared to the richer district. Furthermore, more religious voters are less likely to prefer greater state redistribution, as this leaves fewer resources for religious public goods. Finally, a more efficient state bureaucracy (higher ℓ) means that, all else equal, voters prefer that the state organize income redistribution as opposed to the religious charity.

Notice that the threshold $y_D^*(\phi_i)$ can be lower than mean income \bar{y} (it is equal to \bar{y} if $\rho = 0$ and $\ell = 1$). Therefore, although our voters might prefer higher taxes because they

are relatively poor, there might be voters whose income is lower than the mean income, but prefer lower taxes for one of the following reasons: (i) they are very religious; (ii) bureaucratic efficiency ℓ is sufficiently low; or (iii) the donation rate ρ is sufficiently large. Notice also that the threshold $y_D^*(\phi_i)$ is positive because

$$\rho \leq \frac{\ell \bar{y}}{\phi_i x \bar{y} + (1-x) \bar{y}_D}.$$

We now solve our model by backward induction. We first study the parties' optimal choice of tax rate τ once elected. Recall that τ_R and τ_S are the tax rates chosen by the religious and secular party, respectively. The secular party's choice depends on the distribution of income and religiosity among the voters. In particular, by Lemma 1, if the median voter is sufficiently religious, then the secular party chooses $\tau_S = 0$. Otherwise, it chooses $\tau_S = 1$.

Obviously, the more disposable income that remains in the hands of the voters, the more they will be capable to donate to the charity. If $\tau = 1$, then there is no disposable income to donate to the charity. As the religious party seeks to have at least a positive amount of religious public goods, it then chooses $\tau_R < 1$ whenever it wins the election. Notice also that whenever the secular party chooses $\tau_S = 0$, then the religious party's utility is also maximized at $\tau_R = 0$. This immediately implies:

Lemma 2. *Let $P_D : \mathbb{R}_+^2 \rightarrow [0, 1]$ be the joint distribution of income and religious preferences in district D . In equilibrium, if*

$$(1 - \gamma) P_L(y < y_L^*(\phi)) + \gamma P_H(y < y_H^*(\phi)) \geq \frac{1}{2} \quad (2)$$

then the secular party chooses $\tau_S = 1$ and the religious party chooses $\tau_R < 1$. Otherwise, both parties choose $\tau_S = \tau_R = 0$.

We can now characterize the political equilibrium. Suppose that (2) holds. Notice that this is the only case in which the two parties are expected to implement differing tax rates. Then voters anticipate $\tau_R < \tau_S = 1$ and voter i in district D votes for the religious party if

$$\begin{aligned} u_D(\tau_R, 1; y_i, \phi_i) &> u_D(\tau_S, 0; y_i, \phi_i) \\ u_D(\tau_R, 0; y_i, \phi_i) - u_D(1, 0; y_i, \phi_i) &> \delta(y_i). \end{aligned} \quad (3)$$

Notice that if we set $\delta(y_i) = 0$, then (3) is voter i 's condition for preferring τ' to $\tau > \tau'$ that we derived in Lemma 1. Thus, voter i votes for the religious party if the net benefit of lower state redistribution overcomes the cost of the restrictions imposed by the religious

party. Figure 2 shows the difference in payoff from τ to $\tau > \tau'$ compared to the cost of the restrictions imposed by the religious party for voters with different incomes in the two districts. In each district $D \in \{H, L\}$ and for each religiosity level ϕ , voters prefer the religious party if and only if their income falls in an intermediate interval $(\underline{y}_D(\phi), \bar{y}_D(\phi))$. For sufficiently low religiosity levels, this interval might be empty. As the level of religiosity increases, then the interval expands. Similarly, the interval $(\underline{y}_L(\phi), \bar{y}_L(\phi))$ is a subset of $(\underline{y}_H(\phi), \bar{y}_H(\phi))$. That is, for each religiosity level, the religious party is supported by voters from a broader range of income in the richer district H . Notice that the thresholds $\underline{y}_D(\phi), \bar{y}_D(\phi), D \in \{H, L\}$, depend on the exact value of τ_R .

Suppose instead that (2) does not hold. Then both parties would implement $\tau = 0$. As a victory of the religious party imposes a positive cost on voters ($\delta(y_i) > 0$ for all $y_i > 0$), then all voters would prefer to vote for the secular party.¹⁴

Proposition 1 formalizes these arguments.

Proposition 1. *In equilibrium,*

1. *if (2) holds, then the religious party implements $\tau_R < 1$ and the secular party implements $\tau_S = 1$ if they win the election. A voter with religious preferences ϕ in district $D \in \{L, H\}$ votes for the religious party if and only if her income is in an intermediate interval $Y_D(\phi) \equiv (\underline{y}_D(\phi), \bar{y}_D(\phi)) \subset \mathbb{R}_+$. For all districts D , there exists some ϕ such that $Y_D(\phi)$ is non-empty. For all ϕ and $\phi' < \phi$, (i) if $Y_D(\phi)$ is non-empty, $Y_D(\phi')$ is a strict subset of $Y_D(\phi)$; (ii) if $Y_H(\phi)$ is non-empty, $Y_L(\phi)$ is a strict subset of $Y_H(\phi)$;*
2. *otherwise, both parties implement $\tau_S = \tau_R = 0$ and all voters vote for the secular party.*

Proof. In Appendix B.1. □

Intuitively, the religious party prefers lower taxes than the secular party, as the more disposable income that remains in the hands of the voters, the more they will be able to donate to the charity. Since poorer voters favor higher taxation and more state-level redistribution, they prefer to vote for the secular party. At the other end of the distribution,

¹⁴Although we are mostly concerned with explaining the relative pattern of support for religious parties, in our benchmark model, in equilibrium the religious party never wins a strict majority of the votes. In Tunisia, Ennahdha won 37 percent of the votes and strongly supported a parliamentary system for the Tunisian constitution, while its main opponents supported a presidential system. In Appendix B.4 we discuss how the introduction of some aggregate uncertainty about the distribution of voters' preferences guarantees that the religious party wins a majority of the votes with strictly positive probability. We do not include this further complication in our benchmark model because our main results focus only on which voters prefer to vote for the religious party and how the relative share of votes for the religious party depends on the distribution of preferences.

very wealthy voters also prefer the secular party because they wish to avoid extra taxes on the “super rich” and the lifestyle restrictions imposed by the religious party. Therefore, in any district, and for any level of religiosity, support for the religious party comes from voters whose income falls in an interval lying strictly between 0 and y_{max} . We call this interval the “middle class.”

The levels of income at which the middle class begins and ends differ between the poor and the rich districts. Intuitively, voters in the poor districts have more to gain from state redistribution of resources from the rich to the poor district. On the contrary, relatively poor voters in the richer district would prefer more resources to remain in their district and then be redistributed by the local charity. Therefore, in the rich district the middle class voting for the religious party is broader and includes both poorer and richer voters compared to the poor district.

Finally, more religious voters are less likely to prefer greater state redistribution, as this leaves fewer resources for religious public goods. As a result, the middle class among more religious voters is broader than among less religious voters.

We summarize these results below:

Individual comparative statics. *All else equal, voter i is more likely to vote for the religious party if 1. she is middle-class; 2. she lives in the richer district; and 3. she is more religious.*

In equilibrium, if the richest voters are not too rich or if the lifestyle restrictions on are not too strong, then the middle class that chooses to vote for the religious party might in fact include the richest voters. But electoral support for the religious party cannot extend to the poorest voters. Therefore, our “middle class” should, in general, be understood as a class that might include the richest voters, but never includes the poorest. As we show in Appendix C, this closely reflects the variety of voting patterns we observe across Muslim countries.

Our model also allows us to derive some comparative statics with respect to aggregate characteristics. To isolate the effect of changes in voting patterns, rather than on policies, we focus on the limit case in which the Religious party maximizes the quantity of religious goods r . In this case, the religious party chooses $\tau_R = 0$ whenever it wins the election.

Although individuals who are more religious are more likely to vote for the religious party, the cross-country relationship between the voting share for a religious party and religiosity is not necessarily monotonic. In our model, if all voters value religious goods very much, the non-religious party implements the same policy as a religious party. Thus, a religious party might not even exist, as the political demand for more religious goods is already satisfied. We make the following statement more precise in Corollary 3 in Appendix B.2.

Corollary 1 (Religiosity and votes for religious parties). *The share of votes for the religious party is increasing in the aggregate level of religiosity if religiosity is sufficiently small. Otherwise, the share of votes for the Religious party is decreasing in the aggregate level of religiosity.*

Proof. In Appendix B.2. □

A second question is whether more efficient state institutions would decrease voters' support for religious parties. From the poor voters' perspective, state redistribution and religious charity are substitutes. A more efficient state bureaucracy (greater ℓ) increases the value of state redistribution, increasing the voting share of the secular party. Conversely, an inefficient or corrupt state makes state redistribution less appealing to voters, increasing the voting share for religious parties. Nonetheless, if the state bureaucracy is sufficiently inefficient, then a majority of the voters would prefer the religious charity to take care of welfare instead of the state. In this case, non-religious parties implement the same policies as a religious party. Thus, a religious party might not even exist, as the political demand for avoiding state redistribution is already satisfied.

Corollary 2 (State development and votes for religious parties). *The vote share for the religious party is decreasing in the level of efficiency of the state bureaucracy ℓ if ℓ is sufficiently large. Otherwise, it is increasing in ℓ .*

Proof. In Appendix B.2. □

4 Data and Methodology

4.1 Data and descriptive statistics

Our survey took place between February and April 2015. We randomly selected a nationally representative sample of 600 individuals in 30 districts, who were of voting age in 2011. To ensure high consistency and high data quality, all interviews were conducted by the same team of a male and a female enumerator (the first author of this paper). In this section, we provide a brief description of the main variables used in the analysis. Further details on each variable and on the sampling process, as well as descriptive statistics are available in Appendix A.

Political preferences. Voting for the religious party is captured by questions about participation and party choice in the 2011 National Constituent Assembly election. In our sample, 60 percent of respondents report participating in the election. Among those who

participated, 43 percent voted for Ennahdha. Taken together, 26 percent of our sample expressed a vote for Ennahdha. Our main measure of vote for Ennahdha takes value 1 if the respondent voted for Ennahdha and 0 for all other respondents (*Vote Ennahdha*). This variable captures the joint decision to go to vote and voting for Ennahdha. We prefer this definition because our focus is on which individual and district characteristics increase a voter's likelihood to support Ennahdha. This support manifests both in the voter's choice to vote for Ennahdha if she turns out to vote *and* in her choice to turn out. We nonetheless consider alternative specifications that exclude voters who abstained (Section 5.2). and analyze the determinants of abstention (Section 5.4).

Socio-economic characteristics. We rely on an asset index to measure socio-economic status. Although our theoretical predictions are based on income, relying on a direct measure of income may yield inaccurate estimates. First, income is seasonal and volatile, particularly in developing countries. Second, where self-employment is common, particularly in agriculture and the informal sector, it is difficult to gather accurate income data. In our survey, 23.5 percent of respondents are self-employed and more than 16 percent work in the agricultural sector (among them, more than half are self-employed). Surveys such as the World Bank Living Standard Measurement Survey have consequently shied away from measuring income and have tended to rely more on alternative proxies such as consumption expenditures or asset ownership. In order to avoid respondent fatigue in our survey, we opted for an asset index over consumption expenditures. An asset index is advantageous compared to other common measures in surveys such as self-reported social status or position in the income distribution. These subjective measures are potentially influenced by other individual attitudes which may be correlated with political or religious preferences.

We selected 10 assets based on a study of living conditions in urban and rural Tunisia during the pilot phase of our survey. The assets include: water heater, motorbike, car, TV, satellite antenna, computer, home internet access, refrigerator, bank account, and post office checking account. Following Case et al. (2004); Labonne and Chase (2011); Montgomery et al. (2000), we define our index as the sum of household owned assets. Table D.2 in Appendix D presents descriptive statistics for each item as well as the asset index. The average respondent in our survey has 5.7 assets (s.d.: 2.05).

We rely on this same measure of wealth to characterize the district level of wealth and test the prediction that the probability of voting for the religious party is higher in richer districts. We rely both on average asset ownership in the district as well as on a dummy variable that indicates whether the district in which the respondent lives is richer than the

median district in our sample. We classify two districts exactly at the median as “rich.”

A limitation of our data is that we measure wealth slightly more than 3 years after the 2011 election. We therefore included in our survey a retrospective question about change in personal economic conditions over the last 5 years, which we use as a control in robustness tests. Furthermore, our survey-based measures are highly correlated with official statistics from before the election. The last census before the election dates to 2004 and is available at the district level. The correlation between average district wealth as measured in our survey and (1 minus) the poverty rate as measured in the census is above 0.61 and highly statistically significant. All our results are unchanged, in terms of statistical significance and magnitude, whether we rely on the survey-based or the Census-based measure.

