# Religious Violence and Coalition Politics in History

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November 15, 2022

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### Abstract

We model how coalition-based politics determines the intensity of religious persecution and violence. A coalition of elites provides political support to the ruler and, in exchange, the ruler shares rents and sets policy on religious persecution. In equilibrium, persecution is more intense the larger the size of the ruler's coalition. For empirical applications, we analyze key historical events in early modern England, 16th century Japan, and the Roman Empire.

JEL: N43; K42; D7; Z13

Keywords: Religious Persecution; Selectorate Theory; State Capacity; Conflict.

# 1  Introduction

Religiously motivated violence remains a serious problem in the modern world. The causes and consequences of religious violence are the subject of an extensive debate and controversy across the social sciences (see, *inter alla* Juergensmeyer, 2000; Cavanaugh, 2009; Clarke, 2014).

We ask: what accounts for observed variation in religion persecution and violence over time? To address this question, we study several historical periods of exceptional levels of violent religious conflict, from early modern England, Tokugawa Japan, and the Roman Empire in the 3rd to 4th centuries.

Drawing on the growing literature that focuses on the role played by religious legitimation (e.g. Rubin, 2017), Johnson and Koyama (2019) provide an analytical framework for thinking about the relationship between religion and the state. They argue that when there is a single dominant religion, a bargain naturally suggests itself, in which that religion provides legitimacy to the ruler. In exchange, that religion may demand that the ruler suppresses its rival religions.

We add to this insight by focusing on another kind of political constraint faced by the ruler. Even if the ruler is legitimate, she still needs to maintain the support of a coalition of elites in order to stay in power. This is a natural perspective for studying premodern Europe states. Indeed, in a recent paper, Kulkarni and Pfaff (2022a) argue that understanding the religious politics of early modern England requires a framework that allows for coalition-based politics.[1]

Drawing on the selectorate theory of de Mesquita et al. (2003), we thus construct a model of religious persecution in which a coalition of elites provides political support to the ruler in exchange for rents and public policy – specifically, the persecution of non-dominant religions. We obtain two key results. One is that non-dominant religions are persecuted more intensely when the ruler is able to impose larger penalties from the practice of such religions.

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[1] Arguing for a "parsimonious political selectorate theory' (de Mesquita et al., 2003)" theory of political change in England during the Glorious Revolution whereby the "consequences of the revolution depended largely on which side of the Jacobite- Williamite conflict a group stood on during the events of 1688–91. Whereas groups that were part of the winning Williamite coalition reaped the rewards of victory, those that were on the losing Jacobite side could count on little protection" (Kulkarni and Pfaff, 2022a, 3).

In this case, persecutions deter people from practicing non-dominant religions to a greater extent, which makes the ruler and her coalition more willing to incur the costs of enforcing the persecution policy. The second result is that the larger the size of the ruler's coalition, the more intensely it persecutes non-dominant religions. Since the ruling coalition shares the total costs of and, therefore, accountability for, persecutions, a larger coalition makes any one coalition member personally less accountable, making that member more willing to accede to persecutions. In equilibrium, persecution policy is provided at a higher level.

The contribution of this paper is to integrate the possibility of religious persecution into a coalition-based framework.

We find some qualitative empirical support for these results. The model can explain why certain events like the 1570 Papal Bull of Excommunication against Elizabeth I and the threat of Spanish invasion triggered large-scale and bloody religious persecutions. Such events gave the monarchs compelling reasons to equate the practice of the Catholic religion with treason, allowing them to legitimately extract heavy penalties. Variations in coalition sizes across polities also appear to coincide with variations in the extent of religious persecution. The persecution of Christians by the Roman Empire was at its height in the reign of Diocletian, during a period when the army doubled in size, new offices were created and the size of the governing elite was expanded. Japan's Tokugawa regime was created by a broad coalition in the 17th century, the regime that also conducted one of the widest and bloodiest religious persecutions in history.

Our paper thus contributes to a large and rapidly growing social scientific literature on religious persecution and on the broader topic of inter-ethnic and inter-religious violence.

Numerous studies have examined the conditions that generate ethnic and/or religious violence. Mitra and Ray (2014), for instance, study Hindu-Muslim violence in India. Yanagizawa-Drott (2014); Blouin and Mukand (2019); Rogall (2021) study the various causes of the Rwandan genocide. Among recent work exploring religious violence in a historical context, Ticku et al. (2018) studies the relationship between economic shocks and temple desecrations in medieval England. It has examined the persecution of Jews in medieval and early modern Europe (Anderson et al., 2017; Jedwab et al., 2019; Finley and Koyama, 2018; Becker and Pascali, 2019; Doten-Snitker, 2021) and Russia (Grosfeld et al., 2020).

Other papers have studied the persecution of witches in Europe generally (Leeson and Russ, 2017); in France (Johnson and Koyama, 2014); and in Scotland (Christian, 2019; Kulkarni and Pfaff, 2022b). Turning to the Reformation era, Johnson and Koyama (2013) consider the persecution of Protestants in 16th century France and the reasons for the Evocation of Nantes (which granted them a form of conditional toleration that lasted until the end of the 17th century).

Several different conceptual frameworks have been proposed for understanding patterns of religious violence and persecution. The traditional historical scholarship tended to be ideational (important older accounts in this tradition include Jordan (1932, 1936); Lecler (1960) whereas more recent accounts include Sutherland (1984); Laursen and Nederman (1998); Zagorin (2003)).

