

**NiCE Working Paper 08-111**

**November 2008**

**Religious Values and Economic Growth:  
A review and assessment of recent studies**

**Eelke de Jong**

Nijmegen Center for Economics (NiCE)  
Institute for Management Research  
Radboud University Nijmegen

P.O. Box 9108, 6500 HK Nijmegen, The Netherlands

<http://www.ru.nl/nice/workingpapers>

## **Abstract**

Recent years have seen an increasing interest in and controversy about the role of religion in society. This paper reviews recent studies on the influence of religion on institutions and economic growth. The empirical results of these studies appear to be ambiguous, which could be due to the lack of a theoretical framework. No religion appears to be specifically pro- or anti-growth. Some studies reveal that at many times rulers try to influence the dominant interpretation of a religion. Although causality is a difficult issue, evidence is increasingly in favor of a causal effect from the economic situation to religious interpretations.

\* Prof.dr. Eelke de Jong, Department of Economics, Radboud University Nijmegen, P.O. Box 9108, 6500 HK Nijmegen, The Netherlands, phone: +31 24 361 1974, fax: +31 24 361 2379, email: [e.dejong@fm.ru.nl](mailto:e.dejong@fm.ru.nl)

## 1. Introduction

From the mid 1990s development organizations are increasingly aware of the important role of culture and religion (as part of culture) may play for enhancing economic development. This awareness is noticeable in various reports by the World Bank and the activities of the World Faiths Development Dialogue. At the same time in social sciences and in particular in economics, the model of the rationally acting individual came under attack. As a consequence, other ways of explaining economic phenomena obtained a growing attention, such as evolutionary economics, behavioral economics, new institutional economics, and economics and culture.<sup>1</sup> In this literature culture is defined as the collective programming of the mind that distinguishes the members of one group (country or society) from another.<sup>2</sup> Religion defined as a ‘shared set of beliefs, activities and institutions premised upon faith in supernatural forces’ (Iannaccone 1998, 1466) is then considered as part of culture. Since 9/11 /2001 religion is on the agenda of many. Religion and Islam in particular, forms an important issue in the political debate in countries all over the world.

Religion and religious activities can influence society in two ways.<sup>3</sup> First, religious activities, such as church attendance, are social activities and thus comparable to meetings of football clubs, tennis clubs, scouts, political parties, etc. These meetings can be instruments for establishing networks that could be of use for economic activities in the region and could also be helpful for establishing trading relations with partners from other countries who belong to the same religious group.<sup>4</sup> Such networks can stimulate economic growth. Of course church attendance costs time, that cannot be spent on economic activities, so that a reduction of income could be the result.

A second channel by which religion influences society is by the values that are taught by the adherents or most important leaders of the religion concerned. It is assumed

---

<sup>1</sup> A brief description of this trend in economics can be found in De Jong (2009, Chapter 3).

<sup>2</sup> This and similar definitions of culture are found in Hofstede (1980, 21), DiMaggio (1994, 25), and Inglehart (1997).

<sup>3</sup> Ter Haar and Ellis (2006, 356) distinguish four channels: practices, organization, values, and spiritual experiences. The first two constitute the network feature and the last two the values aspect distinguished in the main text.

<sup>4</sup> Examples of studies investigating the network effect of religion are Lewer and Van den Berg (undated) and Blum and Dudley (2001). Lewer and van den Berg investigate the influence of religion on bilateral trade flows. Blum and Dudley interpret Weber’s hypothesis of the Protestant ethics and economic growth in terms of information networks

that these values will influence actual behavior and thus the functioning of society. This literature on religion as a source of values belongs to the economics and culture view on economics, which studies the relation between values, economic institutions and economic performance. It originated in studies on less developed countries and international business. In both fields Western researchers are confronted with views on good and evil and with practices which differ quite a lot from those they are accustomed with in their country of origin. During the last decade and a half those studying industrialized societies are also conscious of the importance of differences in values shaped by long-lasting historical processes for explaining differences in institutional structures between the modern economies (see e.g. Alesina and Glaeser, 2004, De Jong, 2009, and Tabellini, 2008). The values used in these studies are trends referring to situations preferred over others. These preferences can but need not be influenced by religion.

In this chapter I consider the role of religious values – if possible, religious rather than broad humanistic values – in the development process. In particular I focus on the recent academic literature on the relationship between religious values and economic development. How can and does religion in the sense of a set of ideas or a worldview contribute to economic growth and poverty alleviation? This question implicitly assumes a causal relation from religion and religious values to economic performance; a view ascribed to Max Weber. Others with Karl Marx as an important representative argue in favor of the reverse causality from economic circumstances to values.

The setup of this chapter is as follows. The next section briefly describes three stages of economic development and the characteristics associated with each of these phases. Thereafter, I present a framework derived from New Institutional Economics, which is used for analyzing the relationship between values and economic performance. Section 4 discusses the methods used for investigating the relationship between religious values and economic performance. Section 5 surveys studies on the direct relationship between economic growth and religion. According to the theoretical framework in Section 3, the influence of (religious) values on economic activity can be indirect, namely via institutions and governance. Section 6 discusses some studies on the relationship between religion and economic institutions and various forms of governance. Essentially,

the studies discussed in the sections 5 and 6 assume that economic growth is the ultimate objective of economic activities. One could also argue in favor of a broader definition of development. A few studies belonging to that category are discussed in Section 7. Section 8 contains an assessment of the literature. In particular attention is paid to the implicitly assumed homogeneity of the main religions and the causal direction between religion and growth. Section 9 concludes.

## **2. Three phases of economic development**

Three phases of economic development can be distinguished (Marini, 2004). Each phase is characterized by a particular level of economic growth, of income per capita and set of dominant values. The first phase, which is labeled as the antiquity or the pre-industrial phase, is characterized by low levels of growth if any and low income per capita. During centuries technical progress is almost absent, stagnation is the norm, and possibilities for upward social mobility are slim. By far the majority of the population is farmer or is in another way directly dependent on agricultural production. Extended families and communities function as buffers against economic hardships caused by a lack of technical skills for dealing with climatical difficulties and by damage resulting from wars between local warlords. In such a situation of stagnation the dominant values refer to communitarianism and collectivism; the group as protection against the outside world. The lack of sight on any progress leads to fatalism and an orientation on the past instead of the future.

The second phase, which is referred to as the modernization, industrialization or take-off phase, consists of high growth rates and a sharp increase in income per capita. Economic growth is stimulated by technical progress and relatively high savings rates. Success in economic terms is rewarded and depends on an individual's ability to see the potential of new technology to serve a market. The high levels of economic growth enable large groups to escape from the poverty trap. Achievement motivation, materialism and hard work are values associated with this phase of economic progress. With it goes an orientation on the future; on the possibilities to come.

The third phase often referred to as the post-modern or post-industrial phase is characterized by relatively modest levels of growth and high income per capita. The

majority of the population grows up with the feeling that survival can be taken for granted (Inglehart, 1997, 32). Material wealth can still fluctuate but down turns do not threaten the survival of the individual or his / her group. Consequently, one is quite secure of one's own survival. These changes in economic conditions are associated with changes in dominant values. Self-expression and quality of life are regarded as important, whereas economic and physical security is valued less. It should be stressed that this is regarded as a change in priorities, not a reversal of polarities. These values are emphasized “*after* people have attained material security, and *because* they have attained material security” (Inglehart, 1997, 35).

