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Render Unto Caesar: Taxes, Charity, and Political Islam

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Abstract

Data from the first post-Arab Spring elections reveal that support for Islamic parties came from richer districts and individuals. We show that standard public finance arguments help explain the voting pattern in these elections and others in the Muslim world. Our model predicts that a voter's probability to vote for a religious party (i) increases in income for the poorest voters, but possibly decreases in income for the richest; (ii) is greater for voters in richer districts; and (iii) increases with the voter's religiosity. We test these predictions on original micro-level data in a nationally representative sample of 600 individuals in 30 districts in Tunisia. Our empirical results align with our predictions and suggest that belonging to the middle class and living in a richer district together affect voting decisions more than being a religious voter. We also test for other possible factors affecting voting decisions, such as education, or attitudes towards corruption or towards the West. Finally, we document similar patterns in other key elections in the Muslim world.

Keywords: Religion, religious parties, political preferences, democratic politics, charitable organizations.

JEL Classification Numbers: D72, Z12.

"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 have a profound impact on the economic and social development of a country. They shape values and beliefs, coordinate collective actions, and often provide basic public goods and services. Religious parties, in particular, can directly control policies, from the imposition of traditional law to the size and the level of decentralization of the state. In some cases, such as the recently democratized Arab Spring countries, religious parties promote values and policies that are sometimes seen as threatening basic democratic rights (the Economist, 2012). Yet, there is scarcely any consensus as to what determines their electoral success.

Political scientists and commentators alike often view the middle class as the herald of secular democratic values, according to what has been characterized as the 'modernization theory' (Lipset, 1959). In parallel, poorer voters are often described as both more religious and more likely to depend on the charitable organizations associated with religious parties (Huber and Stanig, 2011; Chen and Lind, 2015). According to these views, support for traditional values and religious parties comes from the poorest, disenfranchised classes. However, official electoral results portray a radically different picture. Figure 1 plots the relationship between the voting share for the Islamic party and a district level[1] indicator of wealth (1 minus the poverty rate) in the first democratic election after the Arab Spring, in Tunisia in 2011. Far from pushing towards secular democratic values, richer districts voted overwhelmingly for the Islamic party.[2] Tunisia is not the only case. From Egypt to Morocco, scholars have been puzzled by the fact that the electoral support for Islamic parties comes from richer areas.[3]

In this paper we show that standard tools of public finance help explain the voting pattern in these elections and others in the Muslim world. We develop a simple model of political competition between a religious and a secular party. We view the religious party as the political arm of a religious charitable organization (Berman, 2009; Clark, 2004;

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[1]A political district has an average population of 40,000 people in 2010 (standard deviation: 24,345).

[2]The relationship between voting share for the Islamic party and district socio-economic status displayed in Figure 1 is positive and statistically significant.

[3]Using electoral and Census data in Egypt and Morocco, Elsayyad and Hanafy (2014) and Pellicer and Wegner (2014) find a positive relationship between the voting share for Islamic parties and measures of wealth at the district level (access to sewage in Egypt, number of satellite dishes in Morocco).

Figure 1: Votes for Ennahdha in official election data and district-level wealth

Tunisia 2011
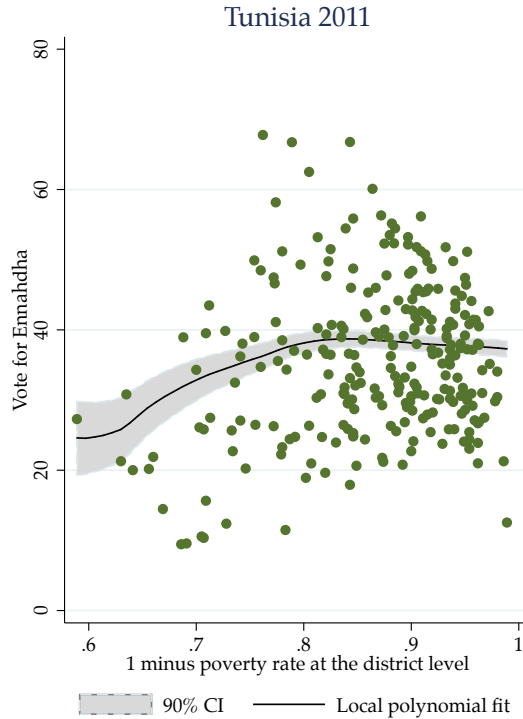
Notes: Local polynomial fit weighted by district population with 90 percent confidence interval. On the horizontal axis is 1 minus the poverty rate at the district level. On the vertical axis is the share of votes for Ennahdha as a fraction of valid expressed votes. Source: Census of Tunisia, 2005 and Instance Supérieure Indépendente pour les Elections, 2011.

Levitt, 2008). The latter competes with the state for the role of welfare provider for the poor. Our model predicts that the probability that a voter chooses the religious party increases in income for the poorest voters, but it might decrease in income for the richest depending on specific political and economic conditions. Furthermore, a voter in a richer district is more likely to choose the religious party than one with similar income and religious preferences, but who lives in a poorer district.

Although our model applies broadly to preferences for religious political parties, examples of free elections with an easily identified and unique religious party are not common. Furthermore, an empirical test of our theory requires individual-level data. For these reasons, we collected original micro-level data on political preferences and socio-economic characteristics in a nationally representative survey of 600 individuals in 30 districts in Tunisia. We focus on the first democratic elections following the Arab Spring revolution in Tunisia, when the newly formed Islamic Party *Ennahdha* became the first

political party. We chose this election because it provides the cleanest case to test our theoretical predictions. Before the revolution, the Tunisian government enforced a strict ban on Islamic charities and parties for several decades. This circumvents the potential pitfall that support for religious parties and income might reflect long-term effects of the work of religious charities and parties (Meyersson, 2014). Furthermore, Tunisia is ethnically and religiously homogeneous. Therefore, political preferences do not follow ethnic or sectarian divides, which could also be correlated with individual income. Finally, focusing on the first democratic elections following a revolution allows us to observe voters' preferences over parties unencumbered by their perception of the incumbent government.

Our empirical results are in line with our theoretical predictions about the influence of income on preferences for religious political parties. After controlling for the level of religiosity, among the poorest voters, a small increase in socio-economic status such as the ownership of one more domestic asset (e.g., a fridge) increases the probability of voting for the Islamic party Ennahdha by more than 10 percentage points. This effect reduces to zero around the sample average of asset ownership and becomes negative for the richer voters. Furthermore, living in a district richer than the median district increases the probability of voting for Ennahdha by a further 10 percentage points. As a comparison, a voter who prays every single day is 20 percentage points more likely to vote for Ennahdha than one who never prays. Therefore, belonging to the middle class and living in a rich district together affect the decision to vote for the religious party *more* than being religious.

Far from being an isolated case, we show that the voting pattern we uncover in Tunisia is common to several elections in Muslim democracies, namely Egypt, and Turkey in the 1990s. In all these elections, the probability of voting for the religious party increases in income and is greater in richer districts.

Our model offers an intuitive explanation for why the middle class votes for religious parties. The key assumption is that income is redistributed in the economy in two ways: state taxation and the local provision of public goods financed through local donations to a religious charity. Religious charities provide local secular goods and religious goods. For example, a religious charity provides education, some component of which is general knowledge and another is religious teachings. The religious party never favors state redistribution, as state taxation reduces disposable income that is available for donations to the religious charity. Moreover, if elected, the religious party implements policies that restrict the consumption of luxury goods and entertainment. In equilibrium, poor voters prefer the secular party, as it offers greater redistribution at the national level. Meanwhile, rich voters also vote for the secular party because they are more affected by potential re-

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strictions on the consumption of luxury goods, which is supported by empirical evidence on individual preferences in our survey. Therefore, the religious party is supported by an intermediate "middle class." Moreover, the secular party would implement greater inter-regional redistribution, which is preferred by voters in the poorer districts. The religious party is therefore supported by a greater share of the voters in the richer districts.

We test for alternative explanations of individual vote for Islamic parties that have been discussed in the literature. Our data offer no support for any of them. Poor voters did not abstain more, nor did they vote overwhelmingly for another particular party. Instead, their votes were split between all other major parties, almost all of which lean to the left of Ennahdha's economic agenda. We also do not find that the poor were less informed, or even informed differently, about the election. It has been argued in other contexts that the success of Islamic parties derives from voters' perceptions that these parties will adopt a tougher stance on corruption. In our sample, while voters show great support for fighting against corruption and for prosecuting former regime members, these attitudes are uncorrelated with voting for Ennahdha. Our results are also robust to controlling for anti-Western sentiment, which has been discussed as a potential driver of preferences for political Islam (Garcia-Rivero and Kotzé, 2007; Jamal and Tessler, 2008; Robbins, 2009; Tessler, 2010). In a recent paper, Binzel and Carvalho (2015) develop a model to show how the Islamic revival in the Arab world might be fuelled by individuals' desire to cope with unfulfilled aspirations. In the measure in which this revival translates into support for Islamic parties, this theory predicts that voting shares for Islamic parties should be higher among the more educated components of low or middle classes. We find no evidence to support this mechanism.

Our mechanism of support for religious parties also identifies 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 argument sees religious parties as the political branch of religious charities. In Egypt, 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 connections with local

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[4]The 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). Schwedler (2011) discusses the inclusion-moderation hypothesis for Islamic parties.

charities[5] and was originally inspired by 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 local, and they are limited in their ability to redistribute income and wealth at the national level. In the Arab world, Binzel and Carvalho (2015) and references therein argue 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).[6]

Second, religious charities rely on donations as opposed to the forceful imposition of taxes. This aspect is particularly evident in Islamic societies, where donations to the poor are highly codified in the *zakat* system. This system demands to all Muslims to donate a predefined percentage of their disposable income, independent of the size of it (i.e., a linear self-taxation; see also Kochuyt, 2009). Therefore, the budget of religious charities is likely to be larger when state taxes are lower, as donations increase with disposable income.

Third, religious charities also provide religious goods, such as religious 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 a 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, in our model 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 in Appendix 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 favour of a free market economy with minimal state involvement. Probably the only exception to what has been described as Ennahdha's commitment to a typical neo-liberal platform (see: Hayward, 2011, Habibi, 2012, p.5, Boughzala, 2013, and Chamki, 2015) consists of its support for a tax on the super wealthy, which is consistent with the assumptions of our theoretical model.

We contribute to the literature on religion and political preferences, and to the literature on political Islam in particular. Previous papers, most notably Huber and Stanig (2011) and Chen and Lind (2015), have argued that religiosity reduces the desired tax

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[5]The most relevant example is *Association tunisienne de coopération et de communication sociale* (*Attawyn*).

[6]In an extreme example, Dorman (2009) recounts 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."

rate, since religious people benefit from social insurance and other goods provided by the church, which tampers the demand for a welfare state. We share with this literature the view that the state and the church compete to provide certain goods. Our focus, however, is on how and when religious political parties may appear and on how income, and not only religion, affects their electoral success. We also depart from this literature by not imposing any restriction on the relationship between income and religiosity.[7] Support for Islamic parties has been associated with both religious and economic interests. Garcia-Rivero and Kotzé (2007), Jamal and Tessler (2008), Robbins (2009), and Tessler (2010) argue that their electoral base is formed primarily by highly religious voters who share anti-Western sentiments or are disenchanted with secular regimes. Cammett and Luong (2014), Flanigan (2008) and Ottaway and Hamzawy (2007) put forward the view that poor and disenfranchised voters support Islamic parties for the clientelistic and redistributive appeal of the Islamic charities they are connected to. Our results confirm the view that religiosity is a main source of political support for Islamic parties, but add that purely economic incentives affect voters choice at least as much as ideology. Although we share with this literature the fundamental intuition that support for Islamic parties is linked to the role they play in shaping redistributive policies, we show that when religious charity and welfare state are viewed as substitutes, poorer voters prefer the latter and do not vote for religious parties.

