

## Executive summary

**H**ow was life in 1820, and how has it improved over time? Our view on socio-economic development since the Industrial Revolution is to a large extent based on the evidence produced by historical national accounting in the tradition of Simon Kuznets and Angus Maddison. But trends in gross domestic product (GDP) per head do not fully reflect the various dimensions of well-being, such as life expectancy, education, personal security or inequality. Increasingly, measures of current human development are framed in terms of well-being rather than in solely economic terms, but can we do the same for the lives of our ancestors?

Economic historians and other social scientists have been producing data that cover non-material dimensions of well-being for some years, but so far they have not been compared systematically over time and space. There may be information on life expectancy in some European countries in the 19th century, for example, but it has not been possible to compare them with figures for Africa. As a result, most studies charting long-term development trends in the world still rely heavily on estimates of per capita GDP. This report aims to fill this gap. It presents for the first time systematic evidence on long-term trends in global well-being since 1820, providing estimates for a large sample of countries. Trends are charted for 25 countries, 8 world regions and the world economy as a whole. This is done by collecting, harmonising and documenting state-of-the-art estimates developed through the Clio-Infra project. This report presents the data and discusses data sources and limitations, provides an overview of trends, and pinpoints avenues for further research.

The report examines 10 individual dimensions of well-being, tracking them over time and space, then pulls them together in a new composite indicator. The dimensions covered reflect a broad range of material and non-material aspects of well-being: per capita GDP, real wages, educational attainment, life expectancy, height, personal security, political institutions, environmental quality, income inequality and gender inequality. Obviously, the data quality will differ across indicators, time and countries. This report presents the various historical datasets for each specific dimension of well-being, discusses their limitations and indicates where further progress can be made.

These new data open up the possibility to chart developments of well-being around the world in the past two centuries. They can be used to analyse the broad development paths of individual countries, or to analyse differences in performance across countries in one particular dimension. Due to its comprehensive and broad coverage in time and space, the data in this report allow asking broader questions. Does this new way of looking at human development give a fundamentally different picture from the one based on

GDP estimates? Was the world more or less unequal if we look through the prism of well-being rather than of GDP? This report provides some initial answers by systematically investigating the correlations between GDP per capita and each of the other dimensions of well-being. Needless to say, statistical correlations are silent on possible causalities; they provide, however, a first necessary step towards a better understanding of complex relationships between the various facets of well-being and their determinants.

## Main findings

The book provides evidence on historical trends in 10 different dimensions of well-being. For some of these dimensions the statistical correlation with the evolution of GDP per capita is strong. **Education** (as measured by literacy and educational attainment) and **health status** (as measured by life expectancy and height) improved strongly in many countries in the world, and there is a strong cross-section and over-time correlation with GDP per capita. Around 1820, less than 20% of the world population was literate and this group was heavily concentrated in Western Europe. Literacy rates and schooling dramatically increased after 1945 in many regions in the world, reaching around 80% of the world population in 2000. Life expectancy at birth was about 33 years in Western Europe around 1830, 40 years in 1880, and almost doubled in the period after, with the largest improvements occurring in first half of the 20th century. In the rest of the world, life expectancies started to increase from much lower levels, rising in particular after 1945. Worldwide life expectancy increased from less than 30 years in 1880 to almost 70 in 2000. There is strong evidence of a shift in the relationship between health status and GDP per capita over the past two centuries. Life expectancy improved around the world even when GDP per capita stagnated, due to advances in knowledge and the diffusion of health care technologies.

The statistical correlation with GDP per capita was much weaker for other well-being dimensions. **Political institutions** (as measured by electoral participation and competition) have greatly improved around the world in the past century. But their development was far from gradual, with sometimes violent swings in political rights in some countries. Also differences across countries in **personal security** (measured by homicide rates and exposure to conflict) do not correlate well with GDP per capita. Western Europe was already quite peaceful from the 19th century onwards, but homicide rates in the United States have been relatively high throughout the period considered. Large parts of Latin America and Africa are also violent crime “hotspots”, and so is the former Soviet Union (especially since the fall of communism), while large parts of Asia show low homicide rates.

A negative correlation with GDP per capita is clearly in place when looking at **quality of the environment**. Biodiversity declined in all regions and worldwide as land use changed dramatically. Per capita emissions of CO<sub>2</sub> increased after the industrial revolution in Western Europe and its Offshoots, accelerating in the mid-20th century as other regions increased their GDP, and is still increasing globally. Per capita emission of SO<sub>2</sub> (a local pollutant) also increased alongside higher industrial production, but were curbed since the 1970s thanks to the advent of cleaner technologies.

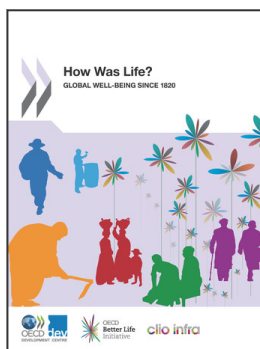
Long-term trends in **income inequality**, as measured by the distribution of pre-tax household income across individuals, followed a U-shape in most Western European countries and Western Offshoots. It declined between the end of the 19th century until about 1970, followed by a rise. In Eastern Europe, communism resulted in strong declines

in income inequality, followed by a sharp increase after its disintegration in the 1980s. In other parts of the world (China in particular) income inequality has been on the rise recently. The global income distribution, across all citizens of the world, was uni-modal in the 19th century, but became increasingly bi-modal between 1910 and 1970 and suddenly reverted to a uni-modal distribution between 1980 and 2000.

**Gender inequality** as measured by outcomes in health status, socio-economic status and political rights, has been on a declining trend over the past 60 years in most world regions. Only in East Asia and in Eastern Europe has the decline in gender inequality stalled since the 1980s. Differences in levels of gender inequality across regions remained, however, significant: Europe (including Eastern Europe) and the Western Offshoots performed best (albeit no country reached full gender equality). The Middle East and North Africa (mainly due to weak political rights) and South and Southeast Asia (due to skewed sex ratios at birth) performed worst.

The **Composite indicator of well-being** presented in this report indicates that progress in well-being has been widespread since the early 20th century, with the possible exception of Sub-Saharan Africa. The evidence presented in this report also suggests that since the 1970s between-country inequality in composite well-being has been lower than in GDP per capita, while being more pronounced in the period before.

Overall, this book collects, summarizes and critically discusses our current knowledge on long-term trends in global well-being over the past two centuries. While it provides a better view than one based on GDP per capita alone, weak spots remain in our knowledge, in particular concerning development in Africa before 1950 and in major Asian countries in the 19th century. It is hoped that this book will stimulate further research into these areas.



**From:**  
**How Was Life?**  
Global Well-being since 1820

**Access the complete publication at:**  
<https://doi.org/10.1787/9789264214262-en>

**Please cite this chapter as:**

van Zanden, Jan Luiten, *et al.* (eds.) (2014), "Executive summary", in *How Was Life?: Global Well-being since 1820*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264214262-4-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org). Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at [info@copyright.com](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).