As the description of the three stages of economic development nicely illustrates, the *rate* of economic growth is relatively high during the period of industrialization only. Both the post-industrialization period and the post-modern period are characterized by low rates of economic growth, whereas they differ substantially with respect to the *level* of income per capita, which is low during the first and high during the second phase. As the previous quote from Inglehart illustrates, the (religious) values are expected to be related to the level of development. Hence, when analyzing growth rates one should take the level of income per capita into account. Similarly, if a particular religion is an important factor explaining the transition from pre-industrialized to industrialized phase, it is likely to have a *positive* effect on the *level* of economic development and a *negative* one on relative *growth rates* in a cross-country analysis of a sample of wealthy countries.

### **3. A theoretical framework**

In the preceding section attention has been paid to the direct link between values and economic performance, growth and levels of income per capita. The relation can also be indirect: values influencing conditions that are conducive or detrimental to economic performance. When taking stock of the results of New Institutional Economics, Williamson (2000) presents a framework which incorporates these indirect ways by which religious values can influence economic development. A modified version is described in De Jong (2009, Chapter 3) and used here.

Four levels of social analysis are distinguished: values, institutions, governance, and economic performance. In this paper values refer to the values and norms as these are

taught and adhered to by the members of a particular religion. Formal religions base their worldview on a Holy Script (Bible, Qur'an, etc) and the exegesis by important scholars or (former) leaders. Institutions are the formal rules to which economic and political agents have to obey. These are the rules as they are lead down in legislation and additional regulation. Governance consists of the way members of a society normally treat each other, without using the formal instruments of law and court. In some countries one seeks consensus if disagreement and conflicts arise. In other societies the priority is to fight out conflicts in court or in physical sense: the right one should win. The fourth and final level is economic development: economic growth, income per capita and poverty alleviation. The stage of development can be measured by income per capita and the possession of assets (land for example) and by less quantifiable items such as education, and the existence of a safety net.<sup>5</sup>

These four levels are assumed to interact with each other. Some, among whom is Williamson, think that the levels mentioned first (values in particular) constrain the subsequent ones. Here I take the view that the direction of causality can go both ways. At the end of the chapter I collect the arguments in favour of each of the ways of causation. I also do not take a position in the debate on the speed by which values can change. For the time being it suffices to have a framework that incorporates both direct and indirect ways by which religious values can influence economic development. Figure 1 visualizes this structure and incorporates some of the characteristics of the three phases discussed in the previous section.

< insert Figure 1 about here >

#### **4. Research methods used**

In economics the relation between values and economic performance is studied by both qualitative and quantitative methods. The pros and cons of each of these methods can be found in books on cross-cultural management (Hofstede, 2001, and House et al., 2004) and culture and economics (de Jong, 2009, in particular Chapter 4). Here I only discuss

---

<sup>5</sup> See Sakwa (2006) and Sakwa et al. (2005).

those aspects of a quantitative analysis that enable the reader to understand the discussion without having to consult books on methods and methodology.

The quantitative studies use regression analysis in which a measure of economic development is the dependent variable and religious values are in the list of explanatory variables. These quantitative proxies of religious values are obtained by means of a questionnaire. The type of answers can be dichotomous: do you belong to this religion: yes/no. For other questions respondents are asked to indicate on a particular scale to which degree they agree or disagree with a particular statement. The answers are obtained by a questionnaire designed by the researcher concerned or are taken from large surveys regularly held in various countries, such as the World Values Survey, the European Values Survey, and the Eurobarometer.

The scores of the answers in these questionnaires can be used in two ways. Firstly, one can use the individual scores in the regression equation. Then one obtains an estimate of the average influence of religious values and other variables on characteristics of persons (or households). So these are influences on the micro-level and I therefore label them as micro-studies. This method is used in for example Guiso et al. (2003). Micro-studies confined to respondents from one country only are Cuesta (2004), Sakwa (2006), and Sakwa et al. (2005).

The scores of the questionnaires can also be used for macro-studies in which per country the average of the scores on a particular question is calculated first. Thereafter, these averages are included in a regression together with other variables at the country level, such as an index of the quality and nature of institutions. In this way one can study the macro-effect of for example religion. The number of observations in the regression analysis then equals the number of countries in the sample. This method is used in among others the work by Barra and McCleary and the studies that commented on the work by these two authors.

Some cross-country studies do not use the results of these surveys but an indicator of the dominant religion in a country. Often this is a dummy variable, which equals 1 if the largest part of the population belongs to the religion concerned. So if in a country 35% of the population is officially a member of the Roman Catholic Church and 30 percent is Protestant then the country is labelled as Roman Catholic. This example

already illustrates the problems attached to the use of these dummy variables. A country is listed in a particular religious group just because a large minority belongs to this group. Moreover, no information is obtained with respect to the values that are associated with the membership of the religion concerned. It is implicitly assumed that all members of a particular broad religion adhere to the same values and attitudes, an assumption which does not need to be true (see Section 8.1 for a more lengthy discussion on the homogeneity of religions).

It should be noted that cross-country regressions explain a country's relative position in the sample of countries considered. Consequently, the results will depend upon the countries included in the analysis. If for example, all countries in the sample are Islamic, then one cannot find any influence of the Islamic faith on economic growth.

## **5. Economic growth and religion**

### 5.1 Some quantitative studies

As the discussion of the three phases of development illustrates, the factors determining the growth rate can differ a lot from those related to a certain level of economic development. In this section we first discuss the studies on growth rates and thereafter those on the level of development. In a series of papers Barro and McCleary studies the influence of church attendance and religious belief on the average growth rates of real per capita GDP over a decade: 1965-1975, 1975-1985, and 1985 – 1995 in a group consisting of developed, emerging and transition countries. The measures on church attendance and belief are derived from the World Values Survey, in particular the respondents' answer on the question whether they regularly attend church services, and whether they believe in hell and/or believe in heaven. The average of the respondents' answers in a country is used in the regressions. Besides of these variables, the relation contains the share of seven types of religion in the country. Belief in hell appears to positively contribute to economic growth (Barro and McCleary, 2003, 773 and McCleary and Barro, 2006, 67). Often the coefficient of belief in heaven is insignificant. Church attendance has a very significant negative impact on economic growth, indicating that the time spent in church goes at the expense of the time for economic activity.

Durlauf et al. (2005) criticize the studies by Barro and McCleary on several grounds. They re-estimate the Barro and McCleary relations and include as control variables the traditional Solow variables and three measures of other “fundamental” theories of economic growth. The traditional Solow variables<sup>6</sup> are population growth, real investments (including government) to real GDP, the average years of secondary schooling in the total population over age 25, and real per capita GDP for the initial year of the sample. The variables resulting from other growth theories refer to a country’s climate and geographical isolation, its economic and political institutions and the degree of fractionalization in the society. Now none of the religiosity variables are significant at the 5 % level in any of the specifications used. Contrary to Barro and McCleary’s result, it is belief in heaven that is sometimes marginally significant (10% level).

