

Understanding World Economic History

Robert Whaples

One joy of studying history is discovering people living meaningful lives and behaving in unusual ways that are startling to the modern reader—young or old. Why did pre-modern people living hundreds or even thousands of years ago do things so differently than we do? Students of history almost immediately begin to put themselves into the shoes of their ancestors. Why did they do such peculiar things? Why were they so “backward?”

One knee-jerk reaction is to assume that their unusual behaviors reflect incredible stupidity. It makes us feel superior to them. Economic historians are very hesitant to take this approach. We usually conclude that the key difference between us and them is that we collectively (and sometimes individually) simply know a lot more than they did. Mankind’s knowledge base has expanded dramatically over time (especially since the advent of the scientific revolution); these improvements in technology are our key advantage. Being knowledgeable,

of course, doesn’t necessarily make you clever and those with less knowledge are not necessarily stupid. Another key advantage people in modern democracies have is the checks and balances constraining those few with political/economic/military power. Today, those with power are much less likely to act as predators who seize wealth and output from the vast majority and exploit them. In undemocratic “closed societies” the incentive to put one’s economic resources into their most productive use is dampened by the ever-present risk of expropri-

ation by those in power, suffocating the innovations and actions that might lead to sustained economic growth.¹ Thus, poor technology and concentrated power help explain why pre-modern people often seem to do things in what we would consider to be a backward way.

The blessings of advancing technology and supportive institutions (such as secure property rights and competitive markets) have allowed the standards of living of modern populations to reach heights unimaginable to our distant ancestors. Figure 1 demonstrates this with estimates of average earnings per person in England/Great Britain from 1265 to the present. The average earnings for all years have been converted into the value of the UK pound in 2010 to remove the effects of mere changes in the price level (inflation or deflation). The results