Religiosity. We capture respondents’ religiosity level with a question about the frequency of religious practice. In Islam, followers are expected to pray at least on Friday, and ideally several times a day. 62 percent of our respondents report praying every day; around 1 percent pray only every Friday. We consider these two groups as highly religious. By contrast, 11 percent “never” or “practically never” practice their religion and are considered as non-religious in the rest of the analysis. The remaining 26 percent of respondents practice less frequently or on special occasions only (e.g., the holy month of Ramadan), and are considered as moderately religious.

Appendix A provides a validation of this measure of religiosity against other proxies of religiosity in our survey, particularly recorded respondents’ dress code.

Controls. Our survey also gathers a wide range of information on individual demographic characteristics such as gender, age, marital status, educational level, or occupation. We use these characteristics as control variables in the analysis. As shown in Table D.2, the survey is perfectly balanced in terms of gender. The average respondent is 40 years old and 65 percent of the respondents are married. 16 percent of the respondents are unemployed, almost identical to the share of unemployed according to official statistics (15 percent according to the 2014 Tunisian Census). A sizable share of the respondents (26 percent) have not completed primary school, but most have completed a primary education (34 percent) and many have received secondary (17 percent) or some tertiary (23 percent) education. These figures are reflective of Tunisia’s relatively high education levels compared to its immediate neighbors and consistent with official statistics.¹⁵

¹⁵Our survey slightly overestimates tertiary education (19 percent in official statistics) and slightly underestimates the proportion of respondents with secondary education (35 percent in official statistics; 2014

We also rely on a district level control for urbanization, taken from the 2014 Census. 66.67% of our sample is classified as urban, again almost identical to the national average.

In Section 5.4 we also control for individual attitudes towards the West and gender parity. Wealthier respondents are less supportive of women wearing a veil, more progressive towards women's rights in general, and less likely to find Western values harmful. Among voters with 5 assets or less, 92 percent respond that women should cover their heads. Among those with more than 5 assets, this proportion goes down to 77 percent (one-sided p-value of 0.001) and among the very rich (those with more than 8 assets), it is only 67 percent. We construct a gender parity index, which is the principal component of 8 questions on gender equality, including: equal inheritance for sons and daughters, whether men and women should be paid similar wages for similar jobs, whether men should have priority for employment in a recession, whether education is more important for girls than it is for boys, whether women can be as competent as men as doctors, prime ministers, or business leaders, and a question on the relative importance of education and work, versus marriage and family, for boys and girls. The average value of the gender parity index, for which higher values capture more favorable attitudes towards gender equality, is -0.15 among those with less than 5 assets but 0.15 among those with more than 5 assets (one-sided p-value of 0.002) and 0.21 among the very rich. The picture is similar when we look at responses to a question about the acceptance of Western values. While 19 percent of the poor strongly agree with the statement that "Western values are harmful for society," among the rich this proportion is less than half, at 7 percent (one-sided p-value of 0.0001). None of our very rich respondents strongly agreed with this statement.

4.2 Wealth and vote for Ennahdha: descriptive statistics

The left panel of Figure 3 plots the unconditional relationship between voting for Ennahdha and wealth using a flexible specification in the whole sample. Consistent with our model, the vote share for Ennahdha is highest among the middle class; it is increasing in wealth among the poorer voters but decreasing in wealth among the richer voters. In fact, the maximum is reached at almost exactly the mean level of assets in our sample, represented by the vertical line. The data suggest that a quadratic specification, which we adopt for estimation in the sections that follow, is an adequate approximation of the functional form of the relationship between vote for Ennahdha and wealth.

Census). The World Bank's World Development Indicators report similarly high primary and secondary enrollment rates (110 and 91 percent, respectively, in 2013).

The right panel of Figure 3 plots the same relationship within districts that are above or below the median district in wealth in our sample. Consistent with our model, the panel shows that the average vote share for Ennahdha is higher in the wealthier districts than in the poorer districts. On average, 29 percent of respondents voted for Ennahdha in districts that are richer than the median, against 22 percent in districts that are poorer than the median (one sided p-value: 0.025). In richer districts, voting for Ennahdha is not sensitive to individual wealth, except at the tails of the wealth distribution. On the contrary, our prediction of an inverted-U shaped relation between asset ownership and voting for Ennahdha fits the data well in poorer districts. This is roughly consistent with our prediction that middle-class voting for the religious party should be broader in the richer districts.

Finally, while 26 percent of respondents voted for Ennahdha, 33 percent of the highly religious did so, confirming that religiosity correlates positively with supporting the Islamic party.

Descriptive statistics are hard to interpret because the effects of wealth and religiosity could be confounded if the two variables are systematically correlated. Consistent with Crabtree (2010), the correlation between religiosity and wealth in our sample is negative (-0.098 ; statistically significant at the 5 percent level). On average, highly religious voters have 0.65 fewer assets than non-religious voters (one sided p-value: 0.0075). A finer test of our theoretical predictions about the relationship between voting for the religious party and wealth requires holding religiosity constant. We present in Figure D.1 (in Appendix D) the replica of Figure 3 where we consider only the voters in the largest and most relevant group—highly religious people. Our predictions about the relationship between voting for Ennahdha and wealth holds in this subsample. However, for a more systematic analysis, and to control for the potential influence of other confounding factors, we turn to multivariate regression analysis in the next section.

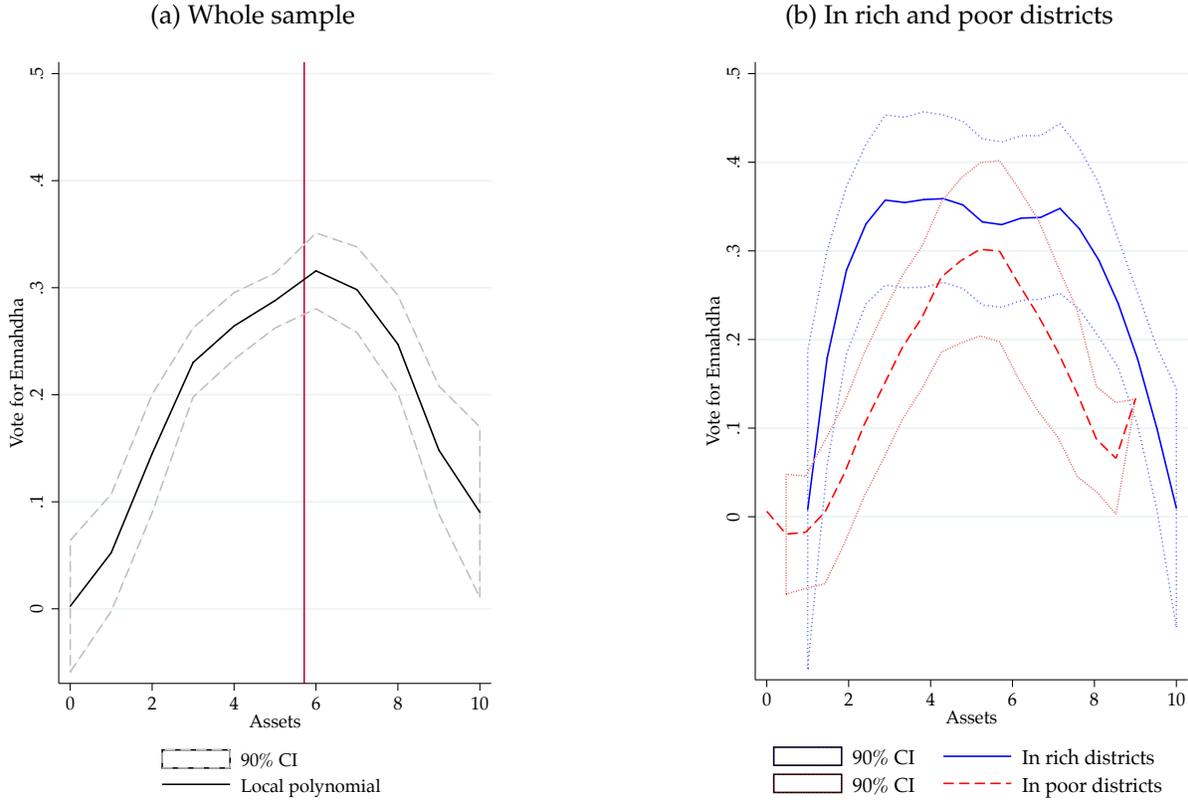
5 Results

In this section we present our empirical specification, our main results, and how well our explanation of voting for the religious party fares compared to alternative explanations.

5.1 Empirical specification

We estimate the following expression:

Figure 3: Vote for Ennahdha and wealth.



Notes: Local polynomial fit with 90 percent confidence interval. Data is averaged by asset bin. Rich (poor) district: above (below) median level of assets. The vertical line in the left panel indicates the mean level of assets in the sample. Source: authors' data.

$$\begin{aligned}
 Ennahdha_{idr} &= \beta_0 + \beta_1 Rich_{dr} + \beta_2 Assets_{idr} + \beta_3 Assets_{idr}^2 \\
 &+ \beta_4 Religiosity_{idr} + \beta_5 X_{idr} + \beta_6 U_{dr} + \beta_7 Z_r + \epsilon_{idr}
 \end{aligned} \tag{4}$$

where $Ennahdha_{idr}$ is a dummy variable which takes value 1 if respondent i in district d in region r voted for Ennahdha, as defined in Section 4. We discuss in Section 5.3 how our results are robust to the use of different measures of support for Ennahdha. $Rich_{dr}$ is a dummy variable that indicates districts that are wealthier than the median. In terms of our theoretical model, $Rich_{dr} = 1$ is the rich district H . $Assets_{idr}$ proxies individual wealth with our asset index and is equivalent to y_i . We consider alternative measures of wealth in Section 5.3. $Religiosity_{idr}$ is our proxy for the intensity of religious preferences described in Section 4 and is equivalent to ϕ_i . An important concern is that religios-

ity could be endogenous. We focus on the first democratic elections in Tunisia following the Arab Spring, after 50 years of autocratic rule and a ban on religious parties. In these circumstances, it is reasonable to consider religiosity as predetermined compared to political preferences for the religious party. In addition, in Section 5.2 we focus more specifically on the largest religiously homogeneous group in our sample: the highly religious respondents. X_{idr} is a vector of individual demographic controls including gender, age, marital status, household size, employment status, and education, which are potentially correlated with wealth, religiosity, or political preferences; U_{dr} is a district-level urban dummy; Z_d is a vector of regional fixed effects. We include fixed effects for the 6 regions highlighted in Figure 1 in order to account for unobserved heterogeneity in political preferences, religiosity, or socio-economic characteristics across regions. Since political districts were the primary sampling unit in our sampling procedure, we cluster standard errors at the political district level throughout. Our dependent variable is a binary variable, which would call for a non-linear estimation model. However, because of issues arising from the estimation of interaction and square terms with non-linear models (Ai and Norton, 2003) and given that one of our main independent variables is a square term, we estimate (4) with an OLS specification. Our results are robust to using a logit specification.¹⁶

5.2 Regression results

Table 1 presents the estimation results of (4). First, we estimate (4) with only the independent variables that correspond to the parameters in the theoretical model (Column 1). We then add regional fixed effects (Column 2) and finally, in our preferred specification, socio-demographic controls as well (Column 3). P-values are displayed in parenthesis under coefficient values.

Across the entire sample, the regression results confirm all three individual comparative statics predicted by our model. First, the dummy associated with rich districts is positive and statistically significant. According to our preferred specification (Column 3), on average, living in one of the 50 percent richer districts is associated with a 16 percentage point increase in the probability of voting for Ennahdha. When compared to the sample share of votes for Ennahdha, this amounts to a 62 percent increase in the probability of voting for Ennahdha. Second, the coefficient associated with $Assets_i$ is positive and the coefficient associated with $Assets_i^2$ is negative. Both are statistically significant, indicating an inverted-U relation between socio-economic status and voting for Ennahdha,

¹⁶See Table D.3 in Appendix D.

Table 1: Individual vote for Ennahdha.

Sample	(1)	(2)	(3)	(4)	(5)	(6)
	Vote Ennahdha			Highly religious		
Rich district	0.103 (0.066)	0.085 (0.065)	0.161 (0.032)	0.153 (0.024)	0.131 (0.014)	0.254 (0.002)
Assets	0.109 (0.022)	0.111 (0.017)	0.092 (0.047)	0.151 (0.011)	0.146 (0.024)	0.138 (0.039)
Assets squared	-0.011 (0.007)	-0.011 (0.004)	-0.008 (0.034)	-0.014 (0.006)	-0.014 (0.010)	-0.012 (0.027)
Moderately religious	0.032 (0.463)	0.039 (0.426)	0.043 (0.384)			
Highly religious	0.201 (0.000)	0.197 (0.000)	0.194 (0.000)			
Observations	600	600	600	376	376	376
R^2	0.058	0.079	0.125	0.038	0.081	0.134
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Controls	No	No	Yes	No	No	Yes

Notes: OLS regressions. All regressions include a constant term. Robust standard errors clustered at the district level (30 clusters). p -values in parentheses. Controls: female, age, household size, marital status (5 categories), education level (4 categories), unemployed, and urban dummy.

peaking around the sample asset ownership mean.¹⁷ The coefficient associated with high religiosity is, as expected, positive and statistically significant. The statistical significance and the magnitude of the results are broadly unchanged by the addition of regional fixed effects and demographic controls.¹⁸

For a sense of the magnitudes, one additional asset (typically, a TV set or a refrigerator) for the poorest of Tunisian society is associated with an increase in the probability of voting Ennahdha greater than 8 percentage points.¹⁹ Going from the poorest respondent in the sample in the poorest 50 percent of districts to the average-wealth respondent

¹⁷Table 1 reports our results up to the third decimal point. At the fourth decimal point, the coefficient associated with $Assets_i$ equals 0.0922 in our preferred specification. The coefficient associated with $Assets_i^2$ equals -0.0084 . Our results therefore indicate that the relation between assets and voting for Ennahdha

$$\frac{dEnnahdha_{idr}}{dAssets_{idr}} = \beta_2 Assets_{idr} + 2\beta_3 Assets_{idr}^2$$

is positive for voters with less than 5.5 assets and negative for voters with more than 5.5 assets, which is close to the sample mean of assets (5.7).

