

Pentecostals/Charismatics,
Ethnoreligionists, Protestants, Jews, and total Christians collectively,
explain much of countries" Globalization
Index.

Section I discusses the literature, Section II examines the data sources,
Section III describes the
methodology used, Section IV reports the findings, and the last section
provides conclusions.

Section I: Literature Review

If all of the ten countries set to enter the European Union are admitted, it
will form a 444 million-customer
bloc (European, 2002). NAFTA has already created a market with 387 million
customers. The GDPs of the two
groups are estimated to be \$8.4 Trillion and \$11.4 trillion, respectively.

Lavin (2002) notes that "thanks largely to the fact that a decent education,
Microsoft Office, and the
Internet are all as useful in Manila as Minneapolis, the service sector has
gone mobile." International movement of
many services is limited only by the cost of communication, and that has become
virtually free.

After the October 2002 bombing of discos in Bali, a Florida travel agent said
"her clients are increasingly
asking about the religious makeup of destinations. „They really think about
non-Muslim countries,"" (Skittish,
2002)

Melloan (2002) reports that "only a very small percentage of the American
workforce feels threatened by
„cheap labor" abroad. And a fairly large percentage of the American polity
understands that erecting trade barriers

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email.

International Business & Economics Research Journal
Volume 2, Number 5

or subsidizing selected domestic industries with tax dollars makes everyone
poorer." At the same time, the anti-
globalization movement has been supported by organized labor.

In his review of Daugherty's Who's Afraid of Adam Smith, McMahon (2002)
notes that those opposed to
globalization claim that capitalism is synonymous with unbridled greed.
However, Adam Smith was trained as a
moral philosopher. He believed that markets forced people to be concerned about

how they were viewed by others.

“Far from rewarding naked greed, the market encourages probity, temperance and fair dealing. The fear of losing customers restrains „frauds" and corrects „negligence." In trade as in life, Smith avowed, „honesty is the best policy.”” Smith gave much of his own fortune to charity.

Foreign Policy Magazine and A. T. Kearney, Inc. produce the Globalization Index, which evaluates nations on economic integration, personal contact, technological connectedness, and political engagement (Gray, 2002).

The current version of the Index evaluates sixty-two countries comprising 85% of the world's population and 90% of the world's economic output. The originators of the Index have found that the greater a nation's globalization the greater its income equality and political freedom and the lower its corruption. Higher globalization is also positively correlated with the World Values Survey of “subjective well-being”.

Government taxing and spending levels are highly correlated with each other but uncorrelated with globalization. And, globalization is not correlated with the size of a country's economy.

A paper by the present author finds that 28.6% of the Index of Economic Freedom of nations can be explained by the religions practiced in those nations (reference omitted for blind reviewing). Therefore, it is possible that globalization, which is at least partly economic, may also be related to religion.

Section II: Data Sources

The Globalization Index Published by Foreign Policy Magazine in cooperation with A. T. Kearney, Inc.

(hereafter called the Index) is a composite of several factors. It includes:

? Economic integration by combining data on trade, foreign direct investment and portfolio capital flows, and income payments and receipts....

? Personal contact via levels of international travel and tourism, international telephone traffic, and cross-border transfers....

? Technological connectedness by counting Internet users and the Internet hosts and secure servers....

? Political engagement by taking stock of the number of international organizations and U.N. Security Council missions in which each country participates, as well as the number of foreign embassies that each country hosts. (Gray, 2002).

The distribution of various religions is obtained from the World Christian Encyclopedia (2001). Other sources were discarded since each excluded many of the countries in the Index or only gave a listing of religions without numbers. This source gives percentage breakdowns by various Christian categories and several other religions. The Christian categories are not mutually exclusive. For example, denominational categories (i.e.: Roman Catholic, Protestant, etc.) overlap with other types (i.e.: Evangelical, Pentecostal/Charismatic, etc.). Also, some individuals may practice more than one religion (e.g.: Some in the Caribbean practice both Roman Catholicism and Voodoo). Furthermore, religions are self reported and may be biased. These facts must be kept in mind when interpreting the results.

Some religions are clearly defined while others need to be clarified. The definitions below are verbatim from the World Christian Encyclopedia (2001).

Independents. Separated from, uninterested in, and independent of historic denominationalist Christianity.

Evangelicals. A subdivision mainly of Protestants consisting of all affiliated church members calling themselves Evangelicals, or all persons belonging to Evangelical congregations, churches or denominations: characterized by commitment to personal religion.

International Business & Economics Research Journal
Volume 2, Number 5

Charismatics. Baptized members affiliated to nonpentecostal denominations who have entered into the experience of being filled with the Holy Spirit.

Great Commission Christians. Believers in Jesus Christ who are aware of the implications of Christ's Great Commission, who have accepted its personal challenge in their lives and ministries, are attempting to obey his commands and mandates, and who are seeking to influence the body of Christ to implement it.

Ethnoreligionists. Followers of a non-Christian or pre-Christian religion tied closely to a specific ethnic group, with membership restricted to that group; usually animists, polytheists, or shamanists. Older terminology: pagans, heathens, tribal religionists, traditional religionists.