Several studies use the fraction of people belonging to a particular religion as an explanatory variable. This fraction can refer to the entire population (Noland, 2005, for example) or to those who consider themselves as religious (Barro and McCleary, 2003, and McCleary and Barro, 2006). The latter two authors report a negative influence on per capita income growth for the fraction of adherents to Hinduism, Islam, Orthodox Christianity and Protestantism relative to Catholicism.<sup>7</sup> In a larger sample of 88 countries, Sala-i-Martin, Doppelhofer, and Miller (2004) find a positive influence for Islam and sometimes for Confucianism. Noland (2005) performs cross-country regressions for samples of 34 to 76 countries. Growth over the period 1970-1990 is negatively associated with Jewish, Protestantism and Catholicism, whereas for a smaller set of countries the latter two denominations along with Orthodox Christianity positively affect growth during the period 1913-1998.<sup>8</sup> Since some commentators have claimed that Islam is anti-growth, Noland pays extra attention to this variable and runs additional within-country regressions for India, Malaysia and Ghana. In the cross-country regressions the share of Muslim people has no influence on the growth of income per capita and a positive influence on the growth of total factor productivity (Noland, 2005, Table 3). In most

---

<sup>6</sup> I only list the contents of the variables and not the specific transformation used in the regressions.

<sup>7</sup> Note that the results reported in the text always refer to the influence of the share of a particular religion relative to the excluded category (religion). In Barro and McCleary’s analysis the Catholics form the excluded category. For the other studies I do not always list the excluded category, nor the other explanatory variables included in the regressions.

<sup>8</sup> Noland also performs regressions with growth in total factor productivity as the dependent variable. In the basic form of these regressions no religious affiliation is found to have any influence.

within-country regressions, the coefficient of the Muslim population share is significant and positive. It is only negative for the within-country regressions of Malaysia. For that case, however, other religions also have a negative coefficient. Moreover, in Malaysia ethnicity and religion are highly correlated, so that it is difficult to distinguish ethnical and religious influences from each other.

The previous studies include both industrialized and developing countries. Grier (1997) focuses on determinants of the growth rates in former colonies and finds that for the period 1961-1990 the average growth rate of GDP is higher in former British colonies than in former French and Spanish colonies. Adding the growth rate of Protestant adherents from 1970-1980 to the relation reveals a strong positive relation between GDP growth and the growth of Protestant adherents. However, the difference between the three types of countries remains. Similarly, in relations of GDP per capita the level of Protestantism in previous years slightly closes the gap between the income levels in former French and British colonies. These results indicate that Protestantism is positively related to growth.

In Barro and McCleary's studies belief in hell and church attendance are two different explanatory variables. Mangeloja (2005) combines these two factors into one named religious production efficiency and uses it for explaining GNP growth of eight OECD-countries during the period 1971-2001. The religious productivity variable is high in Japan and Finland, due to the fact that in these countries church attendance is low. A panel regression for 8 OECD-countries over the period 1971-2001 doesn't give a significant result for this composed factor. Belief in hell appears to be very weakly significant. Time series regressions for the individual countries lead to a significant coefficient for the religious efficiency variable for Finland only. A disadvantage of this study is that it pretends to have 30 years of independent observations in the time dimension. The data of the religious variables are however from four waves of the World Values Surveys only, which never can lead to 30 independent observations.

Some studies of the level of income per capita consider this variable for different states of the USA. A good example is Heath et al. (1995), where income per capita in a state is explained by among others the percentage of the state's population that is respectively Jewish, Roman Catholic, fundamentalist Protestant, and non-fundamentalist

Protestant. They find that a negative and significant influence of the percent Roman Catholics and the fundamentalist Protestants. The percent of Jewish people in the population has a positive influence in 1971 and 1980 and no influence in 1952. The authors ascribe this change in influence of the Jewish population to the influx of Eastern European Jewish during World War II. These immigrants arrived with little or no wealth but achieved economic prosperity after a few decades.

From this review of recent quantitative studies I conclude that no consensus can be found on several issues. First, the values that are relevant for economic growth. Why, for example, should one consider views on after life? Second, it is unclear if the values considered significantly explain economic growth. Third, the regressions using the fraction of the population belonging to a particular religion do not find a religion that is consistently more pro-growth than other. Finally, these cross-country regressions are unable to shed any light on the causal direction of the relation provided the latter exist. Maybe qualitative analyses can help us in this respect.

## 5.2. Some results of qualitative studies

In this section I discuss some studies which do not make use of formal regression analysis. Not all these studies have the attention to relate religion to a particular measure of economic performance. Sometimes the role of religion is just a side-track or passes by when studying another phenomenon. Two types of results are discussed, first the role of religious leaders and second the use of religion by politicians

### The role of religious leaders

Given their prominent place in, in particular tradition, societies, religious leaders are well positioned to significantly contribute to a change of attitude towards economic growth. Whether they use their influence in a positive or negative way remains to be seen.

Holy books contain various texts which are applicable to many situations in life. At several places in the Bible the rulers are criticized for the harsh treatment of their people and the poor in particular. Religious leaders can use these phrases for criticizing their governments, without being very specific about the situation they are referring to. This can be a successful strategy in case of oppression by dictatorial leaders. For the case

of Kenya, Sakwa (2006, 91 and 92) briefly describes such a use of Biblical texts by religious leaders both during colonial times and the period of independence. Sermons were the vehicle through which protest against oppression were conveyed. He reports about a sermon (in 1987) by Bishop Gitari of the Anglican Church about the book of the Prophet Daniel, which was clearly understood by the public as a critique of the government's introduction of new laws that had been introduced as a result of illegal changes in the country's constitution. This sermon and related ones obtained much attention by the press and thus inspired public opinion and encouraged others to question the government on issues as corruption, human rights and political freedom. This clearly is an example of a religious leader stimulating change. Similar stories of an important role played by religious leaders in stimulating change can be told South Africa (Bishop Tutu), the former Deutsche Demokratische Republik (Evangelische Kirche), and Poland (Roman Catholic Church)..

Religious arguments can, however, also be used for legitimizing the status quo. Muhammad Yunus, the founder of the Grameen Bank, reports of resistance by religious conservatives against the increasing role women obtain as a result of the loans provided (Yunus, 2003, 78, 107-111). Rumours are spread about the evil that will be caused by joining the Grameen bank. It is said to convert women to Christianity, to destroy Islam and steal houses and property etc. Female workers of his bank often use a bike for travelling between the various villages. The Muslim conservatives, however, could not accept a woman on a bike. He also reports of a case in which a branch of Grameen was closed after its manager was threatened by the local mullah. Women of the village persuaded the local mullah to ask the manager to reopen the branch. In this process the women argued that the bank's manager knew more of the Quran than the mullah himself. Moreover, the loans would help them to work at home, which would, they argued, be more in accordance with Islamic rules than to necessitate them to go out. Using the argument that the new situation is more in accordance with the religious tradition than the current one is found frequently in the literature (see also Episto and Mogahed, 2007, 112-117). In general, reform is more successfully established if promoted in the particular society's dominant religious framework.

## The use of religion by politicians

Several studies report the use by politicians of religious arguments for making their policies accepted by the public. Platteau (2007) argues that from the very beginning of Islam, this religion has been manipulated by political actors. He uses examples from different countries and centuries to testify his argument that rulers have used Islam to consolidate their powers. Instrumentalization of Islam, he calls it. In this process rulers and the religious people supporting them often refer to a glorious past, and ask for a renaissance; a return to the true sources of the religion concerned. The cases of Mubarak in Egypt and the royal family in Saudi Arabia show, in his view, that the more divided the religious class, the better the ruler is able to misuse religion for his own aims. The division of the religious groups reduces the risk of opposition generated by religious leaders. On the other hand, frequent abuse of power by Iranian leaders in the 19<sup>th</sup> century explains why merchants recurrently sought protection by religious leaders. According to Platteau, the lack of a centrally determined interpretation of the Qur'an makes Islam vulnerable for misuse; every ruler can choose the imam he likes best. In his view Christendom has a central interpretation and thus is less open to instrumentalization. Here Platteau erroneously equates Christendom with Roman Catholic. The Protestant branch of Christendom also lacks a central interpretation and allows for different and often opposite views on material matters (see Section 8.1).

