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Religious Oppression: Government Regulations and Social Hostilities*

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Abstract

Religious intolerance has become a common feature of many countries in recent times. Studies have revealed a worldwide increase in government regulations and social hostilities against religious beliefs and practices. The stifling impact of both government and society on the market for religion, warrants closer scrutiny. This study examines the relationship between government regulations and social hostilities towards religious beliefs and practices, for the period of 2001-2011 for a sample of 45 European countries. The Generalized Method of Moments dynamic panel estimation technique is employed to analyze the micro panel dataset of 45 European countries, to establish the possible relationships that may exist between these variables. The theoretical framework for this study is based on the Religious Economies Theory and the Supply Side Theory of Religion. The results of this study show evidence of the positive relationship between government regulations and social hostility. Interestingly, the study also revealed that the impact of social hostility on the level of government restrictions is smaller in magnitude compared to the reverse impact of government restrictions on social hostilities, indicating the dangerous role played by governments in inciting social hostilities, when they regulate or restrict religious beliefs and practices.

Keywords: Government restrictions, Social hostility, Religious economies theory, Supply side theory of religion.

JEL Classification Code: I31, N34, Z12, Z18.

1. Introduction

The key players in the economics of religion, comparable to that of the secular market, are equally sensitive to the forces of demand and supply, the “benefits of competition, the burdens of monopoly, and the hazards of government regulation” (Iannaccone, 1998, p.1478). Government actions in either regulating or deregulating religion can impact supply of religion and influence religious demand, and this is reiterated by Iannaccone, Finke and Stark (1997) that “government regulation can profoundly affect the producers’ incentives, the consumers’ options and the aggregate equilibrium” (p.351), aside from changing the religious landscape of a country. This situation was clearly evident in the many cases of religious oppression by the Chinese government, which had among others, carried out crackdowns on those who were perceived as expressing extremist religious views and behavior (such as those spotting a beard, or donning face covering veils), in an attempt to ensure that the Communist Party members

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rejected religion (USCIRF, 2016a). The stringent regulations enforced by the Chinese government has had a profound impact on the religious market, as out of the total of 1.1 billion global population who are unaffiliated with any religion, 700 million of them come from China (Pew Forum on Religion and Public Life, 2012).

The religious oppression manifesting in Europe is also particularly alarming, as the occurrences reported include both government restrictions as well societal hostilities. Some instances of governmental-led oppression in Europe reported by USCIRF (2016b) among others, include restrictions on wearing religious symbols such as the "Islamic headscarves, Sikh turbans, Jewish skullcaps, and Christian crosses" (p.221); the non-provision of non-pork alternative meal options to the French Jewish and Muslim students; and the delays in granting building permits for mosques. On the other hand, the instances of societal hostilities reported by USCIRF (2016b) include the anti-Semitic violence in the form of "verbal harassment, to vandalism of property, to violent attacks" (p.223) against Jews and Muslims. These illustrations of religious oppression are just a few examples of government and societal restrictions on the freedom to practice religion. These occurrences stress the importance of recognizing and acknowledging the impact that government regulations and societal hostilities have on the supply and demand of religion. Strong government and societal oppression can change the preference of religious consumers and place undue constraints on the supply of religion.

The present study is of the view that the impact of religious stifling on the market for religion by governments and society, warrants closer scrutiny. The USCIRF report highlights the bi-directional causality that exist between government regulations and societal religious intolerance, in which governments' impose tighter regulations in response to societal religious intolerance; or alternatively, with tighter government regulations, an environment of societal religious intolerance is created (USCIRF, 2016a). Therefore, the objective of this study is to determine whether government actions to curb religious freedom fuels societal hostilities; or alternatively whether the rise in societal hostilities forces the government to increase religious restrictions. This study will focus on Europe, as governments of European nations are mostly known to "value and protect human rights"(USCIRF, 2012, p.329), and it is therefore alarming to note that these so-called liberal countries are increasingly oppressing the freedom to practice alternative religions.

2. Literature Review

There are two theories that can be used to explain the regulation of religion. The first is the religious economies

theory, where the proposition is that the unregulated religious economies will result in higher religious commitments (Grim & Finke, 2007). This theory states that religious restrictions tend to reduce the incentive for religious producers, by imposing a higher entry cost on religions not favored by the state (Finke, 1990). The restrictions on religion are dual faceted, coming either from the government or society or both. A study by Grim (2008) highlights that when fewer religious regulations are imposed, it leads to lesser conflict by providing a sense of security for the religious groups; while Grim (2012) revealed that in cases where government restricted religious conversion, social hostilities occurred in 83% of the countries; but in countries where there were no restrictions, social hostilities fell to 19%. These studies highlight the existence of a positive relationship between government regulations and social hostilities. Interestingly, Grim and Finke (2007) applied the religious economies theory to test whether social regulations had an indirect impact on religious persecutions, through government regulations. They concluded that societal pressure on religious issues does lead to increased government regulations, causing religious persecutions, which then further fuels social regulations. This circular causality between societal hostilities, government restrictions and religious persecution was termed as the 'religious violence cycle' (Grim, 2008, p.5).

