EBERHARD KARLS UNIVERSITÄT TÜBINGEN

Public Relations

Christfried Dornis
Director

Tilman Wörtz
Content and media scout

Phone +49 7071 29-78622
tilman.woertz[at]uni-tuebingen.de

presse[at]uni-tuebingen.de
www.uni-tuebingen.de/aktuell

Press release

Economic inequality increases risk of civil war

Study at the University of Tübingen analyzes distribution of land and income in past two hundred years – risk of civil war has increased in the United States, Great Britain and Russia

Tübingen, 16.06.2025

If economic inequality increases within a country, the risk of civil war breaking out grows. This is the finding from a study by the Chair of Economic History at the University of Tübingen following analysis of data stretching over two centuries and covering a total of 193 countries. The study has been published in the *Review of Income and Wealth*.

It took a newly-developed standard for calculating economic inequality to enable analysis over such a long period of time. This standard focuses equally on income, land ownership and variations from average height. “The further we look back into history, the more gaps there are in the data on income measured in money,” says Professor Jörg Baten from the Chair of Economic History at the University of Tübingen, who is the head of the study. There is for example barely any reliable information for the Global South prior to 1980. “Distribution of land and height on the other hand are easier to measure and well-documented back to the early 19th century,” says Baten.

While individual differences in height depend largely on genetic disposition, they are almost irrelevant to the average height of a population. “Instead, diet and access to medical care determine the average growth of a population,” says Baten. The heights of income groups within societies thus differ strongly. For example, in the decades before the American Civil War of 1861-65, the difference in height between unskilled workers and higher income groups rose from 1.6 to 3.0 cm (as did the difference in the population as a whole). With similar benchmarks it is possible to fill gaps in the data sets on the unequal distribution of income.

Baten and his team are now correlating their new standard for inequality with the number of civil wars in a country per decade. This includes referring to the Correlates of War Project (COW) database. The scientists from this American digital research platform define a war or civil war as a conflict with over 1,000 dead from combat operations in a year. As a whole, the study drew on data sets from 193 countries worldwide, taking into account border changes.

The calculations revealed a statistically significant connection between unequal distribution of income and the outbreak of civil wars. The results can be verified using historic events: for example, land was extremely unequally distributed in Russia before the October revolution of 1917 – and this critically contributed to the outbreak of revolution and civil war, a marker that was also identified by the new benchmark with a correspondingly high probability. The new benchmark also makes it possible to predict the risk of civil war today: “In the USA the inequality in income distribution has risen sharply in the past thirty years. Accordingly, the risk of a civil war in the USA has risen drastically from 10 to 21 percent,” says Baten. In Great Britain, China, India and Russia too, inequality has risen greatly in the same period.

Other variables: population, previous civil wars, democracy

“We’ve checked what influence other variables had on the outbreak of civil wars,” says Laura Radatz, co-author of the study. “For instance, the size of a country and its population naturally increase the probability that a civil war will break out somewhere in this country.” China accordingly heads the list with nine civil wars in the past two hundred years, followed by Mexico, Argentina, Columbia, Ethiopia, Iraq, Russia and Turkey. “In addition, previous civil wars increase the probability of resorting to arms again, while growing democratization reduces it,” says Radatz. The amount of economic growth in a country does not measurably influence the risk of a civil war, according to the study.

The researchers also discuss which economic policy measures can reduce the unequal distribution of income and thus the danger of a civil war. More progressive income tax or better access to high-quality education for large parts of the population increased equality in a country – and reduced the danger of a civil war.

“The study is an important contribution to understanding the dynamics of civil wars. Economic inequality is often given as a reason for conflicts in the literature. However, now there is a new statistical measure for calculating this correlation both long-term and globally,” says Prof. Dr. Dr. h.c. (Dōshisha) Karla Pollmann, President of the University of Tübingen.

Original publication:
Laura Radatz, Jörg Baten: “Measuring Multidimensional Inequality and Its Impact on Civil War Outbreak in 193 Countries, 1810-2010”, *Review of Income and Wealth*, 2025, https://doi.org/10.1111/roiw.70016

Database on heights:
https://clio-infra.eu/Indicators/HeightGini.html

Correlates of War Project with data on civil wars:
https://correlatesofwar.org

Contact:

Prof. Dr. Jörg Baten
University of Tübingen
Chair of Economic History
Phone +49 7071 29-72985