

Redistribution through Taxes and Charity: The Cost of “Compassionate Conservatism” to the Secular Poor.

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Abstract. We analyze how institutions that establish the level of separation of church and state should influence the political economy of redistribution. Our formal model describes how incentives for charitable giving, coupled with church-state institutions, create opportunities for the rich to form coalitions with the religious poor, at the expense of the secular poor. In our analysis, religion can limit redistribution — not because of the particular faith, belief or risk attitudes of religious individuals (as emphasized by others) — but rather because of simple material greed among the rich and the religious poor. We explore how church-state separation will mediate efforts by the rich to form electoral coalitions with the religious poor, as well as the implications for the size of government, charitable giving, and the welfare of various social groups.

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The ‘establishment of religion’ clause of the First Amendment means at least this: Neither a state nor the Federal Government can set up a church. Neither can pass laws which aid one religion, aid all religions, or prefer one religion over another. Neither can force nor influence a person to go to or to remain away from church against his will or force him to profess a belief or disbelief in any religion. No person can be punished for entertaining or professing religious beliefs or disbeliefs, for church attendance or non-attendance. No tax in any amount, large or small, can be levied to support any religious activities or institutions, whatever they may be called, or whatever from they may adopt to teach or practice religion. Neither a state nor the Federal Government can, openly or secretly, participate in the affairs of any religious organizations or groups and vice versa. In the words of Jefferson, the clause against establishment of religion by law was intended to erect ‘a wall of separation between Church and State.’

–Justice Hugo Black, *Everson v. Board of Education* (330 U.S. 1 (1947)).

1. Introduction

On January 29, 2001, President George W. Bush signed an executive order creating the White House Office of Faith-Based and Community Initiatives. The order created an administrative structure that would permit religious organizations to use federal funding to operate social programs, primarily for the poor. Since that time, the program has expanded, with seven federal agencies now disbursing government revenues to religious organizations.

Charities with clear religious ties, but registered as non-religious entities, have long played a central role in providing many social services (e.g., Monsma 1996 and 2002).¹ The 1996 welfare reform (i.e., “The Personal Responsibility and Work Opportunities Reconciliation Act of 1996”) attempted to codify this practical reality by stating that a non-profit organization’s religious character could not be used to preclude it from competing for grants. President Bush’s faith-based initiative has aggressively expanded the role of faith-based groups in the provision of social programs by allowing explicitly religious organizations, including local churches, to receive federal funds, and by creating an administrative infrastructure for channeling funds to such organizations.

The faith-based initiative has raised considerable debate, with almost all of the controversy swirling around the First Amendment and separation of church and state. The law on state support for religious organizations was hardly settled by Hugo Black’s famous 1947 *Everson* opinion, and

¹Some of the most prominent examples include the Salvation Army, Catholic Charities and Lutheran Social Services.

since it was written, the Court has slowly chipped away at the ‘wall of separation’ envisioned by the opinion. *Widmar v. Vincent* (1981), for instance, ruled that the University of Missouri could not refuse to provide meeting space for religious groups when it provided space to other groups. *Rosenberg v Rector* (1995) held that a state university that paid printing costs for a secular student organization could not refuse to also pay those costs for a religious organization. And *Mitchell v. Helms* (2000) found that providing state aid to parochial schools does not violate separation of church and state. Most recently, in the 2007 *Hein v Freedom from Religion Foundation, Inc.* decision, the Court ruled that taxpayers do not have standing to challenge the executive branch’s discretionary spending under President Bush’s faith-based program.

As the separation of church and state has begun to erode, there have been claims and counter claims about the effect on religious liberty, the rights of tax payers, and the potential for discrimination against individuals who receive and provide social services. But the decline in church-state separation also raises important theoretical questions about how financial separation of church and state should influence the political economy of taxes and redistribution in democratic polities. How should the level of separation of church and state affect the size of government and the generosity of the welfare state? What should be the impact of state-church separation on the welfare of the poor? Should this impact depend on the religiosity of poor individuals? And how might state support for religious organizations influence incentives for charitable giving? This paper develops a formal model in an effort to provide theoretical intuitions about the answers to these questions.

The main point of departure for our theory stems from a concern that faith-based organizations may not be unbiased in their distribution of resources, with a disproportionate share of resources funneled through faith-based group benefiting the religious poor at a cost to the secular poor. Some bias in favor of the religious poor seems inevitable. If a local church distributes resources to the poor, individuals who regularly participate in the activities of the church will be most likely to obtain information about the programs. And even if poor individuals who are not religious are aware of church-based social programs, they may avoid such programs in order to avoid being subjected to religious proselytizing. At the extreme, there are certainly some individuals with sufficiently negative attitudes toward religion that they will simply refuse to accept any aid from a

church or other religious organization.

If distaste for proselytizing creates a disincentive for some individuals to access services, there is good reason to believe that faith-based programs may create bias. Smith et al (2006) undertook intensive case studies to evaluate differences between faith-based and secular programs in three areas — residential addiction, parent education, transitional and housing. In each of these areas, they evaluated privately funded faith-based organizations, publicly funded faith-based organizations, and secular ones. They often found a clear religious component to the services provided by the religious organizations, with some programs requiring participation in religious services or other forms of religious education. At one faith-intensive agency that focused on parenting, the curriculum was “faith-based,” and a Bible study was offered. Although the clients had to be informed that participation in the Bible study was voluntary, all participants in the parenting program attended the Bible study.

Not surprisingly, faith-based social service providers also have personnel with a clear religious commitment. Smith et al find that this is often due to hiring practices. In the area of substance abuse, for example, secular programs typically hired only certified counselors, whereas faith-intensive programs emphasized faith commitments in hiring practices, leaving such organizations with fewer staff with professional training. And Smith et al found that the directors of many faith intensive agencies were ministers. Similarly, DiIulio (2004, 85) claims that sixty percent of faith-based programs have religious criteria in hiring.

Smith et al also found that the religiosity of faith-based organizations affects their programmatic goals. All programs typically have goals about how they want to change the individuals with whom they work, but the secular organizations focus on skills and the religious organizations focus on values.

In general, faith-based organizations with a high degree of faith-integration tend to view personal transformation of the client, informed by the religious teachings of the organization, as crucial to the attainment of program objectives, whereas secular programs are more likely to view the change process as dependent upon the client achieving an appropriate mix of skills. For instance, secular parent education programs view better parenting as hinging upon the acquisition of new child-rearing skills; the faith-based programs by contrast conceive of better parenting as emerging from a transformation

in a person's values (pp. 9-10)

DiIulio argues that from the perspective of many religious conservatives, the religious commitment of the faith-based social service providers is a key contributor to their success. Religious conservatives, DiIulio says (see page 79, and see also Sider and Unruh 2004), believe that “it is the ‘faith’ in faith-based organizations that makes all the difference. ‘Spiritual transformation,’ they argue, is the only true and lasting remedy for such problems as drug and alcohol abuse.”

To the extent that social service providers with a religious commitment deter some secular individuals — or some religious individuals of another faith — from accessing services, the faith-based social organizations will create bias. Although we have found no studies quantifying the extent of this bias, there is clear reason for concern. Wuthnow (2004), for example, found that 94 percent of individuals who contacted local congregations for support reported going to church occasionally, and 65 percent of these individuals report that they attend services at least once a week.

In order to capture this potential bias in the provision of welfare services to the poor by religious organizations, our theoretical proposal allows for the existence of two types of poor agents: the “religious poor” and the “secular poor.” What makes a poor individual “religious” in our analysis is simply access to faith-based social services. The “religious poor” have such access, and the “secular poor” do not. We are agnostic about where this bias comes from, but wish to explore how separation of church and state affects the political economy of redistribution if such bias exists.

A central argument that emerges from our model is that when it is possible for rich individuals to make charitable contributions to a religious organization, then electoral coalitions should emerge between the rich and the religious poor, against the secular poor. The electoral coalition is based on an exchange, where the rich make charitable contributions that go only to the religious poor, and the religious poor support parties that advocate low taxes, benefiting the rich. The losers in this exchange are the secular poor, who receive lower redistribution from the government (because taxes are lower), and who do not receive the redistribution that occurs through the religious organizations. This coalition between the rich and the religious poor is due to the impact of tax rates on charitable giving. As taxes increase, the rich have less after-tax income to donate to the religious organization.

Given that the charitable contributions are shared only among the religious poor, the religious poor have an incentive to keep taxes low.

Importantly, if charitable giving were not allowed, the tax preferences of the religious and secular poor would be identical, and there could be no coalition of the rich and the religious poor against the secular poor. But when charitable giving is permitted, the divergence in the tax preferences of the religious and secular poor is affected by separation of church and state, which influences the tax preferences of the poor and the incentives for charitable giving by the rich. The preferred tax rate of the religious poor must balance the expected gain from higher taxes against the expected loss that higher taxes imply for charitable giving. As separation of church and state increases, the value to the religious poor of tax revenues decreases because fewer tax dollars are shared exclusively by the religious poor. This makes it relatively more desirable for the religious poor to keep taxes low to allow more charitable giving. Similarly, as the bias of religious organizations against the secular poor increases — that is, as a larger proportion of the poor population is excluded from the services provided by the religious organization — the religious poor prefer higher taxes. This is due to the fact that as bias increases, the tax dollars given to the religious organizations increase in value to the religious poor because they share these dollars among fewer individuals.