There are also studies which have applied the supply side theory to explain regulated or unregulated religious economies. The supply side theory of religion posits that religious competition leads to an increase in participation, where

To the degree that a religious economy is competitive and pluralistic, overall levels of religious participation will tend to be high. Conversely, to the degree that a religious economy is monopolized by one or two state-supported firms, overall levels of participation will tend to be low (Stark & Iannaccone, 1994, p.233).

Finke and Stark (1988) applied the supply side theory to explain higher religious participation in the United States as a direct result of increased competition among religious institutions, which was supported by Finke (1990) stating that local churches in United States prospered with the decline in regulation. A conclusion supported by Iannaccone et al. (1997) that competitiveness was key in ensuring the vitality of the religious market. Froese (2001) applied the supply-side theory on religious revival in Hungary, and highlighted that the Hungarians expressed more religious enthusiasm during the early periods of the post communism but this religious enthusiasm decreased when the Hungarian government increased restrictions by favoring traditional religious groups.

Both theories emphasize the importance of an unregulated market, where the absence of government regulations on religion, or the lack of state religion or the lack of monopoly will allow the market for religion to prosper. However, it is also important to recognize the fact that restrictions on religion is not limited to its impact on the market for religion alone, but has a wider impact on the economic and social sphere as well. Dolansky and Alon (2008) highlighted that investment decisions by Japanese firms took into consideration the religious diversity of a nation, and as such, restrictions on religion could result in a decline in foreign direct investment. Grim, Clark and Snyder (2014) applied the religious economies theory to illustrate how religious freedom contributed to positive economic outcomes in regions where government regulations and social hostilities were low. In the social sphere, Grim (2008) highlighted religious freedom as a key component of a "bundled commodity" (p.6) which encouraged all religious communities to contribute positively to civil society.

Finke (2013) identified three reasons for religious restrictions, firstly the state's affiliation with the dominant religion, motivated by political support; secondly possible lack of will on the part of the government to ensure religious freedom, and finally, the social landscape which might be targeting and restricting the religious activities of minority communities. However, in certain countries, the cause of religious restrictions at home might be the direct response to what is happening in other countries. Grim (2013), in a cross-national study, highlighted that 73% of the 45 European countries (p.8) included in the study reported an increase in religious restrictions in response to foreign influence, resulting in the growing concern of rising government regulations and social hostilities in Europe.

In recent years, religious restrictions and freedoms have received considerable attention from the academic world. Fox and Akbaba (2014), in their study on restrictions imposed on religious minorities in 177 countries from 1990 to 2008, highlighted that minorities from certain Christian denominations faced the highest level of discrimination around the world, while in western countries, Muslims faced the highest level of discrimination. Rahman (2013), in a study on religious freedom of minorities in 175 countries, concludes that government intervention through instituting and subsidizing state religion, creates a monopoly in the religious market which provides political influence to state religion suppliers, which is subsequently used to curb freedom of minority denominations. However, religious restrictions do not always lead to the shrinking of religious markets. Interestingly in China, Yang (2010) highlighted how the government had failed to suppress religious freedom, where in a show of rebelliousness, many chose spirituality "without a religious label" (p.31). It was also highlighted that

demand for religion continued to grow, which in turn stimulated supply, forcing the government to relax its regulations by allowing building of more temples and churches. In an earlier study by Yang (2006), it was highlighted that government regulations had resulted in a triple religious market² in China, and that the regulation of religion might not necessarily shrink the religious market, but instead drive religious consumers and suppliers into an underground religious economy.

Muller and Neundorf (2012) looked at the impact of religious restrictions under the communist rule on Europe's religious market, and found that the former socialist countries recorded a lower percentage of religious believers, compared to those in Western Europe. In another study by Cojoc (2010) on Eastern European countries that have imposed religious restrictions (such as restrictions of entry on nontraditional religions or providing favorable treatment for preferred religions), causing a reduction in the level of religious activities, and these findings are aligned with the religious economies theory. European countries, being an integral part of the western democracies, are perceived as advocates of human rights. In a study by Dowley and Silver (2011) on the perception of the minorities in Europe on the benefits of economic integration, it was revealed that they viewed the regional integration of European Union to safeguard their rights and welfare. In exploring whether this perception was aligned to actual practice, a review of different literatures found mixed results on the level of religious freedom in Europe. As far as the Swedish government is concerned, there is support for religious freedom, where the government has been open in handling religious issues and have exhibited constructive cooperation, rather than pursuing repressive measures (Alwall, 2000). Estonia and Latvia, on the other hand, are also for providing religious freedom (Sarkissian, 2009), while Poland displays religious tolerance towards minorities, but there were instances of variances in the group and nature of activity that they tolerated (Golebiowska, 2004). As for the Austrian government, it supports religious freedom but the same cannot be said on the social front, where there is a rise in religious discrimination (Gresch, Hadj-Abdou, Rosenberger, & Sauer, 2008). In Slovenia, on the other hand, although religious freedom is reflected in state legislations, it not fully applied in practice (Crnic & Lesjak, 2003).

