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Deregulation and Demographic Change: A Key to Understanding Whether Religious Plurality Leads to Strife

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Abstract

Using a new cross-country dataset, we test and extend the religious economies perspective on religious conflict in two ways. First, we expand earlier analyses of whether religious pluralities lead to more or less conflict. Second, we assess the apparent demographic anomaly that high population growth is often found not to contribute to higher levels of violent religious persecution and conflict. We introduce a new demographic measure that captures the net effect of the demographic transition rather than just recent population growth dynamics, thus concentrating on differences in long-term population growth patterns. In particular, we use the demographic transition multiplier, which is the ratio of the population size at the end of the demographic transition to the population size at the beginning of the demographic transition. We find that after controlling for multiple factors affecting religious hostilities, countries with larger demographic transition multipliers tend to have a higher level of religious conflict. Our results provide new insights into the interaction between demographic developments and religious freedom and suggest potentially fruitful paths of further research on this topic.

Is the incompatibility of different religions existing side by side in the same society the root of modern conflict, as Huntington's (1993, 1996) clash-of-civilizations theory suggests, or are there other mechanisms that better explain modern manifestations of religion-related violence? Although many social scientists have criticized the clash-of-civilizations theory, its intuitive appeal is difficult to overcome. Societies adhere to cultural values that make them distinct from other cultures, and religion is a key element within a culture. When very different and competing cultures come into contact, rather than giving ground, they may attempt to protect themselves, with conflict as a likely result.

In this study, we address empirically the nature of the determinants of religious violence by building on a growing body of religious economies research, which offers a very different interpretation of some of the mechanisms that lead to conflict. Our work tests and extends the religious economies perspective on religious conflict that was recently put forward by Grim and Finke (2007, 2011), which is one of the more empirically rigorous critiques of Huntington's thesis as it applies to religion. We do this in two ways. First, using entirely new data, we replicate and extend their test of whether religious pluralities lead to more or less conflict. Second, we explain one of the apparent demographic anomalies that was noted in their work. Although high population growth rates would in theory be expected to be a source of instability and violence, Grim and Finke's results suggest that higher rates of population growth have a slight but significant negative relationship to the level of violent religious persecution and conflict. Rather than offering a post hoc explanation, Grim and Finke (2007: 650) simply observed that "the effect of population growth may be different depending on the type of growth involved." Our work attempts to complete the puzzle that they failed to solve and expand our knowledge about the interaction between demographic developments and religious hostilities at a global level.

The fundamental question that has been addressed in the literature hitherto concerns whether religious plurality is the source of conflict or whether conflict is fostered by regulations that aim to ensure religious uniformity. Whereas Huntington's clash-of-civilizations perspective assumes that religious homogeneity leads to peace, the religious economies perspective instead recognizes that religious pluralities are inevitable and highlights the potential dangers of attempting to regulate and control such pluralities. As Berger and Zijderveld (2009) more pragmatically argue, a globalized world makes religious plurality inevitable and therefore makes religious freedom critical.

We contribute to the empirical literature on the sources of religious conflict by assessing this research question using a new dataset that contains cross-national information on social hostilities involving religion and government restrictions on religious freedom. Then we concentrate on evaluating the role played by population pressure as a potential determinant of religious conflict and thus expanding

the existing religious economies perspective to address issues related to long-term population growth and its effect on societal outcomes. Our results robustly indicate that after controlling for other important determinants, the more a country's population increased during the demographic transition, the higher was the likelihood of religious conflict.

In this article, we first give an overview of the extent to which religious hostilities are present in countries of the world. Then we briefly review theoretical explanations that have focused on whether religious pluralism might be at the root of such hostilities. In particular, we develop and extend the fairly new religious economies explanation to account for an important demographic characteristic of countries that previous research has not considered: the timing of a country's transition from high to low fertility. We then empirically test this expanded religious economies theory of religious conflict using data from a broad sample of countries of the world.