¹⁸We also check that our results are not due to non-linearities in other covariates, such as age and household size (results available upon request).

¹⁹The effect associated with ownership of a first asset in our list is given by $\beta_2 + \beta_3$.

in a richer district is associated with an average increase in voting for Ennahdha of 41 percentage points.²⁰ By comparison, respondents who pray every day are on average 19 percentage points more likely to vote for Ennahdha than those who practically never pray.

When we focus on highly religious respondents only in Columns 4 to 6, economic variables appear to play an even stronger role.²¹ On average, living in one of the 50 percent richer districts is associated with a 25 percentage point increase in the probability of voting for Ennahdha. For the poorest respondents among the highly religious, one additional asset is associated with an increase in the probability of voting for Ennahdha by over 12 percentage points.

Our model predicts that the “middle class” that supports Ennahdha in the richer district is broader than in the poorer district, such that wealth should not affect support for Ennahdha in the richer district, except for the poorest voters. We noted in Figure 3 that voting for Ennahdha was indeed less sensitive to individual wealth in the 50 percent richer districts. This is confirmed by additional regression results: the coefficients associated with $Assets_i$ and $Assets_i^2$ are only significant (and more than twice as large in magnitude) in the poor districts.²²

Table D.4 in Appendix D displays the estimated coefficients for each of the demographic controls. Women are less likely to vote for Ennahdha, perhaps because the party’s policies are more restrictive towards them. The effect of education on voting behavior is negative, but significant only for those who have pursued a tertiary education. Among highly religious people only, those with at least a primary education are less likely to vote for Ennahdha than those with no formal education. The coefficient associated with unemployment is never statistically significant.

5.3 Robustness

We report here a number of checks to the validity of our empirical results (all tables and further details are in Appendix D).

²⁰The cumulative effect is given by $\beta_1 + \beta_2 \cdot 5.7 + \beta_3 \cdot (5.7)^2$. In our most conservative estimate (Column 2) the effect is 36 percentage points.

²¹This is consistent with the predictions of our model. In our model, sufficiently non-religious voters should not vote for the religious party, independently of their economic situation. We then expect to have greater statistical power when looking at the effect of socio-economic variables if we restrict attention to the subsample of highly religious people .

²²A replica of the regression in Column 3 for the subsample of 50 percent poorer districts yields coefficients 0.186 (P-value of 0.001) and -0.018 (P-value of 0.000) for $Assets_i$ and $Assets_i^2$, respectively. For the subsample of 50 percent richer districts, the coefficients are 0.075 (P-value of 0.356) and -0.006 (P-value of 0.386).

We check that our results are robust to excluding abstainers from our estimation sample. Given the level of abstention, this results in a loss of statistical power. Our results fall short of statistical significance in the whole sample, but the magnitude of the coefficients is unchanged. Restricting to the sample of highly religious voters, the results are unchanged both in terms of magnitude and statistical significance (Table D.5).

Furthermore, there may be concerns about unobserved heterogeneity at the district level that may be correlated with particular combinations of assets and voting preferences. To address this concern, we show that our results are robust to district fixed effects (Table D.6) and to correcting standard errors for spatial correlation (Table D.7). The results are also robust to corrections for adjusting standard errors using the Wild cluster bootstrap method based on 1,000 replications, as recommended by Cameron et al. (2008) and Cameron and Miller (2015) to correct for small numbers of clusters (Table D.8). We are also concerned that the simple sum of assets may result in some measurement error and check the robustness of our results focusing to a subset of assets (Table D.9). Similarly, we check that our results are unchanged when we use alternative measure of electoral district wealth (including measures from the 2004 Census. Table D.10). To address the potential issue raised in Section 4 that individual wealth was measured after the 2011 election, we check that our results are robust to controlling for changes in individual economic conditions since 2010 (Table D.11). Finally, we check that our results are robust to specifications with different functional forms (Table D.12).

5.4 Alternative mechanisms

A further concern with our results is that wealth may in fact determine the decision to vote for Ennahdha through alternative avenues than the one we posit in this paper. To address this concern, we now consider several alternative explanations for the relation between individual economic conditions and support for Islamic parties. For brevity of exposition, for each alternative explanation, we present the results of only two specifications: one with the variables of our theoretical model only and the other with region fixed effects and socio-demographic controls. Tables D.13-D.15 in Appendix D report the results for the subsample of highly religious people.

Economic disgruntlement. Religious parties, which were banned by the previous regime, may represent the most credible political alternative for radical change. Thus, they might attract the most disgruntled voters. In our main specification, unemployment is not statistically significant. However, the relationship may be more complex. For example,

Table 2: Economic disgruntlement and individual vote for Ennahdha.

Sample	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Vote Ennahdha					Non-migrants				
	Whole									
Rich district	0.107 (0.069)	0.163 (0.032)	0.103 (0.066)	0.160 (0.036)	0.105 (0.060)	0.160 (0.037)	0.100 (0.069)	0.186 (0.006)	0.082 (0.174)	0.135 (0.113)
Assets	0.116 (0.016)	0.098 (0.040)	0.110 (0.015)	0.090 (0.043)	0.114 (0.020)	0.094 (0.046)	0.116 (0.014)	0.105 (0.023)	0.116 (0.064)	0.093 (0.091)
Assets squared	-0.010 (0.010)	-0.009 (0.028)	-0.011 (0.004)	-0.008 (0.030)	-0.011 (0.006)	-0.009 (0.032)	-0.011 (0.005)	-0.009 (0.026)	-0.012 (0.025)	-0.009 (0.049)
Moderately religious	0.046 (0.277)	0.052 (0.278)	0.033 (0.472)	0.042 (0.395)	0.031 (0.498)	0.041 (0.416)	0.037 (0.397)	0.047 (0.353)	-0.004 (0.927)	0.017 (0.751)
Highly religious	0.207 (0.000)	0.203 (0.000)	0.201 (0.000)	0.196 (0.000)	0.194 (0.000)	0.188 (0.001)	0.214 (0.000)	0.216 (0.000)	0.127 (0.010)	0.150 (0.004)
Primary education	-0.006 (0.923)	-0.039 (0.445)		-0.034 (0.427)		-0.029 (0.499)		-0.062 (0.224)		-0.002 (0.955)
Secondary education	-0.038 (0.598)	-0.082 (0.211)		-0.094 (0.132)		-0.086 (0.178)		-0.121 (0.072)		-0.044 (0.497)
Tertiary education	-0.099 (0.214)	-0.150 (0.042)		-0.154 (0.027)		-0.149 (0.032)		-0.197 (0.012)		-0.086 (0.191)
Unemployed	0.059 (0.703)	0.070 (0.668)		0.062 (0.282)		0.059 (0.324)		0.086 (0.146)		0.027 (0.704)
Primary edu*Unempl	-0.033 (0.849)	0.034 (0.846)								
Secondary edu*Unempl	-0.160 (0.405)	-0.103 (0.599)								
Tertiary edu*Unempl	-0.057 (0.731)	-0.015 (0.935)								
District inequality			0.001 (0.957)	-0.005 (0.759)						
Fight corruption					0.050 (0.297)	0.038 (0.419)				
Prosecute old regime							0.057 (0.189)	0.050 (0.252)		
Observations	600	600	600	600	598	598	563	563	386	386
R ²	0.066	0.127	0.058	0.126	0.061	0.128	0.067	0.149	0.039	0.113
Region Fixed effects	No	Yes								
Controls	No	Yes								

Notes: OLS regressions. All regressions include a constant term. Robust standard errors clustered at the district level (30 clusters). p -values in parentheses. "District inequality" is the difference between the maximum and the minimum of assets in a district. "Fight corruption" is a dummy variable taking value 1 if the respondent answers that "eliminating corruption" should be the first priority of the government (in a list of 5 possible alternatives) (mean: 0.30, s.d.: 0.46). 2 respondents refused to answer this question and are missing from our estimation sample. "Prosecute old regime" is a dummy variable that takes value 1 if the respondent is in favor of prosecution (mean: 0.76, s.d.: 0.43). 37 respondents refused to answer this question. Controls: female, age, household size, marital status (5 categories), education level (4 categories), unemployed, and urban dummy.

Campante and Chor (2012) argue that it was the combination of the lack of economic opportunities with rising education that spurred discontent and ignited political protests in the region. Voting for Islamic parties may be motivated by similar factors. If that was the case, we would expect a statistically significant relationship between voting for Ennahdha and an interaction between unemployment and education. In Table 2 (Columns 1 and 2) we find no such relationship and our main results are unaffected by the inclusion

Table 3: Attitudes towards gender, towards the West, and individual vote for Ennahdha.

	(1)	(2)	(3)	(4)	(5)	(6)
	Vote Ennahdha					
Rich district	0.109 (0.044)	0.164 (0.026)	0.106 (0.055)	0.151 (0.060)	0.105 (0.064)	0.162 (0.031)
Assets	0.095 (0.042)	0.083 (0.075)	0.101 (0.038)	0.090 (0.053)	0.109 (0.023)	0.092 (0.051)
Assets squared	-0.009 (0.017)	-0.008 (0.057)	-0.009 (0.017)	-0.008 (0.044)	-0.010 (0.008)	-0.008 (0.039)
Moderately religious	0.020 (0.660)	0.030 (0.552)	0.033 (0.460)	0.041 (0.409)	0.031 (0.477)	0.042 (0.393)
Highly religious	0.188 (0.000)	0.178 (0.001)	0.192 (0.000)	0.184 (0.001)	0.199 (0.000)	0.193 (0.001)
Gender parity PCA index	-0.034 (0.020)	-0.026 (0.081)				
Support veiling			0.104 (0.000)	0.088 (0.001)		
SA: Western values are harmful					0.034 (0.529)	0.016 (0.774)
Observations	600	600	590	590	600	600
R ²	0.068	0.130	0.074	0.134	0.059	0.125
Region fixed effects	No	Yes	No	Yes	No	Yes
Controls	No	Yes	No	Yes	No	Yes

Notes: OLS regressions. All regressions include a constant term. Robust standard errors clustered at the district level (30 clusters). *p*-values in parentheses. "Gender parity PCA index" is a principal-component index of attitudes towards gender equality (see Appendix A for more detail). "Support veiling" is a dummy variable taking value 1 if the respondent argues that women have to cover their heads when going out of the house (binary question). "SA: Western values are harmful" is a dummy variable taking value 1 if the respondent strongly agrees that "Western values are harmful". Controls: female, age, household size, marital status (5 categories), education level (4 categories), unemployed, and urban dummy.

of this interaction.

Another possibility is that the disgruntlement is not spurred by one own's unemployment status, but by the level of economic inequality or the level of corruption that voters are confronted with.²³ In this case we would expect a statistically significant relationship between voting for Ennahdha and a measure of the voter's exposition to inequality²⁴ or a measure of the voter's concern with corruption. Each of these two effects should wash away some of the effect of wealth on voting for Ennahdha if inequality or corruption

²³A common idea is that support for Islamic parties derives from voters' perceptions that these parties will be tougher on political and bureaucratic corruption (Henderson and Kuncoro, 2011). Voting for Islamic parties may thus be determined by attitudes towards corruption. In Egypt, Acemoglu et al. (2017) find that more intense protests in Tahrir Square were associated with lower stock market returns for firms connected to Hosni Mubarak's government, providing evidence of corrupt ties among the former elite.

²⁴We use the level of inequality within the voter's district.