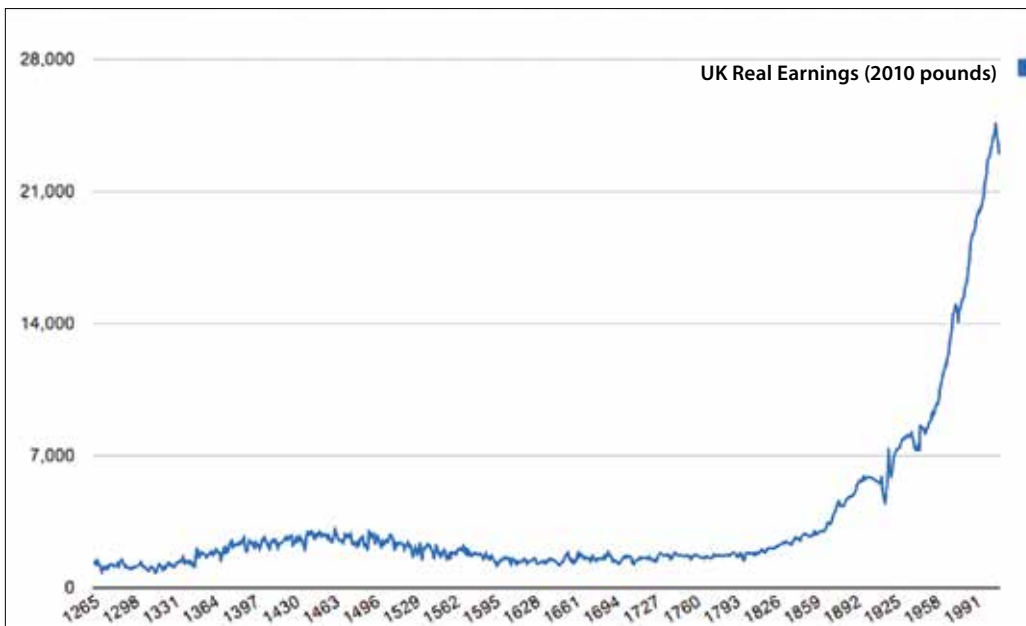


Figure 1:
**UK Real Earnings
(2010 pounds)**

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are startling. After centuries of toiling for average earnings of only £800 to £3000 per year (about \$1,250 to \$4,700 per year), average earnings began to soar in the 1800s and are now about ten times higher than in earlier centuries. Britain is not unique. The twentieth century witnessed worldwide economic growth. In 1900, the average income per person in the United States was a little under \$7,000 (in today's dollars), one of the highest levels in the world at the time and well above those in India (\$1,050), China (\$1,100), Brazil (\$1,200), Japan (\$1,900), Mexico (\$1,950), Russia (\$2,050), Italy (\$2,850), France (\$4,800), or Germany (\$5,200) according to Angus Maddison's estimates. It's hard for Americans today to imagine someone living on \$7,000 a year, let alone a meager \$3 to \$4 per day—as did the typical person in India, China, or Brazil about a century ago; as did most of humanity in the distant past. The twentieth century brought unprecedented growth in all these places with real incomes rising over 200% in India and Russia, nearly 400% in Mexico, over 500% in Germany, almost 600% in the U.S., about 600% in France, nearly 700% in Brazil, over 850% in China, about 970% in Italy, and (hard to believe but true) over 1700% in Japan.²

Modern societies have become so accustomed to these rising standards of living that we take them for granted and rarely realize how extraordinary they are in the history of humankind. Our growth has come as new technologies have been devised and people (usually profit-seeking businessmen and women) are given encouragement to incorporate them in productive ways. Why didn't the same thing happen in the "good bad old days?" The leading explanation is that new technologies came along so infrequently before the Industrial Revolution, that most societies were caught in or on the edge of a Malthusian trap. According to this argument, most societies throughout history have had incomes close to the subsistence rate (perhaps a few dollars a day per person). Above the subsistence rate, incomes are high enough for women

to become more fecund and death rates to drop, so that population almost automatically expands. Below the subsistence rate, incomes are so low that death rates exceed birth rates and the population contracts. The Malthusian argument suggests that technological improvements and the discovery of new resources temporarily increased the material standard of living as people became more productive, but as their incomes rose, so did population, which pushed incomes back down to where they began—near the subsistence rate. Following this pattern, Figure 1 shows earnings per person in Britain falling from about £2,300 in 1541 to £1,390 in 1651 as population almost doubled from 2.77 million to 5.23 million.³ This theory helps explain why income levels stayed at a very low level for most people for millennia before our modern technological explosion allowed incomes to rise to unprecedented heights.

In studying world economic history, we should keep in mind the sheer poverty and the hard tradeoffs that faced people living long ago. They had little room for error. If they made big economic mistakes the results could be cataclysmic. In today's world, declaring bankruptcy may mean losing your house and having to live in an apartment that still has indoor plumbing, air conditioning and adequate heat, eating brown bag lunches and losing cable TV. Poor economic decisions in the past resulted in sickness, starvation, and death.

In the face of the harsh constraints that faced them, pre-modern people were very innovative in coming up with a range of economic solutions—sometimes straightforward, sometimes much more complex—which can often be illuminated with fairly simple economic analysis. In analyzing their behavior and institutions, just a little bit of economic theory goes a long way. One of the most fundamental lessons of economics is that trade isn't about winners versus losers—there can be big gains from trade to both sides. Nearly 200 years ago, David Ricardo demonstrated the concept of comparative advantage and showed that if par-

ties specialize in producing the goods for which they have a lower opportunity cost, they can all gain from specializing and trading.⁴ Because there are gains to both parties from trade, it has an ancient lineage and has substantially increased the value of people's economic activities—allowing England in Ricardo's time to (in a roundabout way) get wine out of cloth and Portugal to get cloth out of wine, overcoming the fact that the climate in England wasn't very good for wine production and nor were Portugal's resources ideal for making cloth. People throughout history have eagerly sought these gains from trade.

But history is a cruel teacher. It also shows that this standard Introduction to Economics example doesn't always apply and explains why pre-modern societies had such a hard time realizing the gains from trade that we take for granted in our global age. History shows that trade has often been expensive. Shipping goods great distances has been hampered by poor technology, poor infrastructure, ubiquitous warfare, and the diseases one would encounter traveling to far off places. Pre-modern people lacked the technology to build ships capable of sailing across vast oceans. Their poor roads meant that hauling goods great distances over land was usually prohibitively expensive except for the most valuable goods (such as spices or silk). For example, in the United States in the early 1800s before turnpikes and railroads were built, hauling a good like corn 40 miles over land involved an expense equaling 50 percent of the value of the crop.⁵ Such prohibitive costs kept many markets very localized, hampered trade, and thus wiped out the gains from specialization.