The legislative methods adopted by European countries have raised concerns on the impact it would have on religious freedom. The banning of the use of hijab by

² A red market is the officially permitted religion, a black market is the officially banned religion, and a gray market is the religion with an ambiguous legal/illegal status (Yang, 2006: 93).

students and civil servants in France, and the outlawing of the use of niqab in public places by Italy, Netherlands, and Belgium (Byng, 2010) are stark examples of oppression of religious freedom. In conclusion, based on the review of literature and a glance of the headlines of major news channels around the globe, there is a clear indication that the current sentiments in Europe have not been favorable towards religious freedom of minorities, and this therefore justifies a need for this study to better understand the role of religious regulations in Europe. The current study adopts the framework by Grim and Finke (2007) to understand the relationship between government regulations and social hostilities. Grim and Fink's (2007) study looked at religious freedom of 143 countries in 2003 using structural equation modelling. The present study contributes to the existing body of knowledge, by applying a different estimation technique, the Generalized Method of Moments (GMM) and focusing on 45 European countries in the 2001-2011 period.

3. Methodology

3.1. Model Specification

The main objective of this paper is to investigate whether there exist a relationship between government regulations and social hostilities, as far as religion is concerned. The study will cover 45 European countries in the 2001-2011 period. The model specification for this study is based on the framework of Grim and Finke (2007) which focused on religious regulations as a cause for religious persecution. Grim and Finke's (2007) model was an extension of the clash of civilization thesis by Huntington (1993), which highlighted cultural and religious identities as the main cause of conflicts (Huntington, 1993). Grim and Finke (2007) in extending the clash of civilization analysis, incorporated the elements of the religious economies theory, namely government and social regulations, to understand religious persecution. Grim and Finke (2007) employed structural equation modelling to investigate the factors affecting government and social regulation of religion, and religious persecution, as well as the overall relationship between government regulation, social regulation and religious persecution.

Grim and Finke (2007) in modelling social regulations, considered the impact of government regulations on religious persecution which then resulted in a feedback effect on social regulations. For the case of government regulations, Grim and Finke (2007) hypothesized social regulation as having a direct impact on government regulation. In adapting this model, the present study will

explore the relationship between government regulations of religion and social hostilities, controlling for other economic, political and demographic factors. Therefore, the two estimation models for this study are specified as follows:

$$SHI_{it} = \alpha_0 + \alpha_1 SHI_{it-1} + \alpha_2 GRI_{it} + \alpha_3 GDPPC_{it} + \alpha_4 HHI_{it} + \alpha_5 Percent\ Christian_{it} + \alpha_6 Percent\ Muslim_{it} + \alpha_7 Demo_{it} + \varepsilon_{it} \quad (1)$$

$$GRI_{it} = \beta_0 + \beta_1 GRI_{it-1} + \beta_2 SHI_{it} + \beta_3 GDPPC_{it} + \beta_4 HHI_{it} + \beta_5 Percent\ Christian_{it} + \beta_6 Percent\ Muslim_{it} + \beta_7 Demo_{it} + \nu_{it} \quad (2)$$

where *SHI* denotes social unrest and acts of religious violence measured by Social Hostility Index, *GRI* refers to government restriction on religious practices measured by Government Restriction Index, *GDPPC* denotes Gross Domestic Product per capita, *HHI* uses the Herfindahl – Hirschman Index to capture religious monopoly or homogeneity, *Percent Christian* denotes the percentage of Christians in country, *Percent Muslim* denotes the percentage of Muslims in the country, *Demo* denotes the level of democracy in the country, α_i and β_i are vector of estimated coefficients, and ε_{it} and ν_{it} are the residual terms.

3.2. Variables

This study considered two dependent variables, *GRI* and *SHI*. The data for these two variables were obtained from the Pew Research Centre's Forum on Religion & Public Life and the Association of Religion Data Archives. The data for 2001, 2003, 2005 is taken from the Association of Religion Data Archives, whereas the data from 2007-2011 is derived from Pew Research Centre's Forum on Religion & Public Life.