Table 4: Access to media, voting for other parties, and abstaining.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Vote Ennahdha		Vote CPR		Vote Ettakatol		Vote Aridha		Abstained	
Rich district	0.100 (0.075)	0.156 (0.027)	-0.000 (0.988)	-0.036 (0.197)	0.029 (0.133)	0.019 (0.470)	-0.027 (0.199)	-0.044 (0.083)	-0.129 (0.002)	-0.088 (0.134)
Assets	0.103 (0.033)	0.081 (0.080)	0.037 (0.352)	0.032 (0.416)	0.013 (0.571)	0.015 (0.498)	-0.013 (0.600)	-0.001 (0.940)	-0.074 (0.235)	-0.055 (0.339)
Assets squared	-0.010 (0.017)	-0.007 (0.061)	-0.003 (0.425)	-0.002 (0.444)	0.000 (0.985)	-0.000 (0.863)	0.000 (0.859)	-0.001 (0.626)	0.003 (0.497)	0.003 (0.593)
Moderately religious	0.023 (0.614)	0.033 (0.507)	0.003 (0.933)	-0.007 (0.831)	0.017 (0.475)	0.009 (0.714)	0.005 (0.684)	0.005 (0.593)	-0.128 (0.143)	-0.093 (0.305)
Highly religious	0.174 (0.001)	0.183 (0.001)	0.015 (0.655)	-0.016 (0.605)	0.033 (0.203)	0.013 (0.603)	0.014 (0.253)	0.015 (0.078)	-0.260 (0.001)	-0.172 (0.042)
News Radio	0.013 (0.180)	0.012 (0.231)								
News TV	0.020 (0.143)	0.021 (0.123)								
News Newspaper	0.002 (0.857)	-0.009 (0.452)								
News Internet	0.007 (0.744)	0.003 (0.879)								
News Social Media	-0.017 (0.318)	-0.006 (0.744)								
Observations	600	600	600	600	600	600	600	600	600	600
R ²	0.069	0.134	0.006	0.055	0.031	0.051	0.027	0.074	0.083	0.158
Region fixed effects	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Mean dependent variable		0.263		0.065		0.045		0.032		0.391

Notes: OLS regressions. All regressions include a constant term. Robust standard errors clustered at the district level (30 clusters). p -values in parentheses. Controls: female, age, household size, marital status (5 categories), education level (4 categories), unemployed, and urban dummy.

are greater concerns for the middle class. In Table 2 we do not find any evidence that inequality or concerns with corruption significantly affected voting for Ennahdha, nor that the inclusion of these variables affect the relationship between wealth and voting for Ennahdha (Columns 3 and 4). Similarly, disgruntlement with the former regime did not affect voting for Ennahdha and considering this explanation does not affect our results (Columns 5 and 6).

Migration. Migration could influence our results in several possible ways. International migrants may become richer but also may develop more positive attitudes toward political Islam because of their experiences as minorities abroad. The effect of exposure on political preferences could also work the opposite way, with exposure to more open and democratic societies making voters fearful of religious parties. Internal migration could also bias our results if people self-select to richer or poorer places as a function of their own wealth or of their religious or political preferences. To rule out these effects, we restrict our analysis to the subsample of people who have always lived in the district where

they were surveyed at the time of the interview. This restricts the sample to 386 individuals, including 231 highly religious respondents. The coefficient associated with district wealth remains positive and of the same order of magnitude, although it hovers around standard levels of statistical significance due to the reduced sample size. The magnitude of the effect of individual wealth increases slightly and its statistical significance is only slightly weakened. Results are presented in Columns 9 and 10 of Table 2.

Values, attitudes towards the West, and information. Previous literature has argued that the support base of Islamic political parties consists primarily of voters who share anti-Western sentiments (Garcia-Rivero and Kotzé, 2007; Jamal and Tessler, 2008; Robbins, 2009; Tessler, 2010). In addition, as we report in Table D.1 Ennahdha’s platform promotes a conservative agenda on gender issues and may attract voters who share such socially conservative views. However, as discussed in Section 4, conservatism towards female dress codes and anti-Western sentiment decreases with income. These motivations, if present, should therefore give rise to a negative relationship between income and voting for Ennahdha and bias our results against our main finding that the poor do *not* vote for the religious party. Yet, in Table 3, we check that our results are robust to controlling for the principal component index of attitudes towards gender parity as well as to attitudes about veiling and towards the West. Conservative views on gender issues correlate positively with voting for Ennahdha (Columns 1 to 4 of Table 3). However, our results are robust to controlling for the two alternative proxies of individual views on gender issues, and the magnitude of the coefficients associated with wealth and, interestingly, with religion is barely affected. Our results are also robust to controlling for anti-Western sentiment, which itself is not significantly correlated with support for Ennahdha (Columns 5 and 6 of Table 3).

Another possibility is that the poor are less informed, or are informed differently. We study whether voter access to information can explain voting. We proxy access to information and consumption of information by questions about the frequency with which respondents use different sources of information “to learn what is going on in [their] country and in the world.” We control for access to different media, such as the radio, social media, or newspapers, in the estimation of equation (4) in Columns 1 and 2 of Table 4. The coefficients associated with the wealth variables remain broadly unchanged. Access to media itself is insignificant. These results suggest that the pattern we uncover between voting for Ennahdha and income is unlikely to be due to differences in information.

It is also possible that the pattern we observe between wealth and voting for Ennahdha reflect values that systematically correlate (in the opposite direction) with voting for an-

other party or with abstaining. For example, rather than not voting for Ennahdha, the poor (or the very rich) might systematically vote for another party that they perceive to be more aligned with their economic or cultural backgrounds. In Columns 3 to 10 of Table 4, we estimate specifications identical to (4) with the probability of voting for a major²⁵ party other than Ennahdha, or the probability of abstaining as the dependent variables. Voting for other parties does not correlate with individual wealth: the coefficients associated with $Assets_i$ and $Assets_i^2$ are never statistically significant. Richer districts are less likely to vote for Aridha, the party with populist tendencies, and also less likely to abstain, but the effect is not robustly statistically significant. Interestingly, religious people are less likely to abstain, but abstention does not correlate with individual asset ownership.

6 Conclusions

In seeking to explain political support for religious parties, we find that redistributive considerations influence voters decisions as much as—if not more than—religiosity itself. As we document in Appendix C, the voting pattern we uncover is not specific to Tunisia alone but has occurred in other democratic elections in the Muslim world where a distinct Islamic party was running. Although our focus is on political Islam, we believe that some of our findings extend to other environments, past and present.

Religious values affect economic development in multiple ways: Barro and McCleary (2003) show how beliefs in hell and heaven have a positive association with growth, while church attendance has an opposite effect; Guiso, Sapienza and Zingales (2003) find that, on average, religious beliefs are associated with economic attitudes that are conducive to higher per capita income and growth; finally, Bénabou, Ticchi and Vindigni (2015) show that religiosity and innovation are significantly and negatively related. In a nutshell, this literature focuses on the additional effects of religious values on individual attitudes towards production and markets. Timur Kuran (2004; 2012; 2013) highlights a possible historical mechanism through which religion, and Islam in particular, affects economic growth. He argues that the local provision of public goods through local charities, a central economic institution of Islam, historically substituted for a strong state and ultimately led to economic and political underdevelopment in the Middle East. We expect these effects to be more salient when religious values and institutions are channeled through organizations that seek political power to reinforce the reach of local religious charities. Our model suggests that such religious parties are able to exercise greater influence at intermediate stages of state development and when religiosity is a more divisive factor.

²⁵Obtaining at least 5 percent of the expressed votes.

Our results also contribute to the broader debate about Islam and democracy. It is widely recognized that Islamic, as well as non-Islamic, terrorists are better educated and richer than their peers (Krueger, 2008). Put simply, the poor and uneducated have other, more pressing, problems to think about than geopolitical grievances, while the educated elites “fervently wish to pursue a grievance” (Krueger, 2008, p. 172). One might presume that the same is true of supporters of Islamic parties, but the pattern we uncover is quite different. First, the relation between support for Islamic parties and wealth is more complex than a simple monotonic relationship. Second, education plays a minor role if at all, while wealth matters perhaps more than religiosity itself. Third, and perhaps most importantly, support for Islamic parties is better explained by simple arguments of public finance than by geopolitical ideologies. All in all, this suggests we might learn more about political Islam and the development of democracy in the Muslim world if we study these phenomena within a similar framework as that used to study political competition in the West.

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Appendix

A Data

A.1 Sampling methodology

Stage 1: Selection of the Principal Sampling Units (PSUs). Based on information from the 2014 Tunisian National Institute of Statistics,²⁶ we constructed two levels of sorting: (i) at the regional level (six in total) and (ii) and at the urban (i.e. communal) level. The PSU, the smallest geographical unit, available in the Tunisian census is a “sector.” Tunisia is divided into 6 regions, 24 governorates, 264 delegations and 2,073 sectors. Each delegation accounts for one electoral district, with the exception of the highly populated delegations Tunis, Nabeul, and Sfax, which are represented by two electoral districts. The PSUs were selected with probability proportional to their size. We selected 30 PSUs with a block size of 20 observations per PSU, for a total of 600 observations.²⁷ For security reasons, we had to replace two districts with two districts similar in terms of observable characteristics.²⁸

Stage 2: Selection of the household. By means of a map and GPS of the PSUs, we chose a random starting point (e.g., a street) and then selected the K -th element in the continuation of the sampling frame. We divided each PSU into 4 zones, as there were two interviewer teams (each composed of a female and a male interviewer) and the questionnaire were conducted over two days in each of the PSUs.

Stage 3: Selection of the individuals within the household. Due to time constraints, we relied on a quota selection based on the 2014 Tunisian Census with respect to gender and age so as to ensure a representative sample to this regard.

A.2 Data and descriptive statistics

Political preferences: Voting for the religious party is captured by questions about participation and party choice in the 2011 National Constituent Assembly election. In our sample, 60 percent of respondents report participating in the election. Among those who

²⁶<http://www.ins.tn>

²⁷Some PSUs are characterized by communal households and non-communal households. In this case, the PSU was categorized as either communal or non-communal depending on the category with the highest number of households.

²⁸i.e., sectors controlled by terrorist groups.

participated, 43 percent voted for Ennahdha. Official figures are respectively 52 and 37 percent.²⁹

Ennahdha. We construct two measures of vote for Ennahdha. The first takes value 1 if the respondent voted for Ennahdha and 0 for all other respondents, including abstainers. Because this first measure includes abstainers, its average value, 26 percent, is lower than if we only consider respondents who participated in the election. In the second measure, we drop all respondents who did not participate in the election. The first is our preferred measure due to sample size considerations, but our results are robust to using the other measure with respect to individual wealth and voting for Ennahdha,

Wealth:

Assets and Assets squared. We selected 10 assets based on a study of living conditions in urban and rural Tunisia during the pilot phase of our survey. We follow Case et al. (2004); Labonne and Chase (2011); Montgomery et al. (2000) and define our index as the summation over household ownership of assets. In our case these include: a water heater, a motorbike, a car, a TV, a satellite antenna, a computer, home internet access, a refrigerator, a bank account, and a post office checking account.

Rich. We rely both on average asset ownership in a district as well as on a dummy variable that indicates whether the district in which the respondent lives is richer than the median district in our sample. We classify two districts that are exactly at the median as “rich.” We also check that our results are robust to alternative indicators of wealth. To capture the effect of the district’s wealth, we generate a continuous measure of wealth at the electoral district instead of a dummy variable that classifies districts above or below the median wealth. We also rely on official statistics of district wealth (1 minus the poverty rate in the 2004 Census). This measure has the advantage of predating the 2011 National Constituent election. The correlation between average district wealth as measured in our survey and 1 minus the poverty rate as measured in the census is above 0.61 and highly statistically significant. A Wilcoxon signed-rank test is unable to reject the null hypothesis that the distribution of wealth as measured by mean asset ownership in our survey is equal to the

²⁹Both discrepancies are easily explained by well-documented over-report biases (Atkeson, 1999; Dellavigna et al., 2017; Quintelier and Blais, 2015). A Wilcoxon signed-rank test is unable to reject the null hypothesis that the distribution of votes for Ennahdha in the districts included in our sample is equal to the distribution of votes for Ennahdha according to official figures at the 95% level.

distribution of 1 minus the official poverty rate in the 2004 Census at the 99% level ($z = 21.23$).

Religiosity. We capture respondents' religiosity level with a question about the frequency of prayer. In Islam, followers are expected to pray at least on Friday, and ideally several times a day. 62 percent of our respondents declare praying every day. We consider this group as highly religious. The moderately religious, or 26 percent of the respondents, practice less frequently or on special occasions only (e.g., the holy month of Ramadan). The remaining 11 percent "never" or "practically never" practice their religion and are considered as non-religious in the rest of the analysis, which is our omitted group in the empirical analysis. Our survey includes another proxy of religiosity: support for veiling, which we use to validate our main measure. The correlation coefficient between our religiosity measure and a dummy variable indicating support for women covering their heads when they leave the house is 0.21 and statistically significant at the 1 percent level. We also recorded whether our female respondents had their heads covered. The correlation between actually wearing a headscarf and their self-declared religiosity level is more than 0.45 and statistically significant at the 1 percent level.

Demographic controls. Our survey also gathers a wide range of information on individual demographic characteristics such as gender, age, marital status, educational level, or occupation that we use as control variables in the analysis. As shown in Table D.2, the survey is perfectly balanced in terms of gender. The average respondent is 40 years old and 65 percent of our respondents are married. The percentage of unemployed respondents (16 percent) is almost identical to the share of unemployed according to official statistics (15 percent in the 2014 Tunisian Census). A sizable share of our respondents (26 percent) have not completed primary school, but most have completed a primary education (34 percent) and many have received secondary (17 percent) or some tertiary (23 percent) education. These figures are reflective of Tunisia's relatively high education levels compared to its immediate neighbors and consistent with official statistics.³⁰ We also rely on a district level control for urbanization, taken from the 2014 Census. 66.67% of our sample is classified as urban, again almost identical to the national average.