The model provides insights on the effects of charitable giving and of the institutional arrangement regarding church-state relations on the welfare of the social groups. It is worth highlighting that, in our model, if the religious rich contribute to the funding of church-based welfare programs (that selectively benefit the religious poor) the secular poor are harmed. Charitable contributions do not complement or free up resources for state-managed welfare programs; rather, they erode the support of the religious poor for government interventions in income distribution. For this reason, the secular poor would not support full separation between church and state: entanglement between church and state makes the religious poor more supportive of taxation in general, because a part of the revenues raised by the government is channeled to the churches. We suspect that this might be one of the reasons why continental European countries with powerful Christian democratic parties and a relatively high degree of church-state entanglement have large welfare states; we also suspect that this might be an unintended consequence of the Bush administration's decision to fund

church-based welfare programs.

2. The Model

The game examines the interactions of two political parties (a left party and a right party) and individuals from four groups: the religious and secular rich, and the religious and secular poor. The rich pay taxes and (may) make contributions to a religious organization, the proceeds of which may fund redistribution to the religious poor. The rich wish to limit their total taxes and religious contributions. The poor have no income, other than that which occurs through transfers. They can receive transfers from the government, and (possibly) from the religious organization. We assume that within each group, individual agents have identical preferences and adopt identical strategies.

Interactions occur in three stages. In the first stage, the religious rich pledge a proportion of their after-tax income to the religious organization. This contribution can be zero or positive, and we assume that the pledge is credible and that the actors solve any collective actions problems. Although we recognize that these assumptions are strong, there is ample evidence that religious individuals do make strong contributions to religious organizations (Brooks 2006). In addition, by making these strong assumptions, we examine the scenario that allows charity to play the most significant role possible in welfare state politics. In the second stage, the two parties each announce the tax rate that they will enact if they are elected to office. We also assume that these announcements are credible, so if a party is elected, it enacts the tax rate that it promised. In the third stage, individuals vote. The winning party then implements the tax rate that it promised, the rich make the contribution they pledged to the religious organization, and income is redistributed by both the government and the religious organization.

Let P_k represent party k , and let t_k represent the tax rate promised by k , where $k \in L, R$. We assume that the left party, P_L , chooses t_L to maximize the income of the secular poor voters, and that the right party, P_R , chooses t_R to maximize the income of rich voters.

Rich individuals have a pre-tax income of 1, and $\beta \in (0, 1)$ is the proportion of rich individuals (so that $1 - \beta$ is the proportion of poor individuals). The cost of taxation in our model is θt_k^2 ,

where $\theta > \frac{1}{2}$. Thus, if party k wins the election, total government revenues are $\beta(t_k - \theta t_k^2)$

A parameter of central interest in our analysis is the degree of separation of church and state. As noted above, religious organizations may receive government revenues to redistribute to the poor (as with the Office of Faith-Based and Community Initiatives). The degree to which religious organizations can rely on the government to help fund redistribution programs varies across time and place. To capture the effect of separation of church and state on behavior, the parameter $\alpha \in [0, 1]$ is the proportion of government revenue that is used for general redistribution to all of the poor, with the remaining $1 - \alpha$ of government revenue redistributed by the religious organization. Separation of church and state therefore increases as α increases.

As discussed in the previous section, there are many reasons to believe that distributing social services through religious organizations may result in some bias towards religious individuals. To capture the effect of such bias, we define the “religious poor” as those individuals who have access to redistribution through the religious organization. The “secular poor,” by contrast, are individuals who do not have access to the redistribution that occurs through the religious organization. The proportion of poor who are religious is $\delta \in [0, 1]$.

Poor individuals have a pre-transfer income of 0, and government revenues that do not go to the religious organization are shared equally among all poor. Thus, the amount of government redistribution realized by each poor individual if party k wins is $\frac{\beta}{1-\beta}\alpha(t_k - \theta t_k^2)$. This is the only income realized by secular poor agents.

In addition to the possibility of receiving tax dollars to fund social programs, the religious organization may receive charitable contributions. We assume that the rich are divided into religious and secular groups. The religious rich are agents who are willing to pledge part of their after-tax income to the religious organization. The secular rich are unwilling to make such a pledge. The proportion of rich who are religious is π . Again, we are agnostic about where these predispositions come from. The propensity to give (or not) to a religious organization may be due to faith, spirituality, other values, or may be done for instrumental reasons.

Let g be the proportion of their after-tax income that the religious rich pledge to the religious organization to support the poor. Not all contributions may find their way to the poor, either

because they may be used for purposes unrelated to the poor, or because there are inefficiencies in the process by which the religious organization uses its charitable contributions to operate social programs for the poor. The parameter $\gamma \in [0, 1]$ is the proportion of charitable giving that goes to the poor.

2.1. Expected utilities and optimal tax rates.

Since the secular poor only receive income from the government, the expected utility to the secular poor from any equilibrium tax rate t is $EU_{\text{SP}}(t) = \frac{\beta}{1-\beta}(\alpha(t - \theta t^2))$, which is concave ($\frac{\partial^2 EU_{\text{SP}}}{\partial t^2} = \frac{2\alpha\beta z}{\beta-1}$), and which yields an optimal tax rate of

$$t_{\text{SP}}^* = \frac{1}{2\theta}.$$

Thus, the optimal tax rate for the secular poor is unaffected by any factor other than the cost of taxation.

The religious poor receive three different types of redistribution. First, they receive the same transfers as the secular poor from the government. Second, they receive tax revenues that are redistributed through the churches, which, given that a portion δ of the poor population is religious, is equal to $\frac{\beta}{(1-\beta)\delta}(1-\alpha)(t - \theta t^2)$. Finally, the charitable donations of the religious rich are redistributed to the religious poor. The value of this third component is equal to $\frac{\beta\pi}{(1-\beta)\delta}g\gamma(1-t)$. Thus, given tax rate t and charitable giving g , the expected utility of the religious poor is

$$EU_{\text{RP}}(t, g) = \frac{\beta}{1-\beta}\alpha(t - \theta t^2) + \frac{\beta}{(1-\beta)\delta}(1-\alpha)(t - \theta t^2) + \frac{\beta\pi}{(1-\beta)\delta}g\gamma(1-t). \quad (1)$$

This function is also concave ($\frac{\partial^2 EU_{\text{RP}}}{\partial t^2} = \frac{2\beta\theta(1-\alpha(1-\delta))}{\delta(\beta-1)}$), and it yields an optimal tax rate of

$$t_{\text{RP}}^* = \frac{1}{2\theta} - \frac{g\pi\gamma}{2\theta(1-\alpha(1-\delta))}. \quad (2)$$

Three important points should be underscored about t_{RP}^* . First, the preferred tax rate of the religious poor is the same as the preferred tax rate of the secular poor if g, π , or γ is equal

to 0. Consequently, if for some reason charitable giving were not allowed, there would be no divergence between the tax preferences of the religious and the secular poor, regardless of the degree of separation of church and state. Whenever g, π , and γ are non-zero, there is preference divergence between the religious and secular poor, and this divergence increases with g, π, α and γ . The divergence in tax policy preferences decreases as δ and θ increase. From the perspective of the secular rich, and also possibly from the perspective of the religious rich, the religious poor will typically be more attractive electoral allies than are the secular poor, because their ideal tax rate can be more conservative than (and is never to the left of) the ideal tax rate of the secular poor.

Second, as charitable contributions by the religious rich increase (i.e., g increases), the optimal tax rate of the religious poor declines.² The religious rich make charitable contributions as a share of their after-tax income, and as taxes increase, the religious rich have less money to contribute. Given that redistribution through the religious organization has a higher value to the religious poor than redistribution through the government (because the former is shared with fewer people), the religious poor can receive a larger absolute amount if they keep taxes low, because so doing frees up more money for contributions by the rich to the religious organization. Since the value of the charitable contributions increases with the number of religious rich and with the proportion of its income that the religious organization gives to the poor, the religious poor's preferred tax rate also declines with increases in π and γ .

Third, as the separation of church and state declines (α declines), the optimal tax rate for the religious poor increases.³ Put differently, as state support for religion increases, the religious poor like bigger government. Why does this occur? As noted above, the poor have an incentive to keep taxes low in order to obtain charitable contributions, which are consumed only by the religious poor. But this incentive decreases as more tax dollars are channeled directly to the religious poor through the religious organization. Thus, as long as there are positive charitable contributions, the religious poor prefer higher taxes as separation of church and state erodes. If there are no charitable contributions, then separation of church and state obviously has no impact on tax preferences.

²Note that $\frac{\partial t_{RP}^*}{\partial g} = -\frac{\pi\gamma}{2\theta(1-\alpha(1-\delta))} < 0$.

³Note that $\frac{\partial t_{RP}^*}{\partial \alpha} = \frac{g\pi\gamma(\delta-1)}{2\theta(1+\alpha(\delta-1))^2} < 0$.

The preferences of the secular rich are to keep contributions and taxes as low as possible, with a most preferred tax rate of zero. For the secular rich, $EU_{SR}(t) = 1 - t$. For the religious rich, $EU_{RR}(t, g) = (1 - t)(1 - g)$. Thus, if the rich constitute a majority, they can ensure zero taxes and transfers, because it is in the interest of P_R to pledge zero taxes, which will win against any other proposal.

Similarly, if the secular poor have a majority, they can ensure a tax rate of $\frac{1}{2\theta}$ (because it is in the interest of the left party to pledge this tax rate, and it will win). The religious rich will therefore make no contribution to the religious organization. In what follows, then, we focus on the strategically interesting case where neither the secular poor nor the rich have a majority ($1 - \beta\delta < .5$ and $\beta < .5$). As Lemma 1 demonstrates, when these conditions are met, the religious poor are pivotal and the equilibrium tax rate must equal t_{RP}^* .