The remainder of the paper is organized as follows. Section 2 contains our model of political support for religious parties. Section 3 overviews our data and discusses our empirical methodology. Section 4 presents the results. Section 5 reviews further evidence from other key elections in the Muslim world. Section 6 concludes and discusses how our findings relate to the literature on the impact of religious values on economic development.

2   A Theory of Political Support for Religious Parties

We model an economy with a mass 1 of voters, indexed by $i \in [0,1]$ and divided in 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 $F_D : Y \to [0,1]$ be the cumulative distribution function of income in district $D \in \{H, L\}$ and $G : \Phi \to [0,1]$ be the national cumulative distribution of

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[7]The typical assumption being that the rich elite is secular and the poor religious (Huber and Stanig, 2011; Chen and Lind, 2015).

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.

Each voter casts a vote in favor of one of two parties, *Religious* and *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 As discussed in Section 1, the state and the religious charity both supply public goods, but religious charities have limited ability to redistribute income across districts, cannot freely determine the proportion of disposable (after-tax) income that voters donate to them, and also provide religious goods which are valued only by religious voters.

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. Notice that 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 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.[8] Notice that religious goods are not local because voters value religious teachings even when they are not preached in their district. 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

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[8]One could argue that the charity might choose it strategically after the election or commit to it 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 only rely on the Religious party preferring lower state taxes than the Secular party and the religious charity providing relatively more religious goods than the state.

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 $u_D^i(\tau, \sigma; y_i, \phi_i) = u_D(\tau, \sigma; y_i, \phi_i)$:

$$u_D(\tau, \sigma; y_i, \phi_i) \;\equiv\; v\left(c\left(\tau; y_i, \phi_i\right)\right) - \delta\left(y_i\right) \mathbb{I}\left(\sigma \geq \frac{1}{2}\right) \tag{1}$$

$$c(\tau; y_i, \phi_i) \;\equiv\; (1 - \rho)\, y_i\, (1 - \tau) + g + s_D + \phi_i r.$$

The first term is voter i's utility from his 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, $\delta\left(y_i\right) \geq 0$, is the cost associated with a victory of the Religious party. The Religious party implements policies that restrict consumption of luxury goods, entertainment, and other activities accessible only to the richer classes. As such policies affect richer voters more, we assume that $\delta : \mathbb{R}_+ \to \mathbb{R}_+$ is strictly increasing and (weakly) convex. As we discuss in more detail in Section 3, in our data the proportion of respondents who do not see Western values as a problem is increasing in our measure of wealth.

  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: $\rho\left[\phi_{max} x \bar{y} + (1 - x)\, \bar{y}_H\right] \leq \ell \bar{y}$.

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. Therefore there exists a uniquely 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 $\pi\left(u_m, r\right)$ such that π is (weakly) increasing in both arguments and

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

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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.[9] Notice that the Religious party does not attempt to cater to the median voter as much as the Secular party. As reviewed 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." Our precise assumptions on the parties' objectives are somewhat arbitrary. Nevertheless, all our qualitative results are unchanged as long as, all else equal, the Religious party values the charity budget more than the Secular party and therefore chooses relatively lower taxes.

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.

Throughout the paper, we assume sincere voting. For simplicity, we resolve indifferences in favor of the Secular party (and higher taxes). That is, let τ_R and τ_S be the tax rates chosen by the Religious and Secular party, respectively. Voter i in district D votes for the Religious party if

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

We solve our model by backward induction. To do this, we first solve for voters' preferences over redistributive policies. We can then find the optimal tax rate that each party would implement if it were to win the election. Finally, we derive voters' preferences between the two parties.

In our benchmark model, in equilibrium the Religious party never wins a strict majority of the votes. In Appendix C we discuss how the introduction of some aggregate uncertainty about the distribution of voters' preferences guarantees that the Religious party wins the election with strictly positive probability. We do not include this further complication in our benchmark model because our main results only focus 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.

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[9]For example, this assumption would be satisfied if the Religious party exhibits Cobb-Douglas preferences such that $\pi\left(u_m, r\right) = u_m^\alpha r^\beta$ 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.
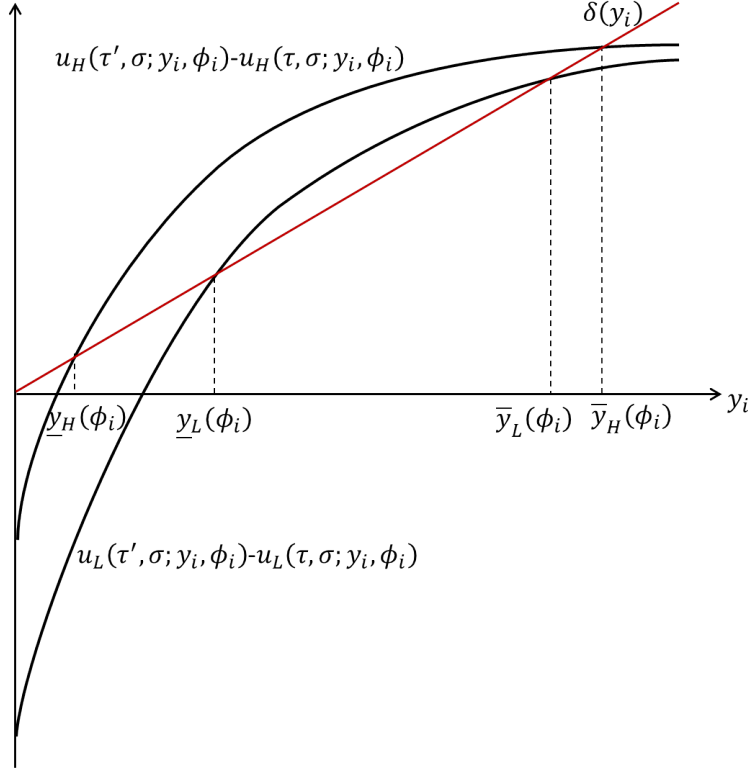
2.1 Voters preferences over redistributive policies

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. Thus:

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 from $\tau = \tau' < 1$ to $\tau = 1$ for voters with different income 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

poor district than in the rich district. Intuitively, voters in the poor districts have more to gain from state redistribution, as this transfers resources from the rich to the poor district. Relatively poor voters in the richer district would instead prefer that more disposable income remains in their district and then be redistributed in the form of secular and religious local public goods. 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 the state to organize income redistribution more than 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 because of one of the following reasons: (i) they are very religious; (ii) bureaucratic efficiency ℓ is sufficiently low; and (iii) the donation rate ρ is sufficiently large. Notice also that the threshold $y_D^*(\phi_i)$ is positive because

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

2.2 Parties' preferences over redistributive policies

We now turn to the parties' problem of choosing a 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 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 $\tau_R = 0$.

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

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

then the Secular party chooses $\tau_S = 1$ and the Religious party chooses $\tau_R < 1$. Otherwise, both

parties choose $\tau_S = \tau_R = 0$.

2.3 Equilibrium

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

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

Notice that if we set $\delta\left(y_i\right) = 0$, 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 income 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 $\left(\underline{y}_D\left(\phi\right), \bar{y}_D\left(\phi\right)\right)$. For sufficiently low religiosity levels, this interval might be empty. As the level of religiosity increases, then the interval expands. Similarly, the interval $\left(\underline{y}_L\left(\phi\right), \bar{y}_L\left(\phi\right)\right)$ is a subset of $\left(\underline{y}_H\left(\phi\right), \bar{y}_H\left(\phi\right)\right)$. 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 $\underline{y}_D\left(\phi\right), \bar{y}_D\left(\phi\right), D \in \{H, L\}$, 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 ($\delta\left(y_i\right) > 0$ for all $y_i > 0$), then all voters would prefer to vote for the Secular party.

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 $Y_D\left(\phi\right) \equiv \left(\underline{y}_D\left(\phi\right), \bar{y}_D\left(\phi\right)\right) \subset \mathbb{R}_+$. For all districts D, there exists some ϕ such that $Y_D\left(\phi\right)$ is non-empty. For all ϕ and $\phi' < \phi$, (i) if $Y_D\left(\phi\right)$ is non-empty, $Y_D\left(\phi'\right)$ is a strict subset of $Y_D\left(\phi\right)$; (ii) if $Y_H\left(\phi\right)$ is non-empty, $Y_L\left(\phi\right)$ is a strict subset of $Y_H\left(\phi\right)$;*

2. *otherwise, both parties implement $\tau_S = \tau_R = 0$ and all voters vote for the Secular party.*

Proof. See Appendix. □

We are mostly interested in understanding which individual characteristics increase voter i's probability of voting for the Religious party. As expected, being more religious increases the likelihood of voting for the religious party. From Proposition 1, it is also obvious that the relationship between income and voting for the Religious party is non-monotonic, with the "middle class" voting for the Religious party and the poor and rich voters supporting the Secular party. Notice though that the poor voters vote for the Secular party because they favor greater redistribution at the national level. Instead rich voters vote for the Secular party because they are more affected by the restrictions the Religious party would impose on the consumption of luxury goods and entertainment. Finally, all else equal, voters in the rich district H are more likely to vote for the Religious party, as the Secular party would implement greater inter-regional redistribution.

We summarize these results in the following prediction.

Prediction 1 (Individual comparative statics)**.** All else equal, voter i is more likely to vote for the Religious party if

1. she lives in the richer district;

2. she is middle-class;

3. she is more religious.

It is worth noting that if the richest voters are sufficiently poor or if the cost of the Religious party restrictions is sufficiently low, then the "middle class" that chooses to vote for the Religious party might in fact include the richest voters. But the electoral support for the Religious party cannot extend to the poorest voters. Indeed, if all voters were to have income greater than $\underline{y}_L(\phi)$ then condition (2) would not be satisfied (recall that $\underline{y}_L(\phi) > y_L^*(\phi)$) and the Religious party would receive no votes at all. Therefore, our "middle class" should be in general intended as one that might include the richest voters, but never includes the poorest. As we show in Section 5, this is exactly 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. In order to isolate the effect of changes in voting patterns rather than on policies, we specialize the model the limit case when 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. Indeed, in a country in which all voters value religious goods very much, the non-religious parties would implement the same policies as a religious party (see Part 2 of Proposition 1). Thus, a religious party might not even exist, as the political demand for more religious goods is already satisfied.[10] We make the following statement more precise in Corollary 3 in Appendix A.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 this is sufficiently small. Otherwise, the share of votes for the Religious party is decreasing in the aggregate level of religiosity.*

A second question is whether more efficient state institutions would decrease voters' support for religious parties. One argument is that support for religious parties derives from voters' perception that these parties will be tougher on political and bureaucratic corruption. Thus, if national politics is not corrupt, voters would not need to vote for religious parties. Our model highlights a different path through which better institutions lead to fewer votes for the religious party: as state redistribution and religious charity are substitutes for the poor voters, a more efficient state bureaucracy (greater ℓ) increases the value of state redistribution. Conversely, an inefficient or corrupt state makes state redistribution less appealing to voters, thus 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 would implement the same policies of a religious party (see Part 2 of Proposition 1). 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. See Appendix A.2. □

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[10]Although we are mostly concerned with explaining the relative pattern of support for religious parties, the benchmark specification of our model predicts that the Religious party would never be supported by an absolute majority of the voters as the Secular party caters to the median voter. This might perhaps suggest that religious parties are more successful in parliamentary systems. It is interesting to notice that Ennahdha supported a parliamentary system for the Tunisian constitution, while its main opponents supported a presidential system.

