The Big Picture: Measuring the Origins of the Modern World

In 2002, a group of historians and economists gathered at the University of Oxford to discuss one of the most consequential questions at the intersection of their fields: when and why did Europe overtake China, India, and the Middle East as the dominant power in the world economy?

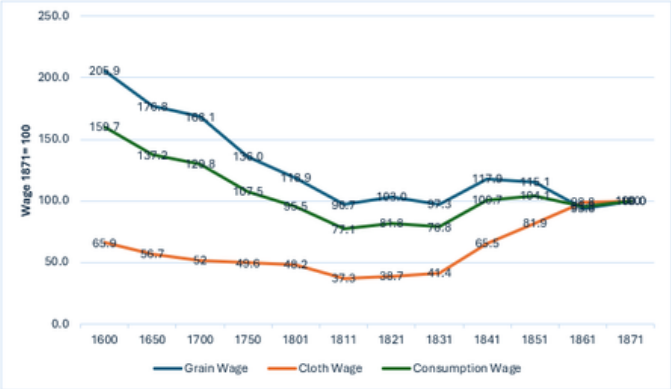
"The conversation was amazing," recalls Bishnupriya Gupta, an expert in India's economic history. "But we did not see much data in it."

Gupta was particularly interested in the role of colonialism as a driver of this "Great Divergence" between Western Europe and Asia.

Together with her colleague, Stephen Broadberry, she started gathering numbers on early modern living standards in Britain and India, working through bills, receipts, and other hints of what was happening to the budgets of ordinary people in the two regions. They calculated day wages in local currencies for different time periods, then converted these to "grain wages," based on how much food the wages could buy.

The data wasn't quite what Gupta expected. "We need to show that colonialism was driving this," she recalls saying before their work began. Yet data showed a more complicated picture. "India's fall started before British colonisation," Gupta explains. When the East India Company took power in Bengal in 1757, India was already in a century-long economic decline.

Things were not always so. In 1600, living standards looked similar in India and Britain. British workers could afford slightly more food, but the difference was marginal. The ensuing decades were good for the British economy, while India's fate went the other way: wages declined. By 1750, real wages in India were less than half of those in Britain.



Indian wages, measured as the purchasing power of grain, cloth, and a general "consumption basket"

"India's troubles started before colonialism, but Gupta doesn't think this supports a rosy view of British rule either. "Overall, I believe that colonisation was a story of extraction," she says. "The British do not do much to the Indian economy. They don't invest in agriculture." There was no long-term growth in India.

For Gupta, farming is what really matters.

Many polemicists have used reports of India's courts to paint a picture of an affluent pre-colonial India. The Mughal courts certainly were glittering, with terms like "real estate mogul" carrying these connotations to this day. Yet the riches of a court told little about what was going on for the average Indian family, its prospects tied to a decent harvest.

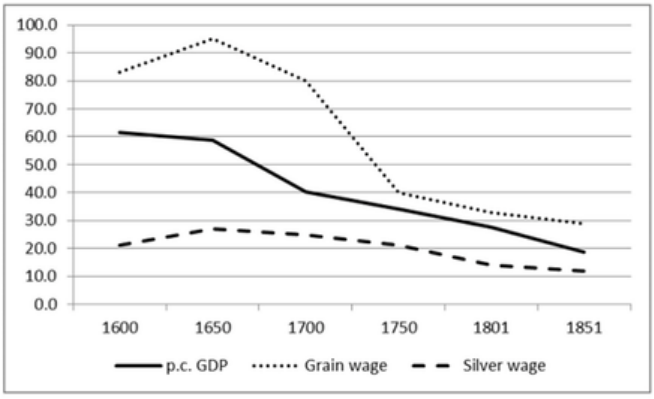
Gupta also warns against reading too much into India's famous textile trade. The textile trade was good for weavers, but this was a small fraction of India's economy. "India's economic decline begins during the time of booming textile trade," Gupta notes. Farming is the big story, and India's agricultural productivity was in decline from the 1650s onwards. The British rule offered little relief. In the last decades of British rule, agricultural yields in India were below the levels they were in 1600.

There is some truth, this shows, to the notion of a lost golden era under Emperor Akbar (1556–1605).

Yet even under Akbar, there was a curious way in which India's economy was poorer than the British: Indians earned much less silver. Bread was more expensive in London than in Delhi, but British wages could buy many more things in the international market. "We see this in inventories of what people leave behind," Broadberry says. "The British owned more luxury goods." A kind of middle class had started forming in Elizabethan England.

Both Gupta and Broadberry have argued against seeing this as a simple side-effect of American silver flooding the European market. Instead, they point to structural differences that were already making Britain a "high productivity" economy.