The role of religion in the perception of recent events and the interpretation of a country's history also comes to the fore in Maseland (2006a). In this comparative case study Maseland deals with the role of culture (not necessarily religion)<sup>9</sup> in (the perception of) economic development in the Philippines and Malaysia during the 1980s and 1990s. The Philippines are considered a failure (both by themselves and outsiders), whereas Malaysia is regarded as a success story. Within the Philippines the general feeling is that the revolution still has to be finished and change has to occur in a dramatic, radical and abrupt way. This image refers to the first Philippine Revolution of 1896, when the leader against the Spanish colonizer, Rizal, was sentenced to death and executed. In the end, the revolution failed and the Philippines were handed over to America. This episode in the

---

<sup>9</sup> In fact this study was inspired by the Asian values debate that emerged in the late 1980s and 1990s as a reaction on the economic success of some East Asian countries.

Philippine history has often been translated in a religious metaphor. “Here was a man (Rizal, EdJ), widely perceived to be the saviour of the country, returning to the capital after years of absence, only to be arrested and executed by foreign oppressors pressured by clergy, a fate undergone without protest. Rizal’s choice to walk the route from his prison cell to the place where he would be executed further supports the analogy.” (Maseland, 2006b, 9). The image is of course that of Christ being crucified by the Romans. In the 1980s this symbolic meaning of the martyrdom of Rizal/Christ was carried over to Benigno Aquino, who was killed when he returned to the Philippines. On basis of this symbolism his widow, Cory Aquino, and the People Power Revolution could dethrone Marcos (the Pontius Pilate of that time) in 1986.

In Malaysia there is a more gradual movement towards change and the leaders present changes as a continuation of traditional Malaysian values. Once again as far as possible religion, Islam in this case, is used as an instrument in this process. From the beginning of the 1980s Prime Minister Mahathir started an Islamization of Malaysia. This Islamization served two goals. It sought to increase the role of Islam in public life and secondly, it wanted to increase official control over the interpretation of Islam, and disseminate a ‘true, progressive version’ (Maseland, 2006a, 168). An Islamic Centre and an Islamic bank were established. The latter had to collect the Malaysian savings and to propagate an interpretation of the Islam that was thought compatible with economic development. In sum, Mahathir sought to promote a “highly Protestant form of Islam” (Lee and Ackerman, 1997, 36). Finally, the official interpretation of the Islam stressed openness towards other religions and the Islamic character of these religions. In de-emphasising the specific Islamic nature of values the government could ‘increase the role of Islam in public life, without upsetting the fragile ethnic harmony’ (Maseland, 2006a, 170).

## **6. The influence of religion on determining factors of economic growth**

The research reported in the previous section mainly focused on the direct relationship between religious beliefs and economic growth. As Figure 1 illustrates, the relationship between economic growth and belief is very indirect; institutions and governance are

likely to act is intermediary variables. Some studies take this view as a starting point and investigate the relationship between religion and institutions and types of governance that are known to positively or negatively affect economic growth.

### *6.1 Institutions*

Economic and political *institutions of high quality* reduce transaction costs and hence enhance economic growth. Religious upbringing and active religious participation increase trust toward government institutions and reduce the willingness to break any sort of legal rule (Guiso et al. (2003, 249). La Porte et al. (1998b) find that in countries with weak legal protection other mechanisms are in place for protecting the rights of investors and owners. For example, poor investor protection in France-civil-law countries is associated with extremely concentrated ownership.

Another claim is that the *adaptability of institutions* is important for economic development. Kuran (2004) nicely illustrates the importance and the historical evolution of adaptability of law for economic development. In his view the underdevelopment of the Middle East can be explained by the inheritance system as this is laid down in the Qur'an. The Qur'an contains only a few economic rules, one of which constitutes the inheritance system. Two-thirds of any estate is reserved for a list of extended relatives. The individual testamentary powers are limited to one-third of his or her estate. This inheritance system was meant to give everybody a reasonable share in the property and to limit the concentration of wealth. However, it also hindered the preservation of successful enterprises or other assets across generations. Asset owners could preserve their wealth by means of a waqf. A waqf is a "trust founded under Islamic law by a person for the provision of a designated service in perpetuity" Kuran (2004: 75). The founder could appoint himself as the trustee or managers. Moreover, because a waqf was considered sacred, rulers were unlikely to confiscate the assets. Finally, the inheritance regulations could be avoided by appointing one child as the inheritor. In a changing economic environment the waqf system became too rigid. It kept resources locked into uses decided centuries earlier. Paradoxically, fundamental changes were also hindered by the flexibility of the judges. Ambiguities in the founder's stipulations were exploited to modify the aims of waqf, and the latter were approved by a sympathetic judge.

Consequently, the pressure for change was diminished. Essentially these were illegal practices and thus contributed to the prevalence of corruption. In sum, the fact that the Holy Scripture was quite explicit on a particular economic item, under changed economic circumstances led to ways to circumvent the literal interpretation. This had unexpected side effects as the acceptance of corruption and in the end didn't bring a fundamental solution for the new situation.

## 6.2 Governance

*Trust* and cooperation are often found to be positively associated with economic growth. Following Knack and Keefer (1997), many studies have found a positive relationship between economic growth and trust. Mutual trust is then proxied by the score on the question 'Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?'. The trust variable is the percentage of people responding that most can be trusted, after the don't knows have been deleted.<sup>10</sup> On the macro level La Porte et al. (1998a) find a negative relation between a hierarchical religion such as Roman Catholicism and trust. On the micro level Guiso et al. (2003) find that trust is affected mostly by religious participation; for all religions a higher attendance at religious services is associated with higher levels of trust. Religious upbringing has a negative effect on trust for Catholics, Muslims and Hindus, and no effect for the other religions. The sum of the two effects is positive for Christian religions and more so for Protestants. A more detailed analysis reveals that Catholics raised after Vatican II are more trusting of other people (Guiso et al, 2003, 265). In Cuesta (2004) it are the Honduran Evangelists who trust people less than other religions and participate less in social control mechanisms. This finding is most likely due to the fact that in Honduras the Protestants are a very small minority: 97 % percent of the population is Roman Catholic and only 3 percent is Protestant (CIA Fact Book and Section7).