Other variables – used for alternative mechanisms:

³⁰Our survey slightly overestimates tertiary education (19 percent in official statistics) and slightly underestimates the proportion of respondents with a secondary education (35 percent in official statistics; 2014 Census). The World Bank's World Development Indicators report similarly high primary and secondary enrollment rates (110 and 91 percent, respectively, in 2013).

District inequality. We proxy district inequality by taking the difference between the maximum and the minimum asset ownership in the district (mean: 5.93, s.d.: 1.37, min: 3 max: 9).

Attitudes towards corruption. Our survey captures respondents' attitude towards corruption by a question about whether "eliminating corruption" should be the government's first priority. Nearly 30 percent of respondents answer that this should be the case.

Attitudes towards prosecution of member of old regime We capture more specific attitudes towards the members of the old regime with a question about the possible prosecution of people affiliated with the former regime. Less than 24 percent of respondents think that no prosecution should be undertaken. We code attitudes towards the old regime as a dummy variable that takes value 1 if the respondent is in favor of prosecution (mean: 0.76, s.d.: 0.43). Attitudes towards corruption and towards prosecution are positively, but weakly, correlated (correlation coefficient: 0.05).

Attitudes towards gender parity. Our survey includes several measures of gender attitudes. To summarize these, we construct an index based on the principal component of responses to questions about: equal inheritance for sons and daughters, whether men and women should be paid similar wages for similar jobs, whether men should have priority for employment in a recession, whether education is more important for girls than it is for boys, whether women can be as equally competent to men as doctors, prime ministers, or business leaders, and a question on the relative importance of education and work, versus marriage and family, for boys and girls. A higher value of the principal component reflects more equal attitudes towards gender.

Anti-Western sentiment. Our survey includes a question about attitudes towards the West, in particular respondents' opinions about whether exposure to the culture of the United States and other Western countries may have a harmful effect on Tunisia. We generate a dummy that equals one for strong agreement that Western values are harmful and 0 otherwise (mean: 0.13, s.d.: 0.33).

Access to information. Our survey includes questions about the frequency with which respondents use different sources of information "to learn what is going on in [their] country and in the world." Respondents were asked about five different types of media: newspapers, internet, radio, TV, and social media (Facebook, Tweeter, YouTube,

etc). They answer whether they consult each media: daily (coded 5), several times a week (4), about once a week (3), about once a month (2), several times a year (1), or never (0).

CPR, Ettakatol, Aridha. Focusing on the political parties that obtained at least 5 percent of the vote in the National Constituent election, we construct variables such that it takes value 1 if the respondent voted for CPR (Ettakatol, Aridha) and 0 for all other respondents, including abstentionists. The average values are considerably lower than vote for Ennahdha, reaching 7 percent (5 percent, 3 percent).

Abstainers. We generate a dummy that equals 1 if the respondent abstained from voting (refused to answer) and 0 otherwise. Abstention is 39 percent on average while only 9 percent of the sample refused to answer whether they voted or not in the National Constituent election.

A table with all the survey questions is in Additional Material 1.

B Theoretical Appendix

B.1 Proof of Proposition 1

Proof. Part 1: By Lemma 2, if (2) holds, then the religious party implements $\tau_R < 1$ and the secular party implements $\tau_S = 1$ if they win the election. Thus, voter i in district D votes for the religious party if and only if (3) is satisfied.

For all $D \in \{L, H\}$,

$$\begin{aligned} u_D(\tau_R, 0; y_i, \phi_i) - u_D(1, 0; y_i, \phi_i) &= \\ &= v(\tau_R \ell \bar{y} + (1 - \tau_R) \{(1 - \rho) y_i + \rho [(1 - x) \bar{y}_D + \phi_i x \bar{y}]\}) - \bar{v} \end{aligned}$$

where $\bar{v} \equiv u_D(1, 0; y_i, \phi_i) = v(\ell \bar{y})$ is independent of y_i and D . Therefore, $u_D(\tau_R, 0; y_i, \phi_i) - u_D(1, 0; y_i, \phi_i)$ is increasing and strictly concave in y_i for all $\phi_i \in \mathbb{R}_+$ and $D \in \{H, L\}$. Also, $u_D(\tau_R, 0; y_i, \phi_i) - u_D(1, 0; y_i, \phi_i)$ is increasing in ϕ_i for all $y_i \in \mathbb{R}_+$. Furthermore, $\delta(y_i)$ is strictly increasing and (weakly) convex in y_i and $\delta(y_i) \geq 0$ for all $y_i \in Y$. Thus, either (3) is never satisfied, or it is satisfied for y_i in an intermediate interval of income $Y_D(\phi_i) = (\underline{y}_D(\phi_i), \bar{y}_D(\phi_i))$.

Notice that (i) $\bar{y}_D(\phi) < y_{max}$ if $(u_D(\tau_R, 0; y_{max}, \phi) - u_D(1, 0; y_{max}, \phi)) < \delta(y_{max})$ and (ii) $\underline{y}_D(\phi) > y^*(\phi) \geq 0$ since $\delta(y) > 0$ for all $y > 0$ and $u_D(\tau_R, 0; y, \phi) - u_D(1, 0; y, \phi) \leq 0$ for all $y \leq y^*(\phi)$.

The interval $Y_D(\phi)$ is non-empty for ϕ sufficiently large. Points (i) and (ii) then follow from $u_D(\tau_R, 0; y, \phi) - u_D(1, 0; y, \phi)$ being increasing in ϕ and

$$u_H(\tau_R, 0; y, \phi) - u_H(1, 0; y, \phi) > u_L(\tau_R, 0; y, \phi) - u_L(1, 0; y, \phi)$$

for all $(y, \phi) \in \mathbb{R}_+^2$.

Part 2: By Lemma 2, if (2) does not hold, then both parties implement $\tau = 0$. As only the religious party imposes restriction costs $\delta(y_i) > 0$ for all $y_i > 0$, then all voters vote for the secular party. \square

B.2 Discussion of Corollaries 1 and 2

We state Corollary 1 in the sense of first-order stochastic dominance. We say that $G' \succ G$ if G' first-order stochastically dominates G . Also, for any distribution of income (F_H, F_L) , we denote by $\sigma_G(F_H, F_L)$ the share of votes for the religious party under distribution G . For ease of exposition, we shall assume that income and religiosity are independently distributed. We state Corollary 1 as:

Corollary 3. *Let G and G' be two distributions of religiosity such that $G' \succ G$ and let \bar{G} be any distribution for which condition (2) holds with equality.*

1. *If $\bar{G} \succ G' \succ G$, then $\sigma_{\bar{G}}(F_H, F_L) > \sigma_{G'}(F_H, F_L) > \sigma_G(F_H, F_L)$.*
2. *If $G' \succ G \succ \bar{G}$, then $\sigma_{G'}(F_H, F_L) = \sigma_G(F_H, F_L) = 0$.*

Proof. By Proposition 1, the vote share for the Religious party is given by

$$\sigma = \begin{cases} (1 - \gamma) P_L(y_i \in Y_L(\phi_i)) + \\ + \gamma P_H(y_i \in Y_H(\phi_i)) & \text{if condition (2) holds;} \\ 0 & \text{otherwise;} \end{cases}$$

where P_D is the joint distribution of religiosity and income.

We first show that (i) if $\bar{G} \succ G$, then condition (2) holds for G . Conversely, if $G \succ \bar{G}$, then condition (2) does not hold for G . To see this, recall that condition (2) is

$$(1 - \gamma) P_L(y < y_L^*(\phi)) + \gamma P_H(y < y_H^*(\phi)) \geq \frac{1}{2}.$$

Since $y_D^*(\phi)$ is bijective, we can express condition (2) as

$$(1 - \gamma) \int G \left(y_L^{*-1}(y) \right) dF_L(y) + \gamma \int G \left(y_H^{*-1}(y) \right) dF_H(y) \geq \frac{1}{2}$$

and finally notice that for any G and G' such that $G' \succ G$,

$$\begin{aligned} (1 - \gamma) \int G' \left(y_L^{*-1}(y) \right) dF_L(y) + \gamma \int G' \left(y_H^{*-1}(y) \right) dF_H(y) &\leq \\ &\leq (1 - \gamma) \int G \left(y_L^{*-1}(y) \right) dF_L(y) + \gamma \int G \left(y_H^{*-1}(y) \right) dF_H(y). \end{aligned}$$

Thus, if $G' \succ G \succ \bar{G}$, then $\sigma_{G'}(F_H, F_L) = \sigma_G(F_H, F_L) = 0$.

It remains to be shown that if $\bar{G} \succ G' \succ G$, then $\sigma_{\bar{G}}(F_H, F_L) > \sigma_{G'}(F_H, F_L) > \sigma_G(F_H, F_L)$. By Proposition 1, point (i), both $P_L(y_i \in Y_L(\phi_i))$ and $P_H(y_i \in Y_H(\phi_i))$ increase if the distribution of religiosity passes from G to G' and then to \bar{G} . Thus, $\sigma_{\bar{G}}(F_H, F_L) > \sigma_{G'}(F_H, F_L) > \sigma_G(F_H, F_L)$. \square

Finally, we prove Corollary 2 as follows:

Proof of Corollary 2. Notice that

$$\frac{d [u_D(0, 0; y, \phi) - u_D(1, 0; y, \phi)]}{d\ell} < 0$$

and from Lemma 1,

$$\frac{dy_D^*(\phi_i)}{d\ell} \equiv \frac{\bar{y}}{1 - \rho} > 0.$$

Therefore, whenever condition (2) holds, σ is decreasing in ℓ . But a greater ℓ makes condition (2) more likely to hold: for sufficiently small ℓ , both parties would implement $\tau = 0$ and therefore $\sigma = 0$. \square

B.3 Donation rate increasing in religiosity

We allow the donation rate to be a function of religiosity. Specifically, each voter i donates a fraction of his disposable income $\rho(\phi_i)$. Let the joint distribution of ϕ and y be given by P . We discuss here briefly why all the results in Proposition 1 continue to hold if a mild assumption is satisfied. This regularity condition guarantees that if more religious people donate more, then they actually prefer the charity to have a higher budget. Notice that all results about income and voting for the religious party do not depend on this assumption.

To see how the assumption works, notice that religiosity has two effects on a voter, as it affects both her private consumption $(1 - \rho(\phi_i))(1 - \tau)y_i$ and her consumption of religious goods $\phi_i(1 - \tau) \int \rho(\phi) y dP(\phi, y)$. Thus, a marginal increase in voter i 's religiosity reduces consumption by $\frac{\partial \rho(\phi)}{\partial \phi} y_i(1 - \tau)$ and increases it by $x(1 - \tau) \int \rho(\phi) y dP(\phi, y)$. Obviously, the net effect is zero if $\tau = 1$. But if taxes are below $\tau = 1$, then the first effect says that the voter would like to be taxed more so as to "hide" their income from donations. Thus, if $\rho(\phi)$ grows sufficiently fast with ϕ , then more religious voters want more taxes than less religious voters because they have much more income to hide from donation but have only a slightly higher marginal utility of religious goods. We believe that this sort of inconsistency between consumers and their religious self is not realistic and Assumption 1 says that this "hiding my income" effect cannot grow with religiosity faster than the direct effect of religiosity on consumption.

Assumption 1. *The function ρ is such that*

$$\frac{\partial \rho(\phi)}{\partial \phi} < \frac{x \int \rho(\phi) y dP(\phi, y)}{y}.$$

As in the case of our benchmark model, we impose that a voter's maximum (i.e., when $\tau = 0$) consumption of public goods produced by the charity is not greater than her maximum (i.e., when $\tau = 1$) consumption of state public goods: for all $\phi_i \in \Phi$ and $D \in \{L, H\}$,

$$\rho \left[(1 - x) \int \rho(\phi) y dP_D(\phi, y) + \phi_i x \int \rho(\phi) y dP(\phi, y) \right] \leq \ell \bar{y}.$$

We can then prove that the properties of $u_D(\tau', 0; y_i, \phi_i) - u_D(\tau, 0; y_i, \phi_i)$, with $\tau' < \tau$, are not changed when the donation rate depends on religiosity. To see this, we focus on an (algebraically) simple case where the religious party maximizes the amount of religious goods r and therefore only two policies are chosen in any equilibrium: either $\tau = 0$ or $\tau = 1$. Notice that, for all $D \in \{L, H\}$,

$$\begin{aligned} u_D(0, 0; y_i, \phi_i) - u_D(1, 0; y_i, \phi_i) &= \\ &= v \left((1 - \rho(\phi)) y_i + (1 - x) \int \rho(\phi) y dP_D(\phi, y) + \phi_i x \int \rho(\phi) y dP(\phi, y) \right) - \bar{v} \end{aligned}$$

Therefore, $u_D(0, 0; y_i, \phi_i) - u_D(1, 0; y_i, \phi_i)$ is increasing and strictly concave in y_i for all $\phi_i \in \mathbb{R}_+$ and $D \in \{H, L\}$. Also by Assumption 1, $u_D(0, 0; y_i, \phi_i) - u_D(1, 0; y_i, \phi_i)$ is increasing in ϕ_i for all $y_i \in \mathbb{R}_+$. Thus, although the specific formulation of the threshold

values would of course be different, Proposition 1 can be stated without any change.