Figure 3: Vote for Ennahdha and Wealth

(a) Vote for Ennahdha

(b) District wealth: 1 minus the poverty rate
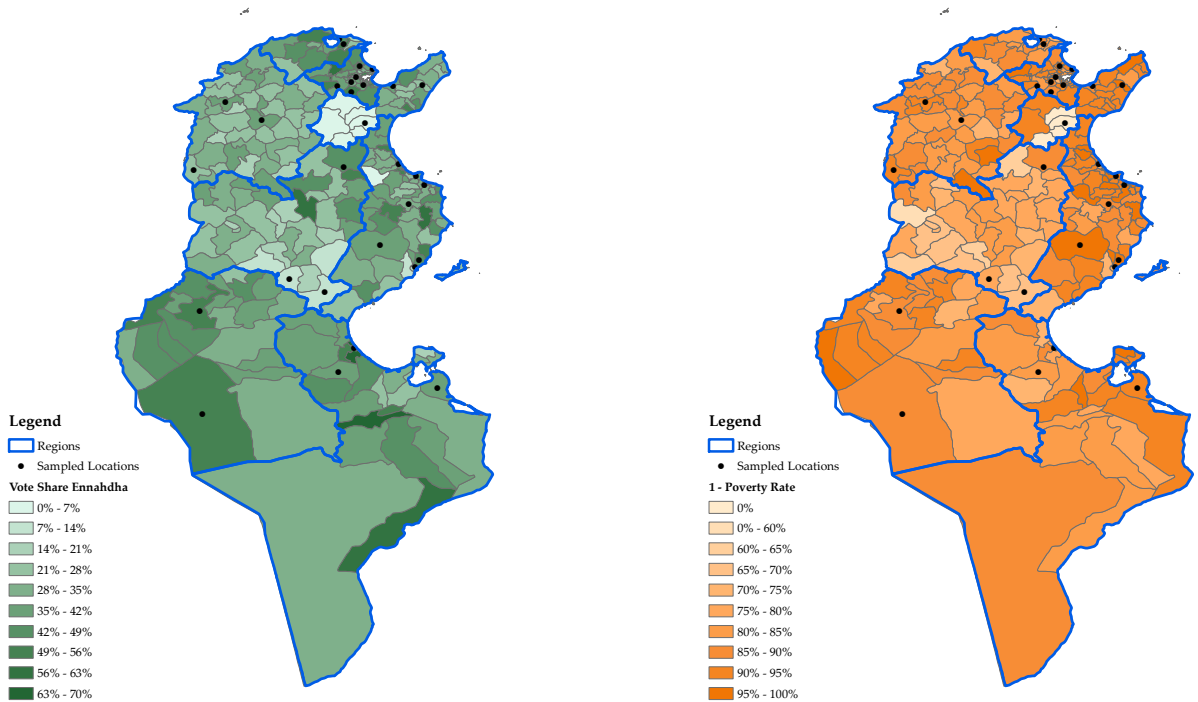
Notes: The dots indicate our survey sites. Source: Census of Tunisia, 2005 and Instance Supérieure Indépendente pour les Elections, 2011.

3 Data and Methodology

3.1 Tunisia and the Arab Spring

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

The most salient result of the 2011 elections was the overwhelming success of the Islamic Party Ennahdha. Ennahdha won 37 percent of the vote share and a plurality of the seats: 89 out of 217. As a result, Ennahdha's general secretary Hamadi Jebali became prime minister. Far behind, the second party, 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

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around 7 percent of the vote. The rest of the vote was split between several minority parties.

A crucial aspect in our identification strategy is that all the main contenders in the 2011 elections are parties that were either previously banned or were founded after the revolution. The leaders of the two parties with highest vote shares were living in exile before the revolution, while the leader of the third party still lives abroad. No party represented the former ruling regime. This enables us to rule out that voters' income or religious preferences were determined by the past influence of political parties.

The homogeneous Tunisian demography allows us to separate the roles of political and economic factors from the roles of potentially confounding ethnic and religious affiliations and divisions. 98 percent of Tunisians identify themselves simply as Arabs and Tunisian Arabic is the only official language of the country.[11] Islam is the official state religion, with Sunni Muslims representing 99.76 percent of the population (US Department of State, 2007).

There is substantial regional variation in income. The average poverty rate along the the North Eastern coast is 10 percent; in the Southern and Central Western regions, it reaches peaks well above 30 percent (Figure 3b).

Figure 3a depicts 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. Even within the South, support for Ennahdha came from relatively richer regions. We now turn to individual data for a finer test of our theoretical predictions.

3.2 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. We relied on a multi-stage, random sampling design based on the the latest Tunisian Census in 2014. For security reasons,[12] we had to replace two districts with two similar districts in terms of observable characteristics. Interviews were face-to-face, and all interviews were conducted by the same team of a male and a female enumerator (the first author of this paper). Descriptive statistics are available in Table D.2 in Appendix D.

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

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[11]CIA World factbook 2007 (Tunisia): https://www.cia.gov/library/publications/the-world-factbook/geos/ts.html.
[12]Sectors controlled by terrorist groups.

sample, 60 percent of respondents report participating in the election. Among those who participated, 43 percent voted for Ennahdha. Official figures are 52 and 37 percent.[13] We construct two main measures of vote for Ennahdha. The first takes value 1 if the respondent voted for Ennahdha and 0 for all other respondents (*Vote Ennahdha*). Because this measure includes abstentionists, 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 elections (*Vote Ennahdha - Alternative measure*). The first is our preferred measure due to sample size considerations, but all our results are robust to using the other measure (see Section 4.4). We also analyze in more detail the vote for parties other than Ennahdha in Section 4.5.

Socio-economic characteristics Although our theoretical predictions are based on income, measuring income directly is impracticable in our context and would yield inaccurate estimates for several reasons. First, income is seasonal and volatile, particularly in developing countries, which explains why even dedicated surveys such as the World Bank Living Standard Measurement Survey shy away from measuring income. Second, where self-employment is common, in particular in agriculture and in the informal sector, it is notoriously difficult to gather accurate income data. In our survey, as much as 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). Because of the difficulty of measuring income in developing countries, an alternative has been to measure either consumption expenditures or asset ownership. In a recent paper, Filmer and Pritchett (2012) argue that an asset index is as reliable as conventionally measured expenditures as a proxy for economic status, but has the advantage of being easier and quicker to measure. In order to avoid respondent fatigue in our survey, we opted for the asset index over consumption expenditures. The asset index also has advantages compared with 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. We follow (Case, Paxson and Ableidinger, 2004; Labonne and Chase, 2011; Montgomery, Gragnolati, Burke and Paredes, 2000) and define our index as the summation over household ownership of assets; in our case: a water

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[13]Both discrepancies are easily explained by well-documented over-report biases (Atkeson, 1999; DellaVigna et al., 2014; 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.

heater, a motorbike, a car, a TV, a satellite antenna, a computer, home internet access, a fridge, a bank account, and a post office current account. Table D.2 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 measure of wealth based on assets to characterize the district level of wealth and test the prediction in our model that the probability of voting for the religious party should be 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 that are 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. However, our survey-based measures are highly correlated with official statistics from before the election. The last Census before the election was in 2005 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. 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 distribution of 1 minus the official poverty rate in the 2005 Census at the 99% level (z=21.23). All our results are unchanged, in terms of statistical significance and magnitude, whether we rely on the survey-based or the Census-based measure. Moreover, we included in our survey a retrospective question about changes in personal economic conditions in the last 5 years, which we use as a control in robustness tests.

Religiosity We capture respondents' religiosity level with a question about the frequency of prayer. In Islam, religious people are expected to pray at least on Friday, and ideally several times a day. 62 percent of our respondents declare praying every day, while around 1 percent pray 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.

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 having to cover their heads when going out of the house is 0.21 and statistically significant at the 1 percent level. We also

recorded whether our female respondents had their head covered. The correlation between actually wearing a headscarf and their self-declared religiosity level if more than 0.45 and statistically significant at the 1 percent level.

Our model predicts that the probability of voting for the religious party is higher among the more religious voters. This is verified in the unconditional relationship between voting for Ennahdha and religiosity: 80 percent of Ennahdha voters are found among highly religious respondents. When compared to non-religious respondents, highly religious respondents are 20 percentage points more likely to vote for Ennahdha (one-sided p-value of 0.0005).

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 our respondents are married. 16 percent of our respondents are unemployed, which is almost identical to the share of unemployed according to official statistics (15 percent according to the 2014 Tunisian Census). A sizable share of our respondents (26 percent) have not completed primary school, but most have completed primary education (34 percent) and have received secondary (17 percent) or some tertiary (23 percent) education. These figures are reflective of Tunisia's relatively high educational levels compared to its immediate neighbors and consistent with official statistics.[14]

Assumptions on individual preferences In our theoretical model, we make the assumption that the potential restrictions imposed by the religious party are particularly binding on the rich. In our sample, we verify that the rich are less conservative and, accordingly, more likely to be hurt by restrictions imposed by the religious party, namely restrictions on women's rights. Table D.1 in Appendix, which presents major parties' political platforms clearly indicates Ennahdha's specific opposition to gender equality, in contrast with other parties. Richer people are less supportive of women wearing the veil, more progressive towards women's rights in general, and less likely to agree with the statement that "Western values are harmful". For example, among the poor (people with 5 assets or less), 92 percent answer that women should cover their head. Among those with more than 5 assets, this proportion goes down to 77 percent (one-sided p-value of

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

0.001). Among the very rich (those with more than 8 assets), it is only 67 percent. 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. 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 that, at 7 percent (one-sided p-value of 0.0001). None of our very rich respondents strongly agreed with that statement.

4 Results

4.1 Wealth and vote for Ennahdha: descriptive statistics

Our theoretical model predicts that the probability of voting for the religious party Ennahdha is higher among more religious voters, among the middle class, and in richer districts. We have already discussed that more religious voters are more supportive of Ennahdha in Section 3. To illustrate the other two predictions, Figure 4 plots the unconditional relationship between voting for Ennahdha and wealth using a flexible specification in the whole sample (left panel) as well as in districts that are above or below the median district in wealth in our sample (right panel).

As displayed in the left panel of Figure 4, the unconditional relationship between voting for the religious party and assets align with the prediction of 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 for almost exactly the mean level of assets in our sample, which is represented by the vertical line in the left panel of Figure 4. Figure 4 also suggests that a quadratic specification, which we will adopt for estimation in the next sections, is an adequate approximation of the functional form of the relationship between vote for Ennahdha and wealth.

The other main prediction of our model is also verified in the unconditional relationship, as illustrated in the right panel of Figure 4. The average vote share for Ennahdha is higher in the rich districts than in the poor 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).

The interpretation of descriptive statistics is limited by the fact that the effects of

Figure 4: Vote for Ennahdha and wealth.

