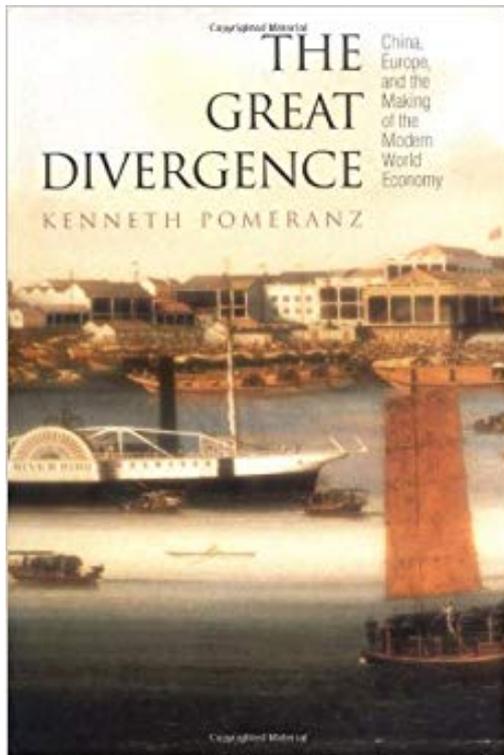


# The Great Divergence: China, Europe, and the Making of the Modern World Economy (The Princeton Economic History of the Western World) by Kenneth Pomeranz



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*The Great Divergence* brings new insight to one of the classic questions of history: Why did sustained industrial growth begin in Northwest Europe, despite surprising similarities between advanced areas of Europe and East Asia? As Ken Pomeranz shows, as recently as 1750, parallels between these two parts of the world were very high in life expectancy, consumption, product and factor markets, and the strategies of households. Perhaps most surprisingly, Pomeranz demonstrates that the Chinese and Japanese cores were no worse off ecologically than Western Europe. Core areas throughout the eighteenth-century Old World faced comparable local shortages of land-intensive products, shortages that were only partly resolved by trade.

Pomeranz argues that Europe's nineteenth-century divergence from the Old World owes much to the fortunate location of coal, which substituted for timber. This made Europe's failure to use its land intensively much less of a problem, while allowing growth in energy-intensive industries. Another crucial difference that he notes has to do with trade. Fortuitous global conjunctures made the Americas a greater source of needed primary products for Europe than any Asian periphery. This allowed Northwest Europe to grow dramatically in population, specialize further in manufactures, and remove labor from the land, using increased imports rather than maximizing yields. Together, coal and the New World allowed Europe to grow along resource-intensive, labor-saving paths.

Meanwhile, Asia hit a cul-de-sac. Although the East Asian hinterlands boomed after 1750, both in population and in manufacturing, this growth prevented these peripheral regions from exporting

vital resources to the cloth-producing Yangzi Delta. As a result, growth in the core of East Asia's economy essentially stopped, and what growth did exist was forced along labor-intensive, resource-saving paths--paths Europe could have been forced down, too, had it not been for favorable resource stocks from underground and overseas.



**Reviews of the [The Great Divergence: China, Europe, and the Making of the Modern World Economy \(The Princeton Economic History of the Western World\)](#) by Kenneth Pomeranz**

Geocytone

It is hardly news that the West has led the world economically for the past 200 years, or more. This superiority (let's be honest—that's what it is) academics commonly call the "Great Divergence," a term coined by Samuel Huntington in 1996, though the study of Western economic superiority began much earlier. There are many sub-questions one can ask—e.g., what constitutes "the West"? Is it England? England and parts of the Continent? How does America fit in? When exactly did this takeoff begin? Are other countries now catching up, or even passing, the West? But these sub-questions are all small change compared to the most important question—why did the West diverge from the rest of the world at all, when all of world history up to that time exemplified the Malthusian Trap, where productivity increased too slowly to increase per capita output even when aggregate output increased?

I once saw a list of roughly 200 different answers to this question, each with academic citations. Probably some of them were Captain Crazy ideas tied to theories like the Phantom Time Hypothesis (look it up). But most of them were at least superficially plausible. Wading through this morass is not for the faint of heart, especially because this is one of those questions where many people want a single answer, and the answer may well be "all of the above," or at least "many of the above." But, upon examination, it is possible to divide works examining the Great Divergence along three axes. One is academic vs. popular writing. Another is unitary, or largely unitary, theories vs. theories that ascribe the difference to a multiplicity of factors. And the third axis is those theories that cite cultural differences vs. those that cite material or economic differences. This book, Kenneth Pomeranz's "The Great Divergence," falls squarely into the academic, unitary, material bucket. It is a scholarly and thought-provoking book—not without failings, but forceful in its conclusions and compelling in much of its analysis.