HOSTILITIES INVOLVING RELIGION: A GLOBAL OVERVIEW

Recent studies (Grim 2012a, 2012b; Pew Forum 2011) show that as of mid-2009, levels of social hostilities involving religion were high or very high in forty countries, about one in five worldwide.[1] The ten countries that had very high levels of hostilities as of mid-2009 were Afghanistan, Bangladesh, Egypt, India, Indonesia, Iraq, Israel, Nigeria, Pakistan, and Somalia. Levels of social hostilities were in the moderate range in forty-three countries. A much larger number of countries, 115, had low levels of social hostilities. Because many of the countries with high or

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[1] The 2011 Pew Forum report marks the second time this institution has measured restrictions on religion around the globe. Like the baseline report (Pew Forum 2009), the new study scores 198 countries and territories on two indexes. The Social Hostilities Index (SHI) measures acts of religious hostility by private individuals, organizations, and social groups. This includes mob or sectarian violence, harassment over attire for religious reasons, and other religion-related intimidation or abuse. The Government Restrictions Index (GRI) measures government laws, policies, and actions that restrict religious beliefs or practices. This includes efforts by governments to ban particular faiths, prohibit conversions, limit preaching, or give preferential treatment to one or more religious groups. The Pew Forum categorized the levels of government restrictions and social hostilities by percentiles. Scores in the top 5 percent on each index are categorized as "very high." The next highest 15 percent of scores are categorized as "high," and the following 20 percent are categorized as "moderate." The bottom 60 percent of scores are categorized as "low." It is important to note that because the indices measure the accumulated impact and severity of restrictions, distinctions among the scores of the countries in the bottom 60 percent are less significant than are distinctions made at the upper end of the indexes, where differences in the number and severity of restrictions between countries are greater. This is evident in the fact that the range of difference between scores of countries in the entire bottom 60 percent (0.1–2.4 on the GRI and 0–1.8 on the SHI) is about the same as the range of differences between scores in just the top 5 percent (7.2–8.3 on the GRI and 7.2–9 on the SHI).

very high social hostilities (including Bangladesh, India, Indonesia, Nigeria, and Pakistan) are very populous, nearly half of the world's population (48 percent) was living in nations with high or very high social hostilities involving religion as of mid-2009.

Social hostilities involving religion include actions of private individuals, organizations, and social groups. These actions may range from religion-related terrorism to mob or sectarian violence to harassment over attire for religious reasons and other religion-related intimidation or abuse. For instance, the Pew Forum (2011) found that religion-related terrorist groups were active in seventy-four countries around the world in the one-year period ending in mid-2009, up from sixty-three countries in the one-year period ending in mid-2008. The number of countries that experienced mob violence related to religion rose from thirty-eight (19 percent) as of mid-2008 to fifty-two (26 percent) as of mid-2009.

Beyond such extreme forms of violence, in nearly three quarters of all countries, private citizens or groups committed crimes, malicious acts, or violence motivated by religious hatred or bias. Such acts occurred in 142 countries (72 percent) in the period ending in mid-2009, about the same number as in the previous reporting period.

Social hostilities involving religion rose substantially in ten countries but declined in only five countries between mid-2008 and mid-2009. Of the ten countries where social hostilities involving religion rose substantially, five were in Europe. Much of the tension in Europe focused on the region's rapidly growing Muslim population,[2] but in some cases, it also reflected rising anti-Semitism and antagonism toward Christian minorities such as Jehovah's Witnesses.

Social hostilities involving religion are correlated with and occur within the context of government restrictions on religion. For instance, in the Middle East and North Africa, Pew Forum (2011) found that government restrictions on religion substantially increased in the years immediately preceding the regionwide social revolutions that are collectively known as the Arab Spring.

Indeed, during the period covered by the 2011 Pew Forum study, the extent of government violence and abuse related to religion increased in more places than it decreased. The number of countries in which governments used at least some measure of force against religious groups or individuals rose from ninety-one (46 percent) in the period ending in mid-2008 to 101 (51 percent) in the period ending in mid-2009. This violence was wide ranging, including individuals being killed, physically abused, imprisoned, detained, or displaced from their homes as well as damage to or destruction of personal or religious properties.[3]

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[2] For background on Europe's growing Muslim population, see Pew Forum (2011).

[3] Commenting on these findings, Professor Thomas Farr, director of the Religious Freedom Project at Georgetown University's Berkley Center for Religion, Peace and World Affairs and the first director of the U.S. State Department's Office of International Religious Freedom, observes

EXPLAINING HOSTILITIES INVOLVING RELIGION:
A THEORETICAL ROAD MAP

A Clash of Civilizations?