*Freedom* is also often regarded a source for wealth creation. Open borders and free movement of persons along with an open mind for new ideas is regarded as enhancing growth. A regression analysis for the period 1975 -1990 for 80 countries with

---

<sup>10</sup> Beugelsdijk (2005) argues that the World Values Survey measure of trust used in these aggregate studies is likely to proxy the well-functioning of institutions in stead of trust.

growth rates of real per capita GDP finds that ‘more economic freedom fosters economic growth, but that the level of freedom is not related to growth’ (de Haan and Sturm, 2000, 238). So for countries with a growth rate below their long term level, more economic freedom will bring them quicker to that level. The level of this steady state growth, however, is not affected by the degree of economic freedom. In a recent study, Alon and Chase (2005) find for a sample of 54 countries that real per capita GDP (hence the level of income and not the growth rate as in De Haan and Sturm, 2000) is always positively influenced by economic freedom and in three out four cases also by religious freedom.<sup>11</sup> A totalitarian regime, on the other hand, tends to neglect opportunities offered. Things even become worse when totalitarianism is combined with cultural triumphalism (Landes, 2006, 11). In China for example, this combination led to a rejection of the strange and foreign and thus hampered the adoption of new ideas. The Chinese even forgot much of what they once had known. At the heart of this matter is a resistance to change and a fear for foreign influences. Landes mentions several factors explaining this attitude, among which is the disdain of Confucianism for scientific research (Landes, 2006, 17). One can question the idea that the religion’s attitude towards science has caused low growth rates. It is well known that some pious Protestants are also very hostile to scientific knowledge, but their religion is in general praised to be pro-growth. In all likelihood in these cases, religion has been adopted to the prevailing dominant view. Guiso et al. (2003) find a negative relation between adherents of religions and tolerance. Only Buddhists are more tolerant. Catholics became less intolerant after Vatican II. The intolerance of a religion appears to increase when this religion is the dominant religion in the country.

*Corruption* is generally regarded as detrimental to economic growth. Although some argue that in the short run bribe paying can function as lubricants in cases of bad economic institutions. Predictable corruption with moderate rates also appears to be a fairly harmless phenomenon (Paldam, 2001, 390). Unpredictable, large and lasting corruption is a serious problem. In a macro-study (countries are the units studied) Paldam (2001) reports two groups of religions that decrease perceived corruption as this is

---

<sup>11</sup> In contrast to De Haan and Sturm (2000), Alon and Chase do not investigate the sensitivity of their results to adding to the list of independent variables, explanatory variables found in other studies.

collected by Transparency International; Reform Christianity (Protestants and Anglicans) and Tribal religion. No significant result is found for the other religions; Catholics, Orthodox and Islam. Note that one reason for the Reformation (although almost 500 years ago) was to fight corruption of the Catholic Church.

Many are of the view that growth goes with a *pro-market attitude*, which is reflected in a positive attitude with respect to income differences as incentives for individual efforts, private ownership of firms, competition, hard work and thrift. The relation between these pro-market values and religion appear to be complex and often not uniform. Guiso et al. (2003) find that people raised religiously are less willing to trade off equality for incentives and are less in favour of private property. However, those who attend the sermons regularly are of the opposite view. Religious people also emphasis thrift, individual responsibility and that the market outcome is fair. The differences between religions are greatest in their position on the trade off between equality and incentives. Protestants and Hindus are more willing to trade off equality for incentives, while Jews and Muslims are less so. For the other religions the effect is insignificant. Protestants, Catholics and Hindus want more and Muslims want less private ownership. Interestingly in Guiso et al. (2003) more than other religious groups (including Protestants) Catholics favour competition, thrift, and private ownership. This is somewhat at odds with Weber's claim. The respondents in Sakwa (2006) also had difficulty with competitiveness. These Roman Catholic students recognized that the market motivates the poor towards improving their wellbeing (Sakwa, 2006, 64 and 65). However, the path analysis did not find any relation between competitiveness and any of the four aims of poverty alleviation (Sakwa, 2006, Table 7-1). A reason for this ambiguous attitude towards competitiveness could be that competition creates both losers and winners.

During various periods in history, religion had difficulty with commercial trade and the fact that merchants earn money without making any product or improving it in one way or another. In the Middle Ages this problem was solved by regarding profits from commercial trade as a particular form of wage, with the qualification that excessive profits are illegal (Tawney, 1962, 35). The next story illustrates that such a resistance is still present in backward societies. After the fall of communism, Ascherson went in the

beginning of the 1990s to a village in the Don delta, where he met a priest of the Russian Orthodox Church. This priest told him about new people, who do nothing beyond buying and selling. In his view to go on streets and sell vegetables which you have grown or a product of your craftsmanship is good, even natural. But these people “buy an article in one place, and then may come here to sell it for a higher price. They do not work, they do not make anything! I have told my congregation that it is a wickedness, a sin, to make money out of what you have not produced.” (Ascherson, 1995, 107).

## **7. Development**

Until now I have assumed that economic growth is the ultimate goal. However, some studies use a broader concept of economic development and include non-material items in the concept of development. To a certain extent there is an overlap with studies that take account of intermediary transmission mechanisms in that both pay attention to the same or similar items. Education for example can be regarded worthwhile because it enhances economic growth, or it can be regarded a valuable asset in itself. In this section I discuss those studies that do not explicitly relate education and other items to economic growth and thus broaden the concept of development beyond economic growth.

Unsatisfied Basic Needs (UBNs) act as the proxy for development in Cuesta (2004). UBNs relate to a lack of drinkable water and electricity, and having earth floor in the household residence. The empirical results are based on the results of a questionnaire among about 3000 households in Honduras. Religion (measured by belonging to a particular faith) does not have any influence on the unsatisfied basic needs (Cuesta, 2004, Table 4). This result is most likely due to the fact that one religion (Roman Catholicism) dominates. As a result the variation in belonging to a particular religion is too small to find any significant effect. So the result found is a statistical artefact.

Sakwa (2006) and Sakwa et al. (2005) use a theoretical framework similar to that of Figure 1 for studying the relationship between poverty alleviation and biblical conceptions of poverty. The two intermediary stages are the view on state-society relations and the means of poverty alleviation. The empirical results are based on a sample of 357 Roman-Catholic students of four universities in Nairobi. It appeared that these respondents saw as major elements of poverty alleviation (alleviation ends):

insurance (healthy environment, health care, social security and employment), education, income and assets (land in the case of Kenya). The respondents' view on God's claiming (God wants to be worshipped by extending kindness to the poor) influenced all four elements of poverty alleviation. God's sanctioning (God delivers the poor from the hands of the evil) and His active /passive acts each influenced three items, whereas God's provision (God blesses those who provide for the poor) only correlates with insurance.<sup>12</sup>

## **8. Assessment**

The studies discussed in the previous sections found mixed results with respect to the relation between religious values (or religions) and economic growth (or development). Barro and McCleary report that belief in hell is important for economic growth. A sensitivity and robustness analysis by Durlauf et al. (2005) doesn't find a significant relationship between economic growth and belief in hell and only a very marginally significant effect of belief in heaven on economic growth. Moreover, Barro and McCleary do not argue why among all possible views related to supernatural forces, the thoughts about afterlife are the most plausible candidates for a relation with economic growth. Sakwa (2006) and Sakwa et al. (2005) derive biblical concepts of poverty from texts from the Old Testament. These concepts are not related to the issues of afterlife distinguished by Barro and McCleary. Hence, no common view exists on the religious concepts that are most likely for influencing economic development.

Regressions including indicators (dummy or fraction) of various large religions do not come up with a particular religion being exclusively pro- or anti-growth. This view is confirmed by a brief history starting with Weber of the religions that were considered to stimulate growth (Sen, 2004, 48 and 49). According to Weber Protestantism is pro growth and Confucianism is quite unsuited for the industrialization phase. At the time the relevance of Protestantism was accepted, it were Roman Catholic countries, France and Italy, that began growing faster than some Protestant countries. In the 1990s Asian values

---

<sup>12</sup> The items of each biblical concept of poverty can be found in Sakwa (2006, 32). The relations between biblical concepts and elements of poverty alleviation are summarized in Sakwa (2006, Table 7-1).

derived from Confucianism were regarded pro-growth. As the discussion of Malaysia has shown, some attribute these values to Islam.