Lemma 1. *If neither the secular poor nor the rich constitute a majority, then the equilibrium tax rate must be t_{RP}^* .*

Proof of Lemma 1. If neither the secular poor nor the rich constitute a majority, the religious poor must be pivotal because they have the median preferences on tax policy: $t_{SP}^* \geq t_{RP}^* > t_{RR}^* = t_{SR}^*$. There can be no equilibrium outcome, \bar{t} , where $\bar{t} < t_{RP}^*$ because the pivotal religious poor will support any $t \in (\bar{t}, t_{RP}^*]$ and P_L prefers offering any $t \in (\bar{t}, t_{SP}^*]$ to offering \bar{t} . Similarly, there can be no equilibrium outcome, \bar{t} , where $\bar{t} > t_{RP}^*$ because the pivotal religious poor will accept any $t \in [t_{RP}^*, \bar{t})$ and P_R prefers offering any $t \in [0, \bar{t})$ to offering \bar{t} . Thus, in any equilibrium, the final tax policy must be t_{RP}^* . \square

We can use the fact that any equilibrium tax policy must be t_{RP}^* to determine the optimal charitable contribution by the religious rich.

2.2. Equilibrium charitable contributions and equilibrium tax rates.

Lemma 1 plays a crucial role in solving for any equilibria in the game. The religious rich understand that the dynamics of electoral competition ensure that the tax preferences of the religious poor will shape final policy outcomes. This fact, however, gives considerable influence to the religious rich,

because t_{RP}^* is a function of g , and the religious rich choose g . By contributing to the funding of the church organization, the religious rich are able to move to the right the preferences of the religious poor regarding taxation. The secular poor do not benefit from the contributions to the religious organization, and are harmed because of the reduction in funding that affects the general redistribution program. By selectively transferring income to a sub-group of the poor, the rich are able to keep more of their income for themselves than if they were coerced by the government to contribute to the general redistribution program.

Since for any $g^* > 0$, the induced tax policy will be t_{RP}^* , the religious rich will choose g to maximize

$$EU_{RR}(g) = (1 - t_{\text{RP}}^*)(1 - g).$$

The utility is concave in g because $\frac{\partial^2 EU_{RR}}{\partial g^2} = -\frac{\pi\gamma}{\theta(1-\alpha)(1-\delta)}$, and is maximized if

$$\tilde{g} = \frac{1 + \pi\gamma - 2\theta - \alpha(\delta - 1)(2\theta - 1)}{2\pi\gamma}.$$

To determine whether \tilde{g} is optimal, one must consider two issues. First, t_{RP}^* is decreasing in g , which implies a ceiling on g because the tax rate cannot go below 0. Note that $t_{\text{RP}}^* = 0$ if

$$g \geq \hat{g} = \frac{1 + \alpha(\delta - 1)}{\pi\gamma}.$$

Therefore, \hat{g} is the maximum contribution that the religious rich will ever make. This implies that \tilde{g} is optimal only if $\tilde{g} < \hat{g}$, which is true only if $\alpha < \frac{1-\pi\gamma+2\theta}{(1-\delta)(1+2\theta)}$. Define $\bar{\alpha} = \frac{1-\pi\gamma+2\theta}{(1-\delta)(1+2\theta)}$. If $\alpha \geq \bar{\alpha}$, the religious rich prefer \hat{g} to \tilde{g} . In addition, the utility of the religious rich is increasing in g for all $g \in [0, \hat{g}]$, which ensures that the religious rich prefer adopting \hat{g} to adopting any $g < \hat{g}$.

Second, the religious rich cannot give “negative charity.” The pledge \tilde{g} cannot therefore be optimal unless $\tilde{g} > 0$, which is true only if $\alpha > \frac{1+\pi\gamma-2\theta}{(\delta-1)(2\theta-1)}$. Define $\underline{\alpha} = \frac{1+\pi\gamma-2\theta}{(\delta-1)(2\theta-1)}$. The pledge \tilde{g} cannot be optimal unless $\alpha > \underline{\alpha}$. When this condition is not satisfied, the utility of the rich is decreasing in g for all $g \in [0, \hat{g}]$. Therefore, the optimal strategy of the religious rich is to give zero charitable contributions.

The best response of the religious rich is summarized below:

$$BR_{RR} = \begin{cases} 0 & \text{if } \alpha \leq \underline{\alpha}, \\ \tilde{g} & \text{if } \underline{\alpha} < \alpha < \bar{\alpha}, \\ \hat{g} & \text{if } \alpha \geq \bar{\alpha}. \end{cases}$$

The optimal g as described above can be used to derive the equilibrium tax rate, t^* . Since this tax rate must equal t_{RP}^* by Lemma 1, one can substitute the optimal g into the formula for t_{RP}^* to determine t^* . The equilibrium tax rates for different levels of separation of church and state are summarized in Proposition 1.

Proposition 1. *When neither the secular poor nor the rich constitute a majority, the equilibrium tax rate, t^* , is as follows:*

- If $\alpha \leq \underline{\alpha}$, then $t^* = \frac{1}{2\theta}$.
- If $\underline{\alpha} < \alpha < \bar{\alpha}$, then $t^* = \frac{1}{2\theta} - \frac{1+\pi\gamma-2\theta-\alpha(\delta-1)(2\theta-1)}{4\theta(1+\alpha(\delta-1))}$.
- If $\alpha \geq \bar{\alpha}$, then $t^* = 0$.

In Proposition 1, $\underline{\alpha}$ and $\bar{\alpha}$ define three different equilibrium regions. When there is substantial entanglement of church and state, with $\alpha < \underline{\alpha}$, there can exist a “government only” redistribution regime, where no charitable giving occurs and taxes take their maximum value $\frac{1}{2\theta}$. At the other extreme, when separation of church and state is relatively high ($\alpha > \bar{\alpha}$), there can exist a “charity only” redistribution regime, where taxes are zero and all redistribution occurs through the religious organization. And between these regimes there can exist a “government and charity” redistribution regime. To understand the logic underlying the presence of these regimes — and the conditions under which they can exist — it is necessary to consider the factors affecting the value to the religious rich of making charitable contributions.

Recall that that as charitable contributions increase, taxes decrease (i.e., $\frac{\partial t_{RP}^*}{\partial g} < 0$). The religious rich must therefore consider the value in tax reduction of any marginal increase in contributions. From Equation 2, it is clear that value depends in straightforward ways on the parameters

$\alpha, \gamma, \pi, \theta$ and δ . The value to the religious poor of charitable contributions increases when there are increases in the proportion of religious rich, in the commitment of the religious organization to the poor, or in the separation of church and state. Consequently, the marginal decrease in taxes obtained from a marginal increase in charitable contributions is highest when π, γ and α take low values.⁴ By contrast, when the number of poor individuals increases, the value of charitable contributions declines for the religious poor: this drives down the reduction in taxes that follows a marginal increase in charitable giving.⁵ Finally, inefficiency of taxation drives down the optimal tax rate, regardless of the level of contributions. Thus, as inefficiency increases, the marginal decrease in taxes that can be obtained from a pledge of charitable contributions declines. So contributions are most valuable when taxation is most efficient.⁶

For the “government only” regime to exist, it must be true that the marginal value to the religious rich of charitable contributions is low. This occurs when there is strong entanglement of church and state, which drives down the value of contributions. Existence of this regime requires that $\underline{\alpha} > 0$, which implies that $\theta > \frac{1}{2} + \frac{\pi\gamma}{2}$. That is, church-state entanglement can be sufficiently high for the government-only regime to exist only when the marginal value to the religious rich of contributions has been driven down by high inefficiency of taxation, a low number of religious rich, and/or a low commitment by the religious organization to the poor. If inefficiency is very high relative to the number of religious rich and to the ability of the religious organization to deliver the charitable contributions to the religious poor, formally if $\theta > \frac{\delta + \pi\gamma}{2\delta}$, the “government only” regime is the only equilibrium that can exist.

For the “charity only” regime to exist, the marginal value of charitable contributions to the religious rich must be high: this occurs when separation of church and state is high. Existence of this regime requires $\bar{\alpha} < 1$, which is possible only if $\theta < \frac{\pi\gamma}{2\delta} - \frac{1}{2}$. So church state entanglement can be sufficiently high for the “charity only regime” only when taxation is very inefficient, the number of religious rich is large, the religious organization is highly committed to the poor, and/or the number of religious poor is small. Note it is never possible for “charity only” regimes to be the

⁴That is, $\frac{\partial^2 t_{RP}^*}{\partial g \partial \pi} < 0$, $\frac{\partial^2 t_{RP}^*}{\partial g \partial \gamma} < 0$ and $\frac{\partial^2 t_{RP}^*}{\partial g \partial \alpha} < 0$.

⁵That is, $\frac{\partial^2 t_{RP}^*}{\partial g \partial \delta} > 0$.

⁶That is, $\frac{\partial^2 t_{RP}^*}{\partial g \partial \theta} > 0$.

only equilibria, because $\bar{\alpha} < 0$ is impossible given that $\theta > \frac{1}{2}$.

If we assume that the parameters take values such that all three redistribution regimes can exist, then looking across the regimes, as separation of church increases, charitable contributions increase and taxes decrease. That is, when there is strong entanglement, there are zero contributions and maximum taxes. When separation of church and state takes intermediate values, there are positive contributions and taxes decline vis-a-vis the “government only” regime. And when separation of church and state is high, there are zero taxes: the highest level of contributions obtains at the threshold $\bar{\alpha}$ when the regime switches from “government and charity” to “charity only”. The top panel of figure 1 plots the equilibrium charity pledge and the equilibrium tax rate for a numerical example.