The most influential public argument explaining the rise of contemporary conflicts involving religion was advanced by the late Samuel P. Huntington and is known as the clash-of-civilizations theory (Huntington 1993, 1996). Huntington placed religion at the core of cultural divides and considered religion, particularly clashes between different religions, a source of social conflict. Although Huntington's thesis involves assumptions that many critics find untenable and faces research challenges on multiple fronts (Grim and Finke 2007, 2011; Henderson 2004; Jenkins 2002; Midlarsky 1998; Russett, Oneal, and Cox 2000; Tipson 1997; Weede 1998), the trend that he identified seems obvious and intuitive: Civilizations of the world are organized around the major world religions and are often in conflict. The implication is that the best way to avoid conflict and promote peace is to safeguard the religious heritage of each society and avoid mixing religions together in the same society.

While some studies have not found a clear connection between religious pluralities and conflict (Collier and Hoeffler 2004; Fearon and Laitin 2003), other studies conclude that conflicts are more severe when religion is part of the equation (Fox 2004; Lacina 2006; Toft, 2007; Tusiciscny 2004). Certain studies found an effect when the largest religious group makes up between 45 and 90 percent of the population (Collier and Hoeffler 2004; Ellingsen 2000). In support of Huntington's thesis, Reynal-Querol (2002: 31) claims that religiously divided societies are more prone to intense conflicts than are countries in which conflicting claims are based on interest groups or language division, because "more than ethnicity, religion discriminates and differentiates humans in a sharp and exclusive way, even more than belonging to a country would do." According to Reynal-Querol, this is because religious identity is fixed and particularly hard to negotiate, raising the odds of violence.

Indeed, Huntington's thesis is compelling because the dangers of religious pluralities appear to be intuitively obvious. As social hostilities involving religion increase, religious plurality seems to be a plausible explanation for the conflict. Governments therefore often use this presumed relationship to deny religious freedoms. Their concern is that if religion is not carefully regulated and the position of traditional faiths is not protected, then forms of religion will grow that will threaten citizens and even the state itself.

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that some representatives of particular religious groups "are given to exaggeration. But the combined weight of [these findings] is to make it clear that there is a global crisis. It is a pervasive social pathology" (Omestad 2011: 23).

The Religious Economies Perspective

The religious economies perspective (see, e.g., Grim and Finke 2007, 2011) builds on the observation that lower levels of religious regulation result in a plurality of religions that reflect the diversity of the population.[4] To the extent to which people seek religion—and not all do—preferences will vary. This plurality reflects not only the ethnic, social, and educational diversity of a population, but also variations in religious preferences, such as involvement within more experiential traditions, for example, Sufism within Islam and Pentecostalism within Christianity.

Grim and Finke's analysis of cross-national data on violent religious persecution (covering most countries of the world) leads them to conclude that the attempt to force religious homogeneity within a country is a more central driver of religion-related violence than is religious pluralism. While they acknowledge the potential tension of multiple religions residing in the same country, they draw attention to the often unintended consequence of religious regulation: violent religious persecution. Specifically, they find that social restrictions on religious freedom lead to government restrictions on religious freedom and the two act in tandem to increase the level of violence related to religion, which in turn cycles back and leads to even higher social and government restrictions on religion. This creates what Grim and Finke (2011: 9) call a "violent religious persecution cycle." In other words, they argue that religious multiculturalism does not lead to violence, as Huntington suggests; rather, it is the attempt to prevent religious multiculturalism that does so.

The groundwork for the religious economies thesis draws on the ideas of two prominent scholars from the 18th century: Voltaire and Adam Smith. Voltaire (1980 [1732]) wrote that "[i]f there were only one religion . . . there would be danger of despotism, if there were two, they would cut each other's throats, but there are thirty, and they live in peace and happiness." Adam Smith likewise saw the pacific benefit of religious pluralities: "[The] active zeal of religious teachers can be dangerous and troublesome only where there is, either but one sect tolerated in the society, or where the whole of a large society is divided into two or three great sects" (Smith 1976 [1776]: 314). Furthermore, he noted that the "zeal must be altogether innocent where the society is divided into two or three hundred, or perhaps into as many [as a] thousand small sects, of which no one could be considerable enough to disturb the public tranquility" (Smith 1976 [1776]: 314).

Grim and Finke clearly acknowledge that the regulation of religion is only part of the story and that other factors also contribute to the level of religion-related violence in a country, including population dynamics. In this article, we

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[4] See, for example, Stark and Finke (2000) and Scheitle and Finke (2009).

explore several of these factors and focus attention on longer-term measures of demographic change than those that have hitherto been addressed in the literature. In particular, we concentrate on the role of population increases during the entire demographic transition and not just the population growth experience of recent decades, a measure that ignores long-term demographic dynamics.