More recently social scientists working in new institutional and public choice traditions have applied rational choice explanations for the decision to persecute religious minorities. Gill (2008), for example, provides a rational choice or political economy explanation for the rise of religious freedom in colonial North America, Mexico, Latin America, Russia and the Baltic States.

Johnson and Koyama (2019) which traces out the relationship between state development and religious persecution. Johnson and Koyama (2019) distinguish between conditional toleration and genuine religious freedom. Many societies have been able to offer minority religious groups conditional toleration but only modern liberal states have been able to aspire to full religious freedom. They argue that the reason for this is that most preindustrial societies relied upon identity rules — rules that depended on the social or religious identity of the individuals. Reliance on identity rules is incompatible with religious freedom.

Johnson and Koyama (2019) argue that it was the particular combination of growing state power and increased religious diversity following the Reformation that accounts for the dramatic rise in the intensity of religious violence in the 16th century.

Becker et al. (2022) provide a related conceptual framework for thinking about ethnic and/or religious persecution. This framework can be summarized as a 2-by-2 quadrant which persecution intensity on the horizontal axis and the degree to which exit is available on the vertical axis. They argue that genocide is mostly when exit is not availability and

there is high intensity persecution. Where there is lower intensity persecution but exit is not available, they argue internal segregation is more likely to result. They place the 17th century persecutions of French Protestants in the upper-left quadrant: high intensity persecution with the option to exit.

Recent scholarship has also tackled the condition under which peaceful coexistence is possible among members of different religions. For example, Jha (2013) argues that cities which had a history of inter-religious trade experienced less Hindu-Muslim violence following Indian independence. Economic interlinkages have also been shown to matter for whether Jews faced persecution (Becker and Pascali, 2019). Minority religious groups often had specialized skills and could be important contributors to local economies (see Hornung, 2014; Johnson and Koyama, 2016). But this did not always prevent their persecution.

Fewer papers have explored religious persecution in 16th and 17th century England. Kulkarni and Pfaff (2022a) ask why the Glorious Revolution did not result in religious freedom. They critique the prominent interpretation of the Glorious Revolution advanced by North and Weingast (1989), in favor of an explanation based on selectorate theory. Looking at the case of Presbyterian Scotland, they show that following the Glorious Revolution ecclesiastical legislation continued to favor a narrow group of established elites and did not lay the foundations for religious liberty.

The structure of the remainder of the paper is as follows. Section 2 provides a formal model couched in the selectorate framework to show how the size of the coalition affects the decision of the ruler to persecute a minority group. Section 3 presents the main comparative static results. In Section 4, we demonstrate how the insights of the model can contribute to our understanding of some large-scale religious persecutions in history. Section 5 concludes.

## 2 A Model of Selectorate Theory and Religious Persecution

We are interested in modeling the optimal choice of a ruler of how much to persecute non-dominant religions, when that ruler is constrained to satisfy a core group of supporters in order to remain in power. We abstract from reasons *why* non-dominant religions are persecuted, but only aim to understand how the ruler decides the intensity of persecution,

given that persecution is to be undertaken.

The focus is on how the political constraints facing the ruler affect this policy of religious persecution. For our historical application, the constraints do not come from some broad base of electors but, rather, from a small coalition of elites. We thus use the selectorate framework of de Mesquita et al. (2003) in which the ruler has to maintain the support of a coalition of 'selectors', by giving them rents and providing public goods or policy that is optimal to them.

## 2.1  Coalition-based politics

A realm has a set of elites $\{E\}$ from which its ruler draws political support. In particular, the ruler needs a coalition $W \subseteq \{E\}$ of elites of size $W$ to stay in power. Each member of this coalition is pivotal — if any one of them withdrew support from the ruler, the ruler is deposed with some probability which, without loss of generality, we set equal to one.

To keep her coalition loyal, the ruler gives each member some rents out of the ruler's discretionary revenues – the total revenues that the ruler extracts from the realm minus the costs of providing public goods or policy. Because the latter decreases discretionary revenues and, therefore, potential rents that the coalition members obtain, these members also care about the kinds of public goods and policies that the ruler provides. We focus on policy regarding religious toleration or persecution.

An elite $i = \{E\}$ derives utility from engaging in ordinary activities $x_i$ and religious practices $r_i$. In particular, let her utility be some concave function $u_i = f(x_i, r_i)$, with $u'(x_i), u'(r_i) > 0$ and $u''(x_i), u''(r_i) < 0$. The cost of engaging in $r_i$ is denoted by $c$, while $x_i$ is the numeraire.

Now assume that there are two kinds of religion $j = \{1, 2\}$, with 1 indexing the religion of the ruler – the dominant religion, and 2 the non-dominant one. Practicing the non-dominant religion is regulated by a maximum level $\bar{r}_2 \in [\bar{r}_{2\min}, \bar{r}_{2\max}]$, such that if one is caught practicing it beyond $\bar{r}_2$, the ruler extracts marginal penalty $v$. (The dominant religion is unregulated.) In our applications changes in $v$ reflect exogenous conditions such as periods of political crisis or uncertainty.

The higher $\bar{r}_2$ is, the more lenient the policy towards religion 2, and the lower it is,

the more strict the policy. Thus, $\bar{r}_2$ captures the intensity with which the ruler persecutes the non-dominant religion – the lower it is, the more intense the persecution. Let the probability of getting caught practicing the non-dominant religion be $\theta(\bar{r}_2)$, with $\theta'(\bar{r}_2) < 0$ and $\theta''(\bar{r}) < 0$. That is, the more intense the persecution, the greater the probability of getting caught. We focus on cases in which there is always a non-trivial probability of getting caught, specifically, such that $\theta(\bar{r}_2) > \frac{\theta'(\bar{r}_2)^2}{|\theta''(\bar{r}_2)|}$ for all $\bar{r}_2 \in [\bar{r}_{2\min}, \bar{r}_{2\max}]$.