3. Religious institutions, religiosity, and the size of the government welfare state

Given the tax rate is decreasing with church-state separation when we look across these three equilibrium regimes, taxes are (weakly) decreasing in α across the entire range of α if it is true that they are decreasing with α in the “government and charity” regime. Note that

$$\frac{\partial t^*}{\partial \alpha} = \frac{\pi\gamma(\delta - 1)}{4\theta(1 - \alpha(1 - \delta))^2}.$$

This partial derivative is negative: the denominator is positive and $\delta < 1$ ensures the numerator is strictly negative. Therefore, as separation of church and state increases, equilibrium tax rates decrease in the “government and charity” equilibrium region.

To understand the intuition, recall that the equilibrium tax rate is a function of the level of contributions by the religious rich. As α increases, at the margin the religious poor assign more value to charity. Consequently, as α increases, the religious rich get a larger reduction in the equilibrium tax rate for each dollar they give to charity, increasing their incentive to make charitable contributions, and thereby driving down the tax rate.

Our model therefore suggests a direct connection between the institutions that govern church-state relations and the size of the welfare state. As these institutions create greater connections between the state and religious organizations in the provision of social services, the equilibrium size of the welfare state should increase. Our theoretical model therefore suggests that the long-term effect of President Bush’s faith-based initiative should be to drive up the demand for taxes. We suspect that this is not the effect desired by President Bush or conservatives who advocated the faith-based initiative.

The model also speaks to a recent literature which argues that more religious societies prefer smaller welfare states (see especially Scheve and Stasavage 2006 and Dehejia, DeLeire and Luttur 2005).⁷ These papers argue that religion reduces welfare effort state effort because of the beliefs of religious individuals. Specifically, religious individuals are held to be qualitatively different than secular individuals in that they feel insured by their faith —perhaps psychologically— against adverse life events. This psychological insurance substitutes for state insurance, driving down the demand for state-based welfare.

The model presented here provides a different intuition regarding the religiosity of society and the welfare state, one that is not based on the risk attitudes of individuals. The effect of “religiosity” (our π and δ parameters) depends on how the religious rich react — through their charitable contributions — to the incentives of the religious poor to exclude the secular poor from redistribution. Recall that the marginal benefit to the religious rich of making charitable contributions increases as the proportion of rich who are religious increases (because the total contribution to the poor is increasing for any individual level of giving). Consequently, the tax-reducing effect of charitable contributions increases as the number of religious rich increases: formally, $\frac{\partial t_{RP}^*}{\partial \pi} = -\frac{\gamma}{4(1+\alpha(-1+\delta))\theta} < 0$. When focusing on the rich, then, as in the literature cited above (albeit for a different reason), our model suggests the as “religiosity” increases, the size of the welfare state should decrease.

But the story is quite different when we consider the religiosity of the poor. Recall that the marginal benefit to the rich of making charitable contributions is decreasing with the number of religious poor, which drives up the tax rate: $\frac{\partial t_{RP}^*}{\partial \delta} = \frac{\alpha\pi\gamma}{4(1+\alpha(-1+\delta))^2\theta} > 0$. That is, as the number of

⁷See Gill and Lundsgaarde 2004 for the alternative view that large welfare states reduce religiosity.

religious poor increases, they must share charitable contributions more widely, which decreases the value of charitable contributions. As a consequence, the religious rich find it more costly to induce a reduction in the tax rate by making contributions.

The model presented here therefore suggests that the effect of religiosity on welfare state effort could be due not to psychological differences between religious and secular individuals, but rather to the basic material incentives that exist when it is possible to structure social service provision in a way that is biased against the secular poor. Our model leads us to expect that the effect of “religiosity” on the welfare state depends fundamentally on the proportions of rich and poor who are religious, in other words on the intersection between income stratification and religiosity.

4. Church-state separation and charitable giving

What is the effect of separation of church and state on charitable giving? Obviously, if separation of church and state is sufficiently low, so that the equilibrium lies in the “government only” redistribution regime, there is no charity at all. If separation of church and state is in the intermediate range so that the “government and charity” redistribution regime exists, then $\frac{\partial \hat{g}}{\partial \alpha} = \frac{(1-\delta)(2\theta-1)}{2\pi\gamma}$, which is always positive. This happens because the marginal reduction in taxes that the religious rich obtain with a marginal increase in charitable contributions increases as separation of church and state increases. (Recall that $\frac{\partial t_{RP}^*}{\partial g} < 0$ and note that $\frac{\partial^2 t_{RP}^*}{\partial g \partial \alpha} = \frac{\pi\gamma(\delta-1)}{2\theta(1+\alpha(\delta-1))^2}$.)

The top panel of figure 1 provides an example of the relationship between the equilibrium charity pledge and tax rate across the range of separation of church and state. In the mixed regime (that obtains between $\underline{\alpha}$ and $\bar{\alpha}$, the two vertical lines marked as `alpha.low` and `alpha.high`), as separation between church and state decreases, the charity pledge (the solid line) increases and the tax rate (the dashed line) decreases.

But charitable giving is not increasing in church-state separation across the entire range of α . In the “charity only” regime (that obtains if $\alpha > \bar{\alpha}$), the rich pledge \hat{g} , inducing the poor to prefer a tax rate of 0. In this regime, charity is declining in the separation between church and state ($\frac{\partial \hat{g}}{\partial \alpha} = \frac{\delta-1}{\pi\gamma} < 0$). The equilibrium charity pledge, \hat{g} , is just large enough to make the religious poor

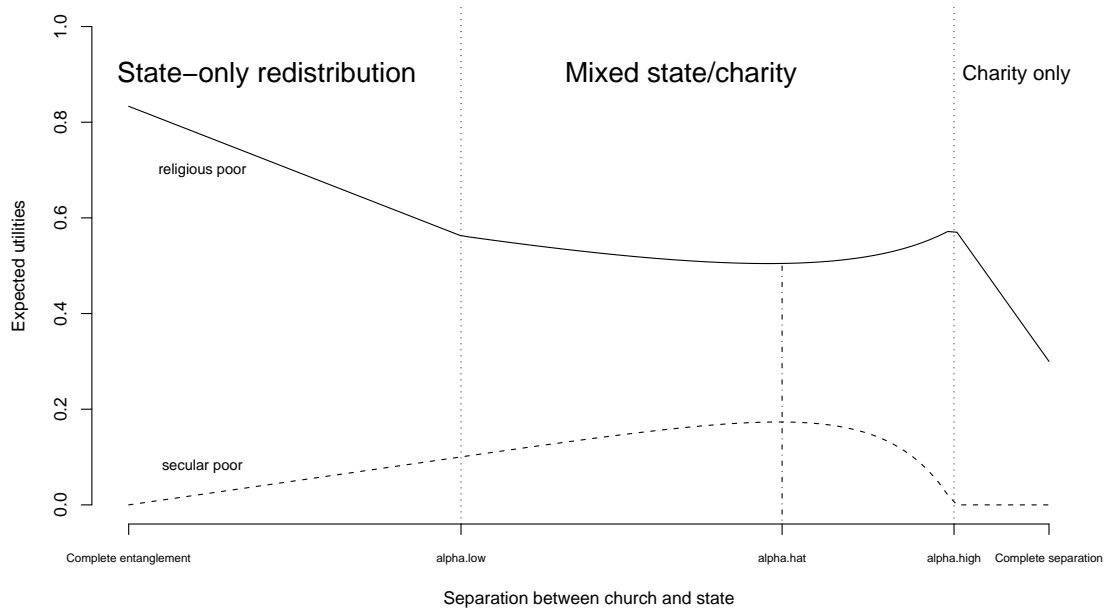
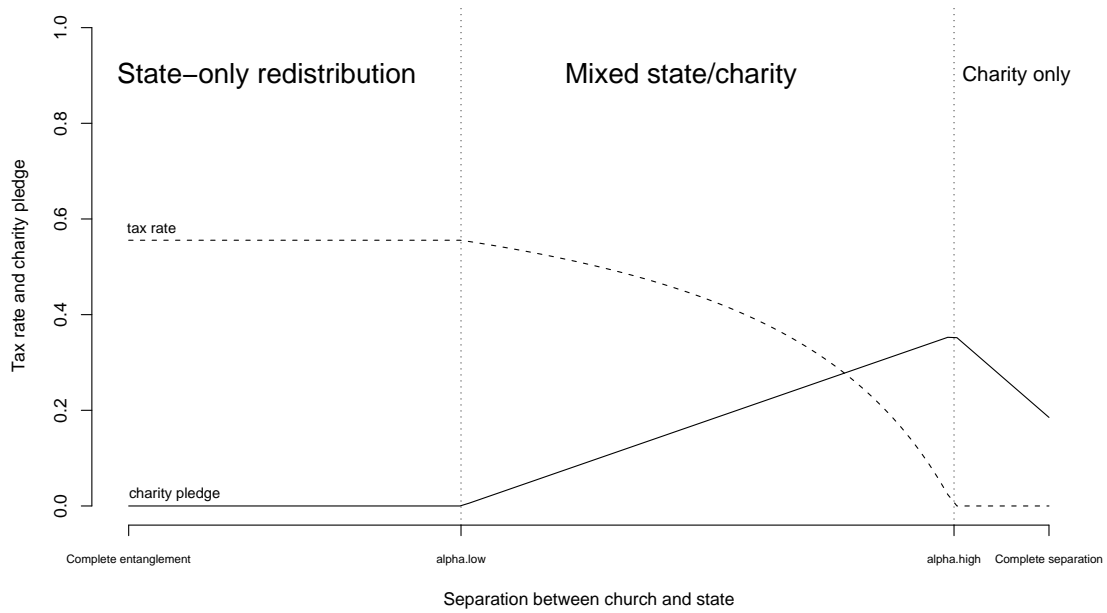


Figure 1: Top panel: Equilibrium charity pledge and tax rate, against the degree of separation of church and state. Bottom panel: Equilibrium utilities of the poor, against the degree of separation of church and state. $\pi = .6, \gamma = .9, \delta = .1, \theta = .9$

prefer a tax rate of 0. The cost of this pledge to the religious rich declines as church and state separation increases because such a separation reduces the opportunity cost for the religious poor to completely forsake government financing of the church organization.