A Demographic Extension of the Religious Economies Perspective

Some researchers argue that population growth combined with resource scarcity is an important determinant of armed conflict, while others deem the magnitude of such Malthusian effects small or insignificant in comparison to political, social, and historic factors (Goldstone 2002; Homer-Dixon, Boutwell, and Rathjens 2011; Tir and Diehl 1998; Urdal 2008). Population growth has been suggested as a factor that contributes to destabilization and conflict through, for instance, unemployment and increased competition for jobs, increases in the prices of land and housing, growing stress levels, resource scarcity, and increasingly expensive raw materials (Homer-Dixon 1999; Homer-Dixon, Boutwell, and Rathjens 2011).

Further, demographic dynamics can increase the risk of social conflict through the effect of changes in the age structures. Ryder (1965: 848) argues that "the potential for change is concentrated in the cohorts of young adults who are old enough to participate directly in the movements impelled by change, but not old enough to have become committed to an occupation, a residence, a family of procreation, or a way of life." Part of the instability that is associated with so-called youth bulges is that political views and attitudes tend to vary among youths and to stabilize only later in adulthood (Alwin and Krosnick 1991). There is significant support for the notion that youth bulges can cause violence associated with political turnovers, revolutions, and wars (Gleditsch and Urdal 2002; Goldstone 2002; Urdal 2006). The effects of youth bulges on conflict can depend partly on the social and economic opportunities that the young people have. For example, Moller (1968) argues that the economic recession and high unemployment rate that young cohorts in Germany experienced in the 1930s contributed to the rise of Nazism. Archer (2006) shows that the rise in testosterone levels in males during puberty may lead to competitive and aggressive behavior.

The interaction between demographic developments and religious freedoms is more complex than may seem at first sight. Major world religions tend to encourage growth in the number of followers. In a closed population, that is, without migration, religions can attain greater numbers through either conversion or natural growth (primarily high fertility causing relative population growth). With stronger government restrictions on religious freedom, there will be fewer opportunities to gain numbers through conversion, and relatively high natural population growth

could be the only way to grow or to maintain one's population share, given that other religions will also grow in this way.

Conversion is relatively frequently limited by the governments; for instance, among the forty-two countries with high or very high government restrictions on religion, 79 percent limited or restricted conversion, while governments restricted conversion in only 3 percent of the 154 countries with low or moderate government restrictions on religion. Additionally, Grim (2008: 5) found that "countries with no restrictions on conversion, in particular, tend to have higher levels of fundamental freedoms, better lives for women, and less overall armed conflict."

To attain natural growth by aiming for relatively high fertility could be a viable option. However, this can lead to potential economic and environmental challenges that can follow from population growth (Ahituv 2001; Conley, McCord, and Sachs 2007). With greater religious freedom, conversion could become a more attractive strategy than natural growth for increasing the number of religious adherents. There are several reasons for this. Conversion will simultaneously decrease the population share of other religions and increase one's own population share, leading to faster growth than can be achieved by adding new members through childbirth. Furthermore, conversion typically takes place among youths or working-age young adults, who can contribute financially and do active work for the religious community; hence the religious community does not need to wait for the new member to grow up before becoming economically beneficial, as the case would be with natural growth. Conversion also allows religious communities to grow even in modern, low-fertility societies, where factors that reduce childbearing, such as high female employment levels, high levels of health care, availability of contraception, education opportunities, and urbanization can reduce the possibilities of natural growth (e.g., Jejeebhoy 1995; Skirbekk 2008).

The hypothesis that allowing conversion reduces possible conflict in high population growth situations would predict that a low degree of religious freedom and high population growth would come hand in hand with a higher level of conflict. Past studies that assessed the effect of population growth on conflict and economic development typically used a few decades of data (Ahituv 2001; Birdsall, Kelley, and Sinding 2001; Boserup 1981; Coale and Hoover 1958; Conley, McCord, and Sachs 2007; Gleditsch and Urdal 2002; Urdal 2006). In our empirical application, we take a long-term perspective and measure population growth over a long period of time by focusing on the demographic transition multiplier (DTM), which is the ratio of the population size at the end of the demographic transition to the population size at the beginning of the demographic transition (Cleland 2001). The DTM measures the number of times by which the population of a country has increased during the demographic transition. The size of the DTM is influenced by a number of factors, including educational levels, income, and women's autonomy.