As far as the writing itself goes, this book is a blend of extreme clarity combined with unfortunate opacity. It is clear in that Pomeranz precisely states every single one of his arguments, identifies opposing arguments, marshals the facts, and gives his conclusions, appropriately hedged if necessary. The reader is grateful for this focus on academic excellence. The opacity comes in with the phrasing, which is infected with a heavy dose of academic-speak. It's not dreadful, and the careful reader can understand everything. But Pomeranz does not try to grab the reader's attention, find compelling turns of phrase, or dazzle the reader with his analogies. In this, he is the opposite of popular authors such as Jared Diamond (author of "Guns, Germs, and Steel," which posits that Europeans were the lucky beneficiary of a series of ecological rolls of the dice), whose book is mostly flash (though that does not mean Diamond is wrong). So careful reading of Pomeranz's book is a chore. An interesting chore, perhaps, like mucking out the stables of a herd of unicorns, but still a chore.

Pomeranz begins, in his Introduction, by narrowing the scope of the discussion. Every careful author on the topic has to do this, or the size and scope of the topic will necessarily overwhelm. What specific countries are we examining? What time period are we talking about? What measures are we using? Pomeranz does this, and he applies the same narrowing analysis to both the West and to Eurasia, which is his main comparison area. Thus, he ascribes to England the prime mover role; he focuses on the (first) Industrial Revolution, beginning around 1800; and he uses mostly precisely defined, but narrow, economic measures, which are widely available for England but less so for Eurasia (a problem he works hard to remedy). He sometimes brings in data from other European countries as parallels (e.g., France, the Netherlands) or as contrasts (e.g., Denmark). Similarly, as to Eurasia, he focuses mostly on parts of China (east and southeast, and most of all the Yangzi Delta), sometimes bringing in data from other Asian countries (Japan and India), and sometimes contrasting to other areas of China (which, given China's size, is roughly analogous to comparing different European countries to each other).

Pomeranz's analytical and argumentative framework is as follows. First, European progress prior to 1800 was not significantly advanced beyond the most advanced portions of China. Past authors thought it was, but new data "has made... [what were previously thought] unique European achievements look more and more ordinary." Second, past authors ignored the other-than-superficial benefits of the New World to Europe. They focused on metals, but it was much more than that—the New World "relieved ecological pressures" that Europe faced, primarily "land constraint," where an increasing population would otherwise have been doomed to increase agricultural output through more, and less efficient, use of labor (the curse of diminishing returns), and would not have had access to necessary supplies such as timber and fiber. Third, England's easy access to large volumes of coal was unique, and it was this that made exponentially increasing energy production, needed for "takeoff," possible. Fourth, Europe's institutions, whether that means capital accumulation, markets, technological inventiveness, state protection of property contractual rights, class structures, or other of the multitude of factors adduced by other authors, were not in fact superior to Chinese structures in their actual impact as that relates to the Industrial Revolution (they may have been superior for human society, and they may have been somewhat superior for certain aspects of expansion, but they were not determinative). In short, Pomeranz focuses on "what was truly [globally] scarce: land and energy," and concludes that the edges Europe, and particularly England, had was more land and more energy at exactly the time they needed it. This framework is the sum of the book, and it is clearly laid out in the Introduction. The rest of the book, divided into three parts and six chapters, merely adds detail, and plenty of it.

Part One is devoted to "doubt[ing] various contentions that Europe had an internally generated economic edge before 1800," instead positing "broad similarities among the most densely populated and commercialized parts of the Old World" (i.e., the entire world of the time). Pomeranz identifies this as the main difference between his and the "mainstream" position, with the latter holding that the takeoff of the Industrial Revolution was just the fully visible effect of underlying differences proceeding into the past—although there is little argument among "mainstream" proponents of what exactly those differences were. Pomeranz goes through the various candidates for pre-existing relevant differences, ranging from different types of accumulated and non-accumulated capital (mostly non-monetary); life expectancy; birthrates; technology; market characteristics (which get their own chapter); and so on. He addresses each and concludes it fails to demonstrate a real difference between China and Europe prior to 1800.

It is in Part One, though, that the two major faults of this book show up: an eagerness, bordering on desperation, to tout Chinese accomplishments while minimizing European accomplishments; and a failure to adequately acknowledge a fact obvious from the text—that data for China is extremely limited and therefore can only be used with extreme caution, especially as a comparison to the much more voluminous data available from Europe.

