

# Religious Diversity and State Strategies: Impacts on Development and Conflict

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## Abstract

One of the most recent trends in the academic field of international studies as well as the popular debate has been the renaissance of cultural factors, and then particularly the role of religion. This paper investigates the impact of cultural diversity and state strategies towards religious activity on economic development and civil conflict. The findings in this paper suggest that as conflict and development are closely linked; investigating development and conflict in combination is of value. The findings also indicate that diversity is the decisive factor in economic outcomes, whereas state strategies under the condition of diversity may mitigate or motivate conflicts, and that the combination of the diversity and the state strategies is the decisive factor for explaining conflict rather than religious diversity by itself.

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# Introduction

The end of the Cold War has seen a resurgence of religion and a perceived “unsecularization” of the global community (Haynes, 2002). The academic literature has refocused attention on the consequences of cultural heterogeneity on social outcomes (e.g. Ellingsen, 2000; Alesina et al., 2003; Reynal-Querol, 2002; Fearon & Laitin, 2003) and after the events of September 11 it is probably safe to say that religion has become one of the (if not *the*) hottest issue(s) in the 21<sup>st</sup> Century.

Modernization theories have predicted an increasing separation of state and religion as states modernize. However, Haynes (2002) has noted an increasing interaction between religion and politics, and that post-communist countries, Russia, India, and the US have witnessed religious tensions and religious nationalism. The recent law banning the use of *hijab* in French public schools is at the one hand an attempt to secularize, but it is also a response to the increasing attention and possibly underlying conflicts considered to follow in the wake of religious diversity. Kohut et al. (2000) argue that the barrier between church and state in the US has become increasingly blurred in recent years. Additionally Anderson has noted that some of the states in Central Asia that were formerly Soviet republics have had a period of ‘religious free market’ in the first years of independence followed by tightening of restrictions on religious groups (Anderson, 2002: 181). This – and the apparent religious resurgence – valid a reappraisal of the impact of religious factors on social and economic outcomes. Religion has been called the “forgotten factor” in international development theory (Selinger, 2004), but is now increasingly given attention also in economic literature as well as international relations and conflict research. This paper speaks to that literature.

According to Barro & McCleary (2003) there are two possible causations between religion and political economy. Firstly, the level of religiosity may be affected by the political and economic development, which for instance is the argument of modernization and secularization theories. Secondly, the role of religion in society, the nature and degree of religiousness influence economic behaviour, as well as “the nature of political, legal, and social institutions” (Barro & McCleary 2003: 3). From this perspective, religious activities and beliefs are the independent or exogenous variables.

In recent years there has been increasing interest in the consequences of heterogeneity, on outcomes such as economic development, democratization, and conflict. Mantalvo & Reynal-Querol argue that “in many situations, ethnic polarization generates conflicts could lead to political instability and civil war” (2005: 293). Economic and developmental outcomes are

closely linked to conflict and instability in the article by Montalvo and Reynal-Querol, as they argue that polarized societies mean potential conflict that “can affect negatively the rate of investment, and induce rent-seeking behaviour” (ibid: 294) and thus have a negative effect on economic development via these channels (Barro, 1991).

Development and conflict are highly related. This paper investigates the impact of religion on development by the potential direct influences of religion on levels of development and economic growth, as well as the possible indirect effects that religion can have via violent conflict. To the assumptions regarding the effects of diversity on conflict and development will be added the element of the state strategies, namely the state-religion relations of either encouragement of religious activity or persecution of such activities. I argue that the strategies chosen can influence the outcomes of diversity and should thus be understood in order to enhance our knowledge of conflicts and economic development.

The findings in this paper indicate that religious polarization does not predict well the incidence of civil conflict when using a low threshold for conflict intensity. The strategies adopted by states regarding religious activity does however influence whether or not conflicts occur. Strategies of accommodation and support of religious activity and strategies of restrictions and persecution have can make the difference between religious polarization becoming dangerous or not. Furthermore, diversity can in itself have an impact on development, whereas the state strategies on religion do not here seem as important.

## Culture and Development

Social scientists have for decades built theories and conducted empirical research on underpinnings of growth. Attempts at establishing a clear set of indicators that explain variation in economic growth has however proved difficult. In 1992, Levine & Renelt found that most of the findings in previous literature on the empirical linkages between a variety of economic policy, political, and institutional indicators and long-run growth rates were fragile to small changes in conditioning information set (Levine & Renelt, 1992). They do, however, identify a positive, robust correlation between growth and the share of investment to GDP and the ratio of trade to output is robustly and positively correlated with this investment share. Countries that grew faster than average in the 1960–1989 period were found to have higher exports to GDP, a higher share of investments, higher levels of school enrolment, a lower black market exchange rate premium, and lower inflation than the countries that grew slower than average.

Huntington (1996) and Landes (1999) have argued that determinants of economic growth should include cultural variables, of which religion is the central component. Religion could

theoretically influence economic development through different mechanisms: the religious diversity of a country could affect economic outcomes directly as well as via conflict, religious intensity in populations could vary and thus produce different outcomes, and the relationship between state and religion could influence the religious market, through either regulation or deregulation of religious activity and thus the state (depending on the strategies chosen) could discourage or encourage religious activity. Depending on the impact of religious activity this should indirectly affect social outcomes such as development and conflict.

Religion is an important container of cultural meaning, and the values of individuals in society. Dating back to the thoughts of Weber (1930) it has been claimed that religion can affect honesty, willingness to save and work hard, and openness to strangers, and thus enhance development. Barro & McCleary (2003: 15) claim that “the arguments about culture mattering seem reasonable on an a priori basis, but much of the work in this literature is impressionistic, rather than quantitative or rigorous”.

Granato, Inglehart & Leblang (1996) found that both individual and societal evidence suggest that cultural factors are important in determining economic development. By culture, Granato, Inglehart and Leblang refer to “a system of basic common values that help shape the behaviour of the people in a given society” (1996: 608). Of course, cultural factors alone do not explain the variation in economic growth rates. Cultural factors partake in slower changing characteristics of countries and regions, as well as individuals, and the fluctuations in economic growth rates from year to year and even from month to months cannot be attributed to such stable factors as culture or religion (Granato, Inglehart, & Leblang 1996). To explain more long term general trends however, religion could make a difference.