The elite allocates her disposable income towards $x_i$ and $r_i$. This disposable income is composed of some productive income $y_i$ net of taxes, with the tax rate set at $\tau$, and the rents $t_i$ given by the ruler if the elite belongs to her coalition. Her budget constraint is thus

$$(1 - \tau)y_i + \mathbb{1}_W t_i = x_i + cr_i + \mathbb{1}_2\mathbb{1}_v v\theta(r_i - \bar{r}_2),$$

where $\mathbb{1}_W$ indicates membership in the ruling coalition, $\mathbb{1}_2$ indicates that $i$ practices the non-dominant religion, and $\mathbb{1}_v$ is equal to one if $r_i > \bar{r}_2$ and zero otherwise.

The ruler chooses the amount of transfer $t_i$ given to each member of her coalition, as well as $\bar{r}_2$. She has at her disposal tax revenues $\tau \sum_i y_i$ and additional rents $R$, and incurs cost $\kappa(\bar{r}_2)$ of enforcing $\bar{r}_2$ that is increasing in the intensity of religious persecution, i.e. $\kappa'(\bar{r}_2) < 0$ and $\kappa''(\bar{r}_2) < 0$. The ruler's budget constraint is thus

$$\tau \sum_i y_i + R = \kappa(\bar{r}_2) + W t_i.$$

Consider, thus, an infinitely-repeated game in which the following events occur at each time $t = 1, 2, ...\infty$:

1. The incumbent ruler $I$ forms a coalition of size $W$ from the set of elites $\{E\}$ with whom she has the highest affinity.[2] A political challenger $C$ nominates her own coalition from $E$, also of size $W$, and which includes at least one member of $I$'s coalition. $I$ proposes to give to each member of her coalition rents or transfer $t_i^I$, while $C$ offers rents $t_i^C$ to each member of her own coalition. $I$ and $C$ also propose their respective policy on religious toleration or persecution, by setting the maximum allowable religious practice of the non-dominant religion at, respectively, $\bar{r}_2^I$ and $\bar{r}_2^C$.

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[2]It does not matter what the basis of affinity is. The ruler can have the highest affinity for elites who share her own religion, ancestry, or ethnicity, or it could be totally idiosyncratic. None of the results depend on the specific basis of affinity.

2. Each member $i \in \{E\}$ of the set of elites chooses to support either $I$ and $C$. $I$ is deposed if at least one member of her coalition defects, i.e. chooses $C$.

3. Incomes are taxed and transfers given by the chosen leader; each $i$ allocates her disposable income toward ordinary activities $x_i$ and religious practices $r_i$; and religious policy of the chosen leader is enforced. That is, anyone practicing the non-dominant religion beyond the allowable limit is punished when caught, with $\theta$ the probability of getting caught.

## 2.2 Equilibrium

We construct a stationary equilibrium in which the incumbent ruler remains in power. We proceed by backwards induction.

Given policy $\bar{r}_2$ and transfers $t_i$, a member of the elite allocates her disposable income towards $x_i$ and $r_i$ in an optimal manner. That is, $i$ solves

$$\max_{x_i, r_i} u_i = f(x_i, r_i)$$

$$s.t. \ (1-\tau)y_i + \mathbb{1}_W t_i = x_i + cr_i + \mathbb{1}_2 \mathbb{1}_v(r_i - \bar{r}_2).$$

In equilibrium, $i$ chooses to practice her religion at level $r_i^*$ and engage in ordinary activities at level $x_i^* = (1-\tau)y_i + \mathbb{1}_W t_i - cr_i^* - \mathbb{1}_2 \mathbb{1}_v(r_i^* - \bar{r}_2)$ at each $t$. Thus, her per period utility is

$$u_i^* = f\Big((1-\tau)y_i + \mathbb{1}_W t_i - cr_i^* - \mathbb{1}_2 \mathbb{1}_v(r_i^* - \bar{r}_2), r_i^*\Big).$$

Now the best that any challenger can offer to any elite is to use all of the ruler's revenues to meet $u_i^*$ once $C$ becomes the ruler. One can re-write the ruler's budget constraint as $t_i = \frac{\tau \sum y_i + R - \kappa(\bar{r}_2)}{W}$ and plug it into $u_i^*$ to get $U_i = f\Big((1-\tau)y_i + \mathbb{1}_W(\frac{\tau \sum y_i + R - \kappa(\bar{r}_2)}{W}) - cr_i^* - \mathbb{1}_2 \mathbb{1}_v(r_i - \bar{r}_2), r_i^*\Big)$. $C$ then chooses $\bar{r}_2$ that maximizes $U_i$. That is, $C$ solves

$$\max_{\bar{r}_2} U_i = f\Big((1-\tau)y_i + \mathbb{1}_W(\frac{\tau \sum y_i + R - \kappa(\bar{r}_2)}{W}) - cr_i^* - \mathbb{1}_2 \mathbb{1}_v(r_i - \bar{r}_2), r_i^*\Big),$$

whose first-order condition (FOC) for optimal $\bar{r}_2$ is

$$\mathbb{1}_2 \mathbb{1}_v v \theta \theta'(\bar{r}_2) = \mathbb{1}_W(\frac{\kappa'(\bar{r}_2)}{W}). \tag{1}$$

Denoting as $\bar{r}_i^C$ the optimal level of $\bar{r}_2$, the amount of transfers that $C$ proposes to give to each member of her nominated coalition is thus $t_i^C = \frac{\tau \sum y_i + R - \kappa(\bar{r}_2^C)}{W}$. The proposal of $\bar{r}_i^C$ and $t_i^C$ is thus tantamount to offering per-period utility $U(t_i^C, \bar{r}_2^C)$ to each member of this coalition. This offer, however, is not credible. This is because any member of $C$'s nominated coalition can be dropped by $C$ once she becomes the incumbent, and replaced by someone with whom $C$ has greater affinity.