Since the relations between religious values and economic growth are not robust, attention has been paid to qualitative studies and the relation between religion and factors determining growth, summarized under the headings institutions and governance. Once again, relations found often had to be qualified in the sense that other studies report opposite or no effects. In Section 8.2 I will discuss whether any relation between (religious) values and institutions or governance can be expected to influence economic performance. Before doing that, Section 8.1 discusses the treatment of (subsets of) the main religions as a homogenous group. Finally Section 8.3 discusses the causality of the relationship, an issue that has already been on board since the publication of Weber's Protestant Ethic.

### *8.1 Are religions homogenous?*

Some studies implicitly assume that religions are homogenous entities and that the major differences are between the various religions. This is especially true for those who proxy religion by the respondents' answer to 'To which religion do you belong?', use dummy variables for a country's dominant religion, or the fraction of the population belonging to a particular religion. This assumption of homogeneity of religions is highly questionable. Firstly, the main religions (Christendom, Islam, Hindu, etc.) contain many sects and sub-denominations. In the literature the distinction is often made between two important sub-denominations within Christendom, namely Protestants versus Roman Catholics, neglecting the various (Greek, Russian, etc.) orthodox denominations. In the analyses the main differences in results are sometimes obtained by separating the Protestants from the others (see e.g. Paldam, 2001). Hence, the relevant and significant dividing line is *within* Christianity and not between the main religions. Moreover, it could be that various groups from the other main religions have similar values and attitudes as Protestants. Indeed, the results of a large survey under inhabitants of countries with a dominant Muslim population reveal that by far the majority in these countries holds views quite similar to those of people in the Western world (Episto and Mogahed, 2007).

Secondly, even subgroups such as Protestants are often quite heterogeneous. The seminal study by Max Weber illustrates this point already very nicely. Weber does not refer to the broad group of Protestants, but has a selected group in mind namely the pietistic dominations such as Quakers. Moreover, Iannaccone (1992) reports that the view of the leaders of evangelical Christians in the USA ranges from very pro free markets and capitalism to a flat rejection of capitalism in favour of socialism. This diversity in opinion is also found in survey data of faculty members of seminars and theological schools from Christian denominations and of white Protestants in the General Social Surveys of 1987, 1988 and 1989. These survey data reveal that a conservative view on moral issues like, sex, drugs and gambling does not lead to a particular view on economics. The difference between Evangelical Fundamentalists and other Protestants on economic items is minimal (see Iannaccone, 1992, 353 and 354).

### *8.2 Long chain*

Religious values belong to a broader category called culture (embeddedness by Williamson), defined as the collective programming of mind that distinguishes the members of one group (country or society) from another. As is nicely illustrated by Figure 1, the way culture can influence economic performance is very indirect and can be via very different routes. Moreover, a more direct relation can be expected between values and institutions and governance. Whether this also leads to a relation between the latter two and economic performance, remains to be seen.

The results of some studies on the relation between culture and economic performance can illustrate how values influence institutions and governance, but do not result in a significantly different level of economic growth or development. In De Jong (2009, Chapter 6), I show that within a group of industrialized countries a distinction can be made between countries that are highly innovative and open to the outside world, and those which are relying on improving existing technologies and which are more reluctant to open the borders for foreign influences. The differences between the financial systems correspond with the different type of finance needed for innovation (equity and venture capital) and for less risky activities (bank loans). Moreover, theoretical and empirical research shows that these differences can be related to differences in attitude towards

uncertainty. Societies in which inhabitants accept uncertainty as a fact of life belong to the first group, whereas inhabitants of the second group of countries regard uncertainty as something that should be fought and reduced by as much means as are available. Hence, there is a theoretically and empirically founded relation between values, institutions and governance. This does not necessarily result in a relation between values and economic performance such as the level of economic growth, the level of per capita income or another indicator of economic development. Within a group of twenty countries with highest GDP per capita the attitudes with respect to accepting uncertainty differ almost as much as in a sample of 74 countries and regions.<sup>13</sup> These results indicate that values can be of importance for the way a society is organised, and not or less for the level of income per capita.

### 8.3 Causality

This brings me to another fundamental issue, namely the endogeneity between religious values and economic performance. The studies discussed assume that religious values influence economic growth, or at least that for the time being this way of causality dominates the reverse. However, as the discussion preceding Figure 1 already made clear, I am not sure that causality always runs in that direction and would at least leave the door open for the possibility of reverse causality. Then religion is regarded as a reflection on economic reality instead of a determining factor. This idea can also be found by Feuerbach and Marx, and is summarized by the latter as “religion is the people’s opium”.

Many regard Max Weber as the researcher who claims that religious values influence economic performance. A closer reading of his Protestant Ethic reveals that he too is aware of the possibility of a reverse causality. Weber writes that the dominant position of Protestants in the industry can partly be ascribed to historical circumstances ‘in which religious affiliation is not a *cause* of the economic conditions, but to a certain extent appears to be a *result* of them’ Weber(1930/2001, 4). As far as Weber has claimed that the Protestant ethic preceded economic growth this position has been criticized by

---

<sup>13</sup> The scores on Uncertainty Avoidance are from Hofstede (2001). The figures on GDP per capita and the Human development index are from World Bank (2004).

among other Tawney and Samuelsson who argue that many of the capitalist institutions preceded the Protestant Reformation (see Tawney, 1926, and Samuelsson, 1961).

Recent researchers also point to the likelihood of a religion adopting its shape to the actual situation. Platteau (2007) argues that during its entire history Islam has been used by rulers for enhancing their own position. Maseland (2006a) confirms this view in that he shows how in Malaysia the leaders (Mahatir in particular) manipulated the Islam in such a way that it would fit with their political goals. In a similar mood, Alatas (2002, 117) argues that the Asian values and Protestant work ethics is an ex post rationalization of economic success in Southeast Asia and that the ethic and religious arguments seem to have followed rather than preceded economic growth in this part of the world.

If during recent history religious views are adopted to current circumstances and interests of dominant parties, what then about the Holy texts? One would expect that these texts are then also influenced by the situation at the time of the text's writing and the interests of the writers or their political or economic masters. Van der Toorn (2007, Chapter 7) indeed provides information confirming such a view on Biblical texts. He argues that the text of the book Deuteronomy as this is included in the Bible, represents the fourth version. Traces of each version can be found in the present text. Moreover, differences between the four versions can be related to changes in the situation of the people of Israel and to changes in the position of the priests writing the texts. Consequently, several themes we encountered in previous sections are also present in this story about the making of this Biblical book: political influence, reference to a great past, and several indications that the texts are written after the facts have materialized. The last feature indicates that causality runs from the facts to the opinion and view on the (ideal) world order.

A causal order from facts to religious interpretation corresponds with the function of religion as a means of coming to terms with the events, not to change these. This notion that religion makes the world acceptable is also found in the writings of the well-known anthropologist Geertz (1969, 658), who describes the religious problem of suffering as 'not how to avoid suffering but how to suffer, how to make of physical pain, personal loss, ....something bearable, supportable - something, as we say sufferable'. So the history of the making of Deuteronomy and the function of religion as making the

events bearable, creating structure in the chaotic world, all affirm a view of religion as a reflection not a source of development.