(a) Whole sample

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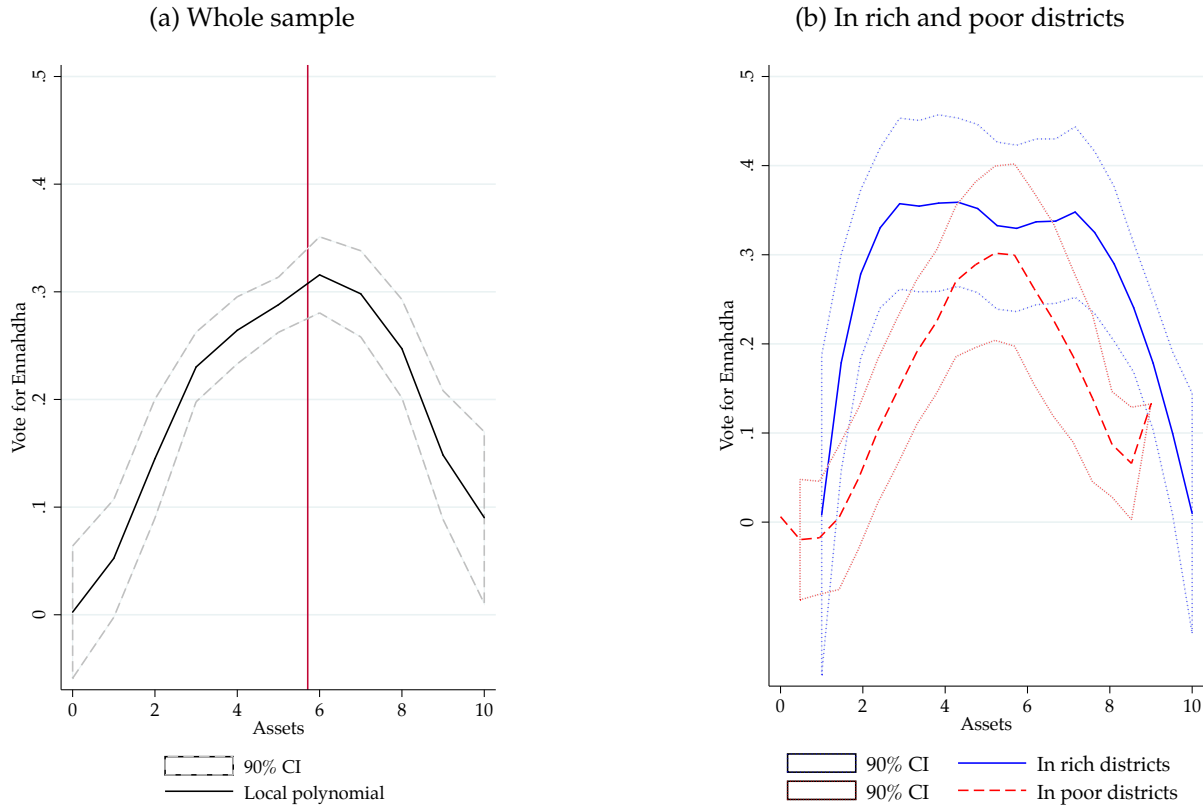
Notes: Local polynomial fit with 90 percent confidence interval. Data is averaged by asset bin. Rich (poor) district: above (below) median level of assets. The vertical line in the left panel indicates the mean level of assets in the sample. Source: authors' data.

wealth and of religiosity could be confounded if the two variables are correlated in a systematic way. Consistent with Crabtree (2010), the correlation between religiosity and wealth in our sample is negative. The average difference in wealth between highly religious voters and non religious voters is -0.65 (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 to hold religiosity constant. We present in Figure D.1 in Appendix D the replica of Figure 4 when we consider voters that have the same level of religiosity. We consider only the largest and most relevant group, that is to say highly religious people. Figure D.1 shows that the theoretical predictions about the relationship between voting for Ennahdha and wealth holds in the subsample of highly religious voters. However, for a more systematic analysis, and to control for the potential influence of other confounding factors, we turn to multivariate regression analysis.

4.2 Empirical specification and identification

We estimate the following expression:

$$
\begin{aligned}
Ennahdha_{id} \;=\; & \beta_0 + \beta_1 Rich_d + \beta_2 Assets_{id} + \beta_3 Assets^2_{id} \\
& + \; \beta_4 Religiosity_{id} + \beta_5 X_{id} + \beta_6 Z_d + \epsilon_{id}
\end{aligned}
\tag{4}
$$

where $Ennahdha_{id}$ is a dummy variable which takes value 1 if respondent i in district d voted for Ennahdha, as defined in Section 3. $Rich_d$ is a dummy variable that indicates districts that are richer than the median. In terms of our theoretical model, $Rich_d$ is the rich district H. $Assets_{id}$ proxies individual wealth with the above mentioned asset index and is equivalent to y_i. $Religiosity_{id}$ is our proxy for the intensity of religious preferences described in Section 3 and is equivalent to ϕ_i. X_{id} 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. Z_d is a vector of regional fixed effects. We include fixed effects for the 6 regions highlighted in Figure 3 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 with the estimation of interaction and square terms with non linear models (Ai and Norton, 2003) and given that one of our main independent variable is a square term, we estimate (4) with an OLS specification. Yet, all the results reported in what follows are robust to using a logit specification.[15]

A concern with estimating (4) consists of the potential endogeneity of religiosity. We focus on the first democratic elections in Tunisia after the Arab Spring revolution, after 50 years of autocratic rule and ban on religious parties. In those circumstances, it is reasonable to consider religiosity as predetermined compared with political preferences for the religious party. Nevertheless, we follow an exact matching procedure and we check that our results carry through in the subsample of highly religious people only, the largest group in our sample and the group among which the vote share for Ennahdha is highest. This strategy also addresses issues arising from possible nonlinearity between religiosity and voting for religious parties in the estimation of (4).

A potential concern with our measure of assets is that if assets are distributed dif-

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[15]Results available upon request.

ferently across districts, then our results might be capturing the effect of unobservable districts characteristics, rather than the effect of individual wealth. For example, some combinations of assets might be typical of one geographical environment in which Ennahdha is more rooted. To address this concern, we check that our results are robust to electoral district fixed effects, which absorb any unobservable characteristics at the electoral district level that could be correlated with voting preferences and with a particular profile of asset ownership as well as with religiosity. A second potential concern with the sum of assets as a measure of wealth is that some assets might be typical of poorer respondents. For example, motorcycles might be a cheap substitute for cars among the poorest respondents. To obviate this problem, we restrict our attention in robustness tests on the ownership of two particular assets, which are typical of the Tunisian middle class: cars and computers. 38 and 49 percent of respondents own a car and a personal computer, respectively. 41 percent own neither, 31 percent own one or the other, 28 percent own both.

4.3   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. We then add regional fixed effects and finally socio-demographic controls.

Across the entire sample, the regression results confirm all three comparative predictions in Prediction 1. First, the dummy associated with rich districts is positive and statistically significant. On average, living in one of the 50 percent richer districts is associated with a 10 percentage points increase in the probability of voting Ennahdha. When compared to the sample share of votes for Ennahdha, a 10 percentage points increase amounts to nearly 40 percent.

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. To grasp a sense of the magnitudes, for the poorest fringe of Tunisian society, one additional asset (typically, a TV set or a fridge) is associated with an increase in the probability of voting Ennahdha greater than 10 percentage points. The effect of assets on voting behavior decreases with assets for the 50 percent respondents with fewer assets. For richer respondents, the effect is negative.

Finally, the coefficient associated with high religiosity is, as expected, positive and statistically significant. Respondents who pray every day are on average 20 percentage

Table 1: Individual vote for Ennahdha

	(1)	(2)	(3)	(4)	(5)	(6)
			Vote Ennahdha			
Sample		Whole			Highly religious	
Rich district	0.10*	0.09*	0.11**	0.15**	0.13**	0.18***
	(0.05)	(0.04)	(0.04)	(0.06)	(0.05)	(0.05)
Assets	0.11**	0.11**	0.09*	0.15**	0.15**	0.14**
	(0.05)	(0.04)	(0.05)	(0.06)	(0.06)	(0.06)
Assets squared	-0.01***	-0.01***	-0.01**	-0.01***	-0.01***	-0.01**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)
Moderately religious	0.03	0.04	0.04			
	(0.04)	(0.05)	(0.05)			
Highly religious	0.20***	0.20***	0.19***			
	(0.05)	(0.05)	(0.05)			
Observations	600	600	600	376	376	376
R-squared	0.0579	0.0795	0.1221	0.0377	0.0813	0.1275
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Socio-demographic controls	No	No	Yes	No	No	Yes

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Socio-demographic controls: gender, age, household size, marital status (5 categories), education level (4 categories), unemployed.

points more likely to vote for Ennahdha than those who practically never pray.

The magnitude of the economic variables is considerable, even compared with the effect of religiosity. Going from the first percentile of assets in the poorest 50 percent districts to the national median level of assets in the richer districts is associated with a cumulative increase of the probability of voting Ennahdha by 26 percentage points—6 points more than the total effect of religiosity.

When we focus on highly religious respondents only in Columns 4 to 6, economic variables appear to play an even sharper role. On average, living in one of the 50 percent richer districts is associated with a 15 percentage point increase in the probability of voting Ennahdha. The effect of individual assets on voting behavior decreases with assets for the respondents who own less than 7 assets (above median) and is negative for richer respondents. For the poorest respondents among the highly religious, one additional asset is associated with an increase in the probability of voting Ennahdha in excess of 15 percentage points.

The statistical significance and the magnitude of the results are broadly unchanged by the addition of regional fixed effects and demographic controls.

Table D.3 in Appendix D displays the estimated coefficient for each demographic controls. Female respondents are less likely to vote Ennahdha, perhaps because the party's policies are more restrictive for them than for male respondents. On the other hand, the effect of education on voting behavior is negative, but significant only for those who have pursued some tertiary education. Among highly religious people only, the coefficient associated with primary education is also significant, and still negative. The coefficient associated with unemployment is never statistically significant. The inclusion of an urban dummy does not affect our results and is insignificant in all specifications.[16] The negative effect of education and the absence of any significant relationship between unemployment and vote for the religious party seems to argue against the idea that political Islam draws its support from relatively educated people with unfulfilled economic aspirations, an idea that has been discussed to explain the Islamic religious revival by Binzel and Carvalho (2015). Nevertheless, we explore in more depth the robustness of our results to this alternative explanation in Section 4.5.

4.4   Robustness of empirical results

In this section, we show that our results are robust to district fixed effects, to using alternative measures of individual and district-level wealth as well as a different measure of vote for Ennahdha, to different functional forms specifications of the relationship between political preferences and wealth, to accounting for the potential influence of recent changes in economic conditions and to migration, and to corrections for potential spatial correlation in the error term.

Spatial heterogeneity and spatial correlation   To address the potential concern that particular combinations of assets reflect unobserved spatial heterogeneity that might be correlated with religious or political preferences, Table D.4 in Appendix reports estimates of (4) when we control for district fixed effects. District fixed effects wash out the effect of any unobservable characteristics at the electoral district level that could be correlated with voting preferences and with a particular profile of asset ownership. We present results for the whole sample as well as for highly religious respondents only. The statistical significance and the magnitude of our results are unchanged.

Districts that are geographically close to one another may be influenced by common

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[16]Results available upon request.

characteristics that could affect individual and district wealth as well as voting prefer-
ences. We use the estimation method pioneered by Conley (2008, 1999) and further de-
veloped by Hsiang (2010) to deal with the resulting potential spatial correlation in the
error term of expression (4). In Table D.5 in Appendix, standard errors corresponding to
the regressions displayed in Table 1 are adjusted for spatial correlation within a 100 kilo-
meters radius in an OLS framework. The statistical significance of our results is actually
improved, with most coefficients of our main variables of interest significant around the
1 percent mark.

Alternative measures of individual assets, district wealth, and political preferences
To obviate the concern that the simple sum of all assets may result in some measurement
error if some assets are typical of poorer rather than richer respondents (e.g. a motorcy-
cle), we report estimates of (4) focusing on only two assets: cars and personal computers.
Results are presented in in Table D.6 in Appendix. All our results are confirmed and
actually strengthened when we focus on these two particular assets. Owning a car or a
computer—the epitome of belonging to the Tunisian middle class—is associated with a 20
percentage point increase in the probability of voting for Ennahdha. This alone amounts
in magnitude to the total effect of religiosity. In addition, the magnitude of living in one
of the 50 percent richer districts is unchanged from our main specification and still asso-
ciated with a further 10 percentage points increase in the probability of voting Ennahdha.

In Columns 1 to 6 of Table D.7 in Appendix, we check that our results are unchanged
when we use a continuous measure of wealth at the electoral district instead of a dummy
variable that classifies districts above or below the median wealth. This specification, if
anything, improves the statistical precision of our results, with the measure of district
wealth being statistically significant at the 1 to 5 percent level in most specifications. We
also check that the results are robust to using a measure of district wealth based on official
statistic: 1 minus the poverty rate from the 2005 Census. As explained in Section 3, this
measure has the advantage of predating the 2011 election. It is highly correlated with our
survey-based measure of district wealth and the results, which are presented in Columns
7 to 12 of Table D.7, are unchanged.