## Impacts of Diversity

An increasing body of literature in the realm of economic research identifies a high degree of heterogeneity in the population of a country as a negative factor on growth (Montalvo & Reynal-Querol, 2005). Most of the studies have considered ethnicity, but recently religion has become the prime interest of several researchers (see e.g. Barro & McCleary, 2003). An increasing literature also claims that such diversity in a population could influence the level of conflict and even civil war, and thus indirectly affect growth (see e.g. Reynal-Querol, 2002).

### **Diversity and Development**

Scholars interested in governance and public spending find that societal heterogeneity leads to lower provision of public goods, such as education, health, and spending on infrastructure.

Cultural cleavages are thought to be negative for defining the demos and thus make it more difficult for the population to create a sense of national unity than in culturally homogeneous societies. The idea is that with deep cleavages between groups in a country, there is a risk that people feel loyalty to their own group rather than the nation as a whole. In other words, some sense of political community is necessary for political consent, and political consent is what makes democratic governments legitimate. Since diversity poses problems for arriving at consensus on issues such as taxation and spending, one expects that greater diversity means poorer policy outcomes (Alesina et al. 2003; Easterly 2001).

The theoretical underpinning of the relationship between heterogeneity and economic outputs has been that when there are social cleavages, there will be friction between groups, and that tensions will emerge along these divisions. The time allotted to such tensions is a negative factor for productivity and growth as it diverges time away from other activities that produce economic outcomes. Furthermore, the underlying potential for conflict from societal cleavages increases uncertainty and could thus influence investments and thereby development.

Rent-seeking models show that groups in divided societies will be more inclined to spend time on activities that could gain the group political influence, and that such activities could be regarded as a social cost with a negative effect on economic growth (Montalvo & Reynal-Querol, 2005). This leads to the following hypothesis:

*H1: Religious diversity decreases economic development*

Rent-seeking theories ascertain that diversity in the form of polarization is the most likely to have negative impacts. If a country is polarized between two equally large identity groups this is the situation with fierce competition between groups and where the potential for instability depending on who holds power is the most pronounced. A situation of polarization should therefore be expected to entail the most time diverted from economic activities and over to conflict behaviour and unproductive competition. More fragmented societies where no group can likely hold on to power or dominance over all other groups on the other hand should imply that competition for power is less of an issue, and thus cooperation and healthy competition should rise. Based on this reasoning one could assume that polarization would be associated with low economic development whereas religious fragmentation to be better for economic development.

### **Diversity and Conflict**

It has been argued lately in the literature on civil wars that one should consider religion as a particularly salient identity component, potentially even more so than ethnicity, due to the conflict potential in religion as non negotiable and exclusive (Seul, 1999; Nordås, 2004). For the

individual, religious identity may differ from other identities on several aspects. Historically, religion has given a stronger response to the individual need to develop a secure identity, compared to other containers of cultural meaning. Religion means an organizing principle for their lives by some sort of transcendent set of symbols and experiences of the sacred. Religions guide traditions, rites, morals and values, identify ‘right’ from ‘wrong’, and help people create “a world more real than the real world” (Marty, 1997: 12). The existence of an ultimate dependable other<sup>1</sup> anchors the individual not only to the group, but provides affirmation independently of the group. Religion is therefore argued to foster a stronger loyalty and private commitment than other “ideologies of order” (Juergensmeyer, 1993), and be “secure anchors for self-reference” (Seul, 1999: 558). As Grew (1997: 20) puts it “religious beliefs have always been those that people were most willing to sacrifice, fight, and die – and live – for”.

The typical trilogy of factors used in many studies to explain the occurrence of violent conflict is a common identity, frustration, and opportunity. Identity has typically been operationalized in quantitative conflict studies as various make-ups of countries’ populations with relation to ethnicity, language, and/or religion. The theoretical placement of this factor ranges from being seen as the key explanatory variable, to being virtually insignificant. The degree to which identities are seen as given or constructed, and the perceived rate of change in identities has implications for the role identities are believed to play.

Primordialist theories take cultural factors such as ethnicity and religion as fixed characteristics of individuals and groups (see Smith, 1996; Vanhanen, 2000). Identities are seen as real, important and stable frames of reference. According to Hasenclever & Rittberger (2000: 641) “primordialists argue that differences in religious traditions should be viewed as one of the most important independent variables to explain violent interactions in and between nations”. If cultural differences can produce conflict in and of themselves one should expect the following hypothesis to hold:

*H2: Religious diversity increases the risk of conflict*

One criticism of some of the studies using cultural variables in the form of heterogeneity measures in order to say something about the causes of conflicts is the criticism of primordial theories of conflict. The most common criticism is that primordialists fail to account for variations in conflict over time and place. It simply lacks a theoretical explanation of why some situations with differing identities are associated with conflicts and some not (Smith, 1996). Also, evidence has shown that there is often a long history of inter-cultural cooperation and

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<sup>1</sup> This is especially true for the monotheistic religions (Seul, 1999).

peaceful relations between conflict antagonists, such as the Balkan case (Pfaff, 1993) and peaceful and cooperative relations are far more common than large-scale inter-group violence, even in ethnically diverse regions such as Sub-Saharan Africa (Fearon & Laitin, 1996).

In the conflict literature there have been those that have argued in the primordialist direction – that the differences between groups are important and *sufficient* explanations of conflict. In the instrumentalist view on the other hand conflicts are political, and basically motivated by ‘greed’ or material or territorial interests, rather than ‘cultural’, ‘ethnic’ or ‘religious’. Contrary to primordialists, *instrumentalists* see identities as being used instrumentally by political entrepreneurs to achieve political or economic goals. Identities are created or maintained as a basis for collective action when there are clear competitive advantages attached to an identity (Carment, 1993: 138). In this perspective, the basis of an identity is, in the most extreme interpretation “plastic and malleable” (Smith, 1996: 446). The fluidity of an identity is a function of situational constraints and strategic utility (Carment, 1993).

The bridging of primordial and instrumental theories has led to the *constructivist* perspective. Constructivists offer a middle position, where the salience and relative stability of different identities are kept as central explanatory factors, but the political entrepreneur and the changing political and societal settings are considered catalysts of group action. Constructivists argue that the combination of both believers, or pre-existing group demarcations, and sinister political entrepreneurs can mobilize groups to violent conflict (Hasenclever and Rittberger, 2000). The constructivist line of thinking is in the process of gaining academic consensus, as scholars neither see identities as immutable nor completely malleable.