SHI quantifies the acts of religious violence which infringe and prevent particular religious groups from practicing their religion. The *SHI* was constructed by considering 13 items based on a 0 to 10 Likert scale, with 0 indicating very low social impediments to religious beliefs and practices, and 10 indicating extremely high impediments. The indicators captured the number and types of religious violence perpetrated by private individuals and social groups against religious groups in a country (Pew Research Center, 2016a, p.8). *GRI* was tabulated based on 20 items on a 0–10 Likert scale, where 0 indicates very low government restrictions on religion and 10 indicating extremely high restrictions. The twenty questions capture various aspects of government regulations, either imposed through national or local

governments in restricting religious practices through coercion and force³ (Pew Research Center, 2016a,).

Grim and Finke (2007) in their model included various control variables such as gender inequality, implementation of religious law, percentage of Christians and Muslims, democracy longevity, population growth, economic strength and civilization divide. Civilization divide comprised of two measures, i.e. the composition of civilization within the country, and the Herfindahl-Hirschman Index (HHI) to measure religious concentration in a country. The present study only includes selected control variables due to data availability constraints. The control variables that this study employs are GDP per capita as a proxy for economic strength, democracy index to represent democratic longevity, percentage of Christians and Muslims; and Herfindahl-Hirschman Index (HHI) to measure civilization divide.

The HHI indicates the level of religious concentration that is whether a country is monopolized by one religion or if there is religious homogeneity. The HHI for the present study is calculated by summing up the squared market share of each of the top six religions: Christianity, Islam, Hinduism, Buddhism, Judaism and other religions in the country. The HHI ranges from zero to 10,000, in which a country with only one religion will have a HHI of 10,000 (i.e. square of 100). A higher HHI value indicates religious concentration or presence of religious monopoly in the country. The data on religious percentages was taken from the Association of Religion Data Archives (Brown & James, 2015) and Quality of Government Standard Dataset (Teorell et al., 2016). The data on GDP per capita was sourced from Quality of Government Standard Dataset (Teorell et al., 2016) as well as World Development Indicators from the World Bank.

The present study applies Voice and Accountability index as a proxy for democracy longevity, and the data is sourced from World Bank's Worldwide Governance Indicators. This index includes a set of items that captures the perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media (World Bank, 2016). The range of values lies between -2.5 and 2.5, where higher scores corresponds to stronger governance.

³ For further details on methodology and specific items included in the measures of SHI and GRI, please refer to the following documents:

a) Pew Research Center. (2016b) Trends in Global Restrictions on Religion. Retrieved from www.pewresearch.org, b) Grim, B. J., & Finke, R. (2006). International Religion Indexes: Government Regulation, Government Favoritism, and Social Regulation of Religion. *Interdisciplinary Journal of Research on Religion*, 2(1).

3.3. Estimation Technique

The study uses a dynamic panel data estimation technique which yields a greater number of observations, higher degree of freedom, and reduces the problem of multicollinearity among the variables. This technique also explains the dynamic behavior by allowing the lagged-dependent variable to be one of the independent variables. In equations (1) and (2), the lagged-dependent variable is estimated on the right-hand-side, and it is included when there is an expectation that the current level of the dependent variable is determined by its past level. The justification is that countries having higher religious restrictions would likely be perceived unfavourably, as evidenced in the study by Grim et al. (2014), who highlighted that religious restrictions had an adverse impact on economic and business outcomes. Thus, the present study hypothesizes that GRI and SHI are determined by its past levels, as countries recording higher religious restrictions in the past years may be subjected to a decline in economic growth, thus forcing them to improve the GRI or SRI scores in the current year. The traditional estimators, such as pooled OLS and random effects (RE), and fixed effects (FE) are biased. Moreover, the potential endogeneity of the SHI and GRI regressors in equations (1) and (2), tend to make the estimates of these traditional estimators biased. To overcome this problem, Arellano & Bond (1991) suggested the use of Generalized Method of Moments (difference-GMM) as it relies on lagged-level instrumental variables (IV) for the regression of first-differences to reduce endogeneity problem. However, the difference-GMM (DIF-GMM) estimator produces downward bias, mainly in small sample size and in a series containing highly persistent-lagged dependent variable (Blundell & Bond, 1998). Consequently, Blundell and Bond (1998) proposed using system-GMM which is known to be superior in its estimation compared to first-difference GMM, since it performs better in small samples and in highly persistent-lagged dependent variable (Blundell, Bond, & Windmeijer, 2000; Soto, 2009).

To ensure the adequacy of the estimated GMM models, we perform some diagnostic tests. First, Arellano and Bond (1991) suggested a test for serial correlation that allows for the presence of first order autocorrelation AR (1), but the residuals must be free of the second order autocorrelation AR (2). Second, we test the validity of the instruments using Hansen over-identification test, to check if the p-value is greater than 0.05, as it indicates that the instruments are valid.