Strong differences in the DTM are present across countries. Cleland (2001) notes that the population of European countries and their overseas offshoots increased from 200 million to 750 million between 1800 and 1950, implying an annual average growth rate of about 0.8 percent, and that the corresponding DTM is approximately 3.75. Cleland estimates the DTM for twenty countries that are now undergoing the demographic transition (including Guatemala, India, Indonesia, and Pakistan) to be between 8 and 24 when replacement fertility is reached (taking demographic momentum into account).

THE EMPIRICAL DETERMINANTS OF RELIGIOUS CONFLICT

In this section, we employ the cross-country variation in the Social Hostilities Involving Religion Index (SHI) to assess the determinants of social conflict. We combine the explanatory theories put forward above in the framework of linear regression models of the following type:

$$SHI = X\beta + R\gamma + u \tag{1}$$

where *SHI* is a vector containing the information on the index of religious hostilities (evaluated in the year 2009), *X* is a matrix of covariates proposed as potential determinants of religious conflict (all of them evaluated in 2005 to impose a time-line that allows, at least partly, for causal conclusions), and *R* is a matrix of regional (continent) dummies. The parameters linking differences in religious conflict with their determinants are summarized in the vector *β*, and *u* is a random error term that is assumed to fulfill the usual assumptions of the standard normal linear model. We use information for all countries of the world for which data on our dependent and independent variables are available; thus we have a sample size ranging from 87 to 176 countries, depending on the set of covariates that are included in the model.

The results of the estimation of different models of the type described in equation (1) are presented in Table 1. We start by assessing the role that the institutional setting with regard to religious freedoms plays as a potential determinant of religious conflict. We thus regress the SHI on the index of government restrictions and the government favoritism index developed by the Pew Forum. The results are presented in the second column of Table 1 and indicate a strong positive (partial) correlation between conflict and religious restrictions, which confirms the views of the religious economies theory. Although the government favoritism index is not statistically significant, the government restriction index is highly significant, and such a simple model is able to explain roughly 34 percent of the variation that are observed in the index of religious hostilities.

Table 1: Regression Results for SHI

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Government restriction index	0.331*** [0.0640]	0.324*** [0.0621]	0.296*** [0.0883]	0.235*** [0.0786]	0.269*** [0.0677]	0.252*** [0.0745]	0.238*** [0.0764]
Government favoritism index	0.0321 [0.0515]	−0.0258 [0.0544]	−0.00374 [0.0783]	−0.0403 [0.0713]	0.018 [0.0708]	−0.0233 [0.0794]	−0.0203 [0.0803]
Religion diversity (inter-religion)		−1.242 [0.956]	−1.789 [2.050]	1.217 [2.102]	1.918 [1.694]	2.424 [1.974]	3.085 [1.880]
Religion diversity (intra-religion)		−0.689 [0.643]	−0.865 [1.011]	−1.706* [0.981]	−2.014** [0.817]	−1.763* [0.905]	−1.930** [0.852]
Nonreligious (proportion)			−2.564 [3.142]	0.338 [3.571]	1.085 [3.256]	−2.032 [4.725]	−2.337 [4.634]
Muslim (proportion)			−0.784 [2.813]	2.829 [2.243]	2.573 [1.783]	3.18 [2.186]	3.605* [2.149]
Hindu (proportion)			3.283 [2.893]	3.643* [1.994]	2.091 [1.633]	2.463 [1.700]	2.512 [1.658]
Christian (proportion)			−1.24 [2.689]	1.432 [2.246]	1.757 [1.836]	1.968 [2.249]	2.591 [2.194]
Buddhist (proportion)			−2.98 [3.319]	1.565 [2.621]	1.187 [1.997]	1.087 [2.517]	0.987 [2.493]
Income per capita				−0.323 [0.202]	−0.214 [0.176]	−0.205 [0.222]	−0.408 [0.270]
Educational attainment				0.564 [1.204]	0.445 [1.140]	0.486 [1.184]	−0.375 [1.299]
Population				0.961*** [0.167]	0.964*** [0.156]	0.880*** [0.179]	0.820*** [0.190]
Demographic transition multiplier				0.323** [0.124]	0.344*** [0.117]	0.341*** [0.128]	0.415*** [0.129]
Armed conflict				0.736 [0.644]	0.885 [0.591]	1.025 [0.634]	0.984 [0.609]
Democracy longevity					0.426*** [0.127]	0.351** [0.137]	0.381*** [0.136]
Women better off						−8.451 [34.75]	−2.607 [34.27]