To address the potential issue raised in Section 3 that individual wealth was measured
after the 2011 election, we add to our main specification a control for how the respon-
dent's economic situation has changed since 2011. Results—displayed in Columns 1 to 6
of Table D.9—are unaffected.

We also check that the results hold when we consider the alternative measure of voting
for Ennahdha described in Section 3. In Table D.8 in Appendix, we present results where

the dependent variable is the vote share of Ennahdha among expressed votes only. Given the level of abstention, the sample size is substantially reduced, to 365 observations, including 250 highly religious respondents. Given the reduced sample size, our results just fall short of statistical significance in the whole sample, but remain unchanged in terms of statistical significance and magnitude among highly religious respondents.

Migration   Migration could influence our results in several possible ways. International migrants may have become richer but developed more negative attitudes towards the West and more positive attitudes toward Islamic parties because of their experience as a minority ethnic and religious group abroad. The effect of exposure on political preferences could go the other way, with exposure to more open and democratic societies making voters fearful of the potential restrictions imposed by 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 ensure that our results are not biased by the effects of international or internal migration, we restrict our analysis to the subsample of people who have always lived in the district where they were surveyed at the time of our 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 7 to 12 of Table D.9.

Functional form specification   In Table D.10 in Appendix, we check that our results are robust to specifying different functional forms between voting for Ennahdha and assets. In columns 1 to 3, we add cubic and quartic asset terms to (4). In terms of statistical significance, our results are unchanged. The higher order polynomial asset terms are statistically significant, with the cubic term being positive and the quartic term negative. The magnitudes of the linear and squared asset term are increased as a result. This indicates that the relationship between voting for Ennahdha and assets is more bell-shaped than what is suggested by the quadratic fit but does not change the nature of our results, with the probability of voting for Ennahdha being increasing in wealth among the poorer voters and decreasing in wealth among the richer voters.

In columns 4 to 6 of Table D.10 , we present the results of a linear-log specification, in which we regress voting for Ennahdha on the log of assets (adding a small term to assets

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to avoid extreme values) and on the square of log of assets. Our results are robust to this specification and the statistical significance of both assets terms is actually improved.

4.5 Alternative explanations

Preferences for other parties and access to information Our results so far confirm our theoretical predictions that votes for the religious party Ennahdha come predominantly from the middle class and from richer districts. However, it could be that it is not so much that the poor (and the very rich) do not vote for Ennahdha, but that they overwhelmingly vote for another party that may cater more directly to their specific needs, for example a populist party. Or, it could simply be that the poor (or the very rich) did not vote. Still another possibility is that the poor are less informed, or are informed differently. To rule out these alternative explanations, we study the voting patterns for parties other than Ennahdha that obtained at least 5 percent of the vote in the election and we study access to information as a function of income.

In Table D.11, we estimate specifications identical to (4) with the probability of voting for a major party other than Ennahdha or the probability of abstaining as the dependent variables. The results indicate that, in contrast with what we have found for Ennahdha, voting patterns for other parties display no systematic pattern with respect to individual wealth: the coefficients associated with $Assets_i$ and $Assets_i^2$ are never statistically significant. Richer districts are less likely to vote for the party with populist tendencies Aridha and less likely to abstain, but the effect for Aridha is not robustly statistically significant. It is interesting to note that religious people were less likely to abstain.

We study whether differences in voters' information are related to income and whether they can explain voting patterns. We proxy access to information and consumption of information by questions about the frequency at which the respondents use different sources of information "to learn what is going on in [their] country and in the world". Respondents are asked about 5 different media: newspapers, internet, radio, TV, and social media (Facebook, Tweeter, YouTube, etc). They must 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). We estimate specifications identical to (4) with the frequencies of access to different sources of information as the dependent variables.

The results are displayed in Columns 1 to 5 of Table D.12. There is no statistically significant and robust difference in the frequency of access to information as a function of assets. The coefficient associated with $Assets_i$ is sometimes positive, sometimes negative,

and insignificant in most cases, except for access to news on TV, which is probably a construct of our Asset index including a TV set. These results therefore suggest that the pattern we uncovered between voting for the Islamic party and income is unlikely to be due to differences in access to, and consumption of information. This is confirmed in the last 2 Columns of the table. We build an index of access to information, summing the frequencies of access to all media, and include this as an additional regressor in the estimation of equation (4). Columns 6 and 7 of Table D.12 present the results from the estimation of (4) with the full set of controls and access to information included. The results are unchanged and the influence of access to information itself is insignificant in explaining the vote share for Ennahdha.

Anti-Western sentiment and attitudes towards gender The literature before us 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). Voting for Ennahdha is also strongly associated with attitudes towards gender parity. As we have already discussed in Section 3, conservatism towards women dress code and anti-Western sentiment are decreasing with income. Therefore, these motivations, if present, should give rise to a negative relationship between income and voting for Ennahdha and bias our results against our main finding, which is that the poor do *not* vote for the religious party. Yet, we check that our results are robust to controlling for attitudes towards gender and anti-Western sentiment.

Our survey includes a question about attitudes towards the West, which we already discussed in Section 3, as well as 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 equally competent to men as doctors, prime ministers, or business leaders., and a question about the relative importance of education and work, versus marriage and family, for boys versus girls. A higher value of the principal component reflects more equal attitudes towards gender.

In Table D.13 in Appendix D, we check that our results are robust to controlling for the principal component index of attitudes towards gender parity discussed in Section 3 as well as to attitudes about veiling and towards the West. For brevity of exposition, 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. While

religiosity and attitudes towards gender parity might be co-determined, it is reassuring to see that most of our results are robust and the magnitude of the coefficients is unaffected. Results are particularly robust among highly religious people. We obtain similar results when we control for anti-Western sentiment, as shown in Columns 9 to 12 of Table D.13.

Attitudes towards corruption   Another argument championed by the previous literature is that support for Islamic parties derives from voters' perceptions that these parties will be tougher on political and bureaucratic corruption. In Indonesia in the early 2000s, evidence suggests that local corruption was curbed in districts held by Islamic parties (Henderson and Kuncoro, 2011). In the Arab world, Islamic parties may have appeared as a cleaner alternative to the corrupt secular parties that were ruling the region when the Arab spring erupted. In Tunisia, the revolution began as a protest by a street vendor against, in part, excessive economic regulation and high perceived corruption. Meanwhile in Egypt, more intense protests in Tahrir Square were associated with lower stock market returns for firms connected to Hosni Mubarak's government, relative to non-connected firms (Acemoglu, Hassan and Tahoun, 2015). Voting for Islamic parties may thus be determined by attitudes towards corruption in general and by more specific attitudes towards the members of the old regime.

In our survey, we elicit attitudes towards corruption by a question about whether "eliminating corruption" should be the first priority of the government (in a list of 5 possible alternative policies). Nearly 30 percent of respondents answer that this should be the case, which testifies to the high levels of frustration with corruption in Tunisia. We capture more specific attitudes towards the members of the old regime with a question about 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 far from perfectly, correlated (correlation coefficient: 0.05).

In Table D.14 in Appendix, we check that our results are robust to controlling for attitudes towards corruption and towards prosecution, either separately or together. For brevity of exposition, 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. While negative attitudes towards corruption and positive attitudes towards prosecution generally correlate positively with the probability of voting for Ennahdha, none of the coefficients associated with these variables are significant. The rest of our results are unaffected, in terms of statistical significance or magnitude, by the

Table 2: Individual vote for Ennahdha: alternative explanations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				Support Ennahdha				
Sample	Whole		Whole		Poor respondents		Whole	
Rich district	0.11*	0.11**	0.09	0.11**	0.08	0.09	0.11*	0.12**
	(0.06)	(0.04)	(0.06)	(0.05)	(0.08)	(0.07)	(0.06)	(0.04)
Assets	0.09*	0.07	0.12**	0.10**	0.20**	0.24**	0.12**	0.10**
	(0.05)	(0.05)	(0.05)	(0.05)	(0.10)	(0.10)	(0.05)	(0.05)
Assets squared	-0.01	-0.01	-0.01***	-0.01**	-0.03*	-0.03**	-0.01**	-0.01**
	(0.01)	(0.01)	(0.00)	(0.00)	(0.01)	(0.01)	(0.00)	(0.00)
Moderately religious	0.04	0.04	0.03	0.04	0.05	0.10	0.05	0.05
	(0.04)	(0.05)	(0.05)	(0.05)	(0.08)	(0.09)	(0.04)	(0.05)
Highly religious	0.20***	0.19***	0.20***	0.20***	0.14**	0.17**	0.21***	0.20***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.08)	(0.05)	(0.05)
Primary education	-0.00	-0.02	0.17	0.10	0.05	-0.09	-0.01	-0.04
	(0.15)	(0.16)	(0.14)	(0.13)	(0.18)	(0.16)	(0.06)	(0.05)
Secondary education	-0.18	-0.23	0.44**	0.38*	0.20	0.16	-0.04	-0.09
	(0.19)	(0.20)	(0.20)	(0.21)	(0.30)	(0.31)	(0.07)	(0.07)
Tertiary education	0.16	0.21	0.02	0.05	0.29	0.14	-0.10	-0.15**
	(0.22)	(0.21)	(0.21)	(0.24)	(0.33)	(0.33)	(0.08)	(0.07)
Primary education*Assets	-0.00	-0.01						
	(0.04)	(0.04)						
Secondary education*Assets	0.02	0.01						
	(0.04)	(0.04)						
Tertiary education*Assets	-0.04	-0.06						
	(0.04)	(0.04)						
District-level inequality in assets			0.03	0.02	0.02	-0.00		
			(0.03)	(0.02)	(0.03)	(0.04)		
Primary education*District inequality			-0.03	-0.02	-0.01	0.01		
			(0.02)	(0.02)	(0.03)	(0.03)		
Secondary education*District inequality			-0.08***	-0.08***	-0.06	-0.06		
			(0.03)	(0.03)	(0.04)	(0.04)		
Tertiary education*District inequality			-0.02	-0.03	-0.05	-0.03		
			(0.03)	(0.04)	(0.05)	(0.06)		
Unemployed							0.06	0.07
							(0.15)	(0.16)
Primary education*Unemployed							-0.03	0.03
							(0.17)	(0.17)
Secondary education*Unemployed							-0.16	-0.11
							(0.19)	(0.19)
Tertiary education*Unemployed							-0.06	-0.02
							(0.16)	(0.18)
Observations	600	600	600	600	290	290	600	600
R-squared	0.0699	0.1306	0.0720	0.1296	0.0452	0.1084	0.0661	0.1233
Region fixed effects	No	Yes	No	Yes	No	Yes	No	Yes
Demographic controls	No	Yes	No	Yes	No	Yes	No	Yes

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** p<0.01, ** p<0.05, * p<0.1. Socio-demographic controls: see Notes to Table 2.

inclusion of these additional controls.

The frustrated aspirations hypothesis   In a recent paper, Binzel and Carvalho (2015) argue that the Islamic revival in the Arab world is fueled by individuals' desire to cope with unfulfilled aspirations. The theoretical model predicts that more educated individuals will be frustrated and will become more religious as a result when they face high local inequality and low social mobility. In the measure in which this revival translates into vot-

ing for Islamic parties, this theory predicts that vote shares for Islamic parties should be higher among the more educated components of low or middle classes, especially when local inequality is high. We find no evidence to support this mechanism.

