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Religion and Economic Performance

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Summary. — This paper investigates the relationship between religion and economic performance. In both cross-country and within-country regressions, the null hypothesis that religious affiliation is uncorrelated with performance can frequently be rejected (i.e., religion matters), though the regressions do not yield a robust pattern of coefficients with respect to particular religions. The results with respect to Islam do not support the notion that it is inimical to growth. On the contrary, virtually every statistically significant coefficient on Muslim population shares reported in this paper—in both cross-country and within-country statistical analyses—is positive. If anything, Islam promotes growth.

Key words — growth, religion, Islam, India, Malaysia, Ghana

1. INTRODUCTION

Abundant evidence affirms that religious belief affects a wide range of behavioral outcomes (Iannaccone, 1998), and religious activity can affect economic performance at the level of the individual, group, or country through at least two channels. [1] In the *Wealth of Nations*, Adam Smith argued that participation in religious sects could potentially convey two economic advantages to adherents (Anderson, 1988). The first could be as a reputational signal: while the poor might look alike to potential employers, lenders, and customers, membership in a "good" sect could convey a reduction in risk associated with the particular individual. Second, sects could also provide for extra-legal means of establishing trust and sanctioning miscreants in intragroup transactions, reducing uncertainty and improving efficiency, especially where civil remedies for failure to uphold contracts were weak. This interpretation is essentially contentless with respect to the actual nature of religious belief. Indeed, there is nothing necessarily unique about religious sects in this regard—the argument could apply to a wide range of voluntary associations or clubs.

In a second line of argumentation, most prominently associated with Max Weber, it is the content of religious belief that is essential. In *The Protestant Ethic and the "Spirit" of Capitalism,* Weber (1905/2002) contended that the Protestant Reformation was critical to the rise of capitalism through its impact on belief systems. [2] Weber argued that the Calvinist doctrine of predestination and the associated notion of the "calling" were essential for transforming attitudes toward economic activity and wealth accumulation. The result was a "this-worldly asceticism," which focused adherents on diligent, efficient economic activity, thrift, and nonostentatious accumulation of wealth, which he saw as the bedrock of modern capitalism. Eisenstadt (1968) subsequently proposed a weaker version of the thesis—that it was not the specific theology *per se* but rather the "transformative potential" of religion that could account for wholesale alterations in values, behaviors, and outcomes.

This paper is an attempt to empirically analyze the second, Weberian, line of argumentation, with a particular emphasis of the alleged

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impact of Islam, recognizing per Greif (1994), Lal (1998), and Kuran (2003a) that intermediating institutions may be the mechanism through which religious belief affects economic performance at the aggregate level (and that Weber may have gotten the historical particulars wrong). [3] Three sorts of evidence are brought to bear on this issue: cross-country data analysis for a large sample of countries over a period of decades; a similar analysis for a small group of countries for nearly a century; and finally analyses of subnational data for three multireligious, multiethnic countries.

2. CROSS-COUNTRY ANALYSIS

Until recently, with occasional exceptions (e.g., Lewis, 1955), economists have paid little attention to the potential impact of religious belief on economic performance. Recent economic literature has in certain respects reploughed the ground of earlier modernization theorists, much of it by making use of the World Values Survey data, but with a more informed notion of the role of institutions in intermediating values and affecting outcomes. [4] LaPorta, Lopez-de-Silanes, Shleifer, and Vishny (1997) define Catholicism, Orthodox Christianity, and Islam as "hierarchical" religions, a characterization for which Guiso, Sapienza, and Zingales (2003) find some support in the responses in the World Values Surveys. LaPorta *et al.* found that "countries with more dominant hierarchical religions have less efficient judiciaries, greater corruption, lower-quality bureaucracies, higher rates of tax evasion, lower rates of participation in civic activities and professional associations, a lower level of importance of large firms in the economy, inferior infrastructures, and higher inflation" (LaPorta *et al.*, 1997, pp. 336–337). They did not find a robust relationship between hierarchy-dominant religions and infant mortality, educational achievement, and growth.

Extending this work using the World Values Survey data, Guiso, Sapienza, and Zingales find that Protestants, Catholics, and Hindus tend to be favorably disposed toward private ownership, while Muslims want significantly less private ownership. Protestants and Hindus alone accept the trade-off of greater income inequality for more growth, Jews and Muslims are opposed, and the results for other religions are statistically insignificant. [5] They interpret this finding as a vindication of Weber.

In a cross-country growth regression framework, Barro and McCleary (2003), analyzing data from 59, mostly developed, countries find that Hinduism, Islam, Orthodox Christianity, and Protestantism are negatively associated with per capita income growth relative to Catholicism, while Sala-i-Martin, Doppelhofer, and Miller (2004), in a larger sample of 88 countries, obtain the result that Islam, and in some specifications, Confucianism, are positively associated with per capita income growth relative to an excluded category apparently consisting of everyone except Confucians, Muslims, Buddhists, Protestants, Hindus, Catholics, and Orthodox Christians. Barro and McCleary (2003) also find that the intensity of belief (though not church attendance) is positively associated with per capita income growth while Sala-i-Martin, Doppelhofer, and Miller do not uncover any relationship between intensity of belief and per capita growth.

(a) *Multivariate analysis*

The hypothesis that religious attitudes affect national economic performance is a testable proposition. The first step is to construct a model in which the hypothesis that religion matters can be nested. A standard production function in the neoclassical growth model can be written as $Y = Ae^{\mu t}K^{\alpha}L^{1-\alpha}$, where Y is the gross domestic product, K is the stock of human and physical capital, L is unskilled labor, A is a constant reflecting the technological starting point of each society, and μ is the exogenous rate of technological change. As written, the aggregate production function is Cobb–Douglas with a capital (human and physical) share of α. Rewritten in intensive (i.e., per capita) form, the model implies that the growth rate of per capita income will slow over time as the marginal product on capital declines, and that in a cross-section, poorer countries (with lower capital–labor ratios) will tend to grow more quickly than rich countries, conditional on the saving–investment rate.

For some time, economists have been troubled by the fact that the actual growth trajectories of national economies seem to contradict both implications of the model. The endogenous growth approach sought to explain the first empirical anomaly through various mechanisms that would temper the tendency of declining marginal returns to slow the growth rate of rich economies, and set off the now vast literature on the determinants of long-run