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Young age dependency ratio							−0.0285 [0.0206]
Constant	0.276 [0.319]	1.170** [0.474]	3.682 [2.933]	−6.126* [3.169]	−10.55*** [2.562]	−10.13*** [2.862]	−6.585 [4.512]
Observations	176	176	125	99	98	87	87
R^2	0.34	0.365	0.4	0.693	0.756	0.758	0.766

The dependent variable is the Index of Social Hostilities Involving Religion (SHI). Robust standard errors are in brackets. Continent dummies were included in all specifications but are not reported in the table.
*Significant at the 10 percent level; **significant at the 5 percent level; ***significant at the 1 percent level.

The fact that regulation of religious freedom tends to be linked to religious conflict appears robust to the inclusion of several other factors that potentially affect the SHI. In particular, we control for different socioeconomic variables that are expected to have an effect on the occurrence of religious conflict.[5] Our results indicate that the relative proportions of population with different religious affiliations are not significantly related to religious conflict, although countries with relatively low levels of intrareligious diversity appear to be more prone to religious conflict. Surprisingly, income per capita and overall educational attainment (as measured by the proportion of working-age population with secondary schooling or a higher attainment) do not appear to be significant determinants of differences in the SHI.

Purely demographic variables play a particularly important role in explaining religious conflict. After we control for other factors, larger countries in terms of population have, on average, higher values of the religious hostilities index. In addition to the overall population size, we include as an explanatory variable a measure of the DTM, which is defined as the ratio of population size of the country in 2000 to that in 1900.[6] Countries that have experienced strong population pressure during the twentieth century tend to have, on average, a higher degree of religious hostilities, thus offering evidence of the link between demographic dynamics and religious hostility that was presented above. This result is also in line with the empirical results that are found in the literature dealing with determinants of civil conflict and civil war (see Collier and Hoeffler, 2004, for a seminal

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[5] The source and description of all the variables used in the model can be found in the appendix.
[6] The estimates for the demographic transition are based on a series of sources (Chesnais 1992; Cleland 2001; Durand 1977; Kuczynski 1937, 1948; League of Nations 1911–1948; McEvedy and Jones 1978; Mitchell 1993; United Nations 2011).

contribution), although this branch of empirical studies tends to concentrate on shorter horizons in comparison with our variable. To the extent to which population growth implies an increase in heterogeneity in terms of religious affiliation (owing to fertility differentials across religious groups), large countries that have gone through relatively strong increases in population may be seen as more prone to experiencing religious hostilies. However, although our interreligion diversity variable is positively related to religious conflict, once the demographic transition multiplier is included in the specification, its parameter estimate is not significant in any of the specifications.

We further enlarge the model by including a dummy variable related to the existence and severity of armed conflict (battlefield deaths), the longevity of democracy (rating a country on whether it was a democracy in 1900, 1950, and 2000), and a variable indicating the relative position of women (the difference between a country's human development and gender development U.N. index scores). The inclusion of these covariates does not change our conclusions about the role of long-run population growth on religious conflict. Somewhat surprisingly, our results indicate that higher levels of democracy longevity tend to be related to more religious hostilities.[7]

Finally, we extend our model to include the young age dependency ratio as an extra control. This allows us to test empirically whether the effects of long-term population growth are exclusively related to age-structure dynamics or take place on top of potential youth bulge effects. The variable is not significant, and its inclusion does not affect the conclusions about the role that long-run demographic dynamics play in religious conflict.

The estimation results indicate that governmental restriction of religious freedom and population pressure (as captured by the DTM) are the key elements explaining why some countries tend to experience more religion-related conflict than others. The empirical evidence therefore offers additional evidence for the religious economies view of religious hostilities and against the clash-of-civilizations approach while expanding the set of determinants of hostilities to explanations related to country-specific demographic dynamics.

CONCLUSIONS AND PATHS FOR FUTURE RESEARCH

Our study sheds new light on the interaction between long-term demographic developments, government restrictions on religion, and religious conflict. Drawing

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[7] Compared with the demographic transition multiplier, longevity of democracy appears to be a relatively unrobust relationship that is driven by the experience in East Asian countries. The coefficient estimate is no longer significant if, for example, we exclude from the sample the observations for Bangladesh, Indonesia, Malaysia, Sri Lanka, and Thailand. If we exclude these, the results for the demographic transition multiplier are unchanged.

from the religious economies theory, we present empirical evidence that robustly shows that countries with restrictive governments in terms of religious freedom tend to experience higher levels of religious conflict. In addition, the same effect on religious hostilities holds for countries that go through qualitatively large demographic transitions in terms of population growth.