Our model, then, suggests that as long as one is not in a “charity only” regime (which the U.S. obviously is not), President Bush’s faith-based initiative jeopardizes the viability of one of the core tenets of “compassionate conservatism.” That tenet is that the wealthy should and will help the poor through charity rather than taxes. Although we are not aware of studies of how Bush’s recent faith-based initiative has affected charitable contributions, there is evidence that the level of charitable giving is linked to the government’s role in welfare provision. Gruber and Hungerman (2005), for example, found that that the New Deal resulted in a 30 percent decrease in spending by churches on social assistance. Hungerman (2005), studying the 1996 welfare reform, finds that for every dollar per capita reduction in government spending, spending on social programs in Protestant churches increased by 40 cents per church member. And Brooks (2006) argues that welfare efforts by the state undermine not only charitable giving, but also the “compassion” of individual attitudes toward the poor. He contends that one dollar in government spending on nonprofit activities crowds out 50 cents in private giving, with highest crowding out going to assistance to the poor (58). He also contends that increases in cash transfers to the poor by state governments led individuals in those states to contribute less to charity, and that an increase in the government’s “Temporary Assistance to Needy Families” program decreased charitable giving by three percent. Such research suggests that government provision of social services crowds out charity. Our model suggests that if the government provides this charity through religious organizations, it will further crowd out charity by increasing the value of taxes to the religious poor. Our model also suggests an explanation regarding the lower propensity to contribute to the funding of religious organizations in countries with relatively high degrees of church-state entanglement like those of continental Europe. It might be that the lower propensity to give to charity in such political economies than in the United States, documented for instance by Alesina et al. (2001), does not reflect different primitives, but a different equilibrium (due to the institutional set up) in which government funding of church initiatives reduces or eliminates the incentives of the rich to contribute to religious organizations

through charity.

4.1. Church-state separation and the welfare of the social groups

Do the secular poor prefer separation of church and state? We show that the secular poor would always prefer some entanglement of church and state, and that the degree of entanglement that would maximize their utility is high enough so that the “government and charity” redistribution regime obtains.⁸ This regime is the substantively most interesting case. As α increases in this regime, the secular poor get a larger share of the government redistribution (because a smaller share is transferred to the religious organization), but the tax rate declines. Thus, the net effect depends on how fast the tax rate declines in α . We show that in equilibria in this regime, the preferences of the secular poor regarding church-state separation depend on the religiosity of the rich and the poor.

Proposition 2 (Secular poor). *The expected utility of the secular poor is*

- *increasing in church-state separation in the “government only” regime;*
- *concave with a unique global maximum in the “government and charity” regime. This maximum point, $\hat{\alpha}$, increases when the proportion δ of religious poor increases and decreases when the proportion π of religious rich increases.*
- *constant in the “charity only.”*

Proof. In the “government only” equilibria, the secular poor obviously prefer separation because the tax rate is constant in this region, and as α increases, so too does the secular’s poor share of redistribution. In the “charity only” regime the secular poor are obviously indifferent to the level of separation because they receive zero redistribution.

The proof for the “government and charity” regime has four parts. First we show that the secular poor’s utility is concave in $\alpha \in [\underline{\alpha}, \bar{\alpha}]$. Second we show that there is some unique $\hat{\alpha} \in [\underline{\alpha}, \bar{\alpha}]$

⁸The last part of the statement is true unless the other parameters of the political economy are such that the “government only” equilibrium obtains for all $\alpha \in [0, 1]$.

that maximizes the poor's utility. Third we provide the comparative statics on $\hat{\alpha}$ with respect to δ and π . Finally, we show that $\hat{\alpha}$ is a global maximum.

Concavity.

The derivative of the utility of the secular poor is

$$\frac{\partial EU_{\text{SP}}(t^*)}{\partial \alpha} = t^*(1 - \theta t^*) + \alpha \frac{\partial t^*}{\partial \alpha} [1 - 2\theta t^*]$$

The second derivative of the utility of the secular poor w.r.t. α is

$$\frac{\partial^2 EU_{\text{SP}}(t^*)}{\partial \alpha^2} = \frac{(1 - \delta)\pi\gamma(4\theta - 2 - 2\pi\gamma + \alpha(\delta - 1)(\pi\gamma + 4\theta - 2))}{8(1 + \alpha(-1 + \delta))^4\theta} \quad (3)$$

Notice that the denominator in Eq. 3 is positive and $(1 - \delta)\pi\gamma$ is positive. The sign of the second derivative therefore depends on the value of $Q = (4\theta - 2 - 2\pi\gamma + \alpha(\delta - 1)(\pi\gamma + 4\theta - 2))$. This quantity is equal to 0 (and the second derivative is 0) at

$$\tilde{\alpha} = \frac{2(1 + \pi\gamma - 2\theta)}{(\delta - 1)(\pi\gamma + 4\theta - 2)} \quad (4)$$

Since Q is decreasing in α , if $\alpha > \tilde{\alpha}$ the quantity Q is negative and the second derivative is negative, implying that the utility is concave in α . We show that whenever $\alpha > \underline{\alpha}$, it must be true that $\alpha > \tilde{\alpha}$, and thus that the utility is concave.

There are two cases: $\underline{\alpha} > 0$ and $\underline{\alpha} \geq 0$. We analyze the two in turn.

Case 1: $\underline{\alpha} > 0$. If $\underline{\alpha} > 0$ then $\alpha > \tilde{\alpha}$ if $\tilde{\alpha} < \underline{\alpha}$. Since $\tilde{\alpha} - \underline{\alpha} = \frac{\pi\gamma(1 + \pi\gamma - 2\theta)}{(1 - \delta)(2\theta - 1)(4\theta - 2 + \pi\gamma)}$, we need to establish that the right-hand side of this expression is negative. The denominator is positive (given $\theta > \frac{1}{2}$ and $\delta < 1$). The numerator is negative if $1 + \pi\gamma - 2\theta < 0$, which must be true if $\underline{\alpha} > 0$. Thus, if $\underline{\alpha} > 0$, then $\alpha > \tilde{\alpha}$.

Case 2: $\underline{\alpha} \leq 0$. We show that if $\underline{\alpha} < 0$ then it must be true that $\tilde{\alpha} < 0$, and thus that $\alpha > \tilde{\alpha}$. Recall that the denominator of $\tilde{\alpha}$ is negative. Thus, $\tilde{\alpha} < 0$ if the numerator in $\tilde{\alpha}$ is negative. This

numerator must be negative if $\underline{\alpha} < 0$.

There is a unique maximum for some $\alpha \in [\underline{\alpha}, \bar{\alpha}]$.

Since we know that the utility function is concave, we know there is a unique maximum in $\alpha \in [\underline{\alpha}, \bar{\alpha}]$ if $\frac{\partial EU_{SP}(t^*)}{\partial \alpha}$ is increasing at $\underline{\alpha}$ and is decreasing at $\bar{\alpha}$.

This utility is increasing at $\underline{\alpha}$: $\frac{\partial EU_{SP}(t^*)}{\partial \alpha}|_{\underline{\alpha}} = \frac{1}{4z} > 0$.

The utility is decreasing at $\bar{\alpha}$: $\frac{\partial EU_{SP}(t^*)}{\partial \alpha}|_{\bar{\alpha}} = \frac{(\pi\gamma - 2\theta - 1)(1 + 2\theta)}{4\pi\gamma\theta} < 0$.

Therefore, the utility of the secular poor has a unique maximum for some $\alpha \in [\underline{\alpha}, \bar{\alpha}]$. We call this point $\hat{\alpha}$.

$\hat{\alpha}$ is increasing in δ and decreasing in π .

The first order condition $\frac{\partial EU_{SP}}{\partial \alpha} = 0$ requires that $G(\alpha, \delta, \pi) = t^*(1 - \theta t^*) + \alpha \frac{\partial t^*}{\partial \alpha} [1 - 2\theta t^*] = 0$. By the implicit function theorem,

$$\frac{\partial \hat{\alpha}}{\partial \delta} = - \frac{\frac{\partial G}{\partial \delta}}{\frac{\partial G}{\partial \alpha}} \quad (5)$$

and

$$\frac{\partial \hat{\alpha}}{\partial \pi} = - \frac{\frac{\partial G}{\partial \pi}}{\frac{\partial G}{\partial \alpha}} \quad (6)$$

We first prove that $\frac{\partial \hat{\alpha}}{\partial \delta} > 0$, then that $\frac{\partial \hat{\alpha}}{\partial \pi} < 0$. The denominators in Eqs. 5 and 6 are negative (by concavity of the utility of the secular poor), so the sign of $\frac{\partial \hat{\alpha}}{\partial \delta}$ and $\frac{\partial \hat{\alpha}}{\partial \pi}$ will be the sign of the numerators. We first prove that $\frac{\partial \hat{\alpha}}{\partial \delta} > 0$, then that $\frac{\partial \hat{\alpha}}{\partial \pi} < 0$.

Religiosity of the poor: $\frac{\partial \hat{\alpha}}{\partial \delta} > 0$. The sign of the derivative in (5) is the sign of the numerator, which is

$$\frac{\partial G}{\partial \delta} = \frac{\alpha\pi\gamma(2 + 2\pi\gamma - 4\theta - \alpha(\delta - 1)(\pi\gamma + 4\theta - 2))}{8(1 + \alpha(\delta - 1))^4\theta}$$

The denominator is negative, as is the term $\alpha\pi\gamma$. The sign of the derivative in Eq. 5 is therefore the sign of $(2 + 2\pi\gamma - 4\theta - \alpha(\delta - 1)(\pi\gamma + 4\theta - 2))$. We show that this quantity is positive for $\alpha > \underline{\alpha}$.