Theories built around the concept of cultural identities and security dilemmas are prominent in the literature on civil wars (e.g Kaufmann, 1996; Snyder & Jervis, 1999). Conflict occurs because groups are unable to coordinate mutual security fears, particularly over questions of national integration, leading to misperceptions, violence, emotion, rage etc. in a vicious circle. Some have found however that the relationship between heterogeneity and conflict is not straightforward. Collier & Hoeffler (2004) for instance find that highly homogeneous and highly heterogeneous societies are both able to maintain peace, while societies in the mid range face the greatest danger.

Montalvo & Reynal-Querol (2005) argue that the situation in which the likelihood of rent-seeking behaviour and conflict is the highest is in cases of polarization, where two groups are of approximately the same size. Such a bimodal distribution of groups should be more associated with conflict than indices of fractionalisation, which increases with the number of groups. Collier & Hoeffler (2000) also argue, based on the coordination cost associated with

many groups, that the risk of conflict should be higher in a situation of two equally large groups, as the coordination cost should be at its lowest the population is divided between a group identified as the government and a similarly sized identity group that identify with the rebels. In situations of fractionalization no group should have the potential to dominate the country, and thus there will be more incentives for cooperation than conflict, as the likelihood of gains from conflict behaviour are relatively small.

High fragmentation could prevent mobilization on issues, and thus encourage cooperation rather than conflict, whereas polarization, where there are two equally sized groups are the most dangerous, as this encourages contestation and competition – possibly also violent so. Based on this one could hypothesize not only that the more religious heterogeneity the more conflict, but rather that *polarization leads to higher conflict risk* whereas *fragmentation leads to lower risk of conflict*.

The conflict literature has been through a lengthy process towards appropriate definitions of cultural variables and which measures that should be employed for capturing ethnic and religious heterogeneity. This has resulted in a plethora of different measures (see e.g. Ellingsen, 2000; Collier & Hoeffler, 2000; Reynal-Querol, 2002; Fearon & Laitin, 2003). In addition, as the data used on the actual conflict are different in the different studies, the findings regarding the effect of cultural variables are undecided. One way of going about making more certain claims about the relationship between religious heterogeneity and conflict, and thereby indirectly about religious diversity and development, is by testing the positive and significant findings of for instance Reynal-Querol (2002) with the use of different data on conflict. Although such an exercise does not settle the debate, it is valuable in that it can contribute to investigating the robustness of previous findings.

## Religion and Civil Society

Religion is considered to enhance economic growth not only through the influence of individual preferences for thrift, hard work, openness to strangers, and honesty; but also by being the foundation of civil society. A vital civil society has been suggested as one of the factors which can enhance economic development. Directly, a strong civil society means the existence of networks between individuals and thus lowered transaction costs in society. Indirectly, a strong civil society can in a society be a part of the general learning of the population, who by taking part in various organizations will better their democratic skills and their knowledge of the workings of the society. Therefore a general trend of higher growth and better economic

development on average could be expected for countries that favour religious organizations as they by doing so also contribute to social capital formation.

The gist of the civil society argument is that a robust, strong and vibrant civil society strengthens and enhances liberal democracy; as the participants learn cooperation, communication and trust (Chambers & Kopstein, 2001). As long as the religious communities represent “good” civil society thus, one should expect there to be a positive relationship not only between religion and democracy, but also between religion and development.

Religious life could contribute significantly to civil society and the organizational structures and networks of society. Friedland (2001: 141) emphasizes that religion for group mobilization is important as religion is an institutional space, a network of sacred sites and ritual spaces, as well as community centres, associations, schools, hospitals, courts, and charities. These are attended at a regular basis, and in most important cycles of life, such as births (baptisms), coming of age and rites of passage (such as Bar Mitzvahs, Confirmations et cetera), marriages, and burials, and through the cycles of the seasons, with Christmas, Ramadan, and other religious holidays. In very many societies these religious meeting places and rituals provide the very foundation for society.

In times of crises and insecurity this system of meeting places and organizational structures becomes particularly important. This has been used to explain why many countries going through modernization processes and that are currently exposed to international markets and demands for structural adjustment and so on see increasing number of new religious people and heightened religious activity in face of the uncertainty involved in these processes.

Religious participation, i.e. church attendance, could be a way to build social capital. As mentioned, religion is an institutional space, a network of sacred sites and ritual spaces, as well as community centres, associations, schools, hospitals, courts, and charities. On the other hand “economic reasoning implies that anything that raises the cost of religious activities would, *ceteris paribus*, reduce these activities” (Barro & McCleary, 2002: 5).

Economic development raises the value of time, measured by market wage rates. Therefore, development implies a rising opportunity cost of participating in organized religion, which encompasses church services, retreats, and pilgrimages (Barro & McCleary, 2002). However, participating in institutions and in the rituals and gatherings associated with an active civil society assures that the individual will have experience and skill in interacting with other individual on a regular basis, creating networks between people, and such attendance and group dynamics could also spread information and knowledge. Religious attendance would therefore lower the costs in transactions, and thus have a positive effect on economic life.

## Impacts of State Strategies

Rather than assuming in line with primordialists that religious diversity in itself may have a direct impact on development and conflict one could consider the role that the state plays as a way of mitigating between the heterogeneity and the effect on social and economic outcomes. Can the strategies adopted by the state have an additional effect?

### Inducing or Impairing Growth?

The policies of states affect the prospects of development. If it is true that religious activity contributes positively to civil society and a viable civil society has important contribution to make to the development and economic growth of a country, then one must logically assume that state encouragement of religious activity is good for development. Based on this can be stated in the form of the following hypotheses:

*H3: State strategies encouraging religious activity increases economic development*

*H4: State strategies of restricting religious activity decreases economic development*

Religious diversity could indirectly have an effect on development via tensions between religious groups mounting to violent conflicts. Such conflicts could have large ramifications for economic development. Not only are violent conflicts costly to the parties involved and very unproductive use of labour and capital, the effect of conflicts on investment, both foreign and domestic should be large and negative. The decision to invest is largely a function of perceived stability of the host country, and thus could violent conflict deter investments, tourism, and other income generating activities.