Thus economic theory explains why people have historically been ready to trade—because there can be big gains from trading—but also why trade has often been meager—because trade is often expensive. In a similar manner, basic economic theory explains why cities arise and why people throughout history have flocked to them. Cities reduce the costs

of trade—bringing producers and consumers together—and their large, thick markets allow producers to specialize, become more efficient, develop and share new technologies, and spread overhead costs across more customers, thereby lowering production costs. Again, however, history is a cruel teacher, showing that in pre-modern times these gains from urbanization were tenuous. As more and more people congregated together, disposing of wastes became more and more difficult. Parasites and pathogens flourished in this environment, making cities dangerous places to live and limiting humans’ abilities to prosper.⁶ Only after we learned how to overcome these problems, by developing modern sanitation (and fire prevention) methods in the 1800s, did urbanization flourish.

The best-known basic economic tool is supply-and-demand analysis. This theory demonstrates that in competitive markets the equilibrium price and quantity will be where the downward-sloping demand curve intersects the upward-sloping supply curve. This analysis shows that if demand rises, prices will rise too. Applied to natural resources, this suggests that historically rising demand (due to rising population and affluence) and falling supply (as resources get used up) would lead to ever-rising prices of oil, coal, iron, aluminum, timber and other natural resources. Unfortunately, this prediction has been correct during some

historical episodes. However, the long sweep of history disproves this flawed application of basic economic theory. “Supply” does not equal the finite amount of a resource that exists. Instead, “supply” is the (marginal) cost of producing the good—in this case, the cost of extracting the resource and refining it. These costs have come *down* over time as humans have discovered more natural resources to take the place of the ones they’ve used up and have discovered more advanced methods to obtain them. Thus, most natural resource supply curves have shifted out over time. When they shift out faster than the demand curve, prices fall. The historical record shows that most important natural resources are much cheaper now than they were in pre-industrial times and that their prices have often continued to fall, as availability has increased.⁷

A cruel lesson of scarcity during pre-modern history has been turned on its head. The supply of natural resources has increased largely because the economic institutions now in place have given the brightest engineers and entrepreneurs all over the world the incentive to put their minds to the task of discovering more resources and obtaining them at lower costs. Technology has advanced because a greater number of people equals a greater amount of brainpower to solve problems. Our educational system plays a vital role in creating this brainpower

and eliminating historical Malthusian worries. 🌐

Notes

1. On “closed” societies versus “open” societies see Douglass C. North, John Joseph Wallis, and Barry R. Weingast, *Violence and Social Order: A Conceptual Framework for Interpreting Recorded Human History*, (New York: Cambridge University Press, 2009).
2. Angus Maddison, *Monitoring the World Economy 1820–1992* (Paris: OECD, 1995) and IMF staff estimates in the *World Economic Outlook*, May 2000. All estimates have been converted into year 2010 dollars.
3. These population estimates are from E.A. Wrigley and R.S. Schofield, *The Population History of England, 1541-1871: A Reconstruction* (Cambridge, UK: Cambridge University Press, 1981).
4. David Ricardo, *On the Principles of Political Economy and Taxation* (1817). Available at www.econlib.org/library/Ricardo/ricP.html.
5. See Jeremy Atack and Peter Passell, *A New Economic View of American History*, second edition, (New York: W.W. Norton, 1994).
6. See, for example, Robert A. McGuire and Philip R. P. Coelho, *Parasites, Pathogens, and Progress: Diseases and Economic Development* (Cambridge, Mass.: MIT Press, 2011).
7. See, for example, Gavin Wright, “The Origins of American Industrial Success, 1879-1940,” *American Economic Review* (September 1990): 651-68, which shows rising estimates of recoverable “reserves” of iron ore and crude oil over the twentieth century, and Bjorn Lomborg, *The Skeptical Environmentalist: Measuring the Real State of the World* (New York: Cambridge University Press, 2001).

ROBERT WHAPLES is chair of the Department of Economics at Wake Forest University, editor of *The Independent Review*, and book review editor for *EH.Net*. He is the co-editor of *The Routledge Handbook of Modern Economic History and The Routledge Handbook of Major Events in Economic History (both with Randall Parker, 2012)* as well as *The Economic Crisis in Retrospect: Explanations by Great Economists (with Page West, forthcoming)*.

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