In Columns 1 and 2 of Table 2, we estimate (4) without and with the full set of controls, and we add an interaction between assets and education as an additional covariate. The interaction terms are not significant. In Columns 3 and 4, we include instead an interaction between education and local inequality, which we proxy by the difference between the maximum and the minimum asset-holding in the district. Our main results are unchanged, while the coefficients on the interaction terms are negative, suggesting that, if anything, more educated people are less supportive of the Islamic party in more unequal districts. This runs contrary to the prediction, but most of the terms are insignificant. Since local inequality should only generate resentment among the poorest, in Columns 5 and 6 we repeat the same estimations but we restrict the sample to respondents who have 5 assets or less. Again, the interaction terms are negative and none of them is significant. A triple interaction term between education, assets, and local inequality is not significant either, although we omit this result for brevity of exposition. Because unfulfilled aspirations could be captured by unemployment rather than assets, we include in Columns 7 and 8 an interaction term between education and unemployment, again without and with controls. This still does not explain preferences for political Islam and leaves our result unchanged. The inclusion of regional fixed effect and additional demographic controls alters none of these results.[17]

Binzel and Carvalho (2015) do not deal with political Islam but with religion. If the psychological reaction they hypothesized explained religiosity, then it could indirectly contribute to the rise of political Islam, given that our previous results indicate that more religious individuals are more likely to vote for religious parties. Hence, in Table D.15 in Appendix we provide a more direct test for their mechanism and study the determinants of religiosity and the roles played by the interaction of education, wealth, and local inequality. We estimate the same specifications as in Table 2 but the dependent variable now consists of our measure of religiosity, which takes values from 1 to 3, with 3 being highly religious. Again, none of the coefficients associated with the interaction terms that we introduced in order to capture frustrated aspirations is statistically signifiant.[18] While these results are not intended as a formal test of Binzel and Carvalho (2015), it appears that the frustrated aspirations mechanism does not explain political Islam in our sample,

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[17]Results with demographic controls are omitted but available upon request.

[18]If anything, the signs are reversed compared with the theoretical predictions. For example, more educated individuals are less religious in more unequal districts, even when they are themselves among the poor.

either directly or indirectly though the influence of religiosity.[19]

5   Further Evidence from the Muslim World

We compare our findings from Tunisia to voting patterns in key democratic elections across the Muslim world. Because of our predictions that religious parties are more likely to play a role at intermediate stages of political development and when religion is more divisive, we focus on elections immediately after democratization or immediately 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. 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 we have focused on so far: the 2012 Presidential election in Egypt and the 1995 legislative elections in Turkey.

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. Yet, despite these limitations, the WVS is, to the best of our knowledge, the only data on individual political preferences that is comparable across countries in different regions.[20]

For ease of comparison with our results so far, the left panel of Figure 5 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 3 reports the estimation results of a linear and quadratic relationships

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[19]We find a similar result using the World Values Survey in Tunisia: among poor and middle class respondents, education is not a predictor of either religiosity or voting for Ennahdha. In Egypt we find that while education is positively correlated with religiosity, it is not a good predictor of voting for the Freedom and Justice Party (Elsayyad and Hanafy, 2014 find similar results using district level data).

[20]The Afrobarometer includes questions on elections and was conducted in Egypt in 2012 and in Tunisia in 2013. The WVS includes Turkey in addition. All the results discussed in the case of Egypt and Tunisia hold in the Afrobarometer sample. Results are available upon request.

Figure 5: Votes for Islamic parties and socio-economic status across the Muslim world.

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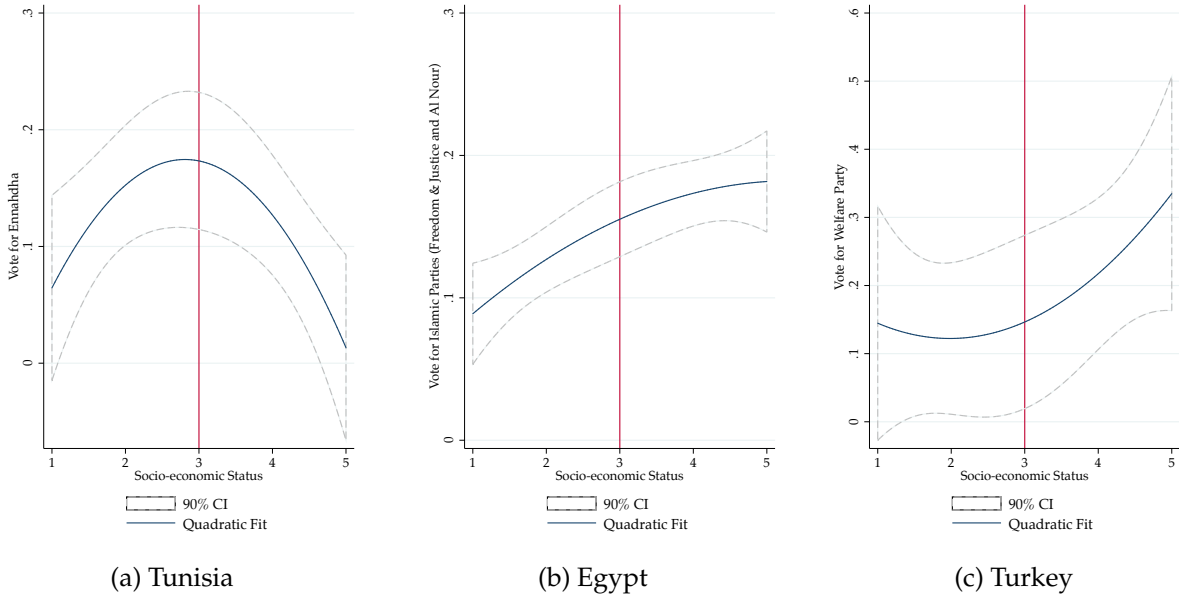
Note: Quadratic fit with 90 percent confidence interval. Data averaged by SES bin. Panel (a): share of voting intentions for Ennahdha in 2013. Panel (b): share of voting intentions for Freedom and Justice in 2012. Panel (c): share of voting intentions for the Welfare Party in 1995. Source: World Value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

between voting or Islamic parties and self-assessed socio-economic status. Region fixed effects are included throughout. Because the WVS does not include any more disaggregated location information after the region, including 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 3. These results validate our previous findings in the Tunisian case.

5.1 Egypt and the 2012 Presidential elections

In 2012, the first—and only—democratic presidential elections in Egypt resulted in a runoff between Mohammed Morsi, the 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

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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 of both a linear and a quadratic relationship, with and without socio-demographic controls similar to the ones we have considered in the analysis so far, 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 5 and in Columns 5 and 6 of Table 3, the coefficient associated with the proxy for income is statistically significant and positive when we consider the linear specification, and it 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 the different perception 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 Islamic parties in Egypt is larger among women and among voters with some university education. Therefore, Islamic parties may not appear to be as much of a threat to the lifestyle of women and the educated among Egyptian voters as Ennahdha is in Tunisia. This is consistent with our model: as noted in Section 2.3, the "middle class" supporting the religious party includes the richest voters whenever the cost for them of the restrictions imposed by the religious party is not sufficiently large.

5.2   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 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" and former minister Hüseyin Çelik reiterated that "these characterizations do not reflect the truth, and they sadden us" (Taşpınar, 2012; see also Akarca, Tansel et al., 2009).

We show that this turnaround of Turkish political Islam has been reflected in a fun-

damental change of the support basis of the AKP versus its parent, the Welfare Party. In fact, as in 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 (left panel of Figure 6c). The survey was conducted only a few months after the December 1995 election and included questions about first and second party choice. 12 percent of respondents report the Welfare party as their first choice and 4 percent report it as their second choice. 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 respondents' self-perceived socio-economic status (Figure 6c), 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 3. 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. 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 AKP's transformation has shifted the support for political Islam in Turkey from a middle class demanding lower redistribution to a poor and conservative basis demanding stricter moral constraints on the lifestyle of the rich elite.

6 Conclusions

In this paper we sought to explain political support for religious parties. We showed that redistributive considerations influence voters decisions as much as—if not more than—

Table 3: Evidence from key elections in the Muslim world from the World Values Survey

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Sample	Tunisia				Egypt				Turkey			
Political party	Ennahdha				Freedom and Justice or Al Nour				Welfare Party			
Socioeconomic status	0.03*	0.03*	0.10*	0.09*	0.03*	0.02+	0.04	0.02	0.03*	0.05***	0.05*	0.08***
	(0.01)	(0.01)	(0.04)	(0.05)	(0.01)	(0.01)	(0.04)	(0.04)	(0.01)	(0.01)	(0.02)	(0.02)
Socioeconomic status squared			-0.01+	-0.01+			-0.00	-0.00			-0.00	-0.01+
			(0.01)	(0.01)			(0.01)	(0.01)			(0.00)	(0.00)
Moderately religious (i)	0.08*	0.08*	0.08*	0.08*	0.02	0.01	0.02	0.01				
	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)				
Highly religious (i)	0.13***	0.12***	0.13***	0.12***	0.07*	0.06*	0.07*	0.06*				
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)				
Religious person (ii)									0.11***	0.09***	0.11***	0.09***
									(0.02)	(0.02)	(0.02)	(0.02)
Observations	1,204	1,204	1,204	1,204	1,523	1,523	1,523	1,523	1,378	1,369	1,378	1,369
Pseudo R-squared	0.1337	0.1511	0.1347	0.1521	0.0677	0.0867	0.0677	0.0867	0.0838	0.1110	0.0838	0.1111
Region fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Socio-demographic controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Mean dependent variable	0.145				0.095				0.158			
Mean Socioeconomic status	2.600				2.378				2.779			
Wave / Year surveyed	6 / 2013				6 / 2012				3 / 1996			

OLS regression. All regressions include a constant term. Robust standard errors clustered at the smallest unit of regional level. *** p<0.01, ** p<0.05, * p<0.1, + p<0.15. 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 repondents' 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. (i) In Wave 6 of the WVS (Tunisia, Egypt, Libya), religion is captured by answers to the question: V145: "How often do you attend religious services?" The answers are coded as follows: Highly religious: someone who practice religion at least once a week, Moderately religious: someone who practice religion once a month or on special occasions and Not religious: someone who practices religion at least less than once a year. (ii) In Wave 3 (Turkey), religion is captured by the following 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". Socio-demographic controls are: gender, age, marital status, and highest education completed.

religiosity itself. 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. For example, 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. According to his view, the local provision of public goods through local charities, a central economic institution of Islam, has substituted for a strong state and ultimately led to economic and political underdevelopment in the Arab world. We expect each of these effects to be more salient when religious values and institutions are channeled through organizations that seek political power and that use political power to reinforce the reach of local religious charities. Our model suggests that such religious political parties are able to exercise greater influence at intermediate stages of state development and when religiosity is a more divisive factor. In this context, they capture the middle and upper class political demand for a moderate and more local welfare state. As state institutions become more efficient, religiosity becomes more homogeneous, and the median voter joins the middle-class, then religious parties are either forced to moderate their claim for traditional values or lose political influence.

It does not escape our notice that our results also contribute to the broader debate about the relationship between Islam and democracy. It is widely admitted that Islamic (as well as non-Islamic) terrorists are better educated and richer than their peers (Krueger, 2008). The common explanation is that—to put it simply—the poor and uneducated have other more imminent 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 this simply translates also to the supporters of Islamic parties, but the pattern we uncovered 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 that we might learn more about political Islam and the development of democracies

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in the Muslim world if we study these phenomena within the same framework we study political competition in the West.

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A   Omitted Proofs

A.1   Proof of Proposition 1

<u>Part 1:</u> 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 $D \in \{L, H\}$,

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

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 $Y_D(\phi_i) = \left(\underline{y}_D(\phi_i), \bar{y}_D(\phi_i)\right)$.

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

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

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

<u>Part 2:</u> 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. □

A.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 $G' \succ G$,

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

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

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

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

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

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.

C Aggregate Uncertainty

In the model of Section 2, 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 appndix 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 $Z_\theta : (0, 1) \to [0, 1]$ induces public beliefs $\Pr(\theta = h \mid z) = z$. 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 $\frac{1}{2} Z_h(z^*) > 0$.