[In this paper the term is also used to include Chinese folk religionists and spiritists.]

Nonreligious. Persons professing no religion, no interest in religion; secularists, materialists; agnostics, but

not militantly antireligious or atheists.

Atheists. Militantly anti-religious or anti-Christian agnostics, secularists, or marxists.

Section III: Methodology

Simple regressions are used to determine which individual religions are significantly related to the Globalization Index and stepwise multiple regression is employed to evaluate combinations of religions.

Since religions are correlated, the fraction of the Index explained by a set of them may differ from the total of the fractions explained by the religions individually. Three sets of religions are employed: Christian denominations (Christian, Roman Catholic, Protestant, Anglican, Orthodox, and Independent), Christian types (Christian, Evangelical, Pentecostal/Charismatic, and Great Commission Christians), and non-Christian religions (Muslim, Jewish, Baha'i, Buddhist, Hindu, Ethnoreligionist, Nonreligious, and Atheist).

The Index is regressed on each set separately using stepwise regression to determine the combination of two, three, etc. within each set that provides the greatest explanatory power. Finally, stepwise regression is applied to all the classes to determine the set of religions that explains globalization the best.

To determine whether a larger model increases R² enough to be significantly better than a smaller model, an F test is employed:

$$F = [(R2L - R2S)/(kL - kS)] / [(1 - R2L)/(N - kL - 1)]$$

where: df = (N - kL - 1), (N - kS - 1)

R²L = the R² of the larger model (more religious groups),

R²S = the R² of the smaller model,

kL = the number of groups in the larger model,

kS = the number of groups in the smaller model, and

N = the sample size.

Section IV: Findings

Table 1 shows the correlation, slope, significance level, and adjusted R² of the Index regressed individually on each group. The correlation is the Pearson Product-Moment correlation. Remembering that a smaller Index indicates higher ranking, a negative correlation indicates that religion is associated with more globalization.

The slope indicates the change in Index (from 1-62) associated with a one

percent increase in the religion's membership. The sign has the same meaning as with correlation. The significance level is indicated to three decimals although some are much more significant than that. In the text, significance levels are reported in parentheses. For example, for each additional percent of Christians in the population, that country's Index changes -0.162. Christian nations are significantly (.006) more globalized.

International Business & Economics Research Journal
Volume 2, Number 5

The R2 indicates the proportion of the variation in Index explained by that religion's membership.

Adjusted R2 are reported so those that are negative must be interpreted as zero. For example, the percentage of Christians in a nation explains 10.3% of that country's Globalization Index.

Only three non-Christian groups help to explain globalization. As the percentage of Muslims in a country increases, its globalization significantly (0.002) decreases. As the percentage of nonreligious and atheists populations increase, a nation's globalization significantly (0.035 and 0.077) increases.

Table 1
Simple Regressions on Globalization Index
Correlation Slope R2 Significance

Correlation	Slope	R2	Significance
Christians:			
All Christians		-0.343	-0.162 0.103
0.006			
Roman Catholic		-0.033	-0.016
-0.016	0.801		
Protestant		-0.443	-0.348 0.183
0.000			
Anglican		-0.129	-0.272 0.000
0.318			
Orthodox		0.057	0.057
-0.013	0.661		
Independent		0.157	0.313 0.008
0.224			
Evangelical		-0.175	-0.499 0.015
0.172			
Pentecostal/Charismatic		0.155	0.231 0.008
0.228			
Great Commission Christians		-0.683	-0.886 0.458
0.000			
Non-Christian:			
Muslim		0.379	0.208 0.130

0.002			
Baha'is	0.181	12.915	0.017
0.159			
Buddhist	0.142	0.165	0.004
0.270			
Jew	-0.104	-0.192	
-0.006 0.421			
Jewish (Israel excluded)	-0.184	-8.174	0.017
0.156			
Hindu	0.144	0.269	0.004
0.265			
Ethnoreligions	-0.054	-0.095	
-0.014 0.677			
Nonreligious	-0.268	-0.604	0.056
0.035			
Atheist	-0.226	-1.399	0.035
0.077			

Stepwise regression of the Index on multiple denominations results in a two-factor model:

$$\text{Index} = 41.582 - 0.291 \text{ Protestant} - 0.106 \text{ Christian},$$

(1)

(0.000) (0.003) (0.067)

and a three-factor model:

$$\text{Index} = 40.300 - 0.291 \text{ Protestant} - 0.127 \text{ Christian} + 0.464 \text{ Independent}.$$

(2)

(0.000) (0.002) (0.027) (0.043)

(The numbers in parentheses under each equation indicate the significance level of each coefficient.) The coefficients of Protestant and Christian are both negative indicating that the larger each group, the greater the globalization of the country. The positive Independent coefficient means that the more Independents a country has, the less globalized it is. It is interesting to note that Independents do not significantly explain globalization when taken separately. However, after part of the variance in the Index is explained by the other two variables, Independents significantly (0.043) explain the remaining variance.