3.4. Analysis of the Data

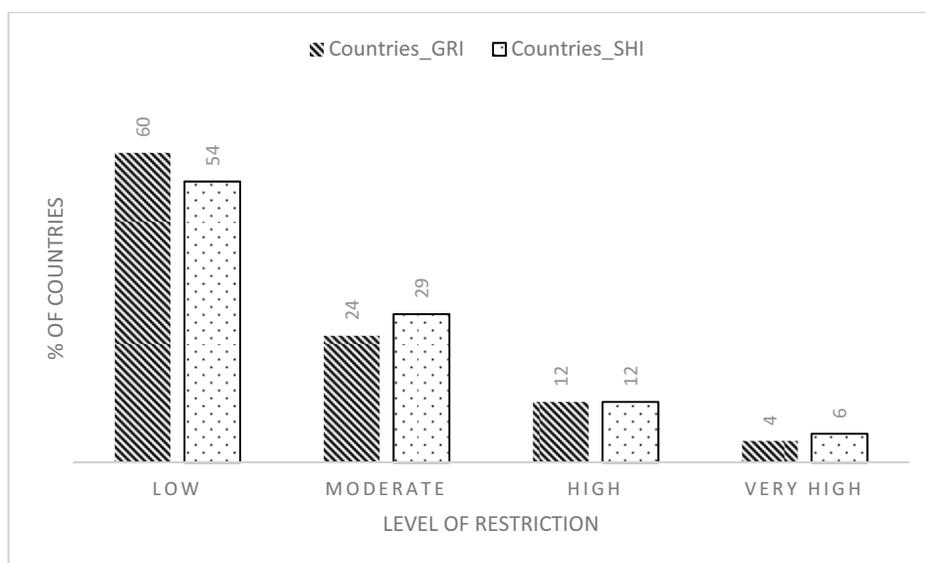
The panel data that the study employed comprised of 45 countries from the years 2001, 2003, 2005, 2007, 2008, 2009, 2010 and 2011. The gaps in the years are due to unavailability of data. Based on Figure 1, as far as government regulations on religion was concerned, on the average, 60% of the countries recorded low, 24% recorded moderate, 12% recorded high and 4% recorded very high regulations. Other the other hand, for social hostility, 54% of the countries recorded low hostility, 29% recorded moderate hostility, 12% recorded high hostility, and 6% recorded very high social hostilities on religion.

Of the 45 countries, 85% had a population that was predominantly Christians, 4% predominantly Muslims, and the remaining 11% did not have a dominant religious affiliation. The HHI reflects the extent to which a country is dominated by one religion. The degree of market concentration indicates that countries with HHI less than 1500 are operating in a competitive market, whereas HHI values from 1,500-2,500 are moderately concentrated, and a value above 2,500 indicates high concentration (U.S. Department of Justice & Federal Trade Commission, 2010). Among the 45 countries, 91% of the countries have religious

monopolies, 4% are moderately concentrated, and remaining the 4% are operating in a competitive religious environment.

The democracy index among the 45 countries indicate that on the average, 16% of the countries recorded an index of less than 0, 29% have an index between 0 to 1, and 54% of the countries fell under the category of more than 1. This indicate that a significant portion of the countries in the sample reflect relatively strong governance structure. In order to understand the economic strength of the 45 countries, the study utilized GDP per capita as a proxy. The majority (31 countries) are categorized as high income countries⁴, 10 countries fall into the category of upper middle income and 4 in the category of lower middle income. The GRI and SHI for high income countries fall in the categories of low (18 countries for GRI and 23 countries for SHI) and moderate (12 countries for GRI and 5 for SHI).

Table 1 looks at the number of countries with different degrees of GRI and SHI based on religious majority, democratic index and religious concentration. Most of the 45 countries included in this study fall under the category of low GRI and SHI, where a majority of the population are affiliated with Christianity and leaning towards strong governance, but with the presence of religious monopoly.



Note: % of countries is an average for T=8.

Source: Authors' calculation, Pew Research Centre (2016) and Association of Religion Data Archives

Figure 1: Level of Government Restriction and Social Hostility

⁴ Categorization by income is as defined by World Bank Income

Classifications (as of December 2010).