The condition for the numerator to be positive is that $\alpha > \frac{2(1+\pi\gamma-2\theta)}{(\delta-1)(4\theta-2+\pi\gamma)}$. Define $\xi_1 = \frac{2(1+\pi\gamma-2\theta)}{(\delta-1)(4\theta-2+\pi\gamma)}$. We want to show that $\alpha > \xi_1$. There are two cases: $\underline{\alpha} < 0$ and $\underline{\alpha} \geq 0$.

Assume $\underline{\alpha} < 0$. From the discussion of the thresholds above, $\underline{\alpha} < 0 \Rightarrow \theta < \frac{1+\pi\gamma}{2}$ or equivalently $1 + \pi\gamma - 2\theta > 0$. The numerator in ξ_1 is therefore positive. The denominator of ξ_1 is negative (because $\delta < 1$ and $4\theta \geq 2$) so $\xi_1 < 0$ and $\alpha > \xi_1$ for all $\alpha \in (0, 1)$.

Assume $\underline{\alpha} \geq 0$. Then $1 + \pi\gamma - 2\theta < 0$. We now show that $\underline{\alpha} > \xi_1$. The condition for $\underline{\alpha} > \xi_1$ is that

$$\underline{\alpha} = \frac{1 + \pi\gamma - 2\theta}{(1 - \delta)(1 - 2\theta)} > \frac{2(1 + \pi\gamma - 2\theta)}{(1 - \delta)(2 - 4\theta + \pi\gamma)} = \xi_1$$

Dividing both sides by $1 + \pi\gamma - 2\theta$ and multiplying both sides by $(1 - \delta)$ and $(1 - 2\theta)$ yields the equivalent condition $2 - 4\theta + \pi\gamma > 2(1 - 2\theta)$ which, if true, ensures that $\underline{\alpha} > \xi_1$. Since $\pi > 0$ and $\gamma > 0$, this condition is always satisfied. Thus, $\alpha > \xi_1$ and $\hat{\alpha}$ is increasing in δ .

Religiosity of the rich: $\frac{\partial \hat{\alpha}}{\partial \pi} < 0$. As above, we just need to prove that the sign of $\frac{\partial G}{\partial \pi}$ is negative.

Note that

$$\frac{\partial G}{\partial \pi} = \frac{\gamma(2\theta - 1 - \pi\gamma + \alpha(\delta - 1)(\pi\gamma + 2\theta - 1))}{8(1 + \alpha(\delta - 1))^3\theta}$$

Proving that the derivative is negative is equivalent to proving that $\alpha > \frac{1+\pi\gamma-2\theta}{(\delta-1)(2\theta+\pi\gamma-1)}$. Define $\xi_2 = \frac{1+\pi\gamma-2\theta}{(\delta-1)(2\theta+\pi\gamma-1)}$. We want to show that $\alpha > \xi_2$. There are two cases: $\underline{\alpha} < 0$ and $\underline{\alpha} \geq 0$.

Assume $\underline{\alpha} < 0$. Then, again, it follows that $1 + \pi\gamma - 2\theta > 0$, and the numerator of ξ_2 is positive. The denominator of ξ_2 is clearly negative, and $\alpha > \xi_2$.

Assume $\underline{\alpha} \geq 0$. Then $1 + \pi\gamma - 2\theta < 0$, and $\underline{\alpha} > \xi_2$ if

$$\frac{1 + \pi\gamma - 2\theta}{(1 - \delta)(1 - 2\theta)} > \frac{1 + \pi\gamma - 2\theta}{(1 - \delta)(1 - 2\theta + \pi\gamma)}$$

which is obviously true. Thus, $\alpha > \xi_2$ and $\frac{\partial G}{\partial \pi} < 0$.

Global maximum.

The utility is linear and increasing in α in the range $[0, \underline{\alpha})$ and it is continuous at $\underline{\alpha}$. Moreover, the utility is 0 for $\alpha > \bar{\alpha}$. Therefore the utility has a global maximum at $\hat{\alpha}$. \square

The secular poor, then, benefit from some entanglement of church and state, even though they are excluded from any redistribution that occurs through the religious organization. The reason is simple: such entanglement create a stake in government revenues for the religious poor, and this drives up taxes. As long as the increase in taxes outweighs the loss in government revenues transferred to the religious organization, the secular poor like less separation. The secular poor will typically prefer more separation (i.e., $\hat{\alpha}$ will be relatively large and α likely less than $\hat{\alpha}$) when the marginal increase in α leads to a relatively small decrease in the equilibrium tax rate. So to understand when the secular poor benefits from church-state separation, we must consider other factors that shape how α influences the tax rate.

The religiosity of the rich and poor play a key role in determining the secular poor's preferences regarding church-state separation. The impact of α on the tax rate depends, for example, on the proportion of poor who are religious (δ). When this proportion is small, a small increase in α yields a relatively large decrease in tax revenues.⁹ This makes church-state separation unattractive to the secular poor. Although an increase in α brings a greater proportion of total tax revenues to the general government programs that benefit the secular poor, these gains will be more than offset by the large decrease in tax revenues. In the language of proposition 2, the location of $\hat{\alpha}$ will decline as δ declines. However, when δ is relatively large, the impact of increases in α on tax rates is relatively small. Consequently, church-state separation becomes more attractive: the secular poor benefit from a larger proportion of tax revenues staying in the general government coffers without paying a large cost in lower taxes.

Next consider how the utility of the religious poor is affected by changes in church-state separation.

Proposition 3 (Religious poor). *The expected utility of the religious poor*

- *is decreasing in α in the “government only” regime;*
- *is increasing in α in the “government and charity” regime if $\theta \geq 1$;*

⁹Formally, $\frac{\partial^2 t_{RP}^*}{\partial \alpha \partial \delta} = \frac{1 + \alpha(1 - \delta)\pi\gamma}{4\theta(\alpha + \alpha(\delta - 1))^3} > 0$

- is convex and has a unique minimum in the “government and charity” regime if $\theta < 1$. This minimum point, $\check{\alpha}$, decreases when the proportion π of religious rich increases;
- is decreasing in α in the “charity only” regime.

Proof. In the “government only” regime ($\alpha \in [0, \underline{\alpha}]$), the equilibrium charity is 0, the equilibrium tax rate is $\frac{1}{2\theta}$, and the utility of the religious poor is given simply by $\frac{\beta}{1-\beta} \left(\frac{1+\alpha(\delta-1)}{4\theta\delta} \right)$, which is decreasing in α because $\delta < 1$.

In the “government and charity” regime ($\alpha \in (\underline{\alpha}, \bar{\alpha})$), the religious poor’s expected utility is given by Eq. 1. Ignoring the positive constant, $\frac{\beta}{1-\beta}$ (which cannot affect the sign),

$$\frac{\partial EU_{RP}}{\partial \alpha} = \alpha(1-2\theta t) \frac{\partial t}{\partial \alpha} + (t-\theta t^2) + \frac{(1-\alpha)}{\delta}(1-2\theta t) \frac{\partial t}{\partial \alpha} - \frac{1}{\delta}(t-\theta t^2) + \frac{\pi\gamma}{\delta} \left(\frac{\partial g}{\partial \alpha}(1-t) - g \frac{\partial t}{\partial \alpha} \right),$$

which can be re-written as

$$\frac{\partial EU_{RP}}{\partial \alpha} = \frac{\partial t}{\partial \alpha} \left((1-2\theta t) \frac{1+\alpha(\delta-1)}{\delta} - \frac{\pi\gamma}{\delta} g \right) + (1-\frac{1}{\delta})(t-\theta t^2) + \frac{\pi\gamma}{\delta}(1-t) \frac{\partial g}{\partial \alpha}.$$

The first term, $(1-2\theta t) \frac{1+\alpha(\delta-1)}{\delta} - \frac{\pi\gamma}{\delta} g$, equals zero in equilibrium. because for any g , $t = t_{RP}^* = \frac{1+\alpha+\alpha\delta-g\pi\gamma}{2z(1-\alpha+\alpha\delta)}$. The second term, $(1-\frac{1}{\delta})(t-\theta t^2) + \frac{\pi\gamma}{\delta}(1-t) \frac{\partial g}{\partial \alpha}$ therefore determines the sign of $\frac{\partial EU_{RP}}{\partial \alpha}$.

Case 1: $\theta \geq 1$. Given that $\frac{\partial g}{\partial \alpha} = \frac{(2\theta-1)(1-\delta)}{2\pi\gamma}$, the second term becomes $\frac{(1-\delta)(2\theta-1+2\theta t^2-t(1+2\theta))}{2\delta}$, which is positive if

$$\theta > \frac{1+t^*}{2(1+t^*(t^*-1))}. \quad (7)$$

Rewriting (7) as $t < 2\theta(1+t(t-1)) - 1$, note it follows from $\theta > 1$ that $2\theta(1+t(t-1)) - 1 > 2(1+t(t-1)) - 1$. Since $t \leq \frac{1}{2}$ and $t-1 < 0$ it follows that $2(1+t(t-1)) - 1 \geq 2(1+\frac{1}{2}(t-1)) - 1 = t$. Hence $2\theta(1+t(t-1)) - 1 > 2(1+t(t-1)) - 1 \geq t$.