Governments that face a situation of instability and violent conflict with rebel groups within their border would direct their investment and consumption in direction of military expenditure and other consumption to mitigate conflict (Montalvo & Reynal-Querol, 2005), and thus have relatively less resources available for investment in such things as human capital and other potential growth-inducing factors.

How diversity affects conflict is important to understand in order to understand development as development is an important determinant of conflicts. Countries that are highly developed are much less likely than low developed countries to experience instability and violent conflicts (see e.g. Collier & Hoeffler, 2000; Fearon & Laitin, 2003). However, there is clearly also a possible relationship going the opposite direction, as conflict lead to lower development. The cost of conflict in terms of economic loss as well as loss of human resources and negative consequences of human suffering can be quite substantial for a country's development trajectory.

## Mitigating or Motivating Religious Conflicts?

It has been assumed in the literature that religious polarization holds the highest latent potential for conflict, and this is the variable which proved the most fruitful in the analyses by Reynal-Querol (2002), and it is the preferred variable based on rent-seeking reasoning. An important and policy oriented question however is under which conditions religious diversity becomes a conflict hazard?

Depending on the strategies by the state in relation to religious activity, one could assume different outcomes: if a religiously divided state represses religious activity one could assume that conflict would mount as minority groups feel frustrated about repression and persecution of their kin. However, as the group must have a certain basis for mobilizing in terms of strength in numbers, conflict will most likely rise in a situation of polarization, when a religious group is restricted by a group of approximately the same size as itself. On the other hand, if a religiously polarized state adopts a strategy of accommodation, one would expect that the potential for conflict following religious diversity is mitigated.

Whether a state has an official state religion is one of the most commonly used indicators of religiosity at the state level in the literature. This variable however, is very coarse. It has probably been the best solution in many studies due to it being easy to define, and the information being readily available. I will also include the if the state has an official state religion in my analysis, however, having such an official state religion can imply a higher likelihood of the state also having other policies that produce grievances in religious minorities. However, there is no necessary connection. Viewed isolated, having an official state religion can be merely symbolic, and should thus be viewed as a relatively low-scale frustration inducer. The state affirms the preferred religion (and cultural values in a religious tradition), but leaves it at that. Examples of this can be the basically symbolic role of the official state religion in the Scandinavian countries. Implications for religious minorities are few, and the states respect religious minorities and even have accommodative measures in place, such as funding for religious minority communities.

More importantly to consider are other forms of state strategies or policies towards religious activity, such as whether it is suppressed/restricted or encouraged and sponsored by the state. The question here is how do the forms of state-religion relations heighten or lower the risk of conflict in divided states? The following hypotheses are tested:

*H5: Religiously polarized states choosing a strategy of persecution of religion increases its risk of conflict*

*H6: Religiously polarized states choosing a strategy of accommodation of religion decreases its risk of conflict*

In the following I present the methods and data used in the empirical analyses, and the operationalization of the variables. I then proceed to presenting the results of the empirical tests. The empirical tests are constructed to speak to the question of whether religious diversity has an impact on development and conflict, and whether the state strategies adopted can mitigate or motivate development or conflict.

## Methods and Data

A time-series cross-section data set is used for the analyses. The unit of analysis is the country-year and the data covers the period 1990–2002. To investigate the relationship between religion and development two indicators of development are used: the level of economic development is operationalized by GDP per Capita, and the percentage annual growth of GDP is the operationalization of the process of development. The data on economic growth and GDP per Capita are taken from the World Bank's World Development Indicators (WDI) CD Rom (World Bank 2004).

A variable indicating civil war is collected from the PRIO/ Uppsala Armed Conflict Dataset assembled by researchers at the Department of Peace and Conflict Research at the University of Uppsala and the International Peace Research Institute, Oslo (Gleditsch et al., 2002). The PRIO/Uppsala dataset defines armed conflict as a 'contested incompatibility that concerns government or territory or both, where the use of armed force between two parties results in at least 25 battle-related deaths. Of these two parties, at least one is the government of a state' (Gleditsch et al., 2002: 618–619).

Variables on religious diversity (religious polarization and religious fragmentation) are gathered from Montalvo & Reynal-Querol (2005), whereas data on state-religion relations are from the RAS database by Fox & Sandler (2003). Three different measures of state strategies are used. Firstly, a dummy variable indicating whether the state has an official state religion (=1) or not (=0) is coded. Secondly, an index of religious persecution (variable name *pcute*) is operationalized by a combination of the following variables: arrest, continued detention, or severe official harassment of religious figures, officials, and/or members of religious parties; people are arrested for engaging in religious activities; and restrictions on the publication or dissemination or written religious material. The higher the score on this variables the more or these restrictions and persecution of religious activity is practiced. State strategies encouraging religious activity (variable name *fund*) is an index consisting on the sum of dummies for the

following: government funding of religious schools or religious educational programs in secular schools, government funding of religious charitable organizations, official government positions, salaries or other funding for clergy, and other funding for religious organizations – the higher the score on this variable the more accommodation of religious activity by the state.

The RAS database by Fox & Sandler (2003) also provides a measure of population size which is included as a control variable. WDI (2004) provides the control variable trade/GDP. Control variables on student-teacher ratio in the year 1990 is gathered from Lee & Barro (2001) and data on investment to GDP is from the Summer & Heston dataset – Penn World Tables 6.1. Data on political regime type are gathered from the POLITY IV data set<sup>2</sup>.

The estimation of time-series cross-sectional data presents some problems of correlation patterns between and across panels (Beck & Katz, 1995). The problems relate to the way in which standard errors are computed in panel data and problems of serial correlation and heteroskedasticity. Since the data used in this covers a relatively small number of years I use the Generalized Estimations Equation method (GEE) with the estimation of standard errors for the estimation of the development and growth models. For the binary conflict variable logit estimation with control for time dependence by time since last conflict incidence and the BTSCS estimation technique for decay function after the last incidence is used (Beck, Katz & Tucker, 1998) as well as the robust-cluster on countries.

The robust-cluster method is a variant of the Huber-White robust estimator, adjusts the standard errors with respect to presence of patterns of correlation within units, including serial correlation and correlation due to unit-specific components. The robust-cluster option thus produces consistent standard errors even in the presence of serial correlation and heteroskedasticity.