B.4 Aggregate uncertainty

In the model of Section 3, both parties know for certain the distribution of income and religious preferences among voters (and across districts). In this case Proposition 1 says that the religious party can win, at most, half of the votes. In this appendix we briefly address this possible shortcoming of our model by allowing for some aggregate uncertainty. We focus on uncertainty about the distribution of religious preferences G . In particular, there are two possible states $\theta \in \{h, l\}$. In state θ , religious preferences are distributed according to G_θ such that condition (2) holds for G_l but not for G_h . The common prior probability that $\theta = h$ is $1/2$.

Parties and voters observe a public signal z about the state θ . With an appropriate normalization, the signal z with conditional distribution $Z_\theta : (0, 1) \rightarrow [0, 1]$ induces public beliefs $\Pr(\theta = h | z) = z$. Thus, the public belief about the distribution of bliss tax rates and the bliss point of the median voter are functions of the public signal z .

Obviously, as z approaches zero, the public belief that condition (2) holds approaches 1. Therefore, there exists $z^* \in (0, 1)$ such that, for all $z < z^*$, the secular party is expected to choose $\tau_S = 1 > \tau_R$. But with probability $\frac{1}{2}Z_h(z^*) > 0$, the public signal is smaller than z^* while the true distribution of religious preferences is G_h . But under G_h , a strict majority of voters prefers to vote for the party offering the lower tax rate. Therefore, in equilibrium the religious party wins a majority of the votes with probability $\frac{1}{2}Z_h(z^*) > 0$.

C Further Evidence from the Muslim World

We compare our findings from Tunisia to voting patterns in key democratic elections across the Muslim world. Our focus is on Muslim democracies with substantially free elections and with a clear Islamic party being a serious contender for victory.

We test our predictions on individual data from the World Values Survey (WVS). The WVS captures political preferences with a question about voting intentions “if there were a national election tomorrow.” Given our selection criterion for elections and the availability of the WVS data, we are left with two key elections in addition to the Tunisian election: the 2012 presidential election in Egypt and the 1995 legislative elections in Turkey.³¹ These elections also fit well our predictions that religious parties are more likely to play

³¹We discuss below why we focus on the 1995 elections and the Welfare Party in Turkey rather than on the 2002 (and subsequent) election(s) and on the Justice and Development (AK) Party.

a role at intermediate stages of political development and when religion is more divisive, as they took place immediately following democratization or just before the banning of religious parties. Focusing on elections immediately following democratization also has the advantage of greatly reducing the risk of incorrectly identifying the effect of wealth on voting for religious parties due to reverse causality.

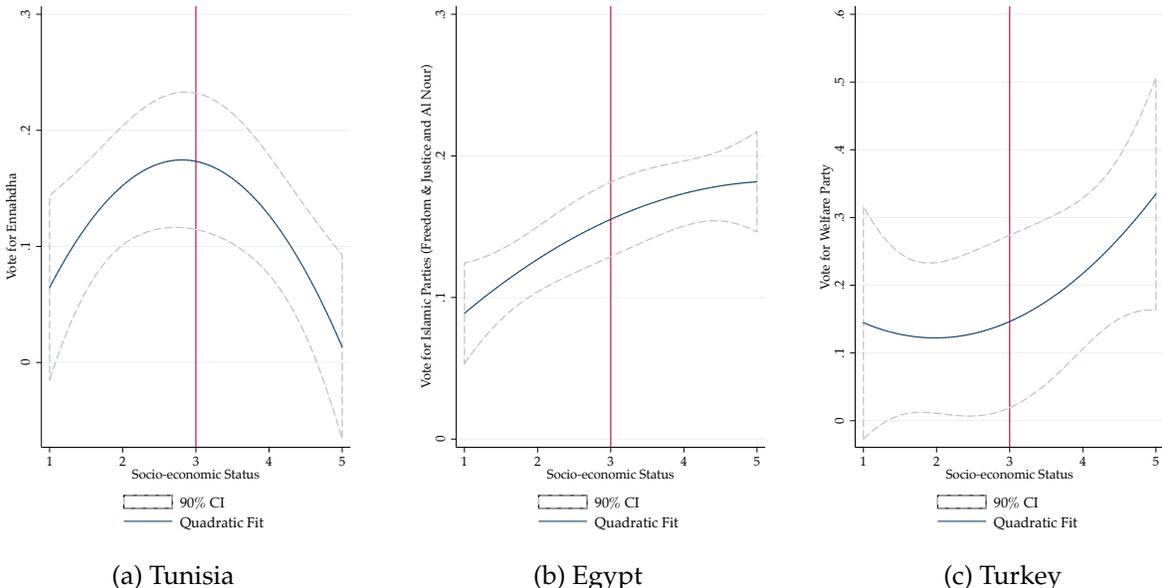
A comparison of responses to the WVS question on elections and official election results reveals that vote shares for Islamic parties tend to be under-estimated in the WVS. Moreover, the WVS does not include any objective measure of wealth. We have to rely instead on a subjective assessment of relative position in a 5 point socio-economic status (SES) distribution in the country as a proxy for socio-economic status. The drawback of this measure is that it is potentially influenced by individual characteristics that could also be correlated with political and religious preferences, such as modesty or resentment.

For ease of comparison with our results thus far, the left panel of Figure C.1 depicts individual votes for Ennahdha as a function of socio-economic status using data from the WVS. As we have found so far, votes for Ennahdha are more likely to come from the middle class. Table C.1 reports the estimation results of a linear and quadratic relationship between voting for Islamic parties and self-assessed socio-economic status. Region fixed effects are included throughout. Because the WVS does not include further disaggregated location information below the regional level, the inclusion of region fixed effects precludes us from also including a district-level wealth indicator. Both the linear and the quadratic relationship between voting for Ennahdha and self-perceived socio-economic status are statistically significant and robust to the inclusion of socio-demographic controls, as displayed in Columns 1 to 4 of Table C.1. These results validate our previous findings in the Tunisian case.

C.1 Egypt and the 2012 presidential elections

In 2012, the first—and only—democratic presidential elections in Egypt resulted in a runoff between Mohammed Morsi, leader of the Muslim Brotherhood’s backed Freedom and Justice party, and Ahmed Shafik. A more radical Islamic party, Al Nour, declared its support for Mohammed Morsi. District level data reveals a positive correlation between district wealth, proxied in the census by access to sewage, and the share of vote for Freedom and Justice, as noted by Elsayyad and Hanafy (2014). Using individual data from the 2012 World Values Survey in Egypt, we estimate an equation similar to (4) and we regress individual votes for Islamic parties on socio-economic status and religiosity. We consider together voting intentions for Freedom and Justice and for Al Nour. We report the results

Figure C.1: Votes for Islamic parties and socio-economic status across the Muslim world.



Note: Quadratic fit with 90 percent confidence interval. Data averaged by SES bin. Panel (a): share of voting intentions for Ennahdha in 2013. Panel (b): share of voting intentions for Freedom and Justice and Al Nour in 2012. Panel (c): share of voting intentions for the Welfare Party in 1995. Source: World Value Survey (waves 3 and 6).

of both a linear and a quadratic relationship, with and without socio-demographic controls similar to the ones we have considered in the analysis above, that is to say: gender, age, marital status, and education level. Region fixed effects are included throughout. Religiosity is captured in the WVS by a question about the frequency of prayer, which is similar to the question in our Tunisian survey.

Consistent with our theory, richer voters are more likely to vote for Islamic parties. As shown in the right panel of Figure C.1 and in Columns 5 and 6 of Table C.1, the coefficient associated with the proxy for income is statistically significant and positive when we consider the linear specification, and is broadly robust to the inclusion of socio-demographic controls. Columns 7 and 8 reveal that the quadratic term is negative, but it falls short of statistical significance. We argue that this reflects different perceptions of the two Islamic parties among the Egyptian and Tunisian elite. While Ennahdha’s vote share is lower among women and university-educated voters, the vote share for Freedom and Justice in Egypt is larger among women and among voters with some university education. Freedom and Justice may therefore not appear to be as much of a threat to the lifestyle of women and the educated among Egyptian voters as Ennahdha in Tunisia. In contrast, the quadratic term is negative for the more radical Al Nour, a party more likely to impose

restrictions on women and rich voters. This is consistent with our model: as noted in Section 3, “middle class” support for the religious party includes the richest voters whenever the cost of the restrictions imposed by the religious party is not sufficiently large.

C.2 Turkey: rise, fall, and transformation of political Islam

The success of Recep Tayyip Erdoğan’s Justice and Development Party (AKP) since the 2002 legislative elections has marked a dramatic change in Turkish politics. Commentators and political scientists have repeatedly underlined AKP’s success among the poorer voters (Çarkoğlu, 2002). In this section we argue that this is the result of a process of transformation of political Islam in Turkey, at least in how it portrays itself to the public. In fact, while the political movement from which the AKP originated, the Welfare (*Refah*) Party, proudly affirmed its Islamism, AKP leaders repeatedly rejected this connection. For example, Prime Minister Erdoğan stated in 2005 that “we are not an Islamic party, and we also refuse labels such as Muslim-democrat” while former minister Hüseyin Çelik reiterated that “these characterizations do not reflect the truth, and they sadden us” (Taşpınar, 2012; see also Akarca and Tansel, 2009).

We show that this turnaround of Turkish political Islam has been reflected in a fundamental change of the support basis of the AKP versus its parent, the Welfare Party. In fact, as among the Arab Spring countries in the second decade of the XXIst Century, the initial wave of support for political Islam in Turkey in the 1990s originated from the country’s middle and upper class. To show this, we focus on the climax of the Welfare Party’s political success: the 1995 legislative elections. In these elections, the Welfare Party won the relative majority of both popular votes and parliament seats, with 21.38 percent of the vote. As a result, its leader Necmettin Erbakan became prime minister until growing tensions between the Welfare Party and the secularist Turkish establishment led to Erbakan’s resignations and the party ban in 1998.

Individual data from the 1996 WVS in Turkey reveals a positive relationship between voting for the Welfare Party and socio-economic status (right panel of Figure C.1). The survey was conducted only a few months after the December 1995 election and included questions about first and second party choice. The Welfare Party is reported as the first choice of 12 percent of the respondents and the second choice of 4 percent of the respondents. In order to be more consistent with the official election results, we consider the sum of the two variables as the dependent variable. Electoral support for the Welfare Party is increasing in the respondents’ self-perceived socio-economic status (Figure C.1), and the relationship is statistically significant. We regress voting for the Welfare Party on

socio-economic status and religiosity in Columns 9 and 10 of Table C.1. In Columns 11 and 12, we report the results of a quadratic specification identical to (4). The coefficient associated with the proxy for income in the WVS is positive and significant at the 1 to 10 percent level, depending on whether demographic controls are included. This is true both in the linear and the quadratic specifications. The term associated with the quadratic income term is negative, and is marginally statistically significant with the inclusion of socio-demographic controls in Column 12.³² The magnitude of the effect is non negligible. Rising in the distribution of social status in the country by 1 point is associated with a 7 percentage point increase in the likelihood of supporting the Islamic Welfare Party.

These findings strongly support our view that the AKP's transformation has shifted support for political Islam in Turkey from a middle class demanding lower redistribution to a poorer and more conservative base demanding stricter moral constraints on the lifestyles of the rich elite.

³²The apparent discrepancy between this result and Figure C.2c is likely due to region fixed effects: the Kurd minority in Turkey is geographical concentrated, enjoys on average a lower socio-economic status, and is less likely to vote for the Welfare Party.

Table C.1: Evidence from key elections in the Muslim world from the World Values Survey.