## **9 Conclusions**

During the last one and a half decade or so, one can witness an increasing awareness of the role of values for economic development. For many, religion is by far the most important source of values. Hence, the role of religion in the development process is once again on the agenda. This chapter has set itself to provide a review of recent studies in this field. Both quantitative and qualitative studies are reviewed.

No unambiguous conclusion can be drawn from these studies. First of all they differ quite a lot in the way religion and religious values are measured. Second, the results do not indicate that a particular religion is consistently more pro-growth than another. Third, qualitative studies indicate that the assumed causality from values to economic situation need not be correct. Often, it is argued, political leaders instrumentalize religion in the sense that they try to manipulate the religious view in such a way that it fits their interests. Does this mean that no conclusion can be drawn or recommendations made? No, to the contrary. Recommendations can be made with respect to the way this topic can be studied best and still some conclusions can be drawn with respect to the role of religion.

In my view it is striking that almost no study explicitly refers to the type of values expected to promote growth, as these are set out in the present paper's section of the three phases of economic development. Consequently, most empirical studies lack a theoretical foundation. Why, for example, are the ideas about after-life relevant for economic performance? So, my first recommendation is to start from some theoretical notions and then test these theories, in stead of using the data which appear to be at hand. In this respect Sakwa (2006) and Sakwa et al. (2006) serve as positive exceptions to the rule.

Second, there is a wealth of theoretical and empirical evidence pointing out that the large religions (Protestantism, Catholicism, Islam etc.) are not homogenous. Moreover, recent results on the opinions of Muslims suggest that the differences between the religions are less than implicitly assumed by those distinguishing these religions from

another. Consequently, using indicators representing the main religions does not make much sense. One should go one step further and find out which values and perceptions are held by the people saying that they adhere to a particular religion. Then it can appear that the values are not particular for the religion concerned but do more reflect the situation the particular society is in (see Inglehart and Baker, 2000). The next step would then be to investigate the relation between the values and economic and political situation. The latter analysis should take account of the possibility that political leaders manipulate public opinion and the dominant view of and on religion. This view is not necessarily shared by the people, as is illustrated by Bernstein (2006) for the case of the African Renaissance initiated by the South African leadership.

Finally, do the results presented in this chapter show that religious values are totally irrelevant for economic development? Not necessarily show. My reading of this chapter's results is that no specific religion can be considered to be pro- or anti-growth. The values adhered to by the members of each large religion change due to economic circumstances and political pressure. Individual religious persons can be inspired by values taught and the history of his or her religion. Adherents of other religions have similar feelings and obtain inspiration from their religious sources. Hence, for the perspective of the individual or group religion is very relevant. From a broader, systematic point of view all religions have similar patterns. Future research by means of case studies and more quantitative methods can investigate whether such a position is valid.

## References

Alatas S.F. (2002). Religion, values and capitalism in Asia, in C.J.W.-L. Wee, (ed.) *The State, Culture and Capitalism in Southeast Asia*, Singapore: Institute of Southeast Asian Studies, 107- 126.

Alesina, A.F. and Glaeser, E.L (2004). *Fighting Poverty in the US and Europe: A world of difference*, Oxford: Oxford University Press.

Alon, I. and G. Chase (2005). Religious freedom and economic prosperity, *The Cata Journal* 25(2), 399-406.

Asherson, N. (1995). *Black Sea*, New York: Hill and Wang.

Barro, R.J. and R.C. McCleary (2003). Religion and Economic Growth Across Countries, *American Sociological Review* 68(5), 760-781.

Beugelsdijk S. (2005). A Note on the Theory and Measurement of Trust in Explaining Differences in Economic Growth, *Cambridge Journal of Economics* 30, 371-387.

Blum. U. and L. Dudley (2001). Religion and Economic Growth: Was Weber right? *Journal of Evolutionary Economics* 11, 207 -230.

Cuesta, J. (2004). From Economicist to Culturalist Development Theories: How strong is the relation between cultural aspects and economic development?, Institute of Social Studies, The Hague, *Working Papers Series* No. 400.

De Haan, J. and J.-E. Sturm (2000). On the relationship between economic freedom and economic growth, *European Journal of Political Economy* 16, 215-241.

De Jong, E. (2009). *Culture and Economics: On values, economics, and international business*, London: Routledge.

DiMaggio, P. (1994). Culture and economy, in Smelser, N.J. and R. Swedberg, (eds)., *Handbook of Economic Sociology*. Princeton NJ: Princeton University Press, 27-57.

Durlauf, S.N., A. Kourtellos and C.M. Tan (2005). How Robust are the Linkages between Religiosity and Economic Growth?, mimeo, Department of Economics, University of Wisconsin-Madison.

Eposito, J.L. and D. Mogahed (2007). *Who speaks for Islam?: What a billion Muslims really think*, Gallup Press, New York.

Geertz, C. (1969). Religion as a cultural system, in D.R. Cutler (ed.) *The World Year Book of Religion: the religious situation*, vol. I, London: Evans Brothers Limited, 639-688.

Grier, R. (1997). The effect of religion on economic development: a cross national study of 63 former colonies, *Kyklos* 50 (1), 47-61.

Guiso, L., P. Sapienza and L. Zingales (2003). People's opium? Religion and economic attitudes, *Journal of Monetary Economics* 50, 225-282.

Heath, W.C., M.S. Waters and J.K. Watson (1995). Religion and Economic Welfare: An empirical analysis of state per capita income, *Journal of Economic Behaviour and Organization* 27, 129-142.

Hofstede, G. (1980). *Culture's Consequences: international differences in work-related values*, Beverly Hills CA: Sage Publications.

Hofstede, G. (2001). *Culture's Consequences, Comparing Values, Behaviors, Institutions and Organizations across Nations, Second Edition*, Thousand Oaks CA: Sage Publications.

House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W. and Gupta, V. (eds.) (2004). *Culture, Leadership and Organizations: the Globe study of 62 societies*, London: Sage Publications.

Iannaccone, L.R. (1992). Heirs to the Protestant ethic? The economics of American Fundamentalists, in M.E. Marty and R. Scott Appleby (eds.) *Fundamentalisms and the State: Remaking politics, economics, and militance*, Chicago: The University of Chicago Press, 342-366.

Iannaccone, L.R. (1998). Introduction to the Economics of Religion, *Journal of Economic Literature* 36 (September), 1465-1496.

Inglehart, R. (1997). *Modernization and Postmodernization: Cultural economic and political change in 43 societies*. Princeton NJ: Princeton University Press.

Inglehart, R. and Baker, W.E. (2000). Modernization, cultural change, and the persistence of traditional values, *American Sociological Review*, 65(1), 19-51.

Knack S. and P. Keefer (1997). Does Social capital have an Economic Payoff?: A cross-country investigation, *The Quarterly Journal of Economics* 112 (4), 1251-1288

Kuran, T. (2004). Why the Middle East is Economically Underdeveloped: Historical mechanism of institutional stagnation, *Journal of Economic Perspectives* 18(3), 71-90.

Landes, D.S. (2006). Why Europe and the West? Why Not China?, *Journal of Economic Perspectives* 20(2), 3-22.

La Porte, R., F. Lopez-de-Silanes, A, Shleifer and R.W. Vishny (1998a). Trust in Large Organisations, *The American Economic Review*, 87(2), 333-338.