As to the first fault, for example, Pomeranz begins by admitting that Europe was more advanced technologically and had a culture more open to science. Then he backpedals rapidly, claiming that he has shown that European productivity was not higher, and therefore, "it is unlikely that the average level of technology [Europeans] deployed was superior." This is deficient logic, since productivity is not linearly tied to technology, and anyway Pomeranz has not shown (and does not show) that European productivity was not higher. And, notably, here, and in similar sections where Pomeranz stretches to reach a conclusion he desires, the word "clearly" shows up repeatedly. My legal writing teacher my first year of law school was useless (even if today she is the dean of a relatively high-profile law school), but she did tell us one thing that was correct—anyone who uses the word "clearly" is trying to cover up that what he says is not actually clear at all.

Pomeranz tries to avoid the implications of his initial admission about superior European technology by claiming that, "in many ways, various non-European societies remained ahead." For this, he cites irrigation as being superior in China. No doubt, but irrigation was not needed in Europe, both because rainfall was more constant and because rice was not the main crop, so it is hardly surprising that Europeans did not focus on the technology of irrigation. Then he starts rambling about land in the main contentions but not sticking to the point at hand. Then he says that India was better at (hand) textile weaving and dyeing, which is true enough, but irrelevant (and that India is today still the leader in hand-weaving seems relevant, but is not mentioned here). And then he says that "various parts of Africa" (which?) "produced large amounts of iron and steel that were of a quality at least as good as anything available in early modern Europe." That seems unlikely, unless he means Damascus, which isn't in Africa. Then he claims that the only reason Europe had "formal scientific societies" was because they were "often essential to protecting science from a hostile established Church," which is very bad history, given that such societies arose long after the heyday of Church power (and in the case of England, where the most important such society was, totally outside any Church power), and that the Church was by far the biggest supporter of scientific progress in the Middle Ages and during the Renaissance. All of this is merely flailing that never gets around to any concrete proof that "various non-European societies remained ahead." Pomeranz would have been well advised simply to claim lack of certainty (something he does constantly with respect to China, as I note below) about the relative state of technology, and move on. It may be that those academics who claim superiority for Europe in both technology and scientific thinking are wrong. But Pomeranz fails miserably to show that to be the case.

Along the same lines, it seems unlikely that "European monarchs imitated the Chinese ritual of having the emperor plow the year's first furrow"—I have never heard of such a custom, but to the extent it existed in Europe, it seems like a pretty obvious possible ritual for a monarch, and very unlikely to have been copied from remote China. But gullibly ascribing such imitation gives a window into Pomeranz's desperation to build up China at European expense. Moreover, Pomeranz is fond of making sweeping generalizations on little evidence, as long as they favor China—such as claiming that "keeping Chinese women at home... kept China almost factory-less even though every other factor—available capital, technological inventiveness, and so on—made it as good a candidate for industrialization as Europe." Pomeranz does a decent job showing some evidence for this position, but his conclusion is hardly justified (and the "factories" he refers to are tiny, and their impact on the economy is negligible). Similarly, Pomeranz repeatedly claims that hundreds of years before the Industrial Revolution, China had "spinning equipment... very close to the machines that revolutionized English cotton spinning four hundred-plus years later," which "differed in just one crucial detail" (which he does not specify). Maybe that's true, but I can find no other evidence for it, and if it's true, it just goes to prove the lack of Chinese technological inventiveness, suggesting those who allege Chinese cultural deficiencies in the application of technology are correct.

As to the second major fault, to take just one example, on page 63, where Pomeranz is discussing Chinese iron and coal production, a crucial question because of the importance of iron and steel to industrialization, and because the efficient use of coal is highly correlated to the expansion of iron and steel production, in the course of ONE PAGE Pomeranz radically qualifies statements about Chinese data in twelve different ways: "seem to have known"; "it is unclear"; a critical study "says very little about fuel"; "leading one to suspect"; "we still know very little"; "this study suggests"; "there is still much we do not know"; "it is unclear"; "a distinct possibility"; "even if it turns out"; "if it did"; "might well have been." Such language appears continuously throughout the book, almost exclusively in sections examining facts about China critical to Pomeranz's entire thesis. The simple fact seems to be that we don't know nearly enough to support the claims Pomeranz makes about China to make comparisons, despite Pomeranz, in multiple appendices, working to construct such data in narrow areas such as "Estimates of Manure Applied to North China and European Farms in the Late Eighteenth Century, and a Comparison of Resulting Nitrogen Fluxes." He clearly worked very hard—but the result is not all that convincing. Which doesn't mean he's wrong, but it may well mean the data is simply not available, and never will be.