D Additional Tables and Figures

Figure D.1: Vote for Ennahdha and wealth among highly religious voters.
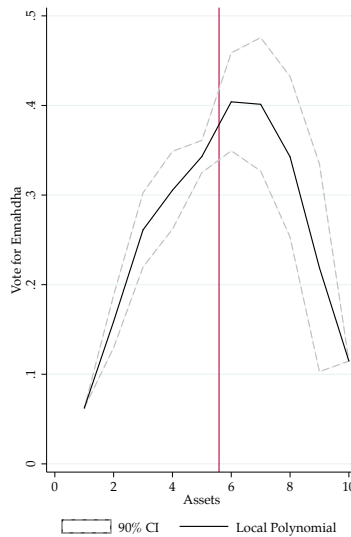
Notes: Local polynomial fit with 90 percent confidence interval. Highly religious respondents only. The vertical line indicates the mean level of assets among highly religious voters. Source: authors' data.

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.ikhtiartounes.org/. 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 is: against, 0. is: without opinion, and 1 is: in favour. 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
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 (2005 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
Self-perception of economic change	600	-0.55	1.08	-2	2
Variables used for alternative mechanism					
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
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
Summation of access to news	600	12.07	6.20	0	25
Government's priority to fight corruption	598	0.30	0.46	0	1
Favour of prosecution of members of old regime	563	0.76	0.43	0	1
Support veiling	590	0.35	0.48	0	1
Gender parity PCA index	600	0.00	1.28	-4.77	2.08
Strongly agree: Western values are harmful	600	0.13	0.33	0	1
Local inequality	600	5.93	1.37	3	9

Source: Authors' data

Table D.3: Coefficients associated with demographic controls in Table 1

| | (1) | (2) |
| | | Vote Ennahdha |
Sample	Whole	Highly religious
Rich district	0.11**	0.18***
	(0.04)	(0.05)
Assets	0.09*	0.14**
	(0.05)	(0.06)
Assets squared	-0.01**	-0.01**
	(0.00)	(0.01)
Moderately religious	0.04	
	(0.05)	
Highly religious	0.19***	
	(0.05)	
Female	-0.10**	-0.10**
	(0.04)	(0.04)
Age	-0.00	-0.00
	(0.00)	(0.00)
Married	0.11**	0.06
	(0.05)	(0.09)
Engaged	0.32***	0.33**
	(0.09)	(0.13)
Widowed	-0.02	-0.16
	(0.09)	(0.12)
Divorced	-0.02	-0.19
	(0.12)	(0.18)
Primary education	-0.04	-0.11*
	(0.04)	(0.06)
Secondary education	-0.10	-0.10
	(0.06)	(0.09)
Some tertiary education	-0.16**	-0.20**
	(0.07)	(0.09)
Unemployed	0.06	0.03
	(0.06)	(0.08)
Household size	-0.01	-0.01
	(0.01)	(0.01)
Observations	600	376
R-squared	0.1221	0.1275
Region fixed effects	Yes	Yes
Socio-demographic controls	Yes	Yes

Notes: OLS regression. All regressions include
a constant term. Robust standard errors
clustered at the district level in parentheses
(30 clusters). *** p<0.01, ** p<0.05, * p<0.1.

Table D.4: Individual votes for Ennahdha. Robustness check: district fixed effects

	(1)	(2)	(3)	(4)
		Vote Ennahdha		
Sample		Whole		Highly religious
Assets	0.09*	0.07	0.14**	0.13*
	(0.05)	(0.05)	(0.06)	(0.07)
Assets squared	-0.01**	-0.01*	-0.01**	-0.01**
	(0.00)	(0.00)	(0.01)	(0.01)
Moderately religious	0.03	0.02		
	(0.05)	(0.05)		
Highly religious	0.20***	0.19***		
	(0.05)	(0.05)		
Observations	600	600	376	376
R-squared	0.1353	0.1785	0.1581	0.2038
District fixed effects	Yes	Yes	Yes	Yes
Socio-demographic controls	No	Yes	No	Yes

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Socio-demographic controls: see Notes to Table 2.

Table D.5: Individual votes for Ennahdha: adjustment for spatial correlation in Table 1

	(1)	(2)	(3)	(4)	(5)	(6)
			Votet Ennahdha			
Sample		Whole		Highly religious respondents only		
Rich district	0.104***	0.084***	0.113***	0.153***	0.132***	0.175***
	(0.040)	(0.025)	(0.016)	(0.040)	(0.022)	(0.017)
Assets	0.056***	0.089***	0.095***	0.109***	0.161***	0.195***
	(0.015)	(0.011)	(0.036)	(0.026)	(0.009)	(0.042)
Assets squared	-0.006***	-0.009***	-0.009***	-0.010***	-0.015***	-0.017***
	(0.001)	(0.001)	(0.003)	(0.002)	(0.001)	(0.003)
Moderately religious	0.010	0.030	0.040			
	(0.020)	(0.024)	(0.033)			
Highly religious	0.179***	0.187***	0.196***			
	(0.047)	(0.044)	(0.035)			
Observations	600	600	600	376	376	376
R-squared	0.305	0.322	0.353	0.354	0.384	0.414
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Demographic controls	No	No	Yes	No	No	Yes
Spatial correlation cutoff	100km	100km	100km	100km	100km	100km

Notes: OLS regressions. Robust standard errors corrected for spatial correlation adjustment with a 100 kilometers radius following the method by Conley (1999, 2008), and Hsiang (2010). *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Socio-demographic controls: see notes to Table 2.

Table D.6: Individual votes for Ennahdha. Robustness check: subset of assets

	(1)	(2)	(3)	(4)	(5)	(6)
			Vote Ennahdha			
Sample		Whole		Highly religious		
Rich district	0.10*	0.08	0.11**	0.16**	0.13**	0.18***
	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)	(0.05)
Car or computer	0.22**	0.22***	0.23***	0.32**	0.31**	0.30**
	(0.08)	(0.08)	(0.08)	(0.12)	(0.12)	(0.12)
Car or computer squared	-0.12***	-0.13***	-0.12***	-0.17***	-0.18***	-0.17***
	(0.04)	(0.04)	(0.04)	(0.06)	(0.05)	(0.06)
Moderately religious	0.03	0.03	0.03			
	(0.04)	(0.05)	(0.05)			
Highly religious	0.20***	0.20***	0.18***			
	(0.04)	(0.05)	(0.05)			
Observations	600	600	600	376	376	376
R-squared	0.0654	0.0872	0.1326	0.0531	0.0988	0.1441
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Socio-demographic controls	No	No	Yes	No	No	Yes

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Socio-demographic controls: see Notes to Table 2.

Table D.7: Individual votes for Ennahdha and wealth using alternative measures of district wealth

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
						Vote Ennahdha						
Sample	Whole			Highly religious			Whole			Highly religious		
Mean assets in district	0.06***	0.05**	0.06***	0.10***	0.07***	0.10***						
	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)						
Rich district index Census							0.46	0.81*	1.00**	0.92**	1.02*	1.44***
							(0.28)	(0.42)	(0.39)	(0.35)	(0.52)	(0.48)
Assets	0.10**	0.10**	0.08*	0.13**	0.13**	0.12*	0.11**	0.11**	0.09**	0.15**	0.14**	0.14**
	(0.05)	(0.04)	(0.04)	(0.06)	(0.06)	(0.06)	(0.05)	(0.04)	(0.04)	(0.06)	(0.06)	(0.06)
Assets squared	-0.01**	-0.01***	-0.01*	-0.01**	-0.01**	-0.01**	-0.01***	-0.01**	-0.01**	-0.01**	-0.01**	-0.01**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Moderately religious	0.03	0.04	0.04				0.02	0.04	0.03			
	(0.04)	(0.05)	(0.05)				(0.05)	(0.05)	(0.05)			
Highly religious	0.20***	0.20***	0.20***				0.19***	0.20***	0.19***			
	(0.05)	(0.05)	(0.05)				(0.05)	(0.05)	(0.05)			
Observations	600	600	600	376	376	376	600	600	600	376	376	376
R-squared	0.0632	0.0832	0.1261	0.0561	0.0836	0.1300	0.0535	0.0824	0.1238	0.0350	0.0785	0.1241
Region fixed effects	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Socio-demographic controls	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** p<0.01, ** p<0.05, * p<0.1. "Mean assets in district" is the average asset holding in the district according to our survey. "Rich district index Census" is defined as one minus the official poverty rate in the 2005 Tunisian Census. Socio-demographic controls: see Notes to Table 2. Source: Authors' data and Census of Tunisia 2005.

Table D.8: Individual votes for Ennahdha and wealth using an alternative measure of voting for Ennahdha

Sample	(1)	(2)	(3)	(4)	(5)	(6)
		Vote Ennahdha - Alternative measure				
		Whole			Highly religious	
Rich district	0.10	0.09	0.13*	0.16*	0.15**	0.20***
	(0.09)	(0.07)	(0.07)	(0.09)	(0.06)	(0.06)
Assets	0.12	0.13	0.10	0.15*	0.16	0.19*
	(0.08)	(0.09)	(0.10)	(0.08)	(0.10)	(0.11)
Assets squared	-0.01**	-0.02**	-0.01	-0.02**	-0.02**	-0.02**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Moderately religious	-0.01	0.06	0.06			
	(0.09)	(0.09)	(0.08)			
Highly religious	0.18*	0.22**	0.22**			
	(0.09)	(0.09)	(0.09)			
Observations	365	365	365	250	250	250
R-squared	0.0721	0.1155	0.1644	0.0432	0.1092	0.1568
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Socio-demographic controls	No	No	Yes	No	No	Yes

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** $p<0.01$, ** $p<0.05$, * $p<0.1$. The dependent variable excludes respondents who abstained in the 2011 election. Socio-demographic controls: see Notes to Table 2.

Table D.9: Individual votes for Ennahdha: robustness to changes in individual economic conditions and to the influence of migration

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
						Vote Ennahdha						
Sample	Whole			Highly religious only			Whole never migrated			Highly religious only never migrated		
Rich district	0.10*	0.08*	0.11**	0.15**	0.13**	0.17***	0.08	0.05	0.08*	0.11	0.09	0.13**
	(0.05)	(0.04)	(0.04)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)	(0.04)	(0.07)	(0.05)	(0.05)
Assets	0.10**	0.11**	0.09*	0.16***	0.15**	0.14**	0.12*	0.12**	0.09	0.16**	0.17**	0.14*
	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.06)	(0.06)	(0.06)	(0.05)	(0.07)	(0.07)	(0.07)
Assets squared	-0.01**	-0.01***	-0.01**	-0.01***	-0.01***	-0.01**	-0.01**	-0.01**	-0.01*	-0.01**	-0.02**	-0.01**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)
Moderately religious	0.04	0.04	0.04				-0.00	0.00	0.01			
	(0.04)	(0.05)	(0.05)				(0.05)	(0.05)	(0.05)			
Highly religious	0.20***	0.20***	0.20***				0.13**	0.12**	0.15***			
	(0.05)	(0.05)	(0.05)				(0.05)	(0.05)	(0.05)			
Observations	600	600	600	376	376	376	386	386	386	231	231	231
R-squared	0.0647	0.0868	0.1291	0.0435	0.0881	0.1367	0.0393	0.0668	0.1109	0.0309	0.0743	0.1205
Region fixed effects	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Socio-demographic controls	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Change in personal economic conditions over the last 5 years	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** p<0.01, ** p<0.05, * p<0.1. Change in personal economic conditions over the last 5 years is the answer to the following question: "Are you better off or worse off than 5 years ago?". Answers are on a 5-point scale centered around 0 from "much worse off" (min: -2) to "much better off" (max: 2). The mean and standard deviation of this variable are: -0.55 and 1.08. Socio-demographic controls: see Notes to Table 2.