Sample	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Political party		Tunisia Ennahdha			Freedom and Justice or Al Nour	Egypt				Turkey Welfare Party		
Socio-economic status	0.031 (0.029)	0.028 (0.049)	0.095 (0.036)	0.091 (0.047)	0.030 (0.020)	0.017 (0.173)	0.038 (0.388)	0.025 (0.549)	0.034 (0.027)	0.069 (0.008)	0.048 (0.025)	0.069 (0.008)
Socio-economic status squared			-0.013 (0.133)	-0.013 (0.145)			-0.002 (0.844)	-0.002 (0.859)		-0.003 (0.352)	-0.002 (0.406)	-0.003 (0.352)
Moderately religious (i)	0.083 (0.037)	0.085 (0.031)	0.082 (0.040)	0.085 (0.033)	0.019 (0.538)	0.011 (0.711)	0.018 (0.545)	0.011 (0.718)				
Highly religious (i)	0.133 (0.000)	0.126 (0.000)	0.132 (0.000)	0.124 (0.000)	0.068 (0.023)	0.065 (0.053)	0.068 (0.024)	0.065 (0.054)				
Religious person (ii)									0.108 (0.001)	0.092 (0.001)	0.108 (0.001)	0.092 (0.001)
Observations	1204	1203	1204	1203	1523	1523	1523	1523	1378	1352	1378	1352
R ²	0.134	0.140	0.135	0.141	0.068	0.084	0.068	0.084	0.084	0.102	0.084	0.102
Region fixed effects	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Mean dependent variable		0.145				0.136				0.154		
Mean Socioeconomic status		2.600				2.378				2.779		
Wave / Year surveyed		6 / 2013				6 / 2012				3 / 1996		

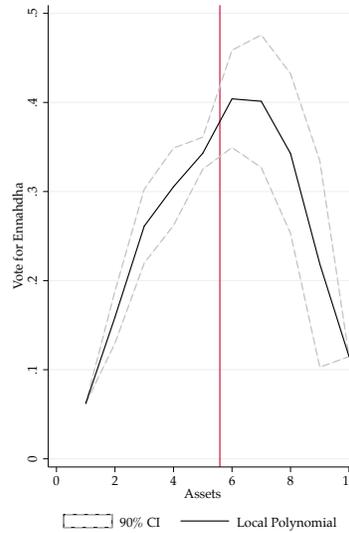
Notes: OLS regressions include a constant term. Robust standard errors clustered at the smallest unit of regional level. p -values in parentheses. The dependent variable is a dummy variable expressing political support for the Islamic party. Socioeconomic status is captured by answers to the questions V226 and V236 for Wave 3 and 6 respectively, which ask about respondents' subjective position on a 5-scale social class ladder at the national level. The answers have been recoded so that 1 corresponds to the lowest class and 5 to the highest class. Controls are: gender, age, marital status, and highest education completed.

(i) In Wave 6 (Tunisia, Egypt), religion is captured by answers to question V145: "How often do you attend religious services?" The answers are coded as follows: Highly religious; someone who practices religion at least once a week; Moderately religious; someone who practices religion once a month or on special occasions; Not religious; someone who practices religion at most once a year.

(ii) In Wave 3 (Turkey), religion is captured by question V182: "Are you religious?". Answers are recoded as follows: a dummy equals zero if someone is either "not a religious person" or "a convinced atheist".

D Additional Tables and Figures

Figure D.1: Vote for Ennahdha and wealth: highly religious only.



Notes: Local polynomial fit with 90 percent confidence interval. Highly religious respondents only. The vertical line indicates the mean level of assets among highly religious voters. Source: authors' data.

Table D.1: Political platforms of main political parties in the 2011 election.

	Ennahdha	CPR	Ettakatol	Question #
A free market economy in which the state plays a minimal, only regulatory role, should be instituted in Tunisia	1	-1	1	21
Redistributive transfers should be put in place from rich to poor regions	-1	0	1	22
Public services should be open to competition	1	-1	1	23
Public services should be privatised	1	-1	-1	25
A tax on the super wealthy should be put in place	1	1	-1	26
Private schools should be abolished	-1	0	-1	27
Public schools should not be financed by the private sector	-1	0	1	28
Equality between men and women for inheritance should be written in law	-1	0	1	10

Source: Ikhtiar, url: <http://2011.ikhtiar.tounes.org/> (accessed: June 5, 2016). Ikhtiar is an online questionnaire to help people decide which party to vote for in the 2011 election. It was designed by a collective of independent experts who surveyed each main political party in order to establish comparative platforms. The questionnaire included a total of 30 questions. The Aridha party was not included in the survey. This table is an excerpt containing all questions pertaining to welfare and public policy. The project was financed by German NGOs: *Media in Cooperation & Transition* and *Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH* with financial help from the *German Federal Ministry for Economic Cooperation and Development*. -1: against; 0: without opinion; 1: in favor. Translation from French by the authors.

Table D.2: Descriptive statistics.

Variable	Obs	Mean	Std. Dev.	Min	Max
Vote Ennahdha	600	0.26	0.44	0	1
Vote Ennahdha - expressed only	365	0.43	0.50	0	1
Rich district	600	0.57	0.50	0	1
Assets	600	5.71	2.05	0	10
Assets squared	600	36.83	23.75	0	100
Detailed assets					
Water heater	600	0.63	0.48	0	1
Motorbike	600	0.22	0.41	0	1
Car	600	0.38	0.49	0	1
TV	600	0.99	0.11	0	1
Sattelite antenna	600	0.98	0.16	0	1
Computer	600	0.49	0.50	0	1
Home internet	600	0.43	0.50	0	1
Fridge	600	0.99	0.11	0	1
Bankaccount	600	0.46	0.50	0	1
Post office current account	600	0.16	0.37	0	1
Religiosity level					
Moderately religious	600	0.26	0.44	0	1
Highly religious.	600	0.63	0.48	0	1
Demographic controls					
Female	600	0.50	0.50	0	1
Age	600	40.38	13.77	22	82
Married	600	0.65	0.48	0	1
Engaged	600	0.05	0.21	0	1
Widowed	600	0.03	0.17	0	1
Divorced	600	0.02	0.15	0	1
Household size	600	4.09	1.52	1	11
Primary education	600	0.19	0.39	0	1
Secondary education	600	0.47	0.50	0	1
Tertiary education	600	0.28	0.45	0	1
Unemployed	600	0.16	0.37	0	1
Urban	600	0.67	0.47	0	1
Variables used for robustness					
Owning car or computer	600	0.87	0.82	0	2
Continuous measure of wealth district	600	5.71	1.14	3.40	7.65
1-poverty rate (2004 Official Census)	600	0.88	0.08	0.67	0.98
Logarithm of assets	600	1.69	0.42	-2.30	2.31
Migration	600	1.79	1.22	1	5
Variables used for alternative mechanism					
District inequality	600	5.93	1.37	3	9
Fight corruption	598	0.30	0.46	0	1
Prosecute old regime	563	0.76	0.43	0	1
Gender parity PCA index	600	0.00	1.28	-4.77	2.08
Support veiling	590	0.35	0.48	0	1
Strongly Agree: Western values are harmful	600	0.13	0.33	0	1
Access to news via the radio	600	2.45	2.30	0	5
Access to news via the TV	600	4.52	1.32	0	5
Access to news via the newspaper	600	1.23	1.73	0	5
Access to news via the internet	600	1.95	2.28	0	5
Access to news via the social media	600	1.93	2.33	0	5
Vote CPR	600	0.07	0.25	0	1
Vote Ettakatol	600	0.05	0.21	0	1
Vote Aridha	600	0.03	0.18	0	1
Abstain to vote	600	0.39	0.49	0	1
Refused to say	600	0.09	0.29	0	1

Source: Authors' data.

Table D.3: Individual votes for Ennahdha: logit specification.

Sample	(1)	(2)	(3)	(4)	(5)	(6)
		Whole	Vote Ennahdha		Highly religious	
Rich district	0.098 (0.058)	0.078 (0.054)	0.161 (0.013)	0.149 (0.016)	0.123 (0.009)	0.234 (0.001)
Assets	0.117 (0.026)	0.113 (0.019)	0.085 (0.073)	0.162 (0.015)	0.152 (0.028)	0.132 (0.061)
Assets squared	-0.011 (0.008)	-0.011 (0.004)	-0.008 (0.055)	-0.014 (0.008)	-0.015 (0.011)	-0.012 (0.045)
Moderately religious	0.044 (0.505)	0.052 (0.466)	0.045 (0.512)			
Highly religious	0.219 (0.001)	0.215 (0.001)	0.208 (0.001)			
Observations	600	600	600	376	376	376
Pseudo R^2	0.053	0.0746	0.120	0.031	0.069	0.115
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Controls	No	No	Yes	No	No	Yes

Notes: Logit regressions. Marginal effects are reported. Robust standard errors clustered at the district level (30 clusters). p -values in parentheses. Controls: see Table 1.

Table D.4: Coefficients associated with demographic controls in Table 1.

Sample	Vote Ennahdha	
	(1) Whole	(2) Highly religious
Rich district	0.161 (0.032)	0.254 (0.002)
Assets	0.092 (0.047)	0.138 (0.039)
Assets squared	-0.008 (0.034)	-0.012 (0.027)
Moderately religious	0.043 (0.384)	
Highly religious	0.194 (0.000)	
Female	-0.095 (0.021)	-0.094 (0.048)
Age	-0.000 (0.771)	-0.001 (0.555)
Married	0.107 (0.038)	0.068 (0.452)
Engaged	0.318 (0.001)	0.327 (0.016)
Widowed	-0.022 (0.815)	-0.157 (0.215)
Divorced	-0.025 (0.831)	-0.195 (0.282)
Primary education	-0.032 (0.459)	-0.112 (0.064)
Secondary education	-0.093 (0.144)	-0.095 (0.290)
Tertiary education	-0.153 (0.029)	-0.191 (0.049)
Unemployed	0.061 (0.292)	0.039 (0.644)
Household size	-0.007 (0.535)	-0.016 (0.299)
Urban	-0.080 (0.344)	-0.122 (0.127)
Observations	600	376
R ²	0.125	0.134
Region fixed effects	Yes	Yes
Controls	Yes	Yes

Notes: See notes to Table 1.

Table D.5: Individual votes for Ennahdha: excluding abstainers.

Sample	(1)	(2)	(3)	(4)	(5)	(6)
		Whole	Vote Ennahdha		Highly religious	
Rich district	0.097 (0.301)	0.093 (0.215)	0.198 (0.080)	0.164 (0.090)	0.148 (0.025)	0.277 (0.009)
Assets	0.119 (0.165)	0.135 (0.134)	0.106 (0.264)	0.152 (0.079)	0.163 (0.103)	0.183 (0.088)
Assets squared	-0.014 (0.039)	-0.016 (0.026)	-0.012 (0.118)	-0.016 (0.022)	-0.018 (0.025)	-0.018 (0.039)
Moderately religious	-0.012 (0.897)	0.060 (0.511)	0.066 (0.406)			
Highly religious	0.176 (0.070)	0.217 (0.027)	0.223 (0.016)			
Observations	365	365	365	250	250	250
R^2	0.072	0.115	0.169	0.043	0.109	0.164
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Controls	No	No	Yes	No	No	Yes

Notes: See notes to Table 1.

Table D.6: Individual votes for Ennahdha: district fixed effects.

Sample	(1)	(2)	(3)	(4)	(5)	(6)
		Whole	Vote Ennahdha		Highly religious	
Assets	0.124 (0.008)	0.091 (0.055)	0.071 (0.152)	0.169 (0.004)	0.142 (0.034)	0.125 (0.069)
Assets squared	-0.011 (0.005)	-0.010 (0.015)	-0.007 (0.097)	-0.014 (0.004)	-0.014 (0.013)	-0.012 (0.046)
Moderately religious	0.032 (0.467)	0.025 (0.612)	0.023 (0.648)			
Highly religious	0.198 (0.000)	0.200 (0.000)	0.193 (0.000)			
Observations	600	600	600	376	376	376
R^2	0.047	0.135	0.178	0.015	0.158	0.204
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Controls	No	No	Yes	No	No	Yes

Notes: See notes to Table 1.

Table D.7: Individual votes for Ennahdha: adjustment for spatial correlation.

Sample	(1)	(2)	Vote Ennahdha		(5)	(6)
		Whole		Highly religious		
Rich district	0.104 (0.009)	0.084 (0.001)	0.161 (0.001)	0.153 (0.000)	0.132 (0.000)	0.244 (0.000)
Assets	0.056 (0.000)	0.089 (0.000)	0.100 (0.007)	0.109 (0.000)	0.161 (0.000)	0.203 (0.000)
Assets squared	-0.006 (0.000)	-0.009 (0.000)	-0.009 (0.002)	-0.010 (0.000)	-0.015 (0.000)	-0.018 (0.000)
Moderately religious	0.010 (0.627)	0.030 (0.206)	0.046 (0.126)			
Highly religious	0.179 (0.000)	0.187 (0.000)	0.197 (0.000)			
Observations	600	600	600	376	376	376
R^2	0.305	0.322	0.356	0.354	0.384	0.418
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Controls	No	No	Yes	No	No	Yes
Spatial correlation cutoff	100km	100km	100km	100km	100km	100km

Notes: OLS regression. All regressions include a constant term. Robust standard errors corrected for spatial correlation adjustment with a 100 kilometers radius following the method by Conley (2008, 1999) and Hsiang (2010). p -values in parentheses. Controls: see Table 1.

Table D.8: Individual votes for Ennahdha: wild bootstrap.

Sample	(1)	(2)	Vote Ennahdha		(5)	(6)
		Whole		Highly religious		
Rich district	0.103 (0.064)	0.085 (0.090)	0.161 (0.116)	0.153 (0.036)	0.131 (0.014)	0.254 (0.026)
Assets	0.109 (0.018)	0.111 (0.020)	0.092 (0.046)	0.151 (0.006)	0.146 (0.014)	0.138 (0.04)
Assets squared	-0.011 (0.08)	-0.011 (0.004)	-0.008 (0.034)	-0.014 (0.004)	-0.014 (0.006)	-0.012 (0.030)
Moderately religious	0.032 (0.464)	0.039 (0.420)	0.043 (0.424)			
Highly religious	0.201 (0.002)	0.197 (0.004)	0.194 (0.000)			
Observations	600	600	600	376	376	376
R^2	0.058	0.079	0.125	0.038	0.081	0.134
Adjusted R^2	0.059	0.081	0.126	0.040	0.084	0.137
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Controls	No	No	Yes	No	No	Yes

Notes: OLS regressions. Wild bootstrap robust standard errors (1,000 replications) clustered at district level (30 clusters). p -values in parentheses. Controls: see Table 1.