## Results

In the following models are presented that address the above presented hypotheses. Firstly the impact of religion on development levels is considered. Level of development is measured by the log of GDP per Capita annually in a panel of countries in the period 1990–2002. Secondly I consider the effect of religious diversity and state-religion relations on economic growth in terms of GDP per capita change over time, before I investigate the effect of religious diversity and state strategies on the likelihood of civil conflict.

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<sup>2</sup> The data and explanations can be obtained from <http://www.cidcm.umd.edu/inscr/polity/>

Table 1 presents four models of the impact of religious diversity and state-religion relations on the level of development. The models are run using the GEE method for estimating cross-sectional time-series linear models. This is a recommended estimation technique when there are a large number of panels relative to time periods, and was therefore selected as the time covered by the analysis is limited to 1990–2002 (13 years).

[Table 1 about here]

In all models in Table 1 the sign of the coefficient for religious polarization is negative, whereas the sign for religious fragmentation is positive. However, only polarization has a significant effect on the level of development, although the significance is lost in the fourth model in Table 1 which includes controls by regional dummies. However, the signs of the coefficients are in line with the expectation, and support the hypothesis that polarization leads to lower development, and fragmentation to higher development.

One should be aware that the correlation between polarization and fragmentation is high, which can produce problems of collinearity. The high correlation is typically the case because the number of relatively homogenous countries is quite large. However, I have chosen to run these variables in the same models because they do represent different situations, and because Montalvo & Reynal-Querol (2003) have commented that the correlation between the variable is low at the high levels of polarization, which are the most interesting cases, and they have also themselves included both measures in the same regression models (Montalvo & Reynal-Querol, 2003, 2005).

Having an official state religion has a negative impact on the level of economic development. States with an official state religion are in general poorer than states that do not have such a favored position for one religion. This is in line with the secularization thesis that states that as states modernize religion will be less of an issue in politics. One could also argue that having one favored religion restricts the free exercise of religious activity, and that therefore there will be negative impacts on development via the negative effects on civil society. To investigate this further will be the analyses on economic growth in Table 2.

Increasing religious persecution tends to increase the score of the country on development. This is a finding which is the contrary to the expectations. A possible explanation of this finding can be state capacity. Weak states, such as many sub-Saharan African states, do not have the resources to put in place regulations of religions – let alone persecute. Furthermore,

certain rich oil states have strict religious legislation and persecution, and the resources to invest on the matter. However, the relationship still holds when controlling with regional dummies.

Religious funding has a positive coefficient but is significant at the 5% level only before the controls for region. This indicates that states that encourage religious activity by providing funding for religious organizations are more likely to be rich, but that the effect drops to being insignificant when the effect of regions is controlled for. The explanation for this could also be the question of state capacity and resources. States with resources can afford to provide funding for religious activity, but the relationship is not consistent across regions.

The controls in the models show that rich countries have high investment rates to GDP, and that they invest also in human capital through quality education. These states are also more likely to be trading states, as a higher level of trade to GDP is associated with wealth. These findings are all in accordance with previous research.

Table 2 takes the investigation of the relationship between religion and economic development one step further by also addressing economic growth rates. Models (1) and (2) in Table 2 uses a dependent variable that is annual growth rate, the % change from the previous year to the current year. As the growth rates can fluctuate substantially from one year to the next this is hard to predict in any regression model, and the research community has faced many challenges trying to predict annual growth.

To remedy this problem and attempt to say something about more general trends of rates of development two alternative measures of growth have been calculated: gth2yr is the average growth for the current and the subsequent year, and this is the dependent variable in models (3) and (4) in Table 2. gth3yr is the average growth for the current and the two subsequent years, and this is the dependent variable in models (5) and (6) in Table 2. These two variables of average growth represent more of a general trend in growth rates over time than annual growth. Also, these measures take more account of the fluctuations than some of the measures used in other research that analyzes the average growth by decades (e.g. Barro & McCleary, 2003).

The indicators of religious diversity are also consistently significant in all models in Table 2. Religious polarization is negatively associated with economic growth whereas religious fragmentation is positively associated with growth. Both variables are significant at a 1% level in all models. The measures of state-religion relations never reach significance however. An official state religion has a positive coefficient in all models, and religious funding has a negative sign in all models, whereas religious persecution changes sign depending on the dependent variable.

[Table 2 about here]

In all models in Table 2 the most stable predictors of economic growth are the variables indicating share of investment to GDP, civil war, and regime type. The higher the share of investment to GDP; and the more democratic (or less autocratic) a country, the higher the growth. For the averaged measures of growth the variable for regime type squared is negative and significant. This indicates that the countries that are in the mid range of the autocracy – democracy scale have the highest average growth, and the relationship therefore between regime type and growth can probably best be described as an inverted u-curve. Many of the countries at the mid range of the democracy scale are going through rapid changes of democratization, and this finding thus indicates that this on average is good for development.

Civil war is consistently bad for economic growth independently of the measure used for growth. Peace years also have a consistent negative coefficient, but are only significant for the averaged measures of growth. For the averaged measures of growth also trade has a significant and positive effect on growth. This is in accordance with the growth literature.

Table 3 addresses the relationship between religious diversity and civil conflict. The claim of there being a direct relationship between religious heterogeneity in the form of a bimodal distribution of religious polarization and civil conflict will be tested using the heterogeneity measures of religious polarization and fragmentation by Reynal-Querol (2002) but with the use of the conflict data of PRIO/Uppsala Armed Conflict dataset. Reynal-Querol (2002) found that religious polarization was positively and significantly related to the incidence on ethnic civil war. However, the findings in Table 3 indicate a different findings, as although polarization has the expected sign in all models, the relationship never reaches significance.

[Table 3 about here]

When polarization is included in the models together with polarization the coefficient is negative, although the coefficient is positive when in the models without polarization. However, neither this variable is ever significant. Although one cannot make certain claims about a relationship without significant findings, the models in Table 3 nevertheless hint at diversity holding a potential for conflicts, but that polarization is the key variable in this respect.<sup>3</sup>

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<sup>3</sup> Running models (3), (4), and (5) with control for conflict the previous year does not either yield significant findings for religious polarization nor fragmentation. Only if the models are run without either controls for systematic effects of country clustering and time dependence do the variables for religious diversity prove significant. Religious fragmentation is consistently negative and significant, whereas the findings for religious polarization are inconclusive at best – turning out negative when in the model by itself, and positive when fragmentation is included in the same model.