Future research efforts should be dedicated to understanding other potentially important interactions between religious freedom and population growth that have been put forward in our theoretical narrative but have not been explicitly tested. More religious freedom could allow groups to gain size through conversion, and it lowers the incentive to grow through high fertility and risk high environmental, political, and economic costs that could follow from very high population growth. In effect, greater religious freedom is likely to be a way of reducing social hostilities involving religion; and one of the mechanisms through which it works might well be by lowering population pressures, as a high degree of religious freedom to convert allows one religion to grow or maintain parity with other religions through conversion.

Although Demerath (2002: 124) does not speak from the religious economies perspective, he succinctly reviews the relationship among religious freedom, religious plurality, and national politics: "Some contend that a national government can only be successful when it mirrors the surrounding culture instead of countering it, although others concur . . . that the state must set the rules for cultural conflict and assure an equitable framework for religious diversity." Rather than attributing persecution to irreconcilable differences between religious traditions or more general civilizations, the religious economies perspective proposes that ensuring religious freedoms for all serves to defuse the potential volatility of religious plurality.

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Appendix: Variable Definitions and Sources

Variable	Definition	Source
Index of social hostilities involving religion	The Social Hostilities Involving Religion Index is a fine-grained measure created by combining 13 separate indicators of religious hostilities on a 0-to-10 metric, 0 indicating very low social hostilities involving religion and 10 indicating extremely high hostilities. The 13 questions measure acts of religious hostility by private individuals, organizations, and social groups. This includes mob or sectarian violence, religion-related terrorism, harassment over attire for religious reasons, and other religion-related intimidation or abuse.	Pew Forum (2011)
Government restriction index	The Government Restrictions on Religion Index is a fine-grained measure created by combining 20 separate indicators of government restrictions on religion on a 0-to-10 metric, 0 indicating very low government restrictions on religion and 10 indicating extremely high restrictions. The 20 questions measure government laws, policies, and actions that restrict religious beliefs or practices, including efforts by governments to ban particular faiths, prohibit conversions, or limit preaching or worship.	Pew Forum (2011)
Government favoritism index	The Government Favoritism Index is a 7-item index measuring whether religious groups receive government support or favors, such as funding, official recognition, or special access.	Pew Forum (2011)
Religious diversity (interreligious)	Measured by summing the squared shares of major world religions in a country, including Buddhism, Christianity, Hinduism, Judaism, unaffiliated, and folk/traditional religions.	Grim and Finke (2007)
Religious diversity (intrareligious)	Measured by summing the squared shares of subgroups of major world religions in a country, including, Catholic and Protestant Christians, Sunni and Shia Muslims, and specific folk/traditional religions such as Confucianism and Daoism.	Grim and Finke (2007)

Variable	Definition	Source
Not religious (%)	Percentage of population without religious affiliation	Johnson and Grim (2010)
Muslim (%)	Proportion of Muslims in total population	Johnson and Grim (2010)
Hindu (%)	Proportion of Hindus in total population	Johnson and Grim (2010)
Christian (%)	Proportion of Christians in total population	Johnson and Grim (2010)
Buddhist (%)	Proportion of Buddhists in total population	World Religion (2010)
Income per capita	Income per capita (log)	Penn World Table 7.0 (Heston, Summers, and Aten 2011)
Education attainment	Proportion of working-age population with secondary or tertiary educational attainment	IIASA-VID dataset (IIASA World Population Program and Vienna Institute of Demography 2007)
Population	Total population (log)	Penn World Table 7.0 (Heston, Summers, and Aten 2011)
Demographic transition multiplier (2000/1900)	Ratio of the population size in 2000 to the population size at the beginning of the demographic transition (1900)	New variable created for this study
Armed conflict	Dummy variable based on battle-related deaths	World Bank (2010)
Democracy longevity	Rating a country on whether it was a democracy in 1900, 1950, and 2000.	Grim and Finke (2007)
Women better off	The difference between a country's human development and gender development index scores.	United Nations (2011)
Young age dependency ratio	Ratio of population under 15 years of age to total working-age population	World Bank (2010)