Pomeranz concludes Part One by claiming that "European science, technology, and philosophical inclinations alone do not seem an adequate explanation." But this is assuming the conclusion, because he never tells us why that should be—especially because of this very statement he admits the superiority of "European science, technology, and philosophical inclinations." It's just a bunch of hand waving so that he can spend the rest of the book talking about coal and the New World and the real drivers of the Great Divergence. Which is fine, but it does suggest that the premise on which he builds the rest of the book rests on fragile foundations at best. Of course, many authors have written entire books on this topic (see, e.g., both Huff and Gregory Clark's "Farewell To Alms"), so I suppose you can't really aggressively fault Pomeranz for not wanting to get bogged down, and to instead want to turn to what he brings to the table that's new.

In Part Two, Pomeranz treats as established that China and Europe did not materially economically differ around 1800. (He never addresses culture differences in any substantial way—as I say, this is a book about the economic/material axis of the Great Divergence.) He therefore turns to why China and Europe diverged after 1800. He examines many varied theories, including consumption of luxury goods; firm structure; state control and expropriation; interstate violence; and so on. Along the way he rejects the common left-wing trope that Asia was heading toward an industrial revolution until crushed by Western imperialism. Rather, the entire world was heading for a "common 'proto-industrial' cul de sac," in which the Malthusian Trap would maintain primacy, until the unique combination of coal and the New World allowed Europe to escape.

This is what Pomeranz outlines in Part Three. He admits that technological creativity was the real driver of the Industrial Revolution—but claims that coal and the New World made that creativity possible. Every part of the world had ever-increasing constraints on growth, because without something new, diminishing returns were kicking in. Fuel, fiber and food were all getting harder to obtain; ecological damage was becoming widespread as different areas struggled to feed growing populations; and that damage was rapidly mortgaging the future. But the New World "abolished the land constraint" for the West, allowing manufactured goods made without much land use to be exchanged for "land-intensive food and fiber" that could not have been produced in the same way within the Old World. And coal allowed those manufactured goods to be produced in ever-greater quantities, creating an expanding engine of growth.

Pomeranz relies heavily on Denmark as a possible alternate path for Europe, the exception that proves the rule. Denmark had no takeoff until the 20th Century, instead relying on increasingly intensive agriculture with diminishing returns, and it had very little industry. Denmark's path was, in fact, very similar to the path taken by China. Pomeranz believes this shows that "the path of ecological near self-sufficiency through rural farm intensification, once adopted, was not easily abandoned," and that this path was the alternate path that Europe as a whole might have taken, along with the rest of the world (which raises the question whether we'd all still be living in a world equivalent to 1800 otherwise). Maybe. But this ignores the extremely significant cultural differences between Denmark (and all of Scandinavia, but especially Denmark) and other parts of Europe. Denmark is well-known for the so-called "Jante Law," which is, as Wikipedia tells us, "a pattern of group behavior towards individuals within Nordic countries that negatively portrays and criticizes individual success and achievement as unworthy and inappropriate." It is well covered in Michael Booth's recent "The Almost Nearly Perfect People," and provides an extremely plausible reason for Nordic economic backwardness. The crushing of excellence as shown by achievement necessarily leads to less, or zero, achievement. Thus, it's not only as between Eurasia and Europe that cultural differences matter (though as I say Pomeranz mostly ignores them), but also in Europe. Another similar example is Spain, which after it promptly spent its own New World gains immediately sank into economic stagnation, and stayed there. Therefore, the existence of cultures in Europe that, like China, failed to advance might be due to coal and the "land constraint." Or it might be due to their own internal cultural deficiencies, which Pomeranz does not address.

Without getting bogged down too much in cultural differences, which many other authors have covered with many different angles, I further note that Chinese culture was, and is, alien to the culture of the West in ways not always appreciated. For example, in a footnote, Pomeranz notes that Chinese statistics showing high gaps between life expectancy at birth and at age one, much higher gaps than in Europe, are due to massive infanticide, among both poor and rich. It is this type of cultural difference that shows that equations across societies on purely economic measures are inadequate. After all, one of the chief claims to morality in the West, since the days when Christianity ended ubiquitous pagan infanticide and abortion, has been the right to life of children. We do well to remind ourselves that this moral rule is the exception, rather than the rule, among human societies. Pomeranz attempts to soften the blow to his love of all things China by trying to equate this Chinese practice, without any citations, to wealthy Europeans sending children to wet nurses, where they allegedly had higher rates of death. Even if true, one of these things is not like the other. The fact is that cultural differences are massive and ubiquitous, though they are even harder to use as the basis for quantitative comparison than the largely missing economic statistics on which Pomeranz relies.