Table 1: Cross tabulation between selected variables with GRI and SHI

	Variables	Category	GRI				SHI				
			^a L	M	H	VH	L	M	H	VH	
2001	Religious Majority	Christians	19	8	9	3	19	11	5	4	
		Muslims	1	0	0	0	0	1	0	0	
		No Majority	3	0	0	2	3	0	1	1	
	Demo	Between 0 and 1	4	1	3	1	6	1	1	1	
		Less than 0	3	2	2	4	3	3	1	4	
		More than 1	16	5	4	0	13	8	4	0	
	HHI	Competitive ^p	2	0	0	0	2	0	0	0	
		Moderately Concentrated	1	0	0	1	1	0	0	1	
		Monopoly	20	8	9	4	19	12	6	4	
	2003	Religious Majority	Christians	27	4	7	1	17	11	6	5
			Muslims	1	0	0	0	0	1	0	0
			No Majority	3	1	1	0	2	1	1	1
Demo		Between 0 and 1	8	2	3	0	3	5	4	1	
		Less than 0	1	2	4	1	2	2	0	4	
		More than 1	22	1	1	0	14	6	3	1	
HHI		Competitive	2	0	0	0	1	1	0	0	
		Moderately Concentrated	1	0	1	0	1	0	0	1	
		Monopoly	28	5	7	1	17	12	7	5	
2005		Religious Majority	Christians	24	4	6	4	13	12	8	5
			Muslims	1	0	0	0	0	1	0	0
			No Majority	4	0	1	1	2	1	1	2
	Demo	Between 0 and 1	6	1	3	2	2	5	4	1	
		Less than 0	1	1	4	2	1	2	1	4	
		More than 1	22	2	0	1	12	7	4	2	
	HHI	Competitive	2	0	0	0	1	1	0	0	
		Moderately Concentrated	1	0	0	1	0	0	0	2	
		Monopoly	26	4	7	4	14	13	9	5	
	2007	Religious Majority	Christians	23	12	3	0	32	4	2	0
			Muslims	2	0	0	0	1	1	0	0
			No Majority	4	0	1	0	3	2	0	0
Demo		Between 0 and 1	9	5	2	0	12	3	1	0	
		Less than 0	2	1	2	0	1	3	1	0	
		More than 1	18	6	0	0	23	1	0	0	
HHI		Competitive	2	0	0	0	2	0	0	0	
		Moderately Concentrated	1	0	1	0	1	1	0	0	
		Monopoly	26	12	3	0	33	6	2	0	
2008		Religious Majority	Christians	21	13	4	0	22	15	1	0
			Muslims	2	0	0	0	1	1	0	0
			No Majority	4	0	1	0	3	1	1	0
	Demo	Between 0 and 1	8	6	2	0	8	7	1	0	
		Less than 0	2	1	3	0	0	5	1	0	
		More than 1	17	6	0	0	18	5	0	0	
	HHI	Competitive	2	0	0	0	2	0	0	0	
		Moderately Concentrated	1	0	1	0	1	0	1	0	
		Monopoly	24	13	4	0	23	17	1	0	

2009	Religious Majority	Christians	22	12	4	0	23	14	1	0
		Muslims	2	0	0	0	1	1	0	0
		No Majority	4	0	0	1	3	1	1	0
	Demo	Between 0 and 1	7	6	1	0	9	5	0	0
		Less than 0	2	1	2	1	0	5	1	0
		More than 1	19	5	1	0	18	6	1	0
HHI	Competitive	2	0	0	0	2	0	0	0	
	Moderately Concentrated	1	0	0	1	1	0	1	0	
	Monopoly	25	12	4	0	24	16	1	0	
2010	Religious Majority	Christians	17	18	2	1	23	11	4	0
		Muslims	2	0	0	0	1	1	0	0
		No Majority	4	0	0	1	3	1	0	1
	Demo	Between 0 and 1	6	7	1	0	7	6	1	0
		Less than 0	2	2	1	2	1	5	0	1
		More than 1	15	9	0	0	19	2	3	0
HHI	Competitive	2	0	0	0	2	0	0	0	
	Moderately Concentrated	1	0	0	1	1	0	0	1	
	Monopoly	20	18	2	1	24	13	4	0	
2011	Religious Majority	Christians	21	16	3	1	20	11	9	1
		Muslims	2	0	0	0	1	0	1	0
		No Majority	2	0	0	0	2	0	0	0
	Demo	Between 0 and 1	6	6	2	0	7	2	5	0
		Less than 0	3	2	1	1	2	2	2	1
		More than 1	16	8	0	0	14	7	3	0
HHI	Competitive	2	0	0	0	2	0	0	0	
	Moderately Concentrated	0	0	0	0	0	0	0	0	
	Monopoly	23	16	3	1	21	11	10	1	

^a Categories of SHI and GRI are as defined by the Pew Research Center's Study 2012 Study where L indicates Low, M is moderate, H is High and VH is very high.