Thus, the present value $V^C$ of the infinite stream of payoffs from choosing $C$ as leader does not consist of earning $U(t_i^C, \bar{r}_2^C)$ per period. Rather, $V^C$ is given by

$$V^C = U(t_i^C, \bar{r}_2^C) + \delta[\omega V^I + (1 - \omega)V^O], \tag{2}$$

where $V^I$ is the value of being inside the ruler's coalition, $V^O$ the value of being outside of it, $\delta$ is the discount rate, and $\omega$ the probability that the elite in $C$'s nominated coalition remains in it once $C$ becomes the incumbent ruler. Now, an elite gets transfers only while she is in the incumbent ruler's coalition, but the policy is implemented whether or not she is in it. Thus, $V^I = \frac{U(t_i^I, \bar{r}_2^I)}{1-\delta}$ and $V^O = \frac{U(0, \bar{r}_2^I)}{1-\delta}$.

Now in an equilibrium in which the incumbent ruler is never deposed by a challenger but stays in power, it must be that the value of the incumbent's offer at least matches that of any challenger. Since $V^C$ is the value of the best offer that any challenger can make, it must be that $V^I = V^C$, which implies $V^I = U(t_i^C, \bar{r}_2^C) + \delta[\omega V^I + (1 - \omega)V^O]$ or, simplifying:

$$V^I = \frac{1}{1 - \delta\omega}[U(t_i^C, \bar{r}_2^C) + \delta(1 - \omega)V^O]. \tag{3}$$

What, then, would be the values of $t_i^I$ and $\bar{r}_2^I$ that can satisfy equation (3)? Since no elite can be credibly excluded from policy $\bar{r}_2$, there is no gain to the incumbent from choosing to provide a different policy than $C$'s. Thus, in equilibrium, $\bar{r}_2^I = \bar{r}_2^C$ which, with some abuse of notation, we denote as $\bar{r}_2$. Thus, we can re-write $V^I = \frac{U(t_i^I, \bar{r}_2)}{1-\delta}$ and $V^O = \frac{U(0, \bar{r}_2)}{1-\delta}$. Substituting these into equation (3) gives $\frac{U(t_i^I, \bar{r}_2)}{1-\delta} = \frac{1}{1-\delta\omega}\left[U(t_i^C, \bar{r}_2) + \delta(1 - \omega)\frac{U(0, \bar{r}_2)}{1-\delta}\right]$ or, rearranging:

$$U(t_i^I, \bar{r}_2) = \frac{1 - \delta}{1 - \delta\omega}\left[U(t_i^C, \bar{r}_2) + \delta(1 - \omega)U(0, \bar{r}_2)\right]. \tag{4}$$

The following result is then obtained from the foregoing discussion.

**Theorem 1** *To stay in power, the incumbent leader:*

1. *gives to each of her coalition member rents that are less than any challenger leader can offer, i.e. $t_i^I < t_i^C$, and*

2. *chooses the intensity of religious persecution at $\bar{r}_2^I = \bar{r}_2 : \mathbb{1}_2\mathbb{1}_v v\theta\theta'(\bar{r}_2) = \mathbb{1}_W(\frac{\kappa'(\bar{r}_2)}{W})$, where the expected marginal penalty for violating religious policy that the ruler can extract is equal to the marginal cost, to a single coalition member, of enforcing the policy.*

Result 1 of Theorem 1 is a standard result in selectorate models. Because any challenger cannot credibly promise that she will keep her nominated elites in her coalition once she is in power, the rent offer of the challenger is not credible. Thus, members of the incumbent ruler's coalition discount the challenger's offer and do not readily defect to the challenger. The incumbent then takes advantage of this 'loyalty norm' and is able to provide less rents to her coalition than the challenger would offer.

Result 2 is specific to our policy of interest, that of religious persecution, but it has a generalizable insight that is not articulated in other selectorate models. The specific result is that the ruler persecutes the non-dominant religion up to the point at which the expected marginal penalty it can extract is equal to the marginal enforcement cost of a coalition member. What is generalizable, however, is that the relevant marginal enforcement cost (of any policy) is not that of the entire coalition, but of a single coalition member. This is due to the nature of coalition-based politics. Since each member is pivotal, the ruler has to ensure that the marginal enforcement cost to that member is acceptable to that member. Otherwise, if any one of them is dissatisfied, then the ruler cannot stay in power.

## 3   RESULTS

We can use Theorem 1 (result 2) to further characterize the intensity of religious persecution in equilibrium. In particular, we conduct comparative statics to show the effect of $v$ and $W$ – the exogenous variables in equation (1), on $\bar{r}_2^I$.