"Britain had a large sector specialising in trade, banking and insurance and manufacturing"



Indian per-capita incomes and GDP as a fraction of Britain's (Broadberry & Gupta 2015)

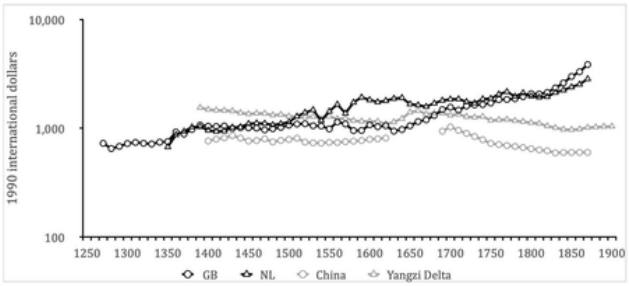
Comparing Britain and India is but one of the many contrasts that historians of the Great Divergence work on.

A lot of the debate has focused on China," says Broadberry, adding that China as a whole was behind Britain already in late medieval times. Yet this is hardly a fair comparison, picking Europe's most dynamic corner and comparing it to the whole of China. "I would focus on the Yangzi River delta," Broadberry says. This region, which includes modern-day Shanghai, is often picked as the most economically dynamic region in imperial China, and Broadberry agrees.

Narrowing the focus on the Yangzi Delta leads Broadberry to date the divergence between China and Europe to 1700. This is later than some traditional estimates that root Europe's rise to the Renaissance or conquest of the Americas, yet the date is also comfortably before the Industrial Revolution, beginning around 1760.

This puts Broadberry into disagreement with Kenneth Pomeranz, the author of the field-defining book, The Great Divergence, who argued that Britain was not noticeably ahead of the Yangzi Delta until deep into the Industrial Revolution.

Moving beyond China, the data becomes sparser.



GDP per capita estimates for Britain, the Netherlands, China and the Yangzi Delta (Broadberry and Zhai, 2025)

Gupta says that it would be particularly interesting to have data from the Swahili Coast of East Africa, which was one of the most connected areas in early-modern global trade.Several other regions, such as the Middle East and Eastern Europe, have already been studied in the context of long-run growth.

"Each region has its own story," Broadberry says. At the same time, he maintains that the broad contours of pre-industrial history are similar everywhere: the lines look flat.

> *"There are periods of growth everywhere, but then there is a crash or decline, and incomes fall again."*

Each region has its peculiarities, allowing for rich regional histories, but at a high level of approximation, the story is one of stagnation. There is but one exception: northwestern Europe.

The British and the Dutch economies kept growing from the Black Death onwards, with clear gains to the masses.

What explains the uniqueness of the British and the Dutch economies?

Family dynamics might have played a role. One long-running argument holds that, compared to Asians, Europeans started marrying later and having fewer children. This allowed Europe to escape the "Malthusian trap" where new economic gains are dissipated by a rapidly growing population.

Broadberry sees value in this hypothesis, adding that this pattern was actually restricted to northwestern Europe.

Gupta adds that Britain and the Low Countries might have had another, much darker, shield against the Malthusian trap. "These areas were urbanising fast, and people died in unhygienic cities," she notes. Referring to work by Nico Voigtländer and Hans-Joachim Voth, she points out that high mortality from disease in urban centres, together with Europe's frequent warfare, might have put the brake on population growth.

In an ironic turn of fate, the high death rate in London and Amsterdam might have allowed the survivors to capture more of the new economic gains, doing what contraception and a preference for smaller families did more benignly in the 20th-century.

Even if population growth might explain some of the Great Divergence, Gupta is emphatic that it is not the only explanation.

"One difference between Europe and Asia lies in the capacity of states," she says, explaining that small European states had much higher taxes than the large empires in India or China. "If you are a large empire, you are much more keen to keep the local elites on your side," Gupta explains. "And therefore, you don't tax them too much." This echoes the argument by Debin Ma, who has calculated that in the early 1800s, a Chinese person had to work only two days to pay the year's taxes.

In Britain, that number was 17–20. "The story was similar in Mughal India," Gupta says.

Technology might be yet another driver of the Great Divergence.

"I strongly believe that it's the caste system which limits technological diffusion"

The technological scene in Europe was more democratic, with more possibilities for everyone to participate in new inventions.

Further theories about the rise of London and Amsterdam are in abundance, ranging from overseas trade and American colonies to parliamentary politics and early modern financial capitalism. Is the abundance of theories a blessing or a curse? "I think we can get some consensus on the proximate factors," Broadberry says. "But it is much harder to agree on the fundamental forces driving this. We don't really have a framework to compare them."

What about the 21st century?

Most of the world remains poorer than Western Europe and its settler colonies in North America and beyond. Yet the comparison most central to the Great Divergence debates – including that meeting "without much data" held in Oxford over twenty years ago – has been a comparison between the economic hubs of Europe and China. On this front, the picture is surprising.

"China's GDP per capita is still far below that of Western Europe," Broadberry says. "But if you compare Western European countries to Beijing or Shanghai, both with over 20 million people each, that gap has basically vanished." Historians will keep studying the Great Divergence as a crucial pillar in the making of the modern world, but for economists interested in today and tomorrow, the Great Convergence is increasingly becoming the subject of choice.

This is a summary from an interview with Bishnupriya Gupta and Stephen Broadberry as part of a podcast series produced by the CAGE Research Centre and On Humans.

References and further information

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