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Do Strong Religious Beliefs Stifle Innovation?



Japan features extremely high innovation and relatively low religiosity.

Getty Images

Countries that are intensely religious are typically less innovative than those that aren't, according to a new paper published by the **National Bureau of Economic Research**.

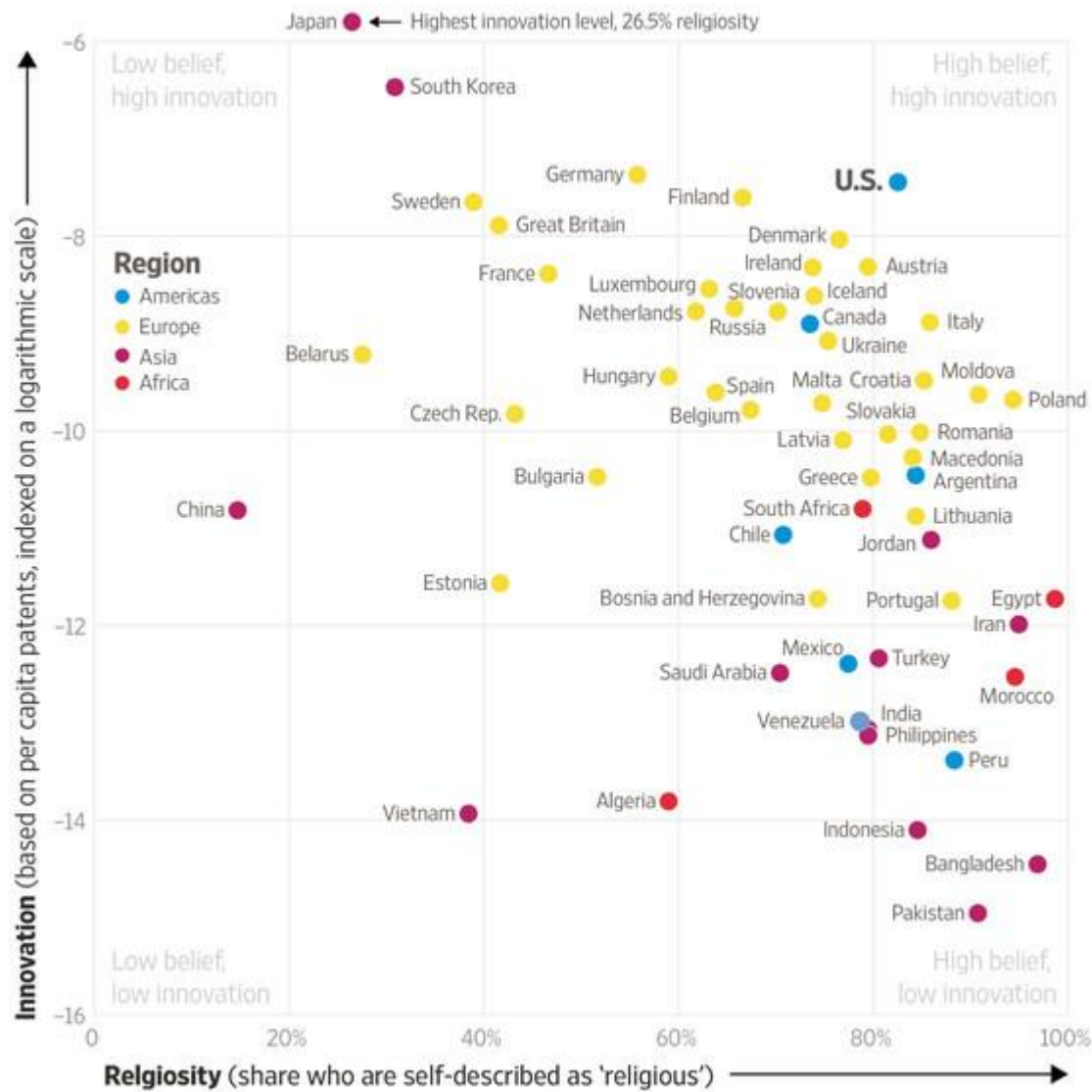
The study, titled "[Forbidden Fruits: The Political Economy of Science, Religion, and Growth](#)," compares religious beliefs and belief in God with scientific innovation as measured by issuance of patents.

"In both international and cross-state U.S. data, there is a significant and robust negative relationship between religiosity and patents per capita," according to authors **Roland Bénabou**, a **Princeton**

University economist, and **Daide Ticchi** and **Andrea Vindigni**, both economists at Italy's **IMT Institute for Advanced Studies Lucca**.

The relationship is apparent when plotting the percent of the population that describes itself as religious against a population-controlled measure of patent applications filed by a country's residents.

Relationship between innovation and religiosity, 2000



Source: Roland Bénabou, Davide Ticchi and Andrea Vindigni

THE WALL STREET JOURNAL.

The relationship broadly holds up when the authors make adjustments for differences in gross domestic product, rates of higher education, population and other variables. So it's not simply a matter of more religious countries being poorer or having fewer resources, Mr. Bénabou said in an interview.

"We're not making strong claims as to what is causing what," he said. "The pattern is there and people can offer their own explanation to the pattern."

The paper also delves into the types of political and scientific regimes that result from religious conviction, ranging from a Western European model with relatively unimpeded scientific progress and a declining role for the Church to a theocratic model with a political class closely allied to religious leaders who are resistant to scientific discoveries. Both feature high taxes, though spending is channeled toward different ends.

In between is the so-called American model, where scientific progress is usually unimpeded, religious beliefs are stable, the Church more likely to adapt (than resist or simply fade away) and taxes are lower. But in America, the strongly religious rich and poor have crossed class boundaries to form political alliances that seeks to block ideas conflicting with their beliefs.

“Inequality can thus be harmful to knowledge and growth, by inducing obscurantist, anti-science attitudes and policies,” the authors said. As examples, they cite [restrictions on federal funding for embryonic stem cell research](#) under **President George W. Bush** and tax breaks for the expansion of the [Creation Museum](#) in Kentucky.

Messrs. Bénabou, Ticchi and Vindigni are careful to note that their paper isn’t insisting that religion impedes economic growth or economic growth impedes religion.

“We focus on one key determinant of growth—science and innovation—but religion also ties into many others: general literacy, thrift, social norms, civil peace or strife, etc.,” the paper said. “Moreover, our model highlights how conflicts between new scientific knowledge and prevailing religious beliefs can lead not only to repression of the former or erosion of the latter, but also to their coexistence.”

One last note: The authors focus on traditional religion but also suggest that any overly rigid ideology can impede science. As an example, they cite the **Soviet Union** from the 1930s through the 1960s, when “Inquisition-like methods (forced denunciations, imprisonments, executions) were used to repress ‘bourgeois’ scientific knowledge and methodology in evolutionary biology and agronomy, with adverse spillovers onto many other areas.”