The findings in Table 3 are not in agreement with the findings of Reynal-Querol (2002) regarding the effect of religious polarization on civil war. In my models there is no significant positive relationship between religious polarization and civil conflict, whereas Reynal-Querol found there to be such a relationship, and that the relationship was robust to various estimation techniques.

There are (at least) two possible implications one can draw from this: firstly, the divergence might be due to Reynal-Querol's inclusion of only what she refers to as ethnic civil war, defined as an episode of violent conflict between governments and national, ethnic, religious, or other communal minorities (ethnic challengers) in which the challengers seek major changes in their status.

More importantly, the finding suggests another implication for the relationship between religion and conflict: For the definition of civil war Reynal-Querol (2002) relies on data from Doyle and Sambanis (2000) who use a significantly higher threshold in terms of casualties for conflicts to be included than the 25 battle-related death which is the coding criteria upon which the PRIO/Uppsala data are coded. Thus, one could assume that, as the relationship found by Reynal-Querol (2002) does not hold when analyzed with the PRIO/Uppsala data, that religion is a factor that is important for more intense conflict, and possibly also that religious conflicts are more intense than other conflict. Such a relationship has been suggested in popular literature, and is certainly a common assumption in popular debate and people's perception, but it has not been appropriately or sufficiently studied thus far.

The rest of the variables in Table 3 are in accordance with the conflict literature. GDP per capita has a negative coefficient, indicating that richer countries have fewer conflicts than poorer countries and higher growth also decreases conflict risk. However, the measures of these economic factors are not significant in the models in Table 3. The variables measuring regime type do not either prove significant, however they do have the expected signs, and the consistently negative sign for the squared term of regime type is consistent with the findings of an inverted u-curve relationship between regime type and conflict as discovered by Hegre et al. (2001). The size of the population and the time since last conflict incidence are the strongest determinants of conflict, and both variables are highly significant in all models. Large population and a recent history of conflict significantly contribute to high conflict risk.

In the following the proposed interaction between the religious diversity of a country measured in terms of polarization and the strategies adopted by the states in these situations is tested. Table 4 presents seven models estimating the risk of civil conflict. The findings indicate

that our knowledge of the dynamics with respect to the influence of religious diversity can be significantly improved by also considering the strategies adopted by states that are religiously polarized, and that the actions by such states can mitigate a potentially conflict prone situation. If a state chooses a strategy that encourages religious activity by funding religious organizations, this can tone down religious differences whereas a strategy of religious persecution could potentially increase the conflict levels, and thus increase the likelihood of civil war.

[Table 4 about here]

Religious polarization is positive but insignificant in all models in Table 4. This suggests that for the PRIO/Uppsala coding of conflicts, religious polarization in and of itself does not lead to higher incidence of civil conflict. The models also show that in itself the strategies adopted by the states do not in themselves lead to changes in the risk of conflict incidence. However, as models (4), (6) and (7) show, the strategies by states in response to their situation of religious polarization can explain some of the variance in conflict propensity. If a religiously polarized state engages in religious persecution, this may increase the conflict risk, whereas a strategy of support and accommodation of religious activity through funding can deter conflict. The interaction term between religious polarization and religious persecution is positive and significant at a 5% level, whereas the interaction between polarization and funding is negative and similarly significant.

The effect of having an official state religion is not significant in the models in table 4, and neither is the interaction of religious polarization and state religion. This is as could be expected, as having an official state religion, although important symbolically, is not necessarily important beyond the symbolic, and could thus have only moderate impact.

In terms of the hypotheses presented in the theory part of the paper, the following can be summed up about the findings: Firstly, the first hypothesis, that religious diversity decreases economic development seems true in terms of religious polarization and level of development as well as economic growth. Diversity in terms of fragmentation can however be good for growth. The second hypothesis, that religious diversity increases the risk of conflict, is not supported in this empirical investigation. Neither polarization nor fragmentation has a significant impact on conflict incidence when controlling for conflict history and clusters on countries. Hypothesis 3 on state strategies encouraging religious activity increasing economic development are somewhat supported with relation to development levels, although the effect drops when including regional dummies. Hypothesis 4, that state strategies of restricting religious activity

decreasing economic development is not supported in the empirical analysis. Hypotheses 5 and 6, stating that the strategies adopted by states under condition of religious diversity influence the risk of conflict, are largely supported. Religiously polarized states adopting strategies of religious persecution increases their risk of conflicts. Similar countries adopting strategies of accommodation of religious activity on the other hand, decrease their conflict risk. It seems thus that what matters for development is diversity, whereas for conflict state strategies matter more.

## Conclusion

Scholars have noted that religion has not faded away as a political force as proposed by secularization theories. Religious communities have been getting stronger in many communities and nations since the 1980s. Indeed, a religious resurgence seems to be occurring in several corners of the world, and it has been argued that religious nationalism confronts the secular state, and that in many states religion is taking an increasingly important place in political life (e.g. Juergensmeyer, 1995; Kepel, 1994). This necessitates a reappraisal of the role of religion in the modern day world.

Salinger has argued that the “absence of the recognition of culture, and more specifically religion, in development theory and strategy” is important for “explaining the failure of development” (2004: 524). However, renewed attention has been given to the religious factor in recent years, although this recent literature might not yet have reached the level of decision makers and practitioners of development and conflict management strategies. Furthermore, the evidence in previous research is not exhaustive and conclusive in its evidence.

This paper speaks to the development and conflict literature on the issue of including the religious dimension. The findings indicate that the impact of religion should be included and elaborated upon in future research, and that there are some lessons to be learnt about the cultural determinants of development. The empirical tests conducted in this paper give some support to there being a relationship between religion and development. I find a weak negative effect of religious polarization on level of development as well as negative effect of polarization on economic growth. The impact of fragmentation seems to be the opposite to that of polarization. However, the findings are weaker for this indicator of diversity.

Religious diversity does not seem to have a direct effect on the likelihood of conflict in the definition used by the PRIO/Uppsala Armed conflict dataset. This could be an indication of religion being more important for understanding intense conflict rather than civil conflicts in general including also low intensity conflict. Maybe it is so that religious conflicts are indeed

more intense than other conflicts, or that conflicts involving a religious dimension may be more bloody or durable than other conflicts? These questions will be pursued in future research.