^b Competitive, Moderately concentrated and Monopoly categories involving Herfindahl Hirschman Index are as defined by U.S. Department of Justice; & Federal Trade Commission

Source: Association of Religion Data Archives; Worldwide Governance Indicators (2016), World Bank; Pew Research Center, 2016a and Quality of Government Standard Dataset

4. Empirical Findings

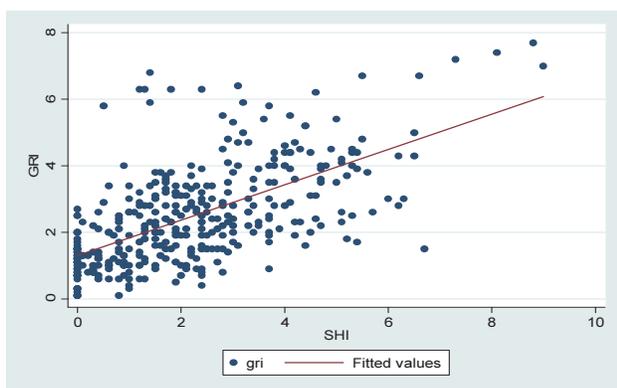
To examine the relationship between SHI and GRI in the selected European countries, we begin the analysis by presenting the summary statistics as shown in Table 2. The data shows a relatively large number of observations approximating to about 360 per variable. The indexes range between 0 (low) to 10 (high) level of social hostility and government restrictions. The data shows greater variation for SHI (between 0 and 10) compared to GRI which range within 0 to 9.17. In addition, the correlation results⁵ reveal a

⁵ The correlation analysis is not reported here, but the results is available upon request.

positive correlation between SHI and GRI. Moreover, Figure 2 represents the scatter plot that shows a positive link between the levels of restrictions imposed by governments and social hostilities, in European countries. This indicates that higher government restrictions on religious practices, increases the level of social hostilities. Similarly, the scatter plot shown in Figure 3 demonstrates the existence of a positive association between SHI and GRI. This implies that the increase in government restrictions is stimulated mainly by social hostilities based on religious motivation.

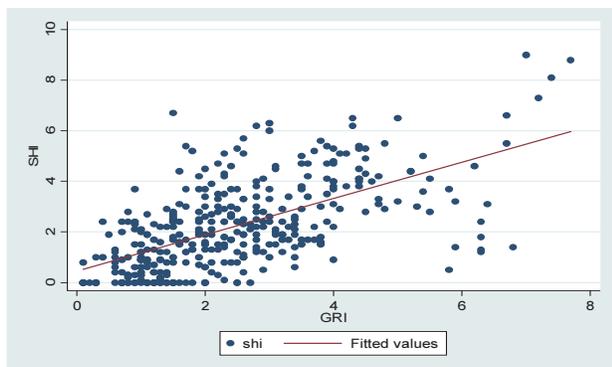
Table 2: Descriptive Statistics for Variables Used in the Analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
GRI	360	2.42	1.99	0.00	9.17
SHI	360	2.47	2.09	0.00	10.00
GDPPC	356	26,725	17,171	2,468	95,578
HHI	359	6080	2245	213	9876
Percent Christians	359	73.23	21.26	4.17	99.38
Percent Muslims	359	7.70	16.40	0.01	95.19
Demo Index	360	0.82	0.74	-1.77	1.77



Source: Authors' calculation, Pew Research Centre (2016) and Association of Religion Data Archives

Figure 2: Government restriction and social hostility



Source: Authors' calculation, Pew Research Centre (2016) and Association of Religion Data Archives

Figure 3: Social hostility and government restriction

The preliminary findings of our study reveals the possibility of a relationship between SHI and GRI. Furthermore, we allow for the dynamic feedback effect to be a determinant of GRI and SHI, in which the previous GRI and current SHI may likely affect the current level of GRI based on Model 1, whereas the current level of SHI is a function of previous SHI and current GRI, based on Model 2. The Generalized Method of Moments is employed to reduce the potential bias of the estimated coefficients. Table 3 presents the findings of system-GMM. We performed some diagnostic tests to ensure the adequacy and efficiency of the system-GMM estimator. The results revealed the existence of first order autocorrelation as we reject the null hypothesis of no serial correlation. As per the GMM requirement (Arellano & Bond, 1991), we fail to reject the null hypothesis of no second order autocorrelation at a 5% significance level. In addition, the Hansen over-identification test results reveal the consistency of the used instruments.

Table 3: Results of System-GMM

VARIABLES ^a	SHI	GRI
GRI (-1)	NA	0.771*** (0.066)
SHI	NA	0.140*** (0.039)
SHI (-1)	0.385** (0.147)	NA
GRI	1.222*** (0.195)	NA
Percent Muslims	0.031* (0.017)	-0.006 (0.006)
Demo_Index	1.253** (0.469)	-0.289* (0.148)
Constant	-2.483*** (0.910)	0.422 (0.307)
Countries	45	45
Instruments	32	30
AR (1)	0.009	0.000
AR (2)	0.066	0.119
Hansen p-value	0.170	0.095

Note: Figures in parentheses are standard errors and ***, **, * denotes significance at 1%, 5% and 10% respectively.