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Table D.10: Individual votes for Ennahdha: robustness to different functional forms

	(1)	(2)	(3)	(4)	(5)	(6)
			Vote Ennahdha			
Rich district	0.10*	0.09*	0.12**	0.10*	0.08*	0.11**
	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)
Assets	0.24	0.33*	0.41**			
	(0.19)	(0.18)	(0.19)			
Assets squared	-0.07	-0.10	-0.12*			
	(0.07)	(0.06)	(0.07)			
Assets cubic	0.01	0.01	0.02*			
	(0.01)	(0.01)	(0.01)			
Assets quartic	-0.00	-0.00	-0.00*			
	(0.00)	(0.00)	(0.00)			
Moderately religious	0.04	0.05	0.05	0.03	0.04	0.04
	(0.04)	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)
Highly religious	0.21***	0.20***	0.20***	0.20***	0.19***	0.19***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Log assets				0.07	0.09	0.10**
				(0.05)	(0.06)	(0.04)
Log assets squared				-0.04	-0.05**	-0.04*
				(0.02)	(0.02)	(0.02)
Observations	600	600	600	600	600	600
R-squared	0.0593	0.0815	0.1247	0.0502	0.0718	0.1192
Region fixed effects	No	Yes	Yes	No	Yes	Yes
Socio-demographic controls	No	No	Yes	No	No	Yes

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** p<0.01, ** p<0.05, * p<0.1. Socio-demographic controls: see Notes to Table 2.

Table D.11: Individual votes for other parties and abstention

Whole sample	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Vote CPR			Vote Ettakatol			Vote Aridha			Abstained	
Rich district	-0.00	-0.02	-0.03	0.03	0.03*	0.02	-0.03	-0.04*	-0.04*	-0.13***	-0.09**	-0.08*
	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.04)	(0.04)	(0.04)
Assets	0.04	0.03	0.03	0.01	0.01	0.02	-0.01	-0.01	-0.00	-0.07	-0.06	-0.06
	(0.04)	(0.04)	(0.04)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.06)	(0.06)	(0.06)
Assets squared	-0.00	-0.00	-0.00	0.00	-0.00	-0.00	0.00	0.00	-0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Moderately religious	0.00	0.00	-0.01	0.02	0.01	0.01	0.01	0.01	0.01	-0.13	-0.11	-0.09
	(0.04)	(0.04)	(0.03)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.09)	(0.09)	(0.09)
Highly religious	0.01	0.01	-0.02	0.03	0.03	0.01	0.01	0.02***	0.02*	-0.26***	-0.25***	-0.17**
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.07)	(0.07)	(0.08)
Observations	600	600	600	600	600	600	600	600	600	600	600	600
R-squared	0.0056	0.0313	0.0554	0.0307	0.0364	0.0511	0.0271	0.0620	0.0735	0.0832	0.0936	0.1582
Region fixed effects	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Socio-demographic controls	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Mean dependent variable		0.065			0.045			0.032			0.391	

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** p<0.01, ** p<0.05, * p<0.1. Socio-demographic controls: see Notes to Table 2.

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Table D.12: Access to information

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Frequence of access to news (0 to 5):				Vote Ennahdha	
	Radio	TV	Newspaper	Internet	Social Media	Whole	Highly religious
Sample			Whole				
Rich district	0.18	0.08	0.05	0.25	0.20	0.11**	0.18***
	(0.21)	(0.17)	(0.21)	(0.21)	(0.23)	(0.04)	(0.05)
Assets	0.12	0.36*	-0.28	0.09	0.01	0.09*	0.14**
	(0.26)	(0.20)	(0.21)	(0.16)	(0.18)	(0.05)	(0.06)
Assets squared	0.01	-0.03*	0.03	0.02	0.02	-0.01**	-0.01**
	(0.02)	(0.02)	(0.02)	(0.01)	(0.02)	(0.00)	(0.01)
Moderately religious	0.60	0.10	-0.19	0.00	0.09	0.04	
	(0.38)	(0.20)	(0.18)	(0.21)	(0.29)	(0.05)	
Highly religious	0.64*	0.20	0.18	-0.36	-0.37	0.19***	
	(0.32)	(0.21)	(0.21)	(0.26)	(0.29)	(0.05)	
Access to all news sources						0.00	0.00
						(0.00)	(0.01)
Observations	600	600	600	600	600	600	376
R-squared	0.0700	0.0472	0.1721	0.5385	0.5190	0.1233	0.1284
Region fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Socio-demographic controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dependent variable	2.445	4.515	1.232	1.95	1.94	0.263	0.33

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Socio-demographic controls: see Notes to Table 2.

Table D.13: Individual votes for Ennahdha. Robustness check: gender parity, support for veiling and anti-Western sentiment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
						Vote Ennahdha						
Sample	Whole		Highly religious		Whole		Highly religious		Whole		Highly religious	
Rich district	0.11**	0.12***	0.17**	0.19***	0.11*	0.12**	0.16**	0.18***	0.11*	0.11**	0.16**	0.18***
	(0.05)	(0.04)	(0.06)	(0.05)	(0.05)	(0.04)	(0.06)	(0.05)	(0.05)	(0.04)	(0.06)	(0.05)
Assets	0.10**	0.08*	0.13**	0.12*	0.10**	0.09*	0.14**	0.13*	0.11**	0.09*	0.15**	0.14**
	(0.04)	(0.05)	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.06)	(0.05)	(0.05)	(0.05)	(0.06)
Assets squared	-0.01**	-0.01*	-0.01**	-0.01**	-0.01**	-0.01**	-0.01**	-0.01**	-0.01***	-0.01**	-0.01***	-0.01**
	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)
Moderately religious	0.02	0.02			0.03	0.04			0.03	0.04		
	(0.05)	(0.05)			(0.04)	(0.05)			(0.04)	(0.05)		
Highly religious	0.19***	0.18***			0.19***	0.18***			0.20***	0.19***		
	(0.05)	(0.05)			(0.05)	(0.05)			(0.05)	(0.05)		
Gender parity PCA index	-0.03**	-0.03*	-0.05**	-0.04*								
	(0.01)	(0.01)	(0.02)	(0.02)								
Support veiling					0.10***	0.09***	0.10**	0.09**				
					(0.02)	(0.02)	(0.04)	(0.03)				
SA: Western values are harmful									0.03	0.01	0.06	0.04
									(0.05)	(0.06)	(0.06)	(0.07)
Observations	600	600	376	376	590	590	373	373	600	600	376	376
R-squared	0.0675	0.1276	0.0540	0.1363	0.0742	0.1324	0.0481	0.1340	0.0585	0.1221	0.0399	0.1282
Region fixed effects	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Socio-demographic controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** p<0.01, ** p<0.05, * p<0.1. "Gender parity PCA index" is a principal-component index of attitudes towards gender equality. "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". See section 3.2 and Table 1 for more detailed variable description. Socio-demographic controls: see Notes to Table 2.

Table D.14: Individual votes for Ennahdha. Robustness check: attitudes towards corruption and towards the old regime

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Sample	Whole						Vote Ennahdha		Highly religious			
Rich district	0.11*	0.11**	0.10*	0.12**	0.10*	0.12**	0.15**	0.18***	0.15**	0.19***	0.15**	0.19***
	(0.05)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)	(0.06)	(0.06)	(0.06)	(0.06)
Assets	0.11**	0.09*	0.12**	0.10**	0.12**	0.11**	0.15**	0.14**	0.16**	0.14**	0.16**	0.14**
	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.05)	(0.06)	(0.07)	(0.06)	(0.07)	(0.06)	(0.07)
Assets squared	-0.01***	-0.01**	-0.01***	-0.01**	-0.01***	-0.01***	-0.01***	-0.01**	-0.01***	-0.01**	-0.01***	-0.01**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)
Moderately religious	0.03	0.04	0.04	0.04	0.04	0.04						
	(0.04)	(0.05)	(0.04)	(0.05)	(0.04)	(0.05)						
Highly religious	0.19***	0.19***	0.21***	0.22***	0.21***	0.21***						
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)						
Fighting corruption as priority	0.05	0.04			0.05	0.05	0.08	0.07			0.08	0.08
	(0.05)	(0.05)			(0.05)	(0.04)	(0.06)	(0.06)			(0.06)	(0.06)
Prosecute old regime			0.06	0.05	0.05	0.05			0.02	-0.02	0.01	-0.03
			(0.04)	(0.04)	(0.04)	(0.04)			(0.06)	(0.06)	(0.06)	(0.06)
Observations	598	598	563	563	561	561	375	375	352	352	351	351
R-squared	0.0606	0.1246	0.0671	0.1425	0.0702	0.1453	0.0435	0.1325	0.0385	0.1310	0.0439	0.1370
Region fixed effects	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Socio-demographic controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters).
*** p<0.01, ** p<0.05, * p<0.1. Socio-demographic controls: see Notes to Table 2. "Fighting corruption as priority" is a dummy variable taking value 1 if the respondent answers that "eliminating corruption" should be the first priority of the governement (in a list of 5 possible alternatives) (mean: 0.30, s.d.: 0.46). "Prosecute old regime" is a dummy variable that takes value 1 if the respondent is in favour of prosecution (mean: 0.76, s.d.: 0.43).

Table D.15: Frustrated aspirations and religiosity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
					Religiosity			
Sample	Whole		Whole		Poor respondents		Whole	
Rich district	-0.04	-0.19***	-0.05	-0.21***	0.07	-0.08	-0.07	-0.19***
	(0.07)	(0.06)	(0.06)	(0.05)	(0.10)	(0.10)	(0.07)	(0.07)
Assets	-0.01	-0.08	0.07	-0.01	-0.08	-0.08	0.00	-0.05
	(0.07)	(0.08)	(0.07)	(0.07)	(0.27)	(0.26)	(0.08)	(0.08)
Assets squared	0.00	0.01	-0.01	-0.00	0.02	0.01	-0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.04)	(0.04)	(0.01)	(0.01)
Primary education	0.02	0.25	0.17	0.03	0.31	0.22	0.01	0.13**
	(0.28)	(0.24)	(0.21)	(0.21)	(0.30)	(0.31)	(0.05)	(0.06)
Secondary education	0.12	0.51	-0.20	-0.24	-1.15	-0.58	-0.29***	-0.04
	(0.43)	(0.41)	(0.33)	(0.40)	(0.92)	(1.01)	(0.09)	(0.10)
Tertiary education	0.38	0.67**	-0.05	0.00	-0.15	-0.17	-0.04	0.12
	(0.25)	(0.26)	(0.33)	(0.31)	(0.38)	(0.33)	(0.09)	(0.09)
Primary education*Assets	-0.03	-0.04						
	(0.05)	(0.04)						
Secondary education*Assets	-0.08	-0.10						
	(0.07)	(0.06)						
Tertiary education*Assets	-0.10**	-0.10**						
	(0.05)	(0.05)						
District-level inequality in assets			0.07**	0.04	0.07**	0.06*		
			(0.03)	(0.03)	(0.03)	(0.03)		
Primary education*District inequality			-0.05	0.01	-0.08	-0.03		
			(0.04)	(0.04)	(0.05)	(0.06)		
Secondary education*District inequality			-0.02	0.04	0.12	0.09		
			(0.05)	(0.06)	(0.12)	(0.13)		
Tertiary education*District inequality			-0.02	0.02	0.02	0.07		
			(0.05)	(0.05)	(0.06)	(0.06)		
Unemployed							-0.18	-0.04
							(0.19)	(0.19)
Primary education*Unemployed							-0.50*	-0.37
							(0.27)	(0.26)
Secondary education*Unemployed							0.35	0.34
							(0.25)	(0.25)
Tertiary education*Unemployed							-0.20	-0.11
							(0.23)	(0.24)
Observations	600	600	600	600	290	290	600	600
R-squared	0.0311	0.2192	0.0355	0.2216	0.0598	0.2270	0.0830	0.2267
Region fixed effects	No	Yes	No	Yes	No	Yes	No	Yes
Demographic controls	No	No	No	No	No	No	No	No

Notes: OLS regression. All regressions include a constant term. Robust standard errors clustered at the district level in parentheses (30 clusters). *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Socio-demographic controls: see Notes to Table 2.