The strategies adopted by states about encouraging or discouraging religious activity does seem to have an effect on the likelihood of religious polarized countries experiencing civil conflicts or not. The interaction of religious polarization and religious persecution increases the risk of conflict whereas a strategy of encouraging religious activity by providing funding for religion is associated with less conflict risk in divided societies.

Both strategies of encouragement and persecution are most likely to be a part of the policies richer states rather than poorer states. For growth outputs the types of strategies of discouragement or encouragement of religious activity does not seem to play a significant role – contrary to the expectation. This might be attributed to both strategies being costly, and thus taking resources away from other strategies that could potentially more efficiently than indirect encouragement of civil society contribute to short term economic gains. As the investigation of this relationship is by no means exhaustive in this research, this should also be pursued further in future research.

The models run here on the indicators of conflict and development strongly suggest that they are closely interlinked. Hence, the importance of integrating development and conflict research seems abundantly clear. However, future research should not only consider religious heterogeneity in itself, but look deeper into the institutional frameworks in which heterogeneity is set, and investigate the context in which religion may become *the* decisive force in social change.

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**TABLE 1**  
**Development Levels:**  
**Impacts of Religious Diversity and State-Religion Relations**

Model	(1) lngdp	(2) lngdp	(3) lngdp	(4) lngdp
inv_gdp	0.004 (4.51)**	0.003 (3.34)**	0.003 (3.48)**	0.004 (2.73)**
lnsec	-2.484 (7.97)**	-2.427 (7.94)**	-2.396 (7.84)**	-1.205 (3.97)**
lntrade	0.182 (10.56)**	0.170 (10.38)**	0.163 (9.73)**	0.161 (7.14)**
lnpop	-0.080 (1.08)	-0.070 (0.96)	-0.078 (1.08)	-0.154 (2.54)**
relpol	-2.620 (1.88)*	-2.563 (1.88)*	-2.554 (1.88)*	-0.194 (0.17)
relfrag	1.609 (0.74)	1.579 (0.74)	1.633 (0.77)	0.755 (0.44)
cw_incid		0.004 (0.37)	0.004 (0.33)	0.003 (0.21)
peaceyrs		0.004 (9.21)**	0.004 (9.05)**	0.004 (6.70)**
osr			-0.093 (2.92)**	-0.102 (2.39)**
pcute			0.038 (2.39)**	0.037 (1.74)*
fund			0.061 (2.09)*	0.049 (1.32)
africa				-3.054 (7.39)**
asia				-1.741 (4.43)**
latin				-1.639 (5.05)**
meast				-1.394 (4.31)**
Constant	15.475 (13.84)**	15.165 (13.83)**	15.098 (13.74)**	13.259 (13.52)**
Wald Chi2	307.69	415.07	424.68	472.48
Observations	926	926	926	926
Number of cow	91	91	91	91

Absolute value of z-statistics in parentheses. Running the models with semi-robust standard errors makes no difference to the result. \* significant at 5% level; \*\* significant at 1% level

Note: lngdp= log of real gross domestic product (GDP) per capita in 1995 US Dollars; lnpop= log of population size; lregime= democracy-autocracy scale from POLITY IV data source lagged 1 year; lregime2 = squared term of lregime; relpol= religious polarization; relfrag = religious fragmentation; cw\_incid = civil war incidence (=1); peaceyrs = time since last conflict incidence; osr=one state religion; pcute=religious persecution; fund=religious funding.

**TABLE 2**  
**Economic Growth:**  
**Impacts of Religious Diversity and State-Religion Relations**

Model	(1) growth	(2) growth	(3) gth2yr	(4) gth2yr	(5) gth3yr	(6) gth3yr
lngdp	-0.296 (0.22)	-0.349 (0.26)	-1.489 (1.14)	-1.530 (1.16)	-1.936 (1.51)	-2.009 (1.56)
lngdp2	-0.018 (0.21)	-0.013 (0.15)	0.057 (0.67)	0.062 (0.72)	0.084 (1.01)	0.091 (1.09)
inv_gdp	0.155 (5.32)**	0.156 (5.33)**	0.106 (4.20)**	0.108 (4.25)**	0.063 (2.81)**	0.064 (2.84)**
lnsec	-0.546 (0.90)	-0.498 (0.78)	-0.572 (0.93)	-0.550 (0.85)	-0.700 (1.13)	-0.731 (1.14)
lntrade	0.245 (0.58)	0.399 (0.90)	0.710 (1.85)*	0.861 (2.17)*	0.655 (1.88)*	0.770 (2.15)*
lnpop	0.063 (0.36)	0.119 (0.66)	0.139 (0.83)	0.195 (1.11)	0.051 (0.31)	0.094 (0.55)
lregime	0.145 (4.15)**	0.148 (4.21)**	0.141 (5.10)**	0.144 (5.18)**	0.136 (5.81)**	0.137 (5.82)**
lregime2	-0.006 (0.95)	-0.006 (0.88)	-0.010 (1.77)*	-0.009 (1.67)*	-0.013 (2.66)**	-0.012 (2.58)**
cw_incid	-0.805 (1.93)*	-0.747 (1.78)*	-1.198 (3.58)**	-1.158 (3.46)**	-0.948 (3.35)**	-0.927 (3.28)**
peaceyrs	-0.014 (1.20)	-0.014 (1.24)	-0.017 (1.67)*	-0.018 (1.77)*	-0.019 (1.97)*	-0.019 (2.02)*
relpol	-6.342 (2.93)**	-6.156 (2.85)**	-5.829 (2.66)**	-5.664 (2.60)**	-5.975 (2.73)**	-5.854 (2.70)**
relfrag	9.466 (2.96)**	9.125 (2.86)**	8.451 (2.60)**	8.066 (2.49)**	8.663 (2.66)**	8.334 (2.58)**
osr		0.437 (0.86)		0.490 (1.01)		0.323 (0.70)
pcute		0.003 (0.01)		0.026 (0.10)		-0.071 (0.31)
fund		-0.221 (1.03)		-0.298 (1.41)		-0.275 (1.34)
Constant	3.059 (0.51)	1.968 (0.31)	6.490 (1.10)	5.568 (0.90)	11.063 (1.91)*	10.731 (1.78)*
Wald Chi2	107.07	109.09	116.92	120.05	114.79	117.63
Observations	898	898	896	896	894	894
Number of cow	88	88	88	88	88	88

Absolute value of z-statistics in parentheses. Regional dummies included in all models: Asia, Middle East and North Africa, Sub-Saharan Africa, Latin America. \* significant at 5% level; \*\* significant at 1% level

Note: lngdp= log of real gross domestic product (GDP) per capita in 1995 US Dollars; lngdp2 = lngdp squared; inv\_gdp= investment to GDP; lnsec = log of ration students to teachers in 1990; lntrade= log of trade to GDP; lnpop= log of population size; lregime= democracy-autocracy scale from POLITY IV data source lagged 1 year; lregime2 = squared term of lregime; peaceyrs = time since last conflict incidence; relpol= religious polarization; relfrag = religious fragmentation; osr = one official state religion; pcute = religious persecution; fund = state funding for religious activity.