Table D.9: Individual votes for Ennahdha: subset of assets.

Sample	(1)	(2)	(3)	(4)	(5)	(6)
	Whole		Vote Ennahdha Highly religious			
Rich district	0.096 (0.074)	0.075 (0.106)	0.159 (0.034)	0.155 (0.019)	0.129 (0.013)	0.253 (0.002)
Car or computer	0.219 (0.010)	0.219 (0.009)	0.230 (0.005)	0.319 (0.012)	0.308 (0.015)	0.307 (0.013)
Car or computer squared	-0.124 (0.002)	-0.129 (0.001)	-0.123 (0.003)	-0.174 (0.004)	-0.181 (0.003)	-0.172 (0.005)
Moderately religious	0.028 (0.521)	0.034 (0.488)	0.034 (0.487)			
Highly religious	0.202 (0.000)	0.196 (0.000)	0.184 (0.001)			
Observations	600	600	600	376	376	376
Observations	600	600	600	376	376	376
R^2	0.065	0.087	0.136	0.053	0.099	0.151
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Controls	No	No	Yes	No	No	Yes

Notes: To obviate the concern that the simple sum of all assets may result in some measurement error if some assets are more typical of poorer as opposed to wealthier respondents (e.g. a motorcycle), we focus on only two assets: cars and personal computers.

Table D.10: Individual votes for Ennahdha: alternative measures of district wealth.

Sample	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Whole			Highly religious			Vote Ennahdha	Whole			Highly religious	
Mean assets in district	0.059 (0.004)	0.044 (0.070)	0.108 (0.001)	0.099 (0.000)	0.069 (0.014)	0.163 (0.000)		0.775 (0.075)	1.059 (0.035)	0.918 (0.014)	1.006 (0.058)	1.582 (0.009)
Rich district index Census							0.464 (0.108)					
Assets	0.098 (0.039)	0.106 (0.021)	0.083 (0.073)	0.133 (0.028)	0.139 (0.028)	0.120 (0.067)	0.111 (0.023)	0.111 (0.013)	0.094 (0.043)	0.147 (0.020)	0.146 (0.022)	0.141 (0.036)
Assets squared	-0.010 (0.011)	-0.011 (0.005)	-0.008 (0.047)	-0.013 (0.010)	-0.014 (0.010)	-0.011 (0.040)	-0.010 (0.010)	-0.011 (0.004)	-0.008 (0.035)	-0.013 (0.011)	-0.014 (0.011)	-0.012 (0.027)
Moderately religious	0.029 (0.521)	0.040 (0.420)	0.051 (0.308)				0.021 (0.657)	0.037 (0.473)	0.036 (0.489)			
Highly religious	0.199 (0.000)	0.198 (0.000)	0.199 (0.000)				0.190 (0.001)	0.197 (0.000)	0.194 (0.000)			
Observations	600	600	600	376	376	376	600	600	600	376	376	376
R ²	0.063	0.080	0.130	0.056	0.082	0.141	0.053	0.080	0.122	0.035	0.078	0.125
Region fixed effects	No	Yes	Yes									
Controls	No	No	Yes									

Notes: See notes to Table 1. In Columns 1 to 6 we check that our results are robust to using a continuous measure of district wealth, instead of the dummy variable we use in other specifications (above or below the median wealth). "Mean assets in district" is the average asset holding in the district according to our survey. In Columns 7 to 12 we check that results are robust to using a measure of district wealth based on official statistics. "Rich district index Census" is defined as one minus the official poverty rate in the 2004 Tunisian Census.

Table D.11: Individual votes for Ennahdha: changes in economic conditions.

Sample	(1)	(2)	(3)	(4)	(5)	(6)
		Whole	Vote Ennahdha		Highly religious	
Rich district	0.098 (0.076)	0.081 (0.075)	0.155 (0.032)	0.150 (0.026)	0.128 (0.016)	0.245 (0.002)
Assets	0.103 (0.038)	0.105 (0.027)	0.088 (0.063)	0.156 (0.007)	0.151 (0.015)	0.144 (0.027)
Assets squared	-0.010 (0.013)	-0.011 (0.007)	-0.008 (0.040)	-0.014 (0.004)	-0.015 (0.006)	-0.013 (0.018)
Moderately religious	0.035 (0.414)	0.044 (0.361)	0.048 (0.327)			
Highly religious	0.202 (0.000)	0.200 (0.000)	0.199 (0.000)			
Δ Individual economic condition: much worse off	-0.066 (0.291)	-0.075 (0.206)	-0.078 (0.194)	-0.078 (0.374)	-0.087 (0.288)	-0.100 (0.229)
Δ Individual economic condition: worse off	0.024 (0.663)	0.014 (0.787)	0.002 (0.975)	-0.016 (0.835)	-0.037 (0.601)	-0.041 (0.535)
Δ Individual economic condition: better off	-0.048 (0.421)	-0.051 (0.404)	-0.049 (0.435)	-0.085 (0.275)	-0.081 (0.294)	-0.088 (0.282)
Δ Individual economic condition: much better off	-0.065 (0.692)	-0.104 (0.523)	-0.131 (0.389)	-0.080 (0.669)	-0.159 (0.393)	-0.176 (0.297)
Observations	600	600	600	376	376	376
R^2	0.065	0.087	0.132	0.044	0.088	0.143
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Controls	No	No	Yes	No	No	Yes

Notes: See notes to Table 1. Omitted category: “ Δ Individual economic condition: unchanged.”

Table D.12: Individual votes for Ennahdha: different functional forms.

Sample	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Whole		Highly religious		Vote Ennahdha		Whole		Highly religious		Highly religious	
Rich district	0.103 (0.070)	0.086 (0.066)	0.162 (0.037)	0.154 (0.025)	0.134 (0.013)	0.258 (0.002)	0.101 (0.073)	0.080 (0.089)	0.157 (0.044)	0.157 (0.021)	0.134 (0.010)	0.252 (0.002)
Assets	0.238 (0.222)	0.330 (0.082)	0.380 (0.049)	0.359 (0.260)	0.438 (0.216)	0.428 (0.219)						
Assets squared	-0.068 (0.312)	-0.098 (0.133)	-0.115 (0.092)	-0.097 (0.361)	-0.120 (0.301)	-0.118 (0.309)						
Assets cubic	0.009 (0.315)	0.013 (0.144)	0.015 (0.106)	0.013 (0.368)	0.015 (0.322)	0.015 (0.328)						
Assets quartic	-0.000 (0.257)	-0.001 (0.118)	-0.001 (0.096)	-0.001 (0.319)	-0.001 (0.292)	-0.001 (0.298)						
Moderately religious	0.037 (0.402)	0.045 (0.359)	0.050 (0.308)				0.032 (0.474)	0.038 (0.448)	0.042 (0.402)			
Highly religious	0.207 (0.000)	0.204 (0.000)	0.204 (0.000)				0.202 (0.000)	0.195 (0.001)	0.192 (0.000)			
Log assets							0.070 (0.208)	0.086 (0.134)	0.094 (0.028)	0.610 (0.001)	0.684 (0.001)	0.590 (0.004)
Log assets squared							-0.038 (0.115)	-0.051 (0.036)	-0.034 (0.123)	-0.198 (0.003)	-0.239 (0.002)	-0.193 (0.007)
Observations	600	600	600	376	376	376	600	600	600	376	376	376
R ²	0.059	0.082	0.128	0.040	0.083	0.136	0.050	0.072	0.122	0.033	0.078	0.132
Region fixed effects	No	Yes	Yes									
Controls	No	No	Yes	No	No	Yes	No	No	Yes	No	Yes	Yes

Notes: See notes to Table 1.

Table D.13: Economic disgruntlement and individual vote for Ennahdha: highly religious only.

Sample	(1)	(2)	(3)	Vote Ennahdha (highly religious only)				(8)	(9)	(10)
				Whole				Non-migrants		
Rich district	0.162 (0.024)	0.258 (0.002)	0.152 (0.026)	0.253 (0.002)	0.153 (0.024)	0.251 (0.003)	0.149 (0.025)	0.271 (0.001)	0.114 (0.110)	0.158 (0.143)
Assets	0.158 (0.009)	0.141 (0.035)	0.155 (0.007)	0.136 (0.035)	0.153 (0.010)	0.136 (0.042)	0.156 (0.012)	0.144 (0.036)	0.157 (0.025)	0.144 (0.061)
Assets squared	-0.014 (0.008)	-0.013 (0.025)	-0.014 (0.004)	-0.012 (0.024)	-0.014 (0.005)	-0.012 (0.029)	-0.014 (0.006)	-0.013 (0.031)	-0.014 (0.017)	-0.014 (0.036)
Primary education	-0.039 (0.607)	-0.117 (0.088)		-0.113 (0.066)		-0.107 (0.072)		-0.113 (0.082)		-0.039 (0.545)
Secondary education	0.008 (0.939)	-0.087 (0.359)		-0.095 (0.280)		-0.085 (0.323)		-0.112 (0.204)		-0.023 (0.847)
Tertiary education	-0.106 (0.313)	-0.212 (0.043)		-0.192 (0.049)		-0.183 (0.053)		-0.225 (0.035)		-0.077 (0.453)
Unemployed	-0.003 (0.988)	0.000 (.)		0.039 (0.645)		0.033 (0.705)		0.111 (0.237)		-0.040 (0.707)
Primary edu*Unempl	-0.006 (0.976)	0.021 (0.919)								
Secondary edu*Unempl	-0.087 (0.742)	-0.071 (0.797)								
Tertiary edu*Unempl	0.072 (0.713)	0.130 (0.582)								
District assets			0.006 (0.798)	-0.002 (0.925)						
Fight corruption					0.078 (0.195)	0.069 (0.225)				
Prosecute old regime							0.018 (0.766)	-0.019 (0.745)		
Observations	376	376	376	376	375	375	352	352	231	231
R ²	0.044	0.136	0.038	0.134	0.043	0.139	0.039	0.140	0.031	0.121
Region Fixed effects	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

Notes: See notes to Table 2.

Table D.14: Attitudes towards gender, towards the West, and individual vote for Ennahda: highly religious only.

	(1)	(2)	(3)	(4)	(5)	(6)
	Vote Ennahdha (highly religious only)					
Rich district	0.167 (0.013)	0.263 (0.001)	0.159 (0.020)	0.253 (0.003)	0.157 (0.022)	0.255 (0.003)
Assets	0.130 (0.019)	0.125 (0.052)	0.139 (0.021)	0.130 (0.048)	0.150 (0.010)	0.136 (0.040)
Assets squared	-0.012 (0.011)	-0.011 (0.037)	-0.012 (0.014)	-0.012 (0.037)	-0.013 (0.006)	-0.012 (0.029)
Gender parity PCA index	-0.051 (0.025)	-0.038 (0.080)				
Support veiling			0.098 (0.018)	0.082 (0.024)		
SA: Western values are harmful					0.063 (0.340)	0.037 (0.614)
Observations	376	376	373	373	376	376
R^2	0.054	0.143	0.048	0.140	0.040	0.135
Region fixed effects	No	Yes	No	Yes	No	Yes
Controls	No	Yes	No	Yes	No	Yes

Notes: See notes to Table 3.

Table D.15: Access to media, voting for other parties, and abstaining: highly religious only.

Sample	(1) Vote Ennahdha	(2)	(3) Vote CPR	(4)	(5) Vote Ettakatol	(6)	(7) Vote Aridha	(8)	(9) Abstained	(10)
	Highly religious only									
Rich district	0.149 (0.025)	0.250 (0.002)	-0.045 (0.298)	-0.087 (0.011)	0.029 (0.255)	-0.009 (0.799)	-0.034 (0.132)	-0.044 (0.135)	-0.101 (0.054)	-0.107 (0.124)
Assets	0.148 (0.014)	0.132 (0.046)	0.044 (0.434)	0.034 (0.547)	0.028 (0.326)	0.030 (0.321)	-0.018 (0.524)	-0.012 (0.598)	-0.088 (0.259)	-0.053 (0.464)
Assets squared	-0.014 (0.008)	-0.012 (0.030)	-0.003 (0.487)	-0.002 (0.587)	-0.001 (0.602)	-0.002 (0.476)	0.001 (0.741)	0.001 (0.777)	0.005 (0.450)	0.002 (0.679)
News Radio	0.008 (0.515)	0.009 (0.466)								
News TV	0.015 (0.475)	0.017 (0.436)								
News Newspaper	0.005 (0.712)	-0.004 (0.816)								
News Internet	0.009 (0.718)	0.006 (0.820)								
News Social Media	-0.012 (0.557)	-0.003 (0.906)								
Observations	376	376	376	376	376	376	376	376	376	376
R ²	0.042	0.138	0.010	0.119	0.027	0.076	0.026	0.086	0.045	0.165
Region fixed effects	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Mean dependent variable	0.329		0.069		0.051		0.037		0.335	

Notes: See notes to Table 4.