Nonetheless, I do not want to be overly negative about this book. For those interested in the topic, it is one of the crucial works, and even if the author overstates his case, many of his points are valuable, interesting, and relevant to any consideration of the issues. If all books on controversial topics were written this well, it would be a significant advance to rational analysis and understanding.

## ndup

A well-written and comprehensive analysis of natural causes ('coal and colonies') which proved significant in the great divergence of Europe from Asia. Sound arguments to be sure, though I would strongly recommend any reader interested in the topic of divergence to consider the work of Joel Mokyr as he focuses on significant cultural factors which played an enormous role in the great divergence. For example, in The Gifts of Athena, Mokyr analyzes the importance of a widening of the epistemic base (collecting and disseminating knowledge to increasingly literate populations) proved vital for the increase in inventions and standardization of successful practices. With that being said, Pomeranz provides the necessary ecological portion of the divergence argument but his theory does not account for all the variables of divergence. In short, great text (a must-read for any student of divergence) but limited.

Tetaian

I enjoyed reading this provocative work, which certainly expanded my understanding of China's economic history and development. But I found the central argument unpersuasive.

Pomeranz sees the most developed areas of the world's being basically equivalent and technology and living standards as late as 1800, so to explain the European take-off must involve late-acting factors. The first problem with that is by 1800, Europe already dominated the Americas, much of coastal Africa, India and was settling Australasia. This suggests some crucial earlier divergence prior to the Industrial Revolution.

In agrarian societies, the land/population ratio dominates standard of living. Pomeranz wants to argue that NW Europe and the Yangtze valley essentially had equivalent standards of living yet the Europeans also had the great advantage of the Americas -- which thus becomes crucial but not significant. There is a contradiction here. One can see reasons why the Americas might be much less significant than one expects. First, New World products spread throughout the global trade networks (Pomeranz makes a point of emphasizing Chinese take-up of New World products). Second, the export of the Eurasian disease pool so depopulated the Americas, the Europeans massively imported labour to exploit the new territories. The 9 million African slaves imported may have been paid at subsistence levels, but they still reduced the land/population ratio. Third, the Atlantic itself was also something of a barrier (Pomeranz notes the expense of moving). Finally, sudden expansions in land/population ratio experienced by other societies did not have take-off effects (such as the Qing's expansion of China's borders).

The most obvious example of the last point being that the resources of the Americas were mostly controlled by the Spanish and Portuguese, who certainly did not achieve any notable economic breakthrough (the "poor Portugal/rich Switzerland" problem is a perennial in "the overseas colonies did it" explanations). This points to institutional divergence of NW Europe from other regions as a key factor. Moreover, the later one wishes to push the divergence, the more problematic the Americas become as key factor, since Britain lost most of its North American colonies by 1783, Spain its Latin American ones by 1820, Portugal by 1822. If the issue then becomes trade access, that just reinforces an obvious crucial difference dating back to the C16th -- that China was a key part of global trade networks but not a global trader, unlike the Europeans. It begins to look like a "you have to be in it to win it" story.

Pomeranz also nowhere deals with Japan being much more successful in dealing with the Western challenge than China. Since Japan was the non-European societies whose institutions (and institutional history) was most like NW Europe, this is surely suggestive.

Given that other regions later industrialised without colonies, and the colonial states became richer after they lost or gave up their colonies, Pomeranz is also postulating a big difference between the first industrialisers and later industrialisers.

The big change in Europe was it moving from an adaptor civilisation to an inventor civilisation. If one locates the shift at about 1000AD, then one is looking at medieval origins. If one puts it later (as I would: the medievals were excellent adaptors, doing so on a much broader basis than the Graeco-Romans, but not notable originators), then the Scientific Revolution seems crucial. Learning how to learn is surely a crucial step in creating a continuing pattern of new forms of capital, particularly fixed capital (the Industrial Revolution achievement). As Europeans increasingly interacted with the entire globe directly, that gave them a further advantage in being exposed to other people's good ideas and techniques.

But this is a very informative and useful work which I recommend as a contribution to grappling with why the dramatic economic take-off from 1820 onwards happened.

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