Case 2: $\theta < 1$. We first show that the utility of the religious poor is always convex in α in the “government and charity” equilibria. The second derivative is

$$\frac{\partial^2 EU_{RP}}{\partial \alpha^2} = (1-\frac{1}{\delta})(1-2\theta t) \frac{\partial t}{\partial \alpha} + \frac{\pi\gamma}{\delta} \left(-\frac{\partial g}{\partial \alpha} \frac{\partial t}{\partial \alpha} + (1-t) \frac{\partial^2 g}{\partial \alpha^2} \right).$$

The first term is positive (given $1 - \frac{1}{\delta} < 0$ and $\frac{\partial t}{\partial \alpha} < 0$). The term $(1 - t)\frac{\partial^2 g}{\partial \alpha^2} = 0$ because the second derivative of \tilde{g} with respect to α is 0. Finally, $-\frac{\partial g}{\partial \alpha} \frac{\partial t}{\partial \alpha}$ is positive. Therefore the second derivative is positive.

Next we show that when $\theta < 1$, $\frac{\partial EU_{RP}}{\partial \alpha}|_{\alpha} < 0$ and $\frac{\partial EU_{RP}}{\partial \alpha}|_{\bar{\alpha}} > 0$, which along with convexity is sufficient to establish that there is a unique minimum in this case.

$$\frac{\partial EU_{RP}}{\partial \alpha}|_{\alpha} = \frac{(1 - \delta)(\theta - 1)}{\delta} \quad (8)$$

which is negative if $\theta < 1$. And

$$\frac{\partial EU_{RP}}{\partial \alpha}|_{\bar{\alpha}} = \frac{(1 - \delta)(2\theta - 1)}{2\delta} \quad (9)$$

which is positive because $\theta \geq \frac{1}{2}$.

$\check{\alpha}$ is decreasing in π .

Define $G(\alpha, \pi) = \frac{\partial EU_{RP}}{\partial \alpha} = 0$. By the implicit function theorem,

$$\frac{\partial \check{\alpha}}{\partial \pi} = -\frac{\frac{\partial G}{\partial \pi}}{\frac{\partial G}{\partial \alpha}}. \quad (10)$$

From convexity of the utility in α in the “government and charity” regime follows that the denominator in (10) is positive. The sign of the implicit derivative is the opposite of the sign of

$$\frac{\partial G}{\partial \pi} = \frac{(1 - \delta)\pi\gamma^2}{8(1 + \alpha(\delta - 1))^2\delta\theta}$$

This quantity is positive (because $\delta < 1$). Hence the derivative $\frac{\partial \check{\alpha}}{\partial \pi} < 0$.

□

In the “government only” regime, the religious poor suffer from separation between church and state: the only source of funding for the religious organization comes from a portion of tax revenues, and such a portion decreases when church-state separation increases. In the “charity only” regime,

too, the religious poor are harmed by separation. The amount they receive as charity from the religious rich is just enough to induce them to set the tax rate equal to 0, and it depends on the opportunity cost for the religious poor of forsaking government funding of the religious organization. When separation is high, their opportunity cost is lower, and therefore it is cheaper for the religious rich to compensate them for the loss of government funding.

In the “government and charity” redistribution regime, the preferences of the religious poor regarding the degree of separation vary depending on the inefficiency of taxation and on the religiosity of the rich. When taxation is inefficient—and the demands for taxation by the poor (both religious and secular) are moderate—the religious poor benefit from separation between church and state: when the religious poor receive less resources from the government, the religious rich have more incentives to induce the religious poor to moderate further their tax demands. When taxation is more efficient—and the demands for taxation by the poor (both religious and secular) are more radical—the religious poor benefit from separation between church and state above a certain level, and up to the point at which the tax rate they prefer is 0 and the “charity only” regime obtains.

The bottom panel of figure 1 plots the expected utilities of the secular and religious poor against the degree of separation of church and state. The preferences of the religious poor and secular poor regarding separation of church and state are at times aligned, at times conflicting, depending on the redistribution regime that prevails. In the “government only” regime, a zero-sum situation obtains: the degree of entanglement or separation determines the allocation of the constant tax revenues to the general redistribution program and to the religious organization. Therefore in this regime the secular poor would always prefer more separation (so that more funds are allocated to the general redistribution program) and the religious poor would always prefer more entanglement (and more government funding of the religious organization).

In the “charity only” regime, the secular poor are indifferent regarding the degree of separation: the tax rate is indeed 0, and there are no revenues to be allocated. The religious poor, on the other hand, suffer from increases in separation between church and state.

In the government and charity regime, the parameters of the political economy (including the

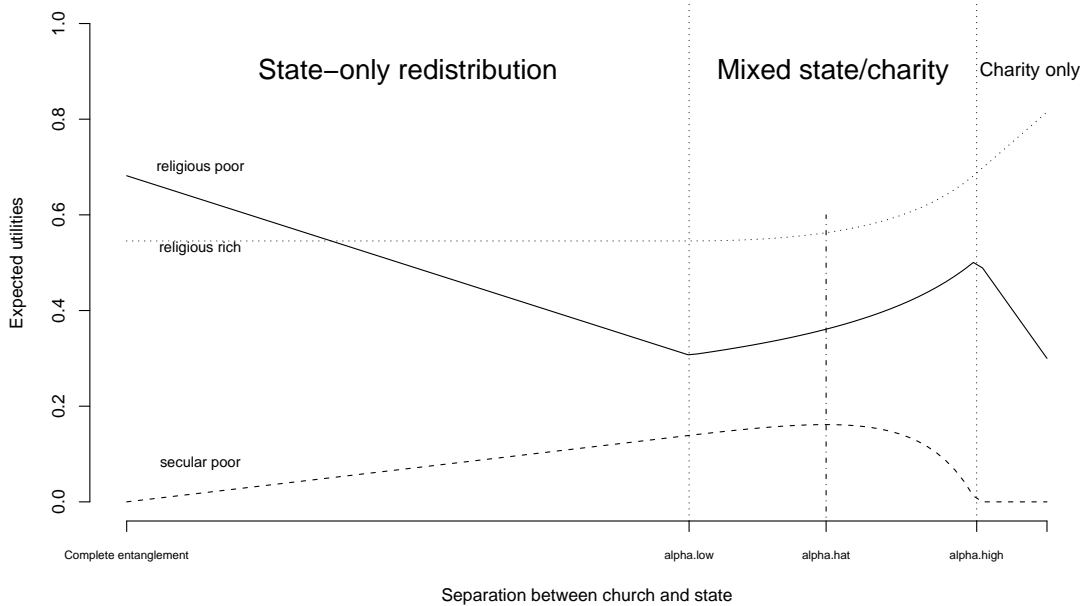


Figure 2: Equilibrium utilities, against the degree of separation of church and state. $\pi = .6, \gamma = .9, \delta = .1, \theta = 1.1$.

institutions of church-state separation) determine whether there is conflict or alignment between the religious poor and the secular poor. If taxes can be levied at a relatively low cost (θ is small), the preferences of the two groups regarding separation are radically conflictual. This is the situation portrayed in the bottom panel of figure 1. The utility of the secular poor, as shown in proposition 2, has a maximum in this interval, at the point $\hat{\alpha}$ (labeled as **alpha.hat** in the figure). The utility of the religious poor has a minimum in this interval. Remember that as the proportion of religious rich increases, the degree of separation that would maximize the utility of the secular poor decreases ($\hat{\alpha}$ moves to the left). It is remarkable that the degree of separation that would minimize the utility of the religious poor also decreases. Therefore when a change in the religiosity of the rich increases the degree of church-state separation most preferred by the secular poor, it also increases the degree of church-state separation that is least preferred by the religious poor.

On the other hand, if taxation is relatively inefficient (and, among other things, the secular poor have relatively moderate preferences regarding the tax rate), in the government and charity

regime, the preferences of the religious poor and the secular poor regarding separation of church and state are aligned, for a range of values of α up to the one that would maximize the utility of the secular poor. This is the situation portrayed in figure 2. Indeed, the utility of the religious poor is increasing in separation of church and state over the range $(\underline{\alpha}, \bar{\alpha})$, and the utility of the secular poor is increasing between $\underline{\alpha}$ and $\hat{\alpha} < \bar{\alpha}$. Remember that $\hat{\alpha}$ increases when the religiosity of the poor increases, and $\hat{\alpha}$ decreases when the religiosity of the rich increases. A marginal increase in the number of religious poor widens the range of values of separation in which the preferences of secular and religious poor are aligned, and a marginal increase in the number of religious rich shrinks the range of values of separation in which the preferences of secular and religious poor are aligned. An increase in the religiosity of the rich, then, reduces (at the margin) the range of α in which the religious and secular poor would agree, if given the chance, to increase church-state separation. An increase in the religiosity of the poor, on the other hand, reduces the range in which religious poor would like to increase, and the secular poor would like to decrease, church-state separation.

Proposition 4 (Religious and secular rich). *The utility of the religious rich is*

- *constant as separation of church and state increases in the “government only” regime;*
- *increasing in church-state separation otherwise.*

The utility of the secular rich is

- *constant as separation of church and state increases in the “government only” regime;*
- *increasing with church-state separation in the “government and charity” regime;*
- *constant as separation of church and state increases in the “charity only” regime.*

Proof. First consider the religious rich. In the “government only” regime there is obviously no impact of church-state separation on utility because charitable giving is 0 and taxes are constant.

In the “government and charity” equilibria ($\alpha \in (\underline{\alpha}, \bar{\alpha})$), $EU_{RR} = (1 - \tilde{g})(1 - t^*)$ and

$$\frac{\partial EU_{RR}}{\partial \alpha} = (t^* - 1) \frac{\partial \tilde{g}}{\partial \alpha} - (1 - \tilde{g}) \frac{\partial t^*}{\partial \alpha}.$$

The derivative is positive if $(1 - t^*) \frac{\partial \tilde{g}}{\partial \alpha} < -(1 - \tilde{g}) \frac{\partial t^*}{\partial \alpha}$ or equivalently

$$\frac{\partial \tilde{g}}{\partial \alpha} \frac{(1 - t^*)}{(1 - \tilde{g})} \left(\frac{-1}{\frac{\partial t^*}{\partial \alpha}} \right) < 1. \quad (11)$$

Note that $\frac{(1 - t^*)}{(1 - \tilde{g})} = \frac{\pi \gamma}{2\theta(1 + \alpha(\delta - 1))}$. Substituting the explicit expressions for $\frac{\partial t^*}{\partial \alpha}$ and $\frac{\partial \tilde{g}}{\partial \alpha}$ in equation 11 and rearranging yields the following condition, which is equivalent to (11): $(2\theta - 1) \frac{(1 + \alpha(\delta - 1))}{\pi \gamma} < 1$. This can be rewritten (multiplying both sides by $\pi \gamma$ and then subtracting it from both sides) as

$$(2\theta - 1)(1 + \alpha(\delta - 1)) - \pi \gamma < 0 \quad (12)$$

We show that Eq. 12 is satisfied in the “government and charity” regime, where $\alpha > \underline{\alpha}$.

Since $(2\theta - 1) > 0$, $(\delta - 1) < 0$, and $\alpha > \underline{\alpha}$ it follows that

$$(2\theta - 1)(1 + \alpha(\delta - 1)) < (2\theta - 1)(1 + \underline{\alpha}(\delta - 1))$$

and therefore that $(2\theta - 1)(1 + \alpha(\delta - 1)) - \pi \gamma < (2\theta - 1)(1 + \underline{\alpha}(\delta - 1)) - \pi \gamma$.

Thus, Eq. 12 is satisfied if $(2\theta - 1)(1 + \underline{\alpha}(\delta - 1)) - \pi \gamma = 0$. To see that this expression is 0, substituting $\underline{\alpha}$ into $(2\theta - 1)(1 + \underline{\alpha}(\delta - 1)) - \pi \gamma = 0$ yields

$$(2\theta - 1)(1 + \underline{\alpha}(\delta - 1)) - \pi \gamma = (2\theta - 1)(1 + (\delta - 1) \frac{1 + \pi \gamma - 2\theta}{(1 - \delta)(1 - 2\theta)}) - \pi \gamma = (2\theta - 1) \frac{\pi \gamma}{2\theta - 1} - \pi \gamma = 0$$

Then $(2\theta - 1)(1 + \alpha(\delta - 1)) - \pi \gamma < (2\theta - 1)(1 + \underline{\alpha}(\delta - 1)) - \pi \gamma$ implies $(2\theta - 1)(1 + \alpha(\delta - 1)) - \pi \gamma < 0$, which in turn implies that the derivative of the expected utility is positive.

In the “charity only” equilibria, that the utility of the religious rich is increasing in α follows trivially from the fact that in this range $t = 0$ and \hat{g} is decreasing in α . The utility of the religious rich is $EU_{RR} = (1 - \hat{g}(\alpha))$ and $\frac{\partial EU_{RR}}{\partial \alpha} = -\frac{\partial \hat{g}}{\partial \alpha} > 0$.

Finally consider the secular rich, whose utility is a function only of the tax rate. In the “government only” and “charity only” regimes, taxes are constant so the utility of the secular rich is unaffected by α . In the “government and charity” regime, the utility of the secular rich is increasing

in α because t^* is decreasing. □

The rich, then, never like church-state entanglement, for the simple reason that it drives up taxes. If the rich could set their optimal institutional arrangement for church and state, it would allow zero support by the state for religious organizations. This would reduce the opportunity cost for the religious poor of forsaking government transfers, because they would only receive the transfers from the general redistribution program (shared with all the poor). The charitable contributions, on the other hand, are shared only among the δ religious poor. This would make as cheap as possible for the religious rich to pledge enough charity to induce the religious poor to prefer a tax rate of 0.

The preferences of the rich and the religious poor regarding church-state separation are aligned, in the “government and charity” regime, if taxation is relatively inefficient ($\theta > 1$). Both groups would like to increase separation: the rich all the way to complete separation, the religious poor all the way to $\bar{\alpha}$. If taxation is not too inefficient ($\theta < 1$) then the preferences of religious rich and poor are aligned only in the sub-region above $\check{\alpha}$, the (local) minimizer of the utility of the religious poor, and below $\bar{\alpha}$: both groups would like to increase separation in this region. Regardless of the efficiency of taxation, the preferences of the rich and the secular poor are aligned if separation is less than $\hat{\alpha}$, the maximizer of the utility of the secular poor: above such a degree of separation, the secular poor are harmed, and the rich are benefitted, by further increases in church-state separation.

5. Conclusion

In this paper, we present a formal model to analyze how institutions that establish the level of separation of church and state should influence the political economy of redistribution. Two parties compete in a democratic election by making binding promises regarding the size of government. Four social groups, identified by income and religiosity, choose the party that controls the government and sets the promised tax rate. Part of the government revenues might be redistributed to the religious poor through the funding of a “religious organization.” The proportion of revenues allocated to such a targeted redistribution is exogenous, and determined by the degree of separation

of church and state. In addition, the religious rich can credibly pledge a portion of their post-tax income to charitable funding of the religious organization. As the rhetoric of “compassionate conservatism” suggests, lower taxes for the rich free up resources that can be redistributed voluntarily from the rich to the poor. The paper focuses on the special case in which neither the secular poor nor the rich constitute a majority. We show that in such a case, both parties converge in promising the tax rate that maximizes the income of the religious poor .

We identify three families of equilibria: “government only” redistribution regimes, “government and charity” regimes, and “charity only” regimes. Which of these regimes exists depends on the degree of separation of church and state.

The analysis yields several insights. First, we find that religion can shape redistribution by simply affecting the material incentives of various social groups. In particular the possibility of excluding one group — the secular poor — from redistribution that occurs through religious channels has clear implications for the size of government, the nature of the welfare state, and incentives for charitable giving. Thus, the effect of religion on the politics of redistribution may be explicable without positing any special beliefs or risk attitudes among religious individuals. Instead, such effects might be due simply to ordinary material greed.

Second, the analysis suggests a different way to think about the relationship between religiosity and the size of government. Some scholars have argued that increases in religiosity should lead to smaller government because the beliefs of religious people lead to preferences for smaller government (e.g., Benabou and Tirole 2006 and Scheve and Stasavage 2006). Our model suggests that the effect of ‘religiosity’ depends on the wealth of the religious individuals. As the number of religious poor increases, the value of charitable contributions decreases, so the religious rich have less incentive to make charitable contributions because such contributions yield smaller decreases in taxes. Thus, as the religiosity of the poor increases, the size of government should also increase. Increases in the religiosity *of the rich*, on the other hand, are predicted to lead to a reduction in the size of government. The religious rich pledge a proportion of their post-tax income to charity, and so the less they are taxed, the more they are going to contribute in absolute terms. This is why the charity pledge creates an incentive for the religious poor to moderate their demands regarding taxation.

More moderation occurs and smaller government ensues when the number of religious rich making pledges increases.

Finally, the model indicates how the institutional arrangements for church-state relations should influence the welfare of the various social groups. In our model, the religious poor prefer complete entanglement. This unrealistic extreme case resembles a sort of “democratic theocracy”, in which all transfers are funded by taxes but provided by religious organizations. It is worth noting, then, that while the religious poor have tax preferences that make them natural allies of the rich, the same is not true of their institutional preferences. The rich always prefer complete separation of church and state. Such separation makes it cheaper for the religious rich to induce the religious poor to moderate their demands for taxation. The ideal institutions for the religious rich would therefore also include rules that make charitable contributions as cheap as possible. The preferences of the secular poor regarding church-state separation are somewhere between the rich and the religious poor . The most preferred situation for the secular poor would be to outlaw charitable contributions, which makes it impossible for the secular poor to be excluded from a coalition between the religious poor and the rich. But if charitable contributions are allowed, the secular poor are better off when there is some entanglement between church and state. In particular, they want a degree of entanglement that creates a preference for high taxes among the religious poor .

This intuition may help explain aspects of welfare policy in Europe. The large welfare states of continental Europe are associated with provisions for the funding of religious organizations from government revenues (Berger 2005, Fox 2006), and religious organizations often play a significant role in the delivery of social services (e.g., Fix 2002). Among other reasons (e.g., solidaristic ideals, as emphasized by Houtepen and ter Meulen 2000), Christian voters in such countries might also support redistribution (and the high tax rates associated with it) because government revenues contribute to the financing of the religious organizations. Our analysis suggests that the religious poor should have been crucial electoral allies for Christian Democratic parties that advocated high taxes and high levels of tax-payer support for churches, and that such support might have played an important role in reducing the incentives for the rich to make charitable contributions to religious

organizations.¹⁰

This intuition also makes it difficult to assess the costs of President Bush's faith based initiative on the welfare of the secular poor. In the language of the model, we need to know whether the status quo level of separation of church and state was to the left or right of $\hat{\alpha}$ when Bush began his new policy. If it was to the left of $\hat{\alpha}$ (which is most likely if the religiosity of the poor is high relative to the religiosity of the rich), the Bush initiative should make the secular poor worse off. But if the status quo was to the right of $\hat{\alpha}$, it should make the poor better off. Of course, one thing that is clear is that neither President Bush nor the Republican Party has understood the inescapable logic of our model, which is that the larger the faith-based initiative, the higher should be taxes. Perhaps their failure to understand such a logic can play a small part in helping to explain the difficult political situation that both Bush and the Republicans currently find themselves.

¹⁰Brooks (2006) summarizes evidence of low charitable giving in Europe compared with the US.

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