^aAs the explanatory variables GDP per capita, Percent Christians and HHI were insignificant for both equations the coefficients and standard errors are not shown.

The results show that the lagged dependent variable for both GRI and SHI are statistically significant. This supports the hypothesis that previous GRI and SHI have a positive and statistically significant impact on the current GRI and SHI respectively based on the two models in our study, indicating that a certain degree of persistency does exist in the restrictions imposed by both governments and society, thus justifying the dynamic assumption.

Grim and Finke (2007) identified the percentage of Muslims and civilization divide as significant variables in explaining SHI, while percentage of Christians, democratic

index and social regulation of religion explained the variations in GRI. The findings of the present study is that a one percentage increase in the share of Muslims in the country led to 0.031 unit increase in social hostilities index which are aligned with findings of past studies (Grim & Finke, 2007; Strabac & Listhaug, 2008). In addition, our findings also reveal that democratic index to be statistically significant in explaining changes to both social hostilities and government regulation of religion, where a one unit increase in democratic index leads to a 0.29 unit decrease in government regulation of religion. Previous studies have reported similar findings of democratic regimes exhibiting less restrictions on religion (Grim & Finke, 2007; Potter, 2003).

The main objective of this paper was to investigate whether a relationship existed between government regulations and social hostilities on religion and the findings confirm this relationship. However, the magnitude of impact of SHI on GRI is much lower than that of GRI on SHI. A one unit change in social hostility index lead to small change in government restriction index by only 0.14 unit; as compared to a one unit change in government restrictions which lead to a 1.2 units change in social hostilities. These findings are in contrast with those found by Grim and Finke (2007) who revealed that "social regulation has the strongest effect on increasing government regulation" (p.650). However, we need to be mindful that Grim and Finke (2007) did not test for the impact of government regulation on social regulation. Thus, the present study, while concurring with Grim and Finke (2007) on the impact of social hostilities on government regulation, further highlights that the restrictions imposed by a government has a higher impact on social hostility, compared to the reverse on how government restrictions are affected by the level of social hostility.

5. Conclusion

The motivation for the current study on regulations on religion was based on the issues relating to the ever increasing religious intolerance that has been trending throughout Europe (Pew Research Center, 2016b; USCIRF, 2014, 2016b), either in the form of government restrictions or social hostilities. The present study revealed the existence of a positive relationship between government restrictions and societal hostilities. It was further revealed that government regulations had a greater impact on societal hostilities, as opposed to the impact societal hostilities had on government regulations. The conclusion of the present study is aligned to the findings by Grim (2012), in that government restrictions on religion are instrumental

in fueling societal hostilities, and the findings of this study flag a number of concerns.

In principal, countries recognize the importance of ensuring human rights, where the Universal Declaration of Human Rights was embraced by the United Nations General Assembly in 1948, articulating the rights that all individuals are entitled to. One such human rights is depicted in Article 18 on religious freedom (United Nations, 1998), and countries have reaffirmed their commitment to the principal and purpose of this charter (Hannum, 1995). Our main concern is that, given the obligation of a state is to protect and support religious freedom as an expression of human rights, the act of implementing policies that suppresses religious freedom and subsequently forces hostile reactions from society, reflects the lack of commitment on the part of the state.

Secondly, governments have justified the use of religious restrictions by stating reasons such as alignment with secular requirements (USCIRF, 2016b), or for national security purposes, or for and reducing religious extremism from abroad (Grim 2013); however the findings show that instead of creating a protective and harmonious environment that the state is hoping to achieve with restrictions, on the contrary these restrictions are causing the very conditions needed for religious social conflicts to occur.

The third concern is related to the surge in immigrant population in Europe, where the immigrant share of the population in Sweden, Hungary, Austria and Norway increased by at least 1% from July 2015 to May 2016 (Connor & Krogstad, 2016). Against this backdrop, is the social hostilities findings by Grim, (2012) who highlights that the increase in social hostilities in Europe is mainly due to difficulties in assimilating new immigrants. The increasing trend of immigrants coming into Europe is likely to continue in the near future with the rise of asylum seekers, and other categories of immigrants. Therefore, government policies that place restrictions on the practice of religion is likely to result in negative reactions leading to greater social hostilities.

The final concern is linked to the demand for religion, where studies have shown that religious restrictions do impede the growth of the religious market (see among others, Finke, 1990; Finke & Stark, 1989; Froese, 2001; Iannaccone et al., 1997). The rising religious restrictions and the resulting societal hostilities could possibly impact the number of religious adherents, especially among the minority religions. The impact of restrictions on the minority as well as state supported religions in Europe could be a possible area for future research.

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