**TABLE 3****Estimation of the Incidence of Civil War from 1990–2002:  
Religious Polarization and Religious Fragmentation**

Model	(1) cw_incid	(2) cw_incid	(3) cw_incid	(4) cw_incid	(5) cw_incid	(6) cw_incid
lngdp	-0.130 (1.26)	-0.138 (1.35)	-0.133 (1.27)	-0.130 (1.06)	-0.138 (1.13)	-0.133 (1.07)
lgth	-0.008 (0.60)	-0.009 (0.62)	-0.008 (0.56)	-0.008 (0.72)	-0.009 (0.74)	-0.008 (0.64)
lnpop	0.352 (4.28)**	0.349 (4.26)**	0.357 (4.33)**	0.352 (4.15)**	0.349 (4.02)**	0.357 (4.18)**
lregime	0.009 (0.41)	0.008 (0.40)	0.007 (0.35)	0.009 (0.37)	0.008 (0.36)	0.007 (0.31)
lregime2	-0.005 (1.21)	-0.006 (1.26)	-0.005 (1.20)	-0.005 (1.16)	-0.006 (1.23)	-0.005 (1.15)
relpol	0.263 (0.63)		0.961 (0.78)	0.263 (0.50)		0.961 (0.76)
relfrag		0.242 (0.39)	-1.116 (0.60)		0.242 (0.34)	-1.116 (0.66)
peaceyrs	-1.600 (9.47)**	-1.603 (9.48)**	-1.597 (9.44)**	-1.600 (8.25)**	-1.603 (8.27)**	-1.597 (8.21)**
Constant	-1.131 (1.02)	-0.971 (0.90)	-1.184 (1.06)	-1.131 (1.28)	-0.971 (1.14)	-1.184 (1.32)
R <sup>2</sup>	0.591	0.590	0.591	0.591	0.590	0.591
Observations	1,455	1,455	1,455	1,455	1,455	1,455

Absolute value of z-statistics in parentheses. \* significant at 5% level; \*\* significant at 1% level

Note: Absolute value of z-statistics in parentheses. Models 4–6 run with clustering on country. lngdp= log of real gross domestic product (GDP) per capita in 1995 US Dollars lagged 1 year; lgth annual growth lagged 1 yr; lnpop= log of population size; lregime= democracy (+10) -autocracy (-10) scale from POLITY IV data source lagged 1 year; lregime2 = squared term of lregime; relpol= religious polarization; relfrag = religious fragmentation; peaceyrs = time since last conflict incidence. The models all include 3 splines measuring the decay function of conflict risk after the last conflict incidence, but these are not reported in the table in order to save space.

**TABLE 4**  
**Estimation of the Incidence of Civil War from 1990–2002:**  
**Religious Polarization and State-Religion Relations**

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	cw_incid	cw_incid	cw_incid	cw_incid	cw_incid	cw_incid	cw_incid
lngdp	-0.133 (1.13)	-0.129 (1.08)	-0.134 (1.10)	-0.143 (1.19)	-0.136 (1.18)	-0.119 (1.03)	-0.122 (1.04)
lnpop	0.348 (4.15)**	0.354 (4.09)**	0.347 (4.09)**	0.318 (3.75)**	0.348 (3.96)**	0.369 (4.06)**	0.341 (3.70)**
lregime	0.008 (0.35)	0.010 (0.42)	0.011 (0.43)	0.014 (0.56)	0.009 (0.37)	0.016 (0.66)	0.023 (0.93)
lregime2	-0.005 (1.16)	-0.005 (1.16)	-0.005 (1.18)	-0.007 (1.37)	-0.005 (1.17)	-0.005 (1.15)	-0.007 (1.37)
relpol	0.263 (0.47)	0.364 (0.63)	0.296 (0.53)	0.053 (0.09)	0.276 (0.51)	1.226 (1.87)*	1.082 (1.52)
osr	-0.016 (0.05)	0.126 (0.21)					0.086 (0.14)
rpol_osr		-0.285 (0.30)					-0.214 (0.24)
pcute			0.028 (0.30)	-0.162 (1.44)			-0.164 (1.24)
rpol_pc				0.475 (1.70)*			0.515 (1.76)*
fund					0.008 (0.06)	0.341 (1.46)	0.341 (1.41)
rpol_fund						-0.717 (1.87)*	-0.720 (1.85)*
peaceyrs	-1.613 (8.45)**	-1.613 (8.45)**	-1.613 (8.43)**	-1.603 (8.32)**	-1.612 (8.46)**	-1.609 (8.46)**	-1.598 (8.39)**
Constant	-1.072 (1.17)	-1.227 (1.20)	-1.093 (1.22)	-0.595 (0.62)	-1.066 (1.22)	-1.966 (2.14)*	-1.597 (1.44)
Wald Chi <sup>2</sup>	343.77	355.33	356.01	346.13	355.93	354.04	379.13
Observations	1,458	1,458	1,458	1,458	1,458	1,458	1,458

\* significant at 5% level; \*\* significant at 1% level

Robust z-statistics in parentheses. Standard errors adjusted for clustering on country.

Note: lngdp= log of real gross domestic product (GDP) per capita in 1995 US Dollars; lnpop= log of population size; lregime= democracy-autocracy scale from POLITY IV data source lagged 1 year; lregime2 = squared term of lregime; peaceyrs = time since last conflict incidence; relpol= religious polarization; osr = one official state religion; pcute = religious persecution; fund = state funding for religious activity; rpol\_osr = relpol\*osr; rpol\_pc = relpol \* pcute; rpol\_fund = relpol\*fund.