The Impact of Islam on Economic Growth: Evidence From Cross Country Regressions

Nadwa Mossaad

University of Maryland Baltimore County

UMBC

Study Aim

❖ There has been a revival in Max Weber's theory about religion as an agent or an inhibitor for economic growth in recent years.

❖ Economists in particular care about aspects of religion that might shed light on why so many Muslim countries economic performances continue to lag behind other economies.

❖ The aim of this research is to examine, through scientific methods, whether religion and or religious intensity, directly or indirectly influence economic growth through the following:

1. Gender inequality
2. Human capital investment through education
3. Private and public investment in relation to GDP

❖ And to distinguish the findings from anecdotal beliefs which have enjoyed popularity in recent years.

Data

❖ World Values Survey: a survey of basic values and beliefs of individuals in their own environment and culture.

❖ Penn World Table: provides purchasing power parity and national income accounts converted to international prices for 179 countries for some or all of the years 1950-2000.

❖ Freedom House: a non-partisan, non-profit organization monitoring democracy and freedom trends over the world.

❖ Human Development report: Gender Empowerment Measure (GEM).

❖ Transparency International: Corruption Perceptions Index.

❖ World Development Indicators: World Bank data about development which includes 550 development indicators for 208 countries over a span of more than forty years, 1960-2003.

Methods

❖ A sample of 11 Muslim countries and 69 non-Muslim countries were chosen based on data availability.

❖ The dependent variables:

1. Gender Development Index (GID) and female-male ratio of the average total years of schooling (1960-2000)
2. The change in average total years of schooling from 1960-2000.
3. Average total investment (private and public) rate from 1960-2000 to real GDP.
4. Growth rate of real per capita GDP from 1960-2000.

❖ The religious intensity measure is a scale from 0 to 4 points, 0 indicating intensely religious and 4 not at all religious, based on answers to the following questions:

Muslim Country List:		
World Ranking	Country	Religious Intensity
2	Indonesia	2.66
6	Bangladesh	2.42
7	Pakistan	2.41
17	Iran, I.R. of	2.11
17	Egypt	2.11
19	Morocco	2.09
20	Algeria	2.08
20	Jordan	2.08
25	Turkey	1.96
35	Azerbaijan	1.65
41	Albania	1.46

Source: Author's Analysis of World Value Survey

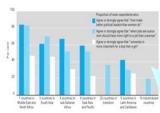1. *How often do you spend time with people at your church, mosque or synagogue?*
2. *Independently of whether you go to church or not, how important is religion to you?*
3. *Apart from weddings, funerals and christenings, about how often do you attend religious services?*
4. *How much confidence do you have in churches?*

Background

Islam & Gender Inequality.

Source: UNICEF calculations based on data derived from the World Values Survey, Round 4 (1999-2004). Data for each country and territory in the regional aggregates are for the latest year available in the period specified. Middle East and North Africa: Algeria, Egypt, Islamic Republic of Iran, Iraq, Jordan, Morocco, Saudi Arabia.
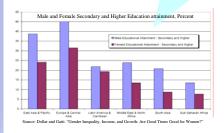
According to the World Value Survey; Muslims more than any other group strongly believe that boys' university education is more important than that of girls, that "when job are scarce men should have more right to a job than a woman". And that men make better political leaders.

Despite recent increases in female labor force participation rate (FLFP) in the Middle East and North Africa (MENA) it remains lower than any other region in the world. This trend has been consistent throughout the region's history despite periods of high economic growth, lower female illiteracy rates, faster urbanization, and even lower fertility rates than at least one other region in the world.

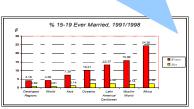Female Labor Force Participation (1970, 1990, 2000, 2004)

According to the Arab Human Development Report (AHDR), high illiteracy rates persist, especially amongst women. The rate of higher education along with the quality has been declining, and government spending on education has declined since 1985, while expenditure on research and development is a minuscule fraction of GNP.

Male and Female Secondary and Higher Education attainment, Percent

Source: Dollar and Gatti. "Gender Inequality, Income, and Growth: Are Good Times Good for Women?"

Despite a decline in early marriage in Arab countries, the Muslim world remains the second leading region in the practice. UNICEF estimates that the proportion of women married before the age of 18 remains as high as 45 percent in some Muslim countries.
Early marriage carries severe health, physiological, psychological, socioeconomic, and demographic consequences.

% 15-19 Ever Married, 1991/1998

•Source: Women's Indicators and Statistics Database (WISTAT), United Nations publication, based on various international and national sources, in particular the Demographic Yearbook (United Nations publication, various years up to 1997) and unpublished updates.

For nearly two and half decades after 1980, the region witnessed hardly any economic growth. World Bank data show that real GDP per capita in the Arab countries grew by a mere 6.4 per cent over the entire 24 year period from 1980 to 2004 (i.e. by less than 0.5 per cent annually) according to a new Arab Human Development Report.

Regression Analysis

❖ **Ordinary Least Squares (OLS) estimates**

$GI = \alpha + \beta W + \gamma R + \mu$

$ED = \rho + \theta K + \delta R + \varepsilon$

$INV = \zeta + \varphi X + \omega R + \upsilon$

$GR = \varphi + \xi GI + \zeta ED + \rho INV + \sigma R + \theta Z + \omega$

❖ **Dependant Variables:**

GI: Gender inequality variables

ED: Education variables

INV: Investment

GR: Growth rate of real per capita GDP from 1960-2000

❖ **Independent Variables:**

W: A set of variables that affect gender inequality

K: A set of variables that affect education

X: A set of variables which influence investment

Z: A set of standard cross-country growth regression variables

R: A set of religiosity measures

Results of Regression Models

❖ The purpose of this paper was to use The World Value Survey data for several countries among other data sets to test whether Islam and religious intensity within Muslim and non-Muslim countries have an indirect impact on economic growth through gender inequality, education and investment.

❖ The paper finds partial support for the hypothesis that Islam has a negative and significant impact on stocks of educational human capital. In particular, it finds that, other things equal:

✓ Islam is negatively associated with both the female-male ratio of average years of schooling and the change in average years of schooling.

✓ Religious intensity, within all countries, is not significant in the female-male ratio of average years of schooling regressions

✓ But significant and negative in the change in average years of schooling regressions.

✓ Islam has a positive and significant association with investment.

✓ Religious intensity within Muslim countries has negative and significant association with investment.

✓ The growth regressions yield insignificant results overall; religious intensity for all countries seem to be insignificant and within Muslim countries to be significant and conducive to growth.

❖ Although the results show a link between Islam and gender inequality, inferior educational attainment and therefore lower rates of potential economic growth, it is important to remember that, as with all empirical growth regressions, the findings do not explicitly show causality but only association.

❖ The statistically significant coefficients on religious variables might be capturing unobservable country specific effects that are perhaps correlated with religion. This could also be attributable to omitted variable bias, measurement errors, or misspecification.

Contact

Nadwa Mossaad
Research Associate
Population Reference Bureau
nmossaad@prb.org
202-939-5474