International Business & Economics Research Journal
Volume 2, Number 5

The relative size of the coefficients indicate that a given percentage change in Independents has about one and one-half times the impact of the same change in Protestants which in turn has about two and one-half times the

impact of Christians. The R2s of models (1) and (2) are 0.216 and 0.257. F tests show model (1) is significantly (0.000) better than Protestants alone and model (2) is significantly (0.000) better than model (1). No four-factor model does significantly better than (2).

When the Index is regressed on types of Christians, the best model is:

$$\text{Index} = 42.212 - 0.945 \text{ Great Commission} + 0.410 \text{ Pentecostal/Charismatic.}$$

(3)

(0.000) (0.000) (0.003)

The signs of the coefficients indicate that greater percentages of Great Commission Christians and smaller percentages of Pentecostal/Charismatics are related to more globalization. The proportional impact of a given percentage change in the former is more than twice as great as the impact of the same percentage change in the latter. The R2 of 0.525 is significantly (0.000) better than either group alone.

Stepwise regression of the Index on all Christian categories produces the same two-factor model (3). No three-factor model is better.

When the Index is regressed on non-Christian religions, only a two-factor model predicts better than the best single class. It is:

$$\text{Index} = 25.693 + 0.210 \text{ Muslim} + 13.498 \text{ Baha}^i.$$

(4)

(0.000) (0.002) (0.114)

The signs indicate that both religions are related to less globalization. Two observations need to be stressed, however. First, although adding Bahaⁱs to Muslims significantly (0.048) increases the R² from 0.130 to 0.152, the Bahaⁱ coefficient is not, by itself, significant. Second, the very large Bahaⁱ coefficient needs to be interpreted with caution. None of the nations in the study has more than 1.2% Bahaⁱs while Muslims account for up to 98.9%. Therefore, the overall impact of Muslims is greater. Thus, the Bahaⁱ contribution is statistically significant but may not be significant economically, etc.

When all religions are examined model (3) is again the best two-factor model. The best three-factor model for all religions is:

$$\text{Index} = 43.672 - 0.980 \text{ Great Commission} + 0.448 \text{ Pentecostal/Charismatic}$$

(0.000) (0.000) (0.001)

-0.322 Ethnoreligion
(5)
(0.041)

which has an R2 of 0.550. The best four-factor model is:

Index = 44.619 – 0.868 Great Commission + 0.546 Pentecostal/Charismatic
(0.000) (0.000) (0.000)

-0.375 Ethnoreligion – 0.276 Protestant.
(6)
(0.007) (0.000)

with an R2 of 0.660. The best five-factor model is:

Index = 45.744 – 0.889 Great Commission + 0.532 Pentecostal/Charismatic
(0.000) (0.000) (0.000)

International Business & Economics Research Journal
Volume 2, Number 5

-0.397 Ethnoreligion – 0.281 Protestant – 0.333 Jewish.
(7)
(0.003) (0.000) (0.155)

with an R2 of 0.688. The best six-factor model, and the best overall model, is:

Index = 50.189 – 0.752 Great Commission + 0.707 Pentecostal/Charismatic
(0.000) (0.000) (0.000)

-0.542 Ethnoreligion – 0.260 Protestant – 0.391 Jewish
(0.000) (0.000) (0.003)

-0.136 Christian.
(8)
(0.004)

with a final R2 of 0.727.

In each of the above, (5-8), the larger model is significantly (0.000) better than the next smaller one. All of the religions appearing, with the exception of the Pentecostal/Charismatic group, are positively associated with globalization. Also, in each case, the impact of a given percentage change in each group is (approximately) in the same order as the entry of the various religions. The Jewish weighting is larger than the Protestant weighting, but except for Israel, no nation has more than two percent Jews. The Pentecostal/Charismatic, Ethnoreligion, and Jewish groups do not significantly explain globalization when examined individually, but when the total variance in the Index is reduced by the other variables, these three each explain a significant portion of the remainder.

Section V: Conclusions

This paper examines the relationships between the Globalization Index and the worldwide distribution of various religions.

Simple regression results indicate that nations with higher percentages of Christians, Protestants, Great Commission Christians, the nonreligious, and atheists have significantly greater globalization. Muslims populations are negatively related to globalization. Great Commission Christians, by themselves, explain 45.8% of nations' Globalization Index.

Stepwise regression results indicate that the denominational sets of Protestants, Christians, and Independent Christians explain 25.7% of the Globalization Index. The Christian types Great Commission Christians and Pentecostal-Charismatics explain 52.5%. The greatest explanation of globalization is found from the percentages of Great Commission Christians, Pentecostal-Charismatics, Ethnoreligionists, Protestants, Jews, and total Christians. Together, these explain an astounding 72.7% of the variability in globalization across nations.

Although causality is not claimed, most of these world religions have existed for centuries or millennia and globalization is a relatively new concept, so it is logical to conclude that religion impacts globalization and not the other way around.

The ability of the final model to explain 72.7% of the total variance in the Globalization Index is startling. As far as the author can determine, no one has previously examined the connection between religion and the Globalization Index. ?

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