La Porte, R., F. Lopez-de-Silanes, A. Shleifer and R.W. Vishny (1998b). Law and Finance, *Journal of Political Economy* 106 (6), 1113-1155.

Lee, R. and S. Ackerman (1997). *Sacred Tensions: Modernity and Religious Transformation in Malaysi*, Columbia: University of South Caroline Press.

Lewer, J.J. and H. Van den Berg (undated). *Religion and Globalization: Do religious countries trade more?*, mimeo

Mangeloja, E. (2005). Economic growth and religious production efficiency, *Applied Economics* 37, 2349-2359.

Marini, M. (2004). Cultural evolution and economic growth: a theoretical hypothesis with some empirical evidence, *The Journal of Socio-Economics* 33, 765-784.

Maseland, R.K.J. (2006a). *Embedding Economics: The constitution of development and reform in Malaysia and the Philippines*, PhD thesis, Nijmegen: Radboud University Nijmegen.

Maseland, R.K.J. (2006b). *Path-dependence from present to past: The embeddedness of the EDSA-Revolution in Philippine history*, mimeo, Nijmegen School of Management, Nijmegen: Radboud University Nijmegen.

McClearly, R.C. and R.J. Barro (2006). Religion and economy, *Journal of Economic Perspectives* 20(2), 49-72.

Noland, M. (2005). Religion and economic performance, *World Development* 33(8), 1215-1232

Paldam M, (2001). Corruption and religion: Adding to the economic model, *Kyklos* 54(2/3), 383-414.

Platteau, J.-P. (2007). Religion, politics, and development: Lessons from the lands of Islam, mimeo, Centre for research in the Economics of Development, University of Namur.

Sakwa, M.M. (2006). *Bible and Poverty in Kenya: An empirical exploration*, PhD thesis, Nijmegen: Radboud University Nijmegen.

Sakwa, M.M., E. de Jong, J.B.A.M. Schilderman and J.A. van der Ven (2005). The Impact of Religion on the Means and Goals of Poverty Alleviation: An empirical attitudinal approach, *mimeo*, Nijmegen: Radboud University Nijmegen.

Sala-i-Martin, X, G. Doppelhofer, and R.I. Miller (2004). Determinants of long-term growth: A Bayesian averaging of classical estimates (BACE) approach, *The American Economic Review* 94 (4), 813-825.

Samuelsson, K. (1961). *Religion and Economic Action: A critique of Max Weber*, (translated from the Swedish by E. Geeffrey French and edited and with an introduction by D.C. Coleman), New York: Harper Torchbooks

Sen, A. (2004). How does culture matter?, V. Rao and M. Walton (eds.) *Culture and Public Action*, Stanford California: Stanford University Press, 37-58.

Tabellini, G. (2008). Institutions and culture, *Journal of the European Economic Association* 6(2-3), 255-294.

Tawney, R.H. (1962). *Religion and the Rise of Capitalism: A historical study*, Clouchester, Mass.: Peter Smith.

Ter Haar, G. and Ellis, S. (2006) 'The role of religion in development: towards a new relationship between the European Union and Africa', *The European Journal of Development Research*, 18(3): 351-367.

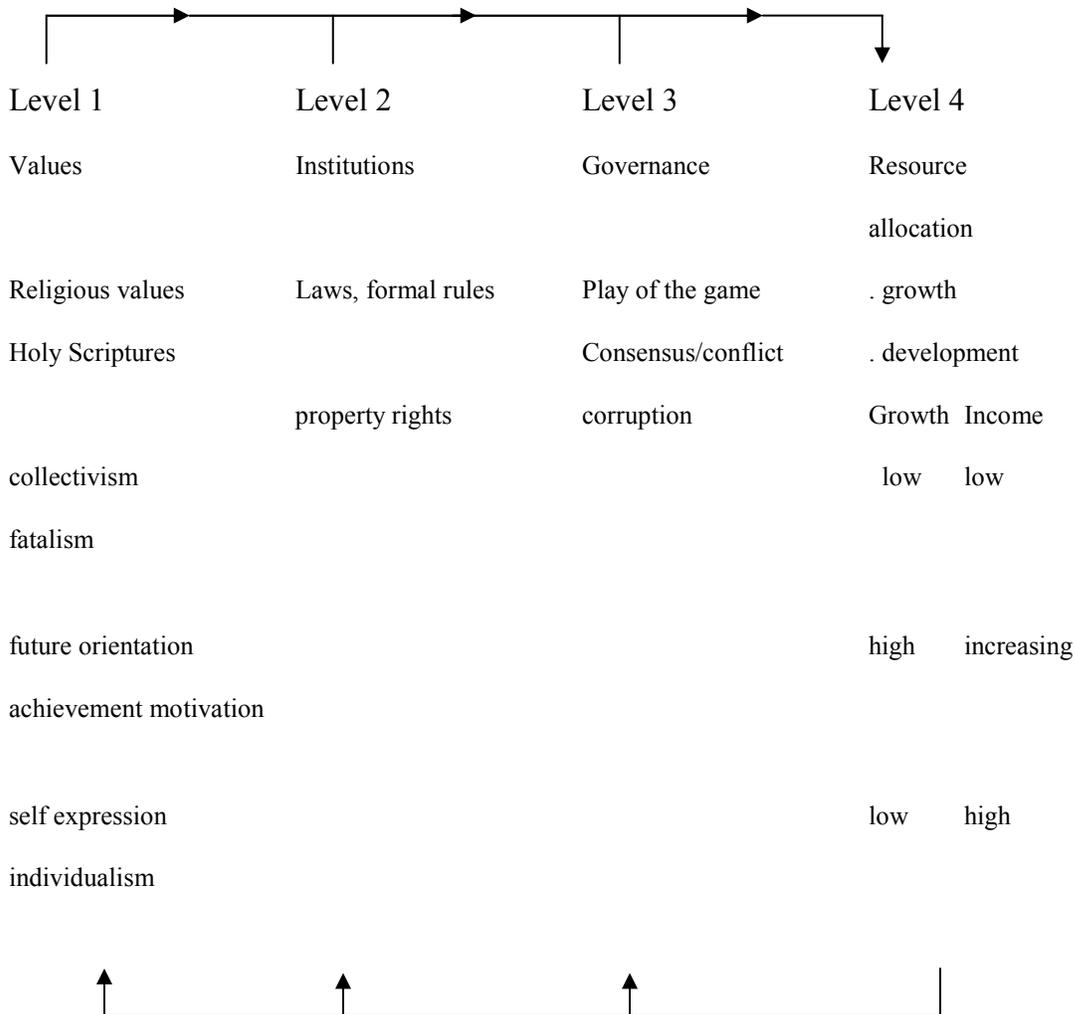
Van der Toorn, K. (2007). *Scribal Culture and the Making of the Hebrew Bible*, Harvard: Harvard University Press.

Weber, M. (1930/2001). *The Protestant Ethic and the Spirit of Capitalism* (with an Introduction by A. Giddens), Abingdon/New York: Routledge Classics.

Williamson, O. E. (2000). The new institutional economics: Taking stock, looking ahead, *Journal of Economic Literature* 38 (3), 595-613.

Yunus, M. (2003). *Banker to the Poor: Micro-lending and the battle against world poverty*, New York: Public Affairs.

**Figure 1: Values, institutions and growth**



Source: Adapted from De Jong (2009, Figure 7.1). The bottom part of this figure includes values and performance corresponding with the three phases of development described in the text.