**Theorem 2** *The higher the marginal penalty that the ruler can extract from practicing the non-dominant religion, the more intensely it is persecuted by the ruler. That is, $\frac{\partial \bar{r}_2^I}{\partial v} < 0$.*

**Proof** Re-write equation 1 as $F \equiv \mathbb{1}_2 \mathbb{1}_v v\theta\theta'(\bar{r}_2^I) - \mathbb{1}_W\left(\frac{\kappa'(\bar{r}_2^I)}{W}\right) = 0$. Then $\frac{\partial \bar{r}_2^I}{\partial v} = -\frac{\partial F}{\partial v}/\frac{\partial F}{\partial \bar{r}_2^I}$ and $\frac{\partial \bar{r}_2^I}{\partial W} = -\frac{\partial F}{\partial W}/\frac{\partial F}{\partial \bar{r}_2^I}$, with $\frac{\partial F}{\partial \bar{r}_2^I} \neq 0$. One can thus obtain the following:

$$\frac{\partial F}{\partial \bar{r}_2^I} = \mathbb{1}_2 \mathbb{1}_v v(\theta\theta''(\bar{r}_2^I) + \theta'(\bar{r}_2^I)^2) - \mathbb{1}_W\left(\frac{\kappa''(\bar{r}_2^I)}{W}\right),$$

which is less than zero for $\bar{r}_2^I \in [\bar{r}_{2,\min}, \bar{r}_{2,\max}]$; and

$$-\frac{\partial F}{\partial v} = -\mathbb{1}_2\mathbb{1}_v\theta\theta'(\bar{r}_2^I),$$

which is greater than zero since $\theta'(\bar{r}_2^I) < 0$. Thus, $\frac{\partial \bar{r}_2^I}{\partial v} = -\frac{\partial F}{\partial v}/\frac{\partial F}{\partial \bar{r}_2^I} < 0$.

The result states that the effort exerted in persecuting the non-dominant religion and the level of penalties that can be imposed are *strategic complements* in the sense of Bulow et al. (1985).

The intuition behind this result is simple. When the ruler can extract large penalties, enforcement becomes more effective in deterring the practice of the non-dominant religion, which makes the ruler and her coalition more willing to incur the costs of enforcement.

**Theorem 3** *The larger the size of the ruler's coalition, the more intensely it persecutes the non-dominant religion. That is, $\frac{\partial \bar{r}_2^I}{\partial W} < 0$.*

**Proof** One can obtain
$$-\frac{\partial F}{\partial W} = -\mathbb{1}_W\left(\frac{\kappa'(\bar{r}_2^I)}{W^2}\right),$$
which is greater than zero since $\kappa'(\bar{r}_2^I) < 0$. From the proof of Theorem 1, $\frac{\partial F}{\partial \bar{r}_2^I} < 0$. Thus, $\frac{\partial \bar{r}_2^I}{\partial W} = -\frac{\partial F}{\partial W}/\frac{\partial F}{\partial \bar{r}_2^I} < 0$.

The intuition is that when total enforcement costs can be spread out to more coalition members, as when $W$ is large, the marginal enforcement cost to any one member is small. This, then, makes any one member willing to persecute with more intensity and the ruler, to satisfy any and all members, makes this happen. It is as though each member becomes less accountable for the persecution when there are many other members with whom 'blame' can be shared, inducing everyone to persecute a lot more than if each one had greater accountability.

10

This result may appear to contradict the standard result in other selectorate models that a larger coalition – a more inclusive polity, induces the ruler to provide more public goods or better public policy. However, this is not the case. In our context, the public policy that elites care about is that of persecuting the non-dominant religion. With a larger coalition, the ruler provides more of it. Larger coalition size is thus a double-edged sword – it generates more intense policy, whether that policy is good or bad.

# 4 Applying the Model

## 4.1 The Persecution of Christians in the Roman Empire

We first consider the persecution of Christians in the Roman Empire from c. 30 CE to 312 CE. It has long been recognized that Rome's treatment of Christians stood out from their general attitude towards other religions. In most instances, the Romans had a pluralistic and synchronistic attitude to the religions of the people they conquered (another exception, were the druids of Britain and Gaul).

The apparent tolerance of the Roman empire, however, did not stem from a liberal commitment to religious freedom. Rather it reflected commonalities across the traditional religions of the Mediterranean. Moreover, these religions did recognize a concept of impiety or offense to the gods. Within the civic community, an act of impiety could have collective consequences. It was for this reason that impious individuals were to be punished, often through exile, though sometimes by death (Scheid, 2016).

Christianity posed a major threat to this traditional Roman religiosity. It was seen as a form of impiety or atheism. Early Christians saw the Roman gods as mere demons. Roman persecutors saw Christianity as heinous and as destructive of the bonds of political and social life.

But for the first two and half centuries of the empire, persecution of Christians was sporadic. There were famous episodes of persecution under Nero in the 60s CE and local persecutions in the reigns of Trajan and Marcus Aurelius. But most of the time Christians appeared to have been more or less left alone. The empire during the 2nd century CE was stable and successful. Roman officials like Pliny the Younger were willing to persecute open Christians as impious subversives but they did not see them as major threats to the political

order itself.

Persecution intensified considerably in the 3rd century CE. The first empire-wide persecution of Christians was under the reign of Decius (r. 249-251 CE). Sacrifices to the Roman gods and particularly to the cult of the emperor were mandated by law. Consistent with our model, this was a period of military and political crisis for the empire. The Christian rejection of the imperial cult was seen as endangering the stability of the empire. Decius himself was the first Roman empire to die in battle against a barbarian people (the Goths). Christianity or impiety became an urgent threat to the empire.

Does the size of the coalition $W$ provide an additional reason for increased persecution? Here is interesting that the persecution of Christians accompanied an important shift in the way that the empire was organized and governed. Traditionally historians have referred to this as the transformation of the principate — the form of government inaugurated by Augustus (r. 31 BCE-14 CE) — into the dominate, which was completed in the reigns of Diocletian (r. 284-306 CE) and Constantine (r. 306-337 CE).

The governing elite of the Roman Empire during the principate was narrow. It comprised perhaps a few hundred leading senators and equites who could expect to serve as governors, provincial administrators and military commanders. This governing elite was greatly expanded to met the threats of the third century. The provinces were split up and assigned to a much larger number of officials; the army perhaps doubled in size; new bureaucratic offices were created (see Kulikowski, 2016, 197-198). These dramatic reforms were accompanied by the final and most far-reaching persecution of Christians which took place under Diocletian in 303 CE.

## 4.2  The Persecution of Christians in Japan

Japanese rulers used syncretic Shinto-Buddhist-Confucian beliefs to legitimate their authority. Unlike in China, Japanese political authority became divided during the middle ages as shoguns took over the business of governing while the emperor in Kyoto increasingly became a figurehead. But it was only during periods of state weakness that religious organizations (such as Buddhist temples) gained any independent authority.

Portuguese missionaries and traders arrived in Japan in the 1540s. Political authority was

highly fractured during this era and Christianity spread rapidly throughout Japan as rival daimyo welcomed Portuguese and Spanish traders and missionaries. They were eager as the foreigners brought handguns which proved crucial in the ongoing warfare of the period. In As the Christianity minority brought benefits to the elite, there was little demand to repress the new religion. Indeed a small number of lords daimyo, particularly in the southern island of Kyushu converted to Christianity (see Boxer, 1951).

This situation changed dramatically with the unification of Japan which had been begun by Oda Nobunaga and was carried on by his retainer and eventual successor Toyotomi Hideyoshi. Hideyoshi carried out the first persecution of Christians in Japan — publicly crucifying 26 of them in 1597.[3]

But the systematic repression and eventual destruction of Christianity in Japan occurred during the regime of the Tokugawa's. Tokugawa Ieyasu also a retainer of Nobunaga and following Hideyoshi's death he seized power for himself, defeating the latter's family and allies decisively at the battle of Sekigahara in 1600.

Crucially, the Tokugawa regime that he created was a broad coalition. In the terminology of our model, $W$ was high. Following his victory at Sekigahara, Ieyasu divided up the land between clans related to his own family, those vassals who had been loyal to him before the battle, and those lords who had opposed him and only became vassals of the Tokugawa after their military defeat. The Shogun controlled approximately 15% of the land making by far the largest daimyo. There were approximately 270 daimyo throughout the Tokugawa period. The majority of these were small but there were18 daimyo with significant land holding.

The Shogun did not tax the other domains nor was there a central treasury (Jansen, 2000). The local daimyo therefore were almost sovereign within their own lands with their own administrators, armies, tax systems, and legal codes (Totman, 1993). The absence of fiscal and military institutions at the national level and the autonomy of local domains suggests that the ruling coalition in Tokugawa Japan was broad; that is $W$ was high. In contrast, Qing dynasty China was a more centralized and autocratic state (see for a comparison Koyama

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[3]In general, Hideyoshi's attitude to Christianity up to this point had been ambivalent. Alessandro Valignano noted that "Hideyoshi had on the whole done more to foster Christianity than to suppress it, since his exclusion edict was more than outweighed by his keeping the Buddhist church in its place and by his support of the Christian daimyo. His motives in this policy of toleration were undoubtedly somewhat mixed, but that Mammon was his lodestar rather than God is clear" (Boxer, 1951, 177).

et al., 2018).

Hideyoshi and Tokugawa Ieyasu initially were willing to tolerate Christian missions as the price of access to the lucrative trade in silk and precious metals between Macao and Japan. Warned by Dutch and English Protestants, the Shogun feared that the missionaries in general and the Jesuit priests, in particular, were a fifth column who aimed to convert Japan to Catholicism in anticipation of a Spanish invasion. Furthermore, the arrival of the Dutch meant that the Spanish and Portuguese were no longer indispensable from the perspective of maintaining trade. Another factor was a series of minor conspiracies involving Christian daimyo.

By the early 17th century, therefore, the conditions which had allowed Christianity to spread in Japan had greatly changed. From the perspective of the majority non-Christian daimyo who formed the Tokugawa coalition $v$ was no longer small or positive, Christianity ceased to provide benefits.

The result was intensive, violent and widespread persecution by a large ruling coalition. It was justified as follows: "the Kirishitan (i.e. Roman Catholic) band have come to Japan not only sending their merchant vessels to exchange commodities but also longing to disseminate an evil law, to overthrow true doctrine, so that they may change the government of the country, and obtain possession of thee land . . . This is the germ of great disaster and must be crushed" (quoted in Boxer, 1951, 318). Everyone had to become a member of one of the main Buddhist sects and the head of the family became responsible for the religious choices of all individuals under his authority.

The Tokugawa conducted one of the most thorough going religious persecutions in history. The country was sealed; Japanese who travelled abroad were executed upon their return. An administrative machinery investigated religious beliefs and induce Christians to abjure. Christians had to apostatize by treading on a picture of Christ. Those who were suspected of not doing this wholeheartedly, or found with Christian symbols, were tortured until they openly apostatized in full. Failure to do so meant death. As in Europe, the executions were carried out in public with great fanfare and cruelty. For example, at Nagasaki in 1622, there was a mass burning of 25 foreign priests and the execution of 30 Japanese Christians, including 12 children. This spectacle was followed by a series of other public executions.

*4.3  Reformation-era England*

We can also shed some light on the persecution of religious minorities during the Reformation-era in England using our model. During the early decades of Tudor rule, there were occasional persecutions of lollards — a remanent of a late medieval heresy — but in general there was no demand for major religious persecutions. Politically Henry VII (r. 1485-1509) and Henry VIII (r. 1509-1547) prior to his divorce were close aligned with the Papacy.

This changed with Henry VIII's decision to break with Rome. Henry VIII's petition to divorce Catharine of Aragon rejected and in response, Henry made himself head of the Church of England. Historians refer to this as the Henrician Reformation. During the 1520s, the ideas of Luther and other reformers had gradually been percolating, particularly at the University of Cambridge. Henry's leading advisor Thomas Cromwell and his new wife, Anne Boleyn favored religious reformers. Scholarly disagreement remains over the extent to which Henry intended the religious changes that his reforms brought about. In some respects, he sought a Catholicism without the Pope and kept many elements of traditional religiosity. But he also sought to create (or return to) a form of "sacred kingship" modeling himself as an Old Testament ruler. Marshall argues that because he saw the main threat to his rule as coming from Papists or continental powers, he was forced into an alliance with the leading evangelics, chief among them Cromwell and Thomas Crammer (Marshall, 2012).

Henry's reformation was accompanied by by widespread repression. Most elites were willing to support the King's reforms. But a non-trivial minority resisted. The repression was violent. There were 329 people executed for treason between 1532 and 1540 including those who refused to ascent to the Royal Supremacy such as Thomas Moore and John Fisher, Archbishop of Canterbury (Marshall, 2012, 54). The dissolution of the Monasteries and other reforms provoked the Pilgrimage of Grace and other uprisings in the North, all of which the Tudor state suppressed violently. Henry continued to persecute evangelical Protestants while he executed traditionalists as traitors. In 1540 Henry VIII burned three Protestants for heresy and executed three traditionalist Catholics for treason on the same day. Throughout the remainder of Henry VIII's reign there was ongoing conflict between traditionalists and reformers that was only resolved decisively in favor of the latter with Henry's death and the ascension of the young Edward VI (r. 1547-1553).

Edward VI's councilors introduced a more radical Protestant reformation. But these polices came to a halt with Edward's premature death at the age of 15. His successor, Mary I (r. 1553-1558) was a staunch Catholic. Her desire to return to Rome made the resumption of heresy trials inevitable. Resurrecting the heresy legislation of her predecessors in an environment in which religious preferences had dramatically changed meant criminalizing a non-trivial part of the population. As Marshall (2012, 111) writes: "it would have been difficult, if not impossible, for sixteenth-century Catholics to condone or ignore some of the offences with which heretics were charged – in particular, behaving irreverently towards the blessed sacrament which they (the Catholics) believed to be the very body of God". In particular, they targeted the evangelical leadership who they saw as guilty of leading the rest of the population into heresy.

Most victims came from the south-east—a third, more than 100, came from the greater London area.[4] In total during the reign of Mary I, 280 people were executed for heresy, four times the number burnt in the reign of Henry VIII, and three times the total figure executed between 1401 and 1529 (Solt, 1990, 60). We count all individuals killed for their religion in Figures ?? and 1.

But the intensity of these persecutions also reflects the broad coalition that supported the Tudor State. One consequence of the Reformation was that Parliament had become more important than before in providing legitimacy to the state (Rubin, 2017; Greif and Rubin, 2020). The Tudor state relied on broad support from local elites and it was those elites, often acting as justices of the peace, who played a critical role in enforcing the new heresy laws. Local bishops played a critical role but the "burden of enforcing the persecution, rounding up the suspects, delivering them to the bishops for interrogation and then arranging for sentences to be carried out fell principally on the local secular authorities: the sheriffs and justices of the peace" (Marshall, 2012, 112). In the language of our model, then $W$ was relatively high.

Our model can also be applied to the repression of Catholics during Elizabeth's reign. Had Mary lived longer or had a Catholic heir, it is entirely feasible that England would have

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[4]See Edw (2011, 253–265). See Hall (2003) for a discussion of Mary's intentions. Approximately 800 individuals fled Mary's persecution—they were predominantly members of the political and religious elite who had played administrative roles in Edward VI's reign (McGrath, 1967).

returned to the traditional religion. However, Mary was childless and already unhealthy and her heir, Elizabeth, was known to be sympathetic to Protestantism. Elizabeth I's (r. 1558-1603) long reign established the Church of England as the national church. Church attendance was legally enforced. Those who did not attend were known to be Catholic recusants and subject to an escalating series of fines that could bankrupt families and lead to the imprisonment of those who could not pay.

It took several decades for this regime to emerge. The Act of Uniformity of 1560 made Church attendance on Sunday compulsory and punishable by a sizable fine. It did not enquire deeply into an individual's actual beliefs and so-called Church Papists—those who confirmed to Anglican worship but considered themselves Catholic—were tolerated (Walsham, 1993). During the 1560s, the majority of the population probably remained sympathetic to the traditional religion. But the vast majority were willing to conform to the state religion. In 1559 only 300 of the clergy were unwilling to swear the oath of supremacy (Marshall, 2012, 159). But the majority were probably unsympathetic to the reforms, as documented at a local level by Duffy (2001) for small villages like Morebath. Nonetheless, over time, Roman Catholicism as it was increasingly referred to became the minority religion, with much of the work of Protestantism being achieved through the turnover of generations.

Elizabeth like her sister Mary was unmarried and without an heir. Contemporaries in the early 1560s had no way of knowing that she would rule for more than four decades. It was therefore easy for them to anticipate another change of regime and religion: "Catholics could hold their noses and bide their time, attending church in accordance with the law, but showing scant respect for what went on there" (Marshall, 2012, 191).

This changed in the late 1560s. Several developments caused $v$ to rise dramatically. First, Mary Stuart, Queen of Scots fled to England and became the focus of religious plots against the Crown. In 1569, northern lords, many of whom were sympathetic to the old religious rose against the crown (with the intention of freeing Mary Stuart). This rebellion was popular in spirit and a serious threat to the regime. More than 600 individuals were executed in response to the Northern Rebellion in "a retaliation more brutal than following any previous 16th-century rebellion" (Marshall, 2016, loc. 11252-11253)). The old feudal nobility was disarmed and weakened.

Second, Pope Pius V excommunicated Elizabeth in 1570 freeing her Catholic subjects from their oaths of allegiance. This dramatically increased the threat level associated with Catholics ($v$) who now became associated with the threat of foreign invasion. In 1571 it became treason to bring papal bulls into the country or to call the Queen a heretic. As the threat of Spanish invasion increased so the sanctions imposed on England's Catholics intensified. Consistent with our model, the impetus for these laws came from below; from parliament rather than from the Queen (see McGrath, 1967, 102-103).[5]

The first priest to be executed as a traitor was Cuthbert Mayne in 1577. In 1585 all priests ordained outside the country became automatically guilty of treason on arrival in England. In total by the end of her reign 138 Catholic priests died as traitors and 60 laymen were executed for harboring them. We count all individuals killed for their religion in Figure 1.[6]

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[5]Parliament tried to effectively outlaw Catholic belief in 1571, 1576, and 1581. But this did not meet with support from Elizabeth who vetoed the measures (Marshall, 2012, 199).

[6]Specifically, we curated from *Wikipedia* and from the *Catholic Encyclopedia* all individuals executed for heresy between 1500 and 1700, all individuals subsequently recognized as martyrs by the Catholic Church. This list includes the approximately 287 individuals executed for heresy under Mary I (but excludes the approximately 30 individuals thought to have died in prison. It includes all priests executed for treason between 1577 and 1700 or individuals executed for harboring priests. But it excludes other individuals guilty of treason who happened to be Catholic such as the conspirators in the Gunpowder Plot.

Figure 1: Individuals Executed for Religious Reasons, Excluding Ireland



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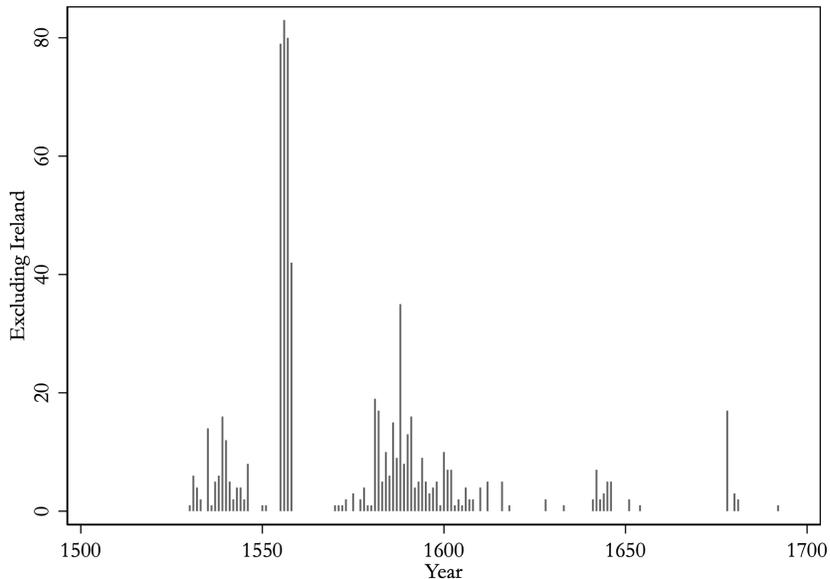
Source: see text.

# 5    CONCLUSION

We have introduced a model of coalition formation to examine the conditions under which a non-dominant religion will be subject to intense persecution.

We explicitly model premodern states as coalitions of elites that provides political support to the ruler and, in exchange, shares in the ruler's rents and the determination of religious policy. This policy choice amounts to setting a limit on the permissible religious activities of the non-dominant religion. We show that in equilibrium, persecution is more intense the higher the penalties that the ruler can impose on the practice of non-dominant religions, and the larger the size of the ruler's coalition.

Our main contribution is to show that a policy like religious persecution can integrated into selectorate theory. The coalition-based framework we propose is a toolkit for examining how premodern states functioned. In this paper we have not explicitly examined the reasons why elites wished to persecute religious minorities.

Prior research has, for instance, emphasized the importance of scapegoating, particularly

19

during periods of economic or political stress (Anderson et al., 2017). Christians were scapegoated for the ills of the Roman empire. Jews were frequent scapegoats in medieval Europe.

Another important reason for religious persecution was the need for legitimation from religious authorities (Johnson and Koyama, 2019). Religious persecution could both shore-up and also potentially undermine this legitimation. In future work we hope to integrate these motivations